

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_27 NWSW Pad
 Well: Anschutz Equus Farms 4-62-29-4148C
 Wellbore: OH
 Design: Plan 2



Azimuths to True North
 Magnetic North: 8.27°



Magnetic Field
 Strength: 52365.9nT
 Dip Angle: 66.95°
 Date: 6/28/2017
 Model: HDGM

Plan: Plan 2 (Anschutz Equus Farms 4-62-29-4148C/OH)

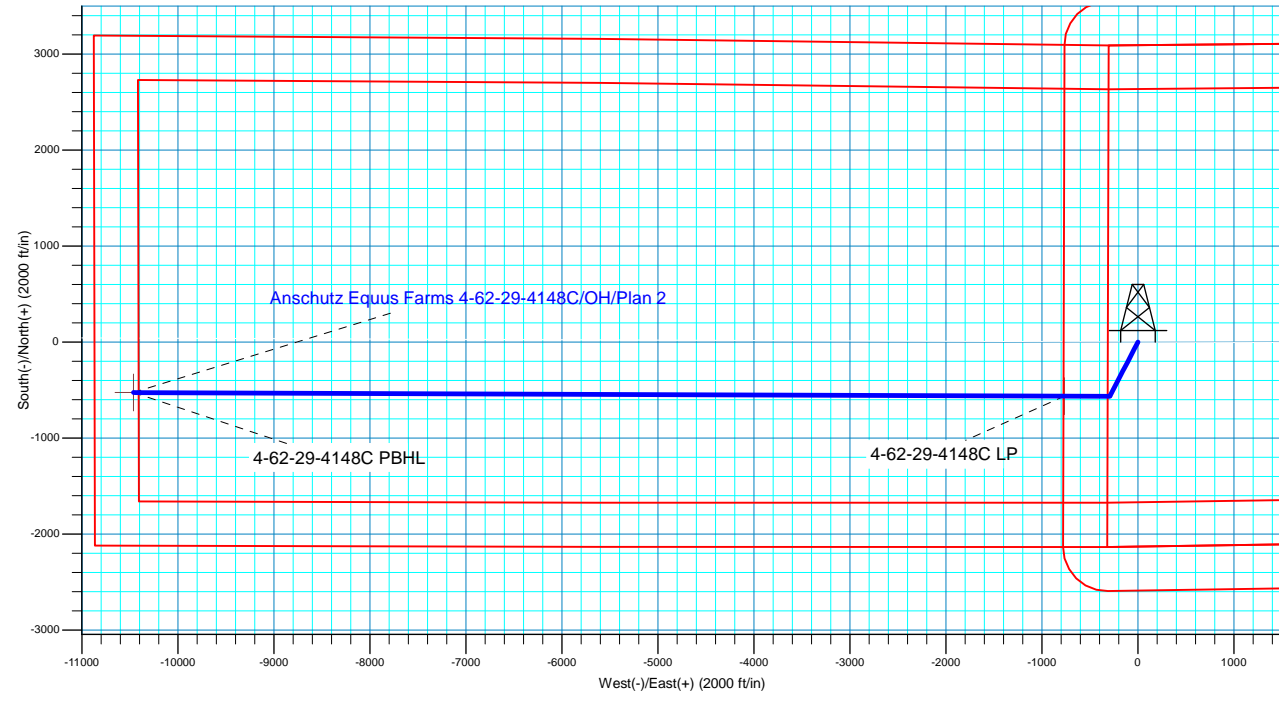
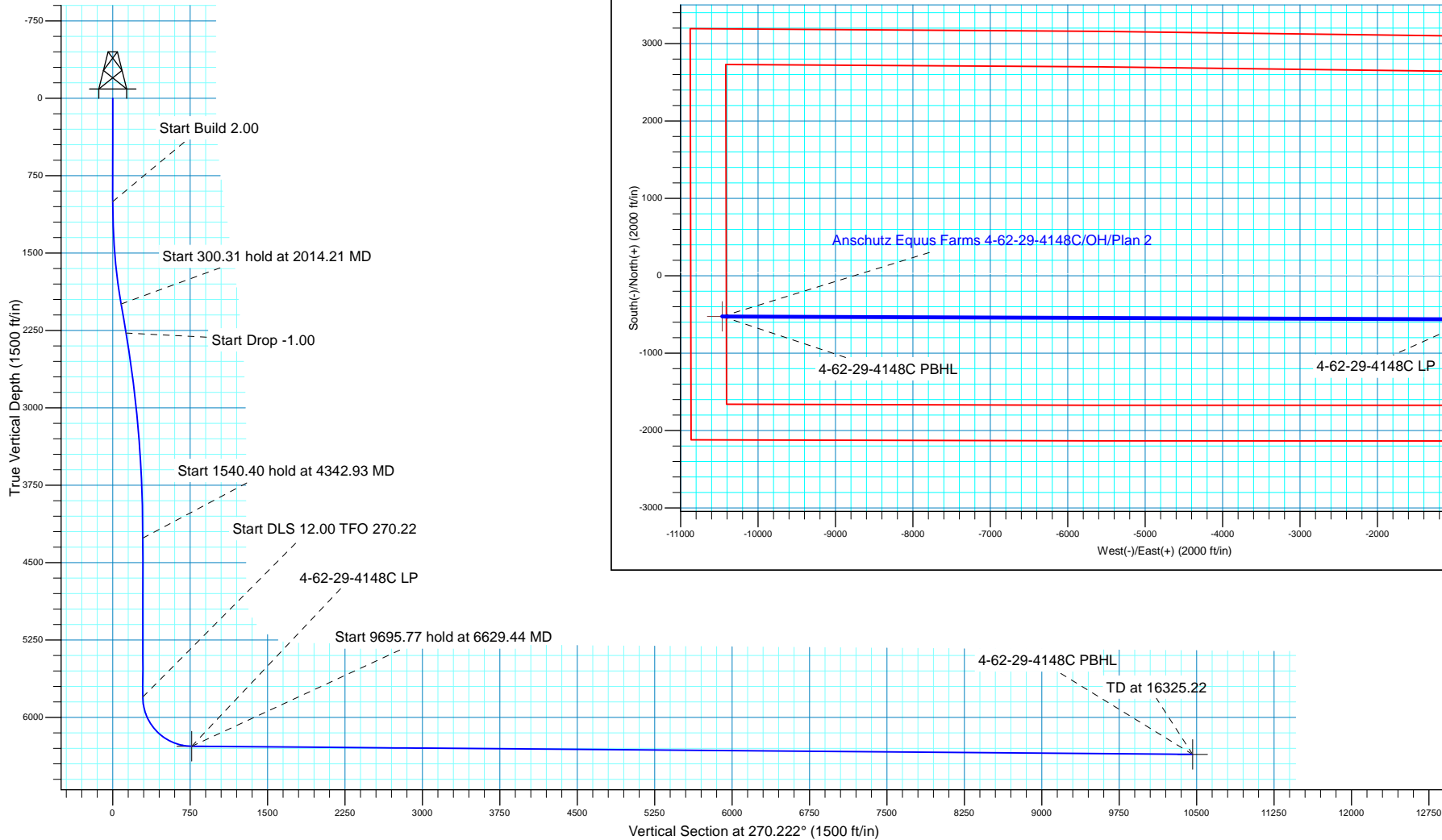
Created By: Seth Burstad Date: 6-28-2017

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
2014.21	20.28	207.451	1993.15	-157.66	-81.90	2.00	207.45	81.29
2314.52	20.28	207.451	2274.84	-250.05	-129.89	0.00	0.00	128.92
4342.93	0.00	0.000	4261.15	-565.36	-293.69	1.00	180.00	291.50
5883.33	0.00	0.000	5801.55	-565.36	-293.69	0.00	0.00	291.50
6629.44	89.53	270.222	6279.00	-563.53	-767.26	12.00	270.22	765.07
16325.22	89.53	270.222	6358.00	-525.99	-10462.64	0.00	0.00	10460.52

WELL DETAILS: Anschutz Equus Farms 4-62-29-4148C

		GL 4624' & KB 20' @ 4644.00ft		4624.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1347515.81	3324351.18	40° 16' 53.378 N	104° 20' 14.662 W	





Bill Barrett Corporation

Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-28_27 NWSW Pad

Anschutz Equus Farms 4-62-29-4148C

OH

Plan: Plan 2

Standard Planning Report

28 June, 2017



Scientific Drilling

www.scientificdrilling.com



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-29-4148C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4624' & KB 20' @ 4644.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4624' & KB 20' @ 4644.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWSW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-29-4148C	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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_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 4-62-29-4148C, 2128' FSL 306' FWL Sec 28 T4N R62W					
Well Position	+N/-S	-44.83 ft	Northing:	1,347,515.80 usft	Latitude:	40° 16' 53.378 N
	+E/-W	-179.95 ft	Easting:	3,324,351.18 usft	Longitude:	104° 20' 14.662 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,624.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/28/2017	8.28	66.95	52,386
	HDGM	6/28/2017	8.27	66.95	52,366

Design	Plan 2			
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	270.222

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	0.000	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	
2,014.21	20.28	207.451	1,993.15	-157.66	-81.90	2.00	2.00	0.00	207.45	
2,314.52	20.28	207.451	2,274.84	-250.05	-129.89	0.00	0.00	0.00	0.00	
4,342.93	0.00	0.000	4,261.15	-565.36	-293.69	1.00	-1.00	0.00	180.00	
5,883.33	0.00	0.000	5,801.55	-565.36	-293.69	0.00	0.00	0.00	0.00	
6,629.44	89.53	270.222	6,279.00	-563.53	-767.26	12.00	12.00	-12.03	270.22	
16,325.22	89.53	270.222	6,358.00	-525.98	-10,462.64	0.00	0.00	0.00	0.00	4-62-29-4148C PBHL

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-29-4148C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4624' & KB 20' @ 4644.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4624' & KB 20' @ 4644.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWSW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-29-4148C	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
Start Build 2.00									
1,100.00	2.00	207.451	1,099.98	-1.55	-0.80	0.80	2.00	2.00	0.00
1,200.00	4.00	207.451	1,199.84	-6.19	-3.22	3.19	2.00	2.00	0.00
1,300.00	6.00	207.451	1,299.45	-13.93	-7.23	7.18	2.00	2.00	0.00
1,400.00	8.00	207.451	1,398.70	-24.74	-12.85	12.76	2.00	2.00	0.00
1,500.00	10.00	207.451	1,497.47	-38.62	-20.06	19.91	2.00	2.00	0.00
1,600.00	12.00	207.451	1,595.62	-55.55	-28.86	28.64	2.00	2.00	0.00
1,700.00	14.00	207.451	1,693.06	-75.52	-39.23	38.94	2.00	2.00	0.00
1,800.00	16.00	207.451	1,789.64	-98.48	-51.16	50.78	2.00	2.00	0.00
1,900.00	18.00	207.451	1,885.27	-124.43	-64.64	64.15	2.00	2.00	0.00
2,000.00	20.00	207.451	1,979.82	-153.32	-79.64	79.05	2.00	2.00	0.00
2,014.21	20.28	207.451	1,993.15	-157.66	-81.90	81.29	2.00	2.00	0.00
Start 300.31 hold at 2014.21 MD									
2,100.00	20.28	207.451	2,073.63	-184.05	-95.61	94.90	0.00	0.00	0.00
2,200.00	20.28	207.451	2,167.42	-214.81	-111.59	110.76	0.00	0.00	0.00
2,300.00	20.28	207.451	2,261.22	-245.58	-127.57	126.62	0.00	0.00	0.00
2,314.52	20.28	207.451	2,274.84	-250.05	-129.89	128.92	0.00	0.00	0.00
Start Drop -1.00									
2,400.00	19.43	207.451	2,355.24	-275.81	-143.28	142.21	1.00	-1.00	0.00
2,500.00	18.43	207.451	2,449.83	-304.60	-158.23	157.05	1.00	-1.00	0.00
2,600.00	17.43	207.451	2,544.97	-331.92	-172.42	171.14	1.00	-1.00	0.00
2,700.00	16.43	207.451	2,640.64	-357.76	-185.85	184.46	1.00	-1.00	0.00
2,800.00	15.43	207.451	2,736.80	-382.11	-198.50	197.02	1.00	-1.00	0.00
2,900.00	14.43	207.451	2,833.42	-404.97	-210.37	208.80	1.00	-1.00	0.00
3,000.00	13.43	207.451	2,930.48	-426.34	-221.47	219.82	1.00	-1.00	0.00
3,100.00	12.43	207.451	3,027.94	-446.19	-231.78	230.05	1.00	-1.00	0.00
3,200.00	11.43	207.451	3,125.78	-464.53	-241.31	239.51	1.00	-1.00	0.00
3,300.00	10.43	207.451	3,223.97	-481.36	-250.05	248.19	1.00	-1.00	0.00
3,400.00	9.43	207.451	3,322.47	-496.66	-258.00	256.08	1.00	-1.00	0.00
3,500.00	8.43	207.451	3,421.25	-510.43	-265.16	263.18	1.00	-1.00	0.00
3,600.00	7.43	207.451	3,520.30	-522.68	-271.52	269.49	1.00	-1.00	0.00
3,700.00	6.43	207.451	3,619.56	-533.38	-277.08	275.01	1.00	-1.00	0.00
3,800.00	5.43	207.451	3,719.03	-542.55	-281.84	279.74	1.00	-1.00	0.00
3,900.00	4.43	207.451	3,818.66	-550.17	-285.80	283.67	1.00	-1.00	0.00
4,000.00	3.43	207.451	3,918.42	-556.26	-288.96	286.80	1.00	-1.00	0.00
4,100.00	2.43	207.451	4,018.29	-560.79	-291.32	289.14	1.00	-1.00	0.00
4,200.00	1.43	207.451	4,118.23	-563.78	-292.87	290.68	1.00	-1.00	0.00
4,300.00	0.43	207.451	4,218.22	-565.22	-293.62	291.42	1.00	-1.00	0.00
4,342.93	0.00	0.000	4,261.15	-565.36	-293.69	291.50	1.00	-1.00	0.00
Start 1540.40 hold at 4342.93 MD									
4,400.00	0.00	0.000	4,318.22	-565.36	-293.69	291.50	0.00	0.00	0.00
4,500.00	0.00	0.000	4,418.22	-565.36	-293.69	291.50	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-29-4148C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4624' & KB 20' @ 4644.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4624' & KB 20' @ 4644.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWSW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-29-4148C	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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	4,518.22	-565.36	-293.69	291.50	0.00	0.00	0.00
4,700.00	0.00	0.000	4,618.22	-565.36	-293.69	291.50	0.00	0.00	0.00
4,800.00	0.00	0.000	4,718.22	-565.36	-293.69	291.50	0.00	0.00	0.00
4,900.00	0.00	0.000	4,818.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,000.00	0.00	0.000	4,918.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,100.00	0.00	0.000	5,018.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,200.00	0.00	0.000	5,118.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,300.00	0.00	0.000	5,218.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,400.00	0.00	0.000	5,318.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,500.00	0.00	0.000	5,418.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,600.00	0.00	0.000	5,518.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,700.00	0.00	0.000	5,618.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,800.00	0.00	0.000	5,718.22	-565.36	-293.69	291.50	0.00	0.00	0.00
5,883.33	0.00	0.000	5,801.55	-565.36	-293.69	291.50	0.00	0.00	0.00
Start DLS 12.00 TFO 270.22									
5,900.00	2.00	270.222	5,818.21	-565.36	-293.98	291.79	12.00	12.00	0.00
6,000.00	14.00	270.222	5,917.06	-565.31	-307.87	305.68	12.00	12.00	0.00
6,100.00	26.00	270.222	6,010.86	-565.17	-342.01	339.82	12.00	12.00	0.00
6,200.00	38.00	270.222	6,095.51	-564.97	-394.91	392.71	12.00	12.00	0.00
6,300.00	50.00	270.222	6,167.31	-564.70	-464.24	462.05	12.00	12.00	0.00
6,400.00	62.00	270.222	6,223.13	-564.38	-547.00	544.81	12.00	12.00	0.00
6,500.00	74.00	270.222	6,260.52	-564.02	-639.54	637.35	12.00	12.00	0.00
6,600.00	86.00	270.222	6,277.85	-563.64	-737.84	735.66	12.00	12.00	0.00
6,629.44	89.53	270.222	6,279.00	-563.53	-767.26	765.07	12.00	12.00	0.00
Start 9695.77 hold at 6629.44 MD									
6,700.00	89.53	270.222	6,279.57	-563.25	-837.81	835.63	0.00	0.00	0.00
6,800.00	89.53	270.222	6,280.39	-562.87	-937.81	935.62	0.00	0.00	0.00
6,900.00	89.53	270.222	6,281.20	-562.48	-1,037.81	1,035.62	0.00	0.00	0.00
7,000.00	89.53	270.222	6,282.02	-562.09	-1,137.80	1,135.62	0.00	0.00	0.00
7,100.00	89.53	270.222	6,282.83	-561.70	-1,237.80	1,235.61	0.00	0.00	0.00
7,200.00	89.53	270.222	6,283.65	-561.32	-1,337.79	1,335.61	0.00	0.00	0.00
7,300.00	89.53	270.222	6,284.46	-560.93	-1,437.79	1,435.61	0.00	0.00	0.00
7,400.00	89.53	270.222	6,285.28	-560.54	-1,537.79	1,535.60	0.00	0.00	0.00
7,500.00	89.53	270.222	6,286.09	-560.16	-1,637.78	1,635.60	0.00	0.00	0.00
7,600.00	89.53	270.222	6,286.91	-559.77	-1,737.78	1,735.60	0.00	0.00	0.00
7,700.00	89.53	270.222	6,287.72	-559.38	-1,837.77	1,835.59	0.00	0.00	0.00
7,800.00	89.53	270.222	6,288.54	-558.99	-1,937.77	1,935.59	0.00	0.00	0.00
7,900.00	89.53	270.222	6,289.35	-558.61	-2,037.77	2,035.59	0.00	0.00	0.00
8,000.00	89.53	270.222	6,290.17	-558.22	-2,137.76	2,135.58	0.00	0.00	0.00
8,100.00	89.53	270.222	6,290.98	-557.83	-2,237.76	2,235.58	0.00	0.00	0.00
8,200.00	89.53	270.222	6,291.80	-557.44	-2,337.75	2,335.58	0.00	0.00	0.00
8,300.00	89.53	270.222	6,292.61	-557.06	-2,437.75	2,435.57	0.00	0.00	0.00
8,400.00	89.53	270.222	6,293.43	-556.67	-2,537.75	2,535.57	0.00	0.00	0.00
8,500.00	89.53	270.222	6,294.24	-556.28	-2,637.74	2,635.57	0.00	0.00	0.00
8,600.00	89.53	270.222	6,295.06	-555.90	-2,737.74	2,735.56	0.00	0.00	0.00
8,700.00	89.53	270.222	6,295.87	-555.51	-2,837.73	2,835.56	0.00	0.00	0.00
8,800.00	89.53	270.222	6,296.68	-555.12	-2,937.73	2,935.56	0.00	0.00	0.00
8,900.00	89.53	270.222	6,297.50	-554.73	-3,037.72	3,035.55	0.00	0.00	0.00
9,000.00	89.53	270.222	6,298.31	-554.35	-3,137.72	3,135.55	0.00	0.00	0.00
9,100.00	89.53	270.222	6,299.13	-553.96	-3,237.72	3,235.55	0.00	0.00	0.00
9,200.00	89.53	270.222	6,299.94	-553.57	-3,337.71	3,335.54	0.00	0.00	0.00
9,300.00	89.53	270.222	6,300.76	-553.19	-3,437.71	3,435.54	0.00	0.00	0.00
9,400.00	89.53	270.222	6,301.57	-552.80	-3,537.70	3,535.54	0.00	0.00	0.00

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Well:	Anschutz Equus Farms 4-62-29-4148C	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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	89.53	270.222	6,302.39	-552.41	-3,637.70	3,635.53	0.00	0.00	0.00
9,600.00	89.53	270.222	6,303.20	-552.02	-3,737.70	3,735.53	0.00	0.00	0.00
9,700.00	89.53	270.222	6,304.02	-551.64	-3,837.69	3,835.53	0.00	0.00	0.00
9,800.00	89.53	270.222	6,304.83	-551.25	-3,937.69	3,935.52	0.00	0.00	0.00
9,900.00	89.53	270.222	6,305.65	-550.86	-4,037.68	4,035.52	0.00	0.00	0.00
10,000.00	89.53	270.222	6,306.46	-550.47	-4,137.68	4,135.52	0.00	0.00	0.00
10,100.00	89.53	270.222	6,307.28	-550.09	-4,237.68	4,235.51	0.00	0.00	0.00
10,200.00	89.53	270.222	6,308.09	-549.70	-4,337.67	4,335.51	0.00	0.00	0.00
10,300.00	89.53	270.222	6,308.91	-549.31	-4,437.67	4,435.51	0.00	0.00	0.00
10,400.00	89.53	270.222	6,309.72	-548.93	-4,537.66	4,535.50	0.00	0.00	0.00
10,500.00	89.53	270.222	6,310.54	-548.54	-4,637.66	4,635.50	0.00	0.00	0.00
10,600.00	89.53	270.222	6,311.35	-548.15	-4,737.66	4,735.50	0.00	0.00	0.00
10,700.00	89.53	270.222	6,312.17	-547.76	-4,837.65	4,835.49	0.00	0.00	0.00
10,800.00	89.53	270.222	6,312.98	-547.38	-4,937.65	4,935.49	0.00	0.00	0.00
10,900.00	89.53	270.222	6,313.80	-546.99	-5,037.64	5,035.49	0.00	0.00	0.00
11,000.00	89.53	270.222	6,314.61	-546.60	-5,137.64	5,135.48	0.00	0.00	0.00
11,100.00	89.53	270.222	6,315.43	-546.22	-5,237.64	5,235.48	0.00	0.00	0.00
11,200.00	89.53	270.222	6,316.24	-545.83	-5,337.63	5,335.48	0.00	0.00	0.00
11,300.00	89.53	270.222	6,317.05	-545.44	-5,437.63	5,435.47	0.00	0.00	0.00
11,400.00	89.53	270.222	6,317.87	-545.05	-5,537.62	5,535.47	0.00	0.00	0.00
11,500.00	89.53	270.222	6,318.68	-544.67	-5,637.62	5,635.47	0.00	0.00	0.00
11,600.00	89.53	270.222	6,319.50	-544.28	-5,737.62	5,735.46	0.00	0.00	0.00
11,700.00	89.53	270.222	6,320.31	-543.89	-5,837.61	5,835.46	0.00	0.00	0.00
11,800.00	89.53	270.222	6,321.13	-543.50	-5,937.61	5,935.46	0.00	0.00	0.00
11,900.00	89.53	270.222	6,321.94	-543.12	-6,037.60	6,035.45	0.00	0.00	0.00
12,000.00	89.53	270.222	6,322.76	-542.73	-6,137.60	6,135.45	0.00	0.00	0.00
12,100.00	89.53	270.222	6,323.57	-542.34	-6,237.59	6,235.45	0.00	0.00	0.00
12,200.00	89.53	270.222	6,324.39	-541.96	-6,337.59	6,335.44	0.00	0.00	0.00
12,300.00	89.53	270.222	6,325.20	-541.57	-6,437.59	6,435.44	0.00	0.00	0.00
12,400.00	89.53	270.222	6,326.02	-541.18	-6,537.58	6,535.44	0.00	0.00	0.00
12,500.00	89.53	270.222	6,326.83	-540.79	-6,637.58	6,635.43	0.00	0.00	0.00
12,600.00	89.53	270.222	6,327.65	-540.41	-6,737.57	6,735.43	0.00	0.00	0.00
12,700.00	89.53	270.222	6,328.46	-540.02	-6,837.57	6,835.43	0.00	0.00	0.00
12,800.00	89.53	270.222	6,329.28	-539.63	-6,937.57	6,935.42	0.00	0.00	0.00
12,900.00	89.53	270.222	6,330.09	-539.25	-7,037.56	7,035.42	0.00	0.00	0.00
13,000.00	89.53	270.222	6,330.91	-538.86	-7,137.56	7,135.42	0.00	0.00	0.00
13,100.00	89.53	270.222	6,331.72	-538.47	-7,237.55	7,235.41	0.00	0.00	0.00
13,200.00	89.53	270.222	6,332.54	-538.08	-7,337.55	7,335.41	0.00	0.00	0.00
13,300.00	89.53	270.222	6,333.35	-537.70	-7,437.55	7,435.41	0.00	0.00	0.00
13,400.00	89.53	270.222	6,334.17	-537.31	-7,537.54	7,535.40	0.00	0.00	0.00
13,500.00	89.53	270.222	6,334.98	-536.92	-7,637.54	7,635.40	0.00	0.00	0.00
13,600.00	89.53	270.222	6,335.80	-536.53	-7,737.53	7,735.40	0.00	0.00	0.00
13,700.00	89.53	270.222	6,336.61	-536.15	-7,837.53	7,835.39	0.00	0.00	0.00
13,800.00	89.53	270.222	6,337.42	-535.76	-7,937.53	7,935.39	0.00	0.00	0.00
13,900.00	89.53	270.222	6,338.24	-535.37	-8,037.52	8,035.39	0.00	0.00	0.00
14,000.00	89.53	270.222	6,339.05	-534.99	-8,137.52	8,135.38	0.00	0.00	0.00
14,100.00	89.53	270.222	6,339.87	-534.60	-8,237.51	8,235.38	0.00	0.00	0.00
14,200.00	89.53	270.222	6,340.68	-534.21	-8,337.51	8,335.38	0.00	0.00	0.00
14,300.00	89.53	270.222	6,341.50	-533.82	-8,437.51	8,435.37	0.00	0.00	0.00
14,400.00	89.53	270.222	6,342.31	-533.44	-8,537.50	8,535.37	0.00	0.00	0.00
14,500.00	89.53	270.222	6,343.13	-533.05	-8,637.50	8,635.37	0.00	0.00	0.00
14,600.00	89.53	270.222	6,343.94	-532.66	-8,737.49	8,735.36	0.00	0.00	0.00
14,700.00	89.53	270.222	6,344.76	-532.28	-8,837.49	8,835.36	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-29-4148C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4624' & KB 20' @ 4644.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4624' & KB 20' @ 4644.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWSW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-29-4148C	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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	89.53	270.222	6,345.57	-531.89	-8,937.48	8,935.36	0.00	0.00	0.00
14,900.00	89.53	270.222	6,346.39	-531.50	-9,037.48	9,035.35	0.00	0.00	0.00
15,000.00	89.53	270.222	6,347.20	-531.11	-9,137.48	9,135.35	0.00	0.00	0.00
15,100.00	89.53	270.222	6,348.02	-530.73	-9,237.47	9,235.35	0.00	0.00	0.00
15,200.00	89.53	270.222	6,348.83	-530.34	-9,337.47	9,335.34	0.00	0.00	0.00
15,300.00	89.53	270.222	6,349.65	-529.95	-9,437.46	9,435.34	0.00	0.00	0.00
15,400.00	89.53	270.222	6,350.46	-529.56	-9,537.46	9,535.34	0.00	0.00	0.00
15,500.00	89.53	270.222	6,351.28	-529.18	-9,637.46	9,635.33	0.00	0.00	0.00
15,600.00	89.53	270.222	6,352.09	-528.79	-9,737.45	9,735.33	0.00	0.00	0.00
15,700.00	89.53	270.222	6,352.91	-528.40	-9,837.45	9,835.33	0.00	0.00	0.00
15,800.00	89.53	270.222	6,353.72	-528.02	-9,937.44	9,935.32	0.00	0.00	0.00
15,900.00	89.53	270.222	6,354.54	-527.63	-10,037.44	10,035.32	0.00	0.00	0.00
16,000.00	89.53	270.222	6,355.35	-527.24	-10,137.44	10,135.32	0.00	0.00	0.00
16,100.00	89.53	270.222	6,356.17	-526.85	-10,237.43	10,235.31	0.00	0.00	0.00
16,200.00	89.53	270.222	6,356.98	-526.47	-10,337.43	10,335.31	0.00	0.00	0.00
16,300.00	89.53	270.222	6,357.79	-526.08	-10,437.42	10,435.31	0.00	0.00	0.00
16,325.22	89.53	270.222	6,358.00	-525.98	-10,462.64	10,460.52	0.00	0.00	0.00
TD at 16325.22									

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									
4-62-29-4148C LP	0.00	0.000	6,279.00	-563.52	-767.26	1,346,942.28	3,323,591.38	40° 16' 47.809 N	104° 20' 24.562 W
- plan misses target center by 0.01ft at 6629.44ft MD (6279.00 TVD, -563.53 N, -767.26 E)									
- Point									
4-62-29-4148C PBHL	0.00	0.000	6,358.00	-525.98	-10,462.64	1,346,852.70	3,313,896.36	40° 16' 48.158 N	104° 22' 29.662 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	0.00	0.00	Start Build 2.00
2,014.21	1,993.15	-157.66	-81.90	Start 300.31 hold at 2014.21 MD
2,314.52	2,274.84	-250.05	-129.89	Start Drop -1.00
4,342.93	4,261.15	-565.36	-293.69	Start 1540.40 hold at 4342.93 MD
5,883.33	5,801.55	-565.36	-293.69	Start DLS 12.00 TFO 270.22
6,629.44	6,279.00	-563.53	-767.26	Start 9695.77 hold at 6629.44 MD
16,325.22	6,358.00	-525.98	-10,462.64	TD at 16325.22