

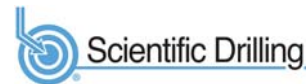
PROJECT DETAILS: Weld County, CO NAD 83

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: RSU Anschutz Fed 4-61-4 NW Pad
Well: RSU Anschutz Fed 4-61-05-0808C
Wellbore: OH
Design: Plan 1



Azimuths to True North
Magnetic North: 8.22°



Magnetic Field
Strength: 52299.6nT
Dip Angle: 67.00°
Date: 2/12/2018
Model: HDGM

Plan: Plan 1 (RSU Anschutz Fed 4-61-05-0808C/OH)

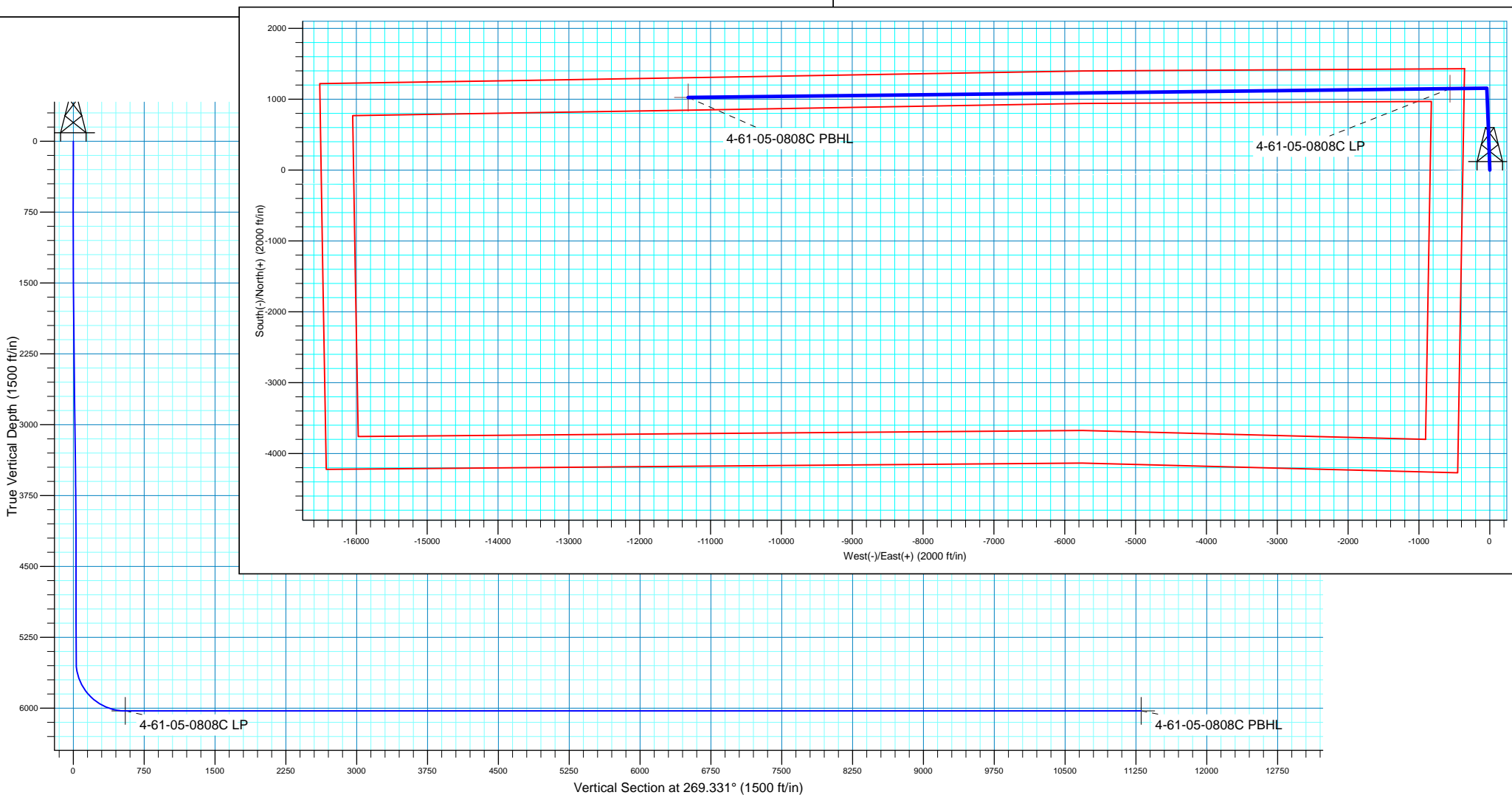
Created By: Seth Burstad

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
2585.44	31.71	357.881	2505.74	427.33	-15.81	2.00	357.88	10.82
2885.51	31.71	357.881	2761.02	584.94	-21.65	0.00	0.00	14.81
4999.43	0.00	0.000	4768.67	1154.72	-42.73	1.50	180.00	29.24
5738.89	0.00	0.000	5508.13	1154.72	-42.73	0.00	0.00	29.24
6557.07	90.00	269.331	6029.00	1148.64	-563.57	11.00	269.33	550.12
17312.82	90.00	269.331	6029.00	1023.00	-11318.58	0.00	0.00	11305.86

WELL DETAILS: RSU Anschutz Fed 4-61-05-0808C

		GL 4501.5' & KB 20' @ 4521.50ft		4501.50	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1371468.65	3355586.43	40° 20' 45.819 N	104° 13' 27.217 W





Bill Barrett Corporation

Bill Barrett Corp.

Weld County, CO NAD 83

RSU Anschutz Fed 4-61-4 NW Pad

RSU Anschutz Fed 4-61-05-0808C

OH

Plan: Plan 1

Standard Planning Report

13 February, 2018



Scientific Drilling

www.scientificdrilling.com



Database:	Casper District	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-0808C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Site:	RSU Anschutz Fed 4-61-4 NW Pad	North Reference:	True
Well:	RSU Anschutz Fed 4-61-05-0808C	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	RSU Anschutz Fed 4-61-4 NW Pad, Site Center : RSU Anschutz Fed 4-61-04-0808C				
Site Position:		Northing:	1,371,469.36 usft	Latitude:	40° 20' 45.852 N
From:	Lat/Long	Easting:	3,355,406.34 usft	Longitude:	104° 13' 29.543 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.82

Well	RSU Anschutz Fed 4-61-05-0808C, 1432' FNL 385' FWL Sec 4 T4N R61W					
Well Position	+N/-S	-3.29 ft	Northing:	1,371,468.65 usft	Latitude:	40° 20' 45.819 N
	+E/-W	180.06 ft	Easting:	3,355,586.42 usft	Longitude:	104° 13' 27.217 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,501.50 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/12/2018	8.22	67.00	52,300

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	269.331

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	
2,585.44	31.71	357.881	2,505.74	427.33	-15.81	2.00	2.00	0.00	357.88	
2,885.51	31.71	357.881	2,761.02	584.94	-21.65	0.00	0.00	0.00	0.00	
4,999.43	0.00	0.000	4,768.67	1,154.72	-42.73	1.50	-1.50	0.00	180.00	
5,738.89	0.00	0.000	5,508.13	1,154.72	-42.73	0.00	0.00	0.00	0.00	
6,557.07	90.00	269.331	6,029.00	1,148.64	-563.57	11.00	11.00	-11.08	269.33	
17,312.82	90.00	269.331	6,029.00	1,022.99	-11,318.58	0.00	0.00	0.00	0.00	4-61-05-0808C PBHL

Database:	Casper District	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-0808C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Site:	RSU Anschutz Fed 4-61-4 NW Pad	North Reference:	True
Well:	RSU Anschutz Fed 4-61-05-0808C	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	0.000	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	357.881	1,099.98	1.74	-0.06	0.04	2.00	2.00	0.00
1,200.00	4.00	357.881	1,199.84	6.97	-0.26	0.18	2.00	2.00	0.00
1,300.00	6.00	357.881	1,299.45	15.68	-0.58	0.40	2.00	2.00	0.00
1,400.00	8.00	357.881	1,398.70	27.86	-1.03	0.71	2.00	2.00	0.00
1,500.00	10.00	357.881	1,497.47	43.49	-1.61	1.10	2.00	2.00	0.00
1,600.00	12.00	357.881	1,595.62	62.56	-2.31	1.58	2.00	2.00	0.00
1,700.00	14.00	357.881	1,693.06	85.04	-3.15	2.15	2.00	2.00	0.00
1,800.00	16.00	357.881	1,789.64	110.90	-4.10	2.81	2.00	2.00	0.00
1,900.00	18.00	357.881	1,885.27	140.12	-5.18	3.55	2.00	2.00	0.00
2,000.00	20.00	357.881	1,979.82	172.65	-6.39	4.37	2.00	2.00	0.00
2,100.00	22.00	357.881	2,073.17	208.46	-7.71	5.28	2.00	2.00	0.00
2,200.00	24.00	357.881	2,165.21	247.50	-9.16	6.27	2.00	2.00	0.00
2,300.00	26.00	357.881	2,255.84	289.74	-10.72	7.34	2.00	2.00	0.00
2,400.00	28.00	357.881	2,344.94	335.10	-12.40	8.49	2.00	2.00	0.00
2,500.00	30.00	357.881	2,432.39	383.55	-14.19	9.71	2.00	2.00	0.00
2,585.44	31.71	357.881	2,505.74	427.33	-15.81	10.82	2.00	2.00	0.00
Start 300.07 hold at 2585.44 MD									
2,600.00	31.71	357.881	2,518.13	434.98	-16.10	11.02	0.00	0.00	0.00
2,700.00	31.71	357.881	2,603.20	487.51	-18.04	12.35	0.00	0.00	0.00
2,800.00	31.71	357.881	2,688.27	540.03	-19.98	13.68	0.00	0.00	0.00
2,885.51	31.71	357.881	2,761.02	584.94	-21.65	14.81	0.00	0.00	0.00
Start Drop -1.50									
2,900.00	31.49	357.881	2,773.36	592.53	-21.93	15.01	1.50	-1.50	0.00
3,000.00	29.99	357.881	2,859.31	643.61	-23.82	16.30	1.50	-1.50	0.00
3,100.00	28.49	357.881	2,946.56	692.42	-25.62	17.54	1.50	-1.50	0.00
3,200.00	26.99	357.881	3,035.06	738.94	-27.34	18.71	1.50	-1.50	0.00
3,300.00	25.49	357.881	3,124.75	783.12	-28.98	19.83	1.50	-1.50	0.00
3,400.00	23.99	357.881	3,215.57	824.95	-30.53	20.89	1.50	-1.50	0.00
3,500.00	22.49	357.881	3,307.46	864.38	-31.99	21.89	1.50	-1.50	0.00
3,600.00	20.99	357.881	3,400.34	901.39	-33.36	22.83	1.50	-1.50	0.00
3,700.00	19.49	357.881	3,494.16	935.97	-34.64	23.70	1.50	-1.50	0.00
3,800.00	17.99	357.881	3,588.86	968.07	-35.82	24.52	1.50	-1.50	0.00
3,900.00	16.49	357.881	3,684.36	997.69	-36.92	25.27	1.50	-1.50	0.00
4,000.00	14.99	357.881	3,780.61	1,024.80	-37.92	25.95	1.50	-1.50	0.00
4,100.00	13.49	357.881	3,877.53	1,049.39	-38.83	26.58	1.50	-1.50	0.00
4,200.00	11.99	357.881	3,975.07	1,071.43	-39.65	27.14	1.50	-1.50	0.00
4,300.00	10.49	357.881	4,073.14	1,090.91	-40.37	27.63	1.50	-1.50	0.00
4,400.00	8.99	357.881	4,171.70	1,107.81	-40.99	28.06	1.50	-1.50	0.00
4,500.00	7.49	357.881	4,270.66	1,122.14	-41.52	28.42	1.50	-1.50	0.00
4,600.00	5.99	357.881	4,369.97	1,133.87	-41.96	28.72	1.50	-1.50	0.00
4,700.00	4.49	357.881	4,469.55	1,143.00	-42.30	28.95	1.50	-1.50	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-0808C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Site:	RSU Anschutz Fed 4-61-4 NW Pad	North Reference:	True
Well:	RSU Anschutz Fed 4-61-05-0808C	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)
4,800.00	2.99	357.881	4,569.33	1,149.52	-42.54	29.11	1.50	-1.50	0.00
4,900.00	1.49	357.881	4,669.25	1,153.43	-42.68	29.21	1.50	-1.50	0.00
4,999.43	0.00	0.000	4,768.67	1,154.72	-42.73	29.24	1.50	-1.50	0.00
Start 739.46 hold at 4999.43 MD									
5,000.00	0.00	0.000	4,769.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,100.00	0.00	0.000	4,869.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,200.00	0.00	0.000	4,969.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,300.00	0.00	0.000	5,069.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,400.00	0.00	0.000	5,169.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,500.00	0.00	0.000	5,269.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,600.00	0.00	0.000	5,369.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,700.00	0.00	0.000	5,469.24	1,154.72	-42.73	29.24	0.00	0.00	0.00
5,738.89	0.00	0.000	5,508.13	1,154.72	-42.73	29.24	0.00	0.00	0.00
Start DLS 11.00 TFO 269.33									
5,800.00	6.72	269.331	5,569.10	1,154.68	-46.31	32.83	11.00	11.00	0.00
5,900.00	17.72	269.331	5,666.68	1,154.43	-67.45	53.96	11.00	11.00	0.00
6,000.00	28.72	269.331	5,758.44	1,153.97	-106.81	93.33	11.00	11.00	0.00
6,100.00	39.72	269.331	5,841.00	1,153.32	-162.96	149.49	11.00	11.00	0.00
6,200.00	50.72	269.331	5,911.33	1,152.49	-233.83	220.36	11.00	11.00	0.00
6,300.00	61.72	269.331	5,966.84	1,151.52	-316.82	303.35	11.00	11.00	0.00
6,400.00	72.72	269.331	6,005.50	1,150.44	-408.88	395.41	11.00	11.00	0.00
6,500.00	83.72	269.331	6,025.88	1,149.30	-506.61	493.16	11.00	11.00	0.00
6,557.07	90.00	269.331	6,029.00	1,148.64	-563.57	550.12	11.00	11.00	0.00
Start 10755.75 hold at 6557.07 MD									
6,600.00	90.00	269.331	6,029.00	1,148.13	-606.49	593.05	0.00	0.00	0.00
6,700.00	90.00	269.331	6,029.00	1,146.97	-706.49	693.05	0.00	0.00	0.00
6,800.00	90.00	269.331	6,029.00	1,145.80	-806.48	793.05	0.00	0.00	0.00
6,900.00	90.00	269.331	6,029.00	1,144.63	-906.47	893.05	0.00	0.00	0.00
7,000.00	90.00	269.331	6,029.00	1,143.46	-1,006.46	993.05	0.00	0.00	0.00
7,100.00	90.00	269.331	6,029.00	1,142.29	-1,106.46	1,093.05	0.00	0.00	0.00
7,200.00	90.00	269.331	6,029.00	1,141.13	-1,206.45	1,193.05	0.00	0.00	0.00
7,300.00	90.00	269.331	6,029.00	1,139.96	-1,306.44	1,293.05	0.00	0.00	0.00
7,400.00	90.00	269.331	6,029.00	1,138.79	-1,406.44	1,393.05	0.00	0.00	0.00
7,500.00	90.00	269.331	6,029.00	1,137.62	-1,506.43	1,493.05	0.00	0.00	0.00
7,600.00	90.00	269.331	6,029.00	1,136.45	-1,606.42	1,593.05	0.00	0.00	0.00
7,700.00	90.00	269.331	6,029.00	1,135.28	-1,706.42	1,693.05	0.00	0.00	0.00
7,800.00	90.00	269.331	6,029.00	1,134.12	-1,806.41	1,793.05	0.00	0.00	0.00
7,900.00	90.00	269.331	6,029.00	1,132.95	-1,906.40	1,893.05	0.00	0.00	0.00
8,000.00	90.00	269.331	6,029.00	1,131.78	-2,006.40	1,993.05	0.00	0.00	0.00
8,100.00	90.00	269.331	6,029.00	1,130.61	-2,106.39	2,093.05	0.00	0.00	0.00
8,200.00	90.00	269.331	6,029.00	1,129.44	-2,206.38	2,193.05	0.00	0.00	0.00
8,300.00	90.00	269.331	6,029.00	1,128.28	-2,306.38	2,293.05	0.00	0.00	0.00
8,400.00	90.00	269.331	6,029.00	1,127.11	-2,406.37	2,393.05	0.00	0.00	0.00
8,500.00	90.00	269.331	6,029.00	1,125.94	-2,506.36	2,493.05	0.00	0.00	0.00
8,600.00	90.00	269.331	6,029.00	1,124.77	-2,606.36	2,593.05	0.00	0.00	0.00
8,700.00	90.00	269.331	6,029.00	1,123.60	-2,706.35	2,693.05	0.00	0.00	0.00
8,800.00	90.00	269.331	6,029.00	1,122.44	-2,806.34	2,793.05	0.00	0.00	0.00
8,900.00	90.00	269.331	6,029.00	1,121.27	-2,906.34	2,893.05	0.00	0.00	0.00
9,000.00	90.00	269.331	6,029.00	1,120.10	-3,006.33	2,993.05	0.00	0.00	0.00
9,100.00	90.00	269.331	6,029.00	1,118.93	-3,106.32	3,093.05	0.00	0.00	0.00
9,200.00	90.00	269.331	6,029.00	1,117.76	-3,206.31	3,193.05	0.00	0.00	0.00
9,300.00	90.00	269.331	6,029.00	1,116.59	-3,306.31	3,293.05	0.00	0.00	0.00
9,400.00	90.00	269.331	6,029.00	1,115.43	-3,406.30	3,393.05	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-0808C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Site:	RSU Anschutz Fed 4-61-4 NW Pad	North Reference:	True
Well:	RSU Anschutz Fed 4-61-05-0808C	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)	
9,500.00	90.00	269.331	6,029.00	1,114.26	-3,506.29	3,493.05	0.00	0.00	0.00	
9,600.00	90.00	269.331	6,029.00	1,113.09	-3,606.29	3,593.05	0.00	0.00	0.00	
9,700.00	90.00	269.331	6,029.00	1,111.92	-3,706.28	3,693.05	0.00	0.00	0.00	
9,800.00	90.00	269.331	6,029.00	1,110.75	-3,806.27	3,793.05	0.00	0.00	0.00	
9,900.00	90.00	269.331	6,029.00	1,109.59	-3,906.27	3,893.05	0.00	0.00	0.00	
10,000.00	90.00	269.331	6,029.00	1,108.42	-4,006.26	3,993.05	0.00	0.00	0.00	
10,100.00	90.00	269.331	6,029.00	1,107.25	-4,106.25	4,093.05	0.00	0.00	0.00	
10,200.00	90.00	269.331	6,029.00	1,106.08	-4,206.25	4,193.05	0.00	0.00	0.00	
10,300.00	90.00	269.331	6,029.00	1,104.91	-4,306.24	4,293.05	0.00	0.00	0.00	
10,400.00	90.00	269.331	6,029.00	1,103.75	-4,406.23	4,393.05	0.00	0.00	0.00	
10,500.00	90.00	269.331	6,029.00	1,102.58	-4,506.23	4,493.05	0.00	0.00	0.00	
10,600.00	90.00	269.331	6,029.00	1,101.41	-4,606.22	4,593.05	0.00	0.00	0.00	
10,700.00	90.00	269.331	6,029.00	1,100.24	-4,706.21	4,693.05	0.00	0.00	0.00	
10,800.00	90.00	269.331	6,029.00	1,099.07	-4,806.21	4,793.05	0.00	0.00	0.00	
10,900.00	90.00	269.331	6,029.00	1,097.90	-4,906.20	4,893.05	0.00	0.00	0.00	
11,000.00	90.00	269.331	6,029.00	1,096.74	-5,006.19	4,993.05	0.00	0.00	0.00	
11,100.00	90.00	269.331	6,029.00	1,095.57	-5,106.19	5,093.05	0.00	0.00	0.00	
11,200.00	90.00	269.331	6,029.00	1,094.40	-5,206.18	5,193.05	0.00	0.00	0.00	
11,300.00	90.00	269.331	6,029.00	1,093.23	-5,306.17	5,293.05	0.00	0.00	0.00	
11,400.00	90.00	269.331	6,029.00	1,092.06	-5,406.16	5,393.05	0.00	0.00	0.00	
11,500.00	90.00	269.331	6,029.00	1,090.90	-5,506.16	5,493.05	0.00	0.00	0.00	
11,600.00	90.00	269.331	6,029.00	1,089.73	-5,606.15	5,593.05	0.00	0.00	0.00	
11,700.00	90.00	269.331	6,029.00	1,088.56	-5,706.14	5,693.05	0.00	0.00	0.00	
11,800.00	90.00	269.331	6,029.00	1,087.39	-5,806.14	5,793.05	0.00	0.00	0.00	
11,900.00	90.00	269.331	6,029.00	1,086.22	-5,906.13	5,893.05	0.00	0.00	0.00	
12,000.00	90.00	269.331	6,029.00	1,085.06	-6,006.12	5,993.05	0.00	0.00	0.00	
12,100.00	90.00	269.331	6,029.00	1,083.89	-6,106.12	6,093.05	0.00	0.00	0.00	
12,200.00	90.00	269.331	6,029.00	1,082.72	-6,206.11	6,193.05	0.00	0.00	0.00	
12,300.00	90.00	269.331	6,029.00	1,081.55	-6,306.10	6,293.05	0.00	0.00	0.00	
12,400.00	90.00	269.331	6,029.00	1,080.38	-6,406.10	6,393.05	0.00	0.00	0.00	
12,500.00	90.00	269.331	6,029.00	1,079.21	-6,506.09	6,493.05	0.00	0.00	0.00	
12,600.00	90.00	269.331	6,029.00	1,078.05	-6,606.08	6,593.05	0.00	0.00	0.00	
12,700.00	90.00	269.331	6,029.00	1,076.88	-6,706.08	6,693.05	0.00	0.00	0.00	
12,800.00	90.00	269.331	6,029.00	1,075.71	-6,806.07	6,793.05	0.00	0.00	0.00	
12,900.00	90.00	269.331	6,029.00	1,074.54	-6,906.06	6,893.05	0.00	0.00	0.00	
13,000.00	90.00	269.331	6,029.00	1,073.37	-7,006.06	6,993.05	0.00	0.00	0.00	
13,100.00	90.00	269.331	6,029.00	1,072.21	-7,106.05	7,093.05	0.00	0.00	0.00	
13,200.00	90.00	269.331	6,029.00	1,071.04	-7,206.04	7,193.05	0.00	0.00	0.00	
13,300.00	90.00	269.331	6,029.00	1,069.87	-7,306.04	7,293.05	0.00	0.00	0.00	
13,400.00	90.00	269.331	6,029.00	1,068.70	-7,406.03	7,393.05	0.00	0.00	0.00	
13,500.00	90.00	269.331	6,029.00	1,067.53	-7,506.02	7,493.05	0.00	0.00	0.00	
13,600.00	90.00	269.331	6,029.00	1,066.37	-7,606.01	7,593.05	0.00	0.00	0.00	
13,700.00	90.00	269.331	6,029.00	1,065.20	-7,706.01	7,693.05	0.00	0.00	0.00	
13,800.00	90.00	269.331	6,029.00	1,064.03	-7,806.00	7,793.05	0.00	0.00	0.00	
13,900.00	90.00	269.331	6,029.00	1,062.86	-7,905.99	7,893.05	0.00	0.00	0.00	
14,000.00	90.00	269.331	6,029.00	1,061.69	-8,005.99	7,993.05	0.00	0.00	0.00	
14,100.00	90.00	269.331	6,029.00	1,060.52	-8,105.98	8,093.05	0.00	0.00	0.00	
14,200.00	90.00	269.331	6,029.00	1,059.36	-8,205.97	8,193.05	0.00	0.00	0.00	
14,300.00	90.00	269.331	6,029.00	1,058.19	-8,305.97	8,293.05	0.00	0.00	0.00	
14,400.00	90.00	269.331	6,029.00	1,057.02	-8,405.96	8,393.05	0.00	0.00	0.00	
14,500.00	90.00	269.331	6,029.00	1,055.85	-8,505.95	8,493.05	0.00	0.00	0.00	
14,600.00	90.00	269.331	6,029.00	1,054.68	-8,605.95	8,593.05	0.00	0.00	0.00	
14,700.00	90.00	269.331	6,029.00	1,053.52	-8,705.94	8,693.05	0.00	0.00	0.00	
14,800.00	90.00	269.331	6,029.00	1,052.35	-8,805.93	8,793.05	0.00	0.00	0.00	

Database:	Casper District	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-0808C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4501.5' & KB 20' @ 4521.50ft
Site:	RSU Anschutz Fed 4-61-4 NW Pad	North Reference:	True
Well:	RSU Anschutz Fed 4-61-05-0808C	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)
14,900.00	90.00	269.331	6,029.00	1,051.18	-8,905.93	8,893.05	0.00	0.00	0.00
15,000.00	90.00	269.331	6,029.00	1,050.01	-9,005.92	8,993.05	0.00	0.00	0.00
15,100.00	90.00	269.331	6,029.00	1,048.84	-9,105.91	9,093.05	0.00	0.00	0.00
15,200.00	90.00	269.331	6,029.00	1,047.67	-9,205.91	9,193.05	0.00	0.00	0.00
15,300.00	90.00	269.331	6,029.00	1,046.51	-9,305.90	9,293.05	0.00	0.00	0.00
15,400.00	90.00	269.331	6,029.00	1,045.34	-9,405.89	9,393.05	0.00	0.00	0.00
15,500.00	90.00	269.331	6,029.00	1,044.17	-9,505.89	9,493.05	0.00	0.00	0.00
15,600.00	90.00	269.331	6,029.00	1,043.00	-9,605.88	9,593.05	0.00	0.00	0.00
15,700.00	90.00	269.331	6,029.00	1,041.83	-9,705.87	9,693.05	0.00	0.00	0.00
15,800.00	90.00	269.331	6,029.00	1,040.67	-9,805.86	9,793.05	0.00	0.00	0.00
15,900.00	90.00	269.331	6,029.00	1,039.50	-9,905.86	9,893.05	0.00	0.00	0.00
16,000.00	90.00	269.331	6,029.00	1,038.33	-10,005.85	9,993.05	0.00	0.00	0.00
16,100.00	90.00	269.331	6,029.00	1,037.16	-10,105.84	10,093.05	0.00	0.00	0.00
16,200.00	90.00	269.331	6,029.00	1,035.99	-10,205.84	10,193.05	0.00	0.00	0.00
16,300.00	90.00	269.331	6,029.00	1,034.83	-10,305.83	10,293.05	0.00	0.00	0.00
16,400.00	90.00	269.331	6,029.00	1,033.66	-10,405.82	10,393.05	0.00	0.00	0.00
16,500.00	90.00	269.331	6,029.00	1,032.49	-10,505.82	10,493.05	0.00	0.00	0.00
16,600.00	90.00	269.331	6,029.00	1,031.32	-10,605.81	10,593.05	0.00	0.00	0.00
16,700.00	90.00	269.331	6,029.00	1,030.15	-10,705.80	10,693.05	0.00	0.00	0.00
16,800.00	90.00	269.331	6,029.00	1,028.98	-10,805.80	10,793.05	0.00	0.00	0.00
16,900.00	90.00	269.331	6,029.00	1,027.82	-10,905.79	10,893.05	0.00	0.00	0.00
17,000.00	90.00	269.331	6,029.00	1,026.65	-11,005.78	10,993.05	0.00	0.00	0.00
17,100.00	90.00	269.331	6,029.00	1,025.48	-11,105.78	11,093.05	0.00	0.00	0.00
17,200.00	90.00	269.331	6,029.00	1,024.31	-11,205.77	11,193.05	0.00	0.00	0.00
17,300.00	90.00	269.331	6,029.00	1,023.14	-11,305.76	11,293.05	0.00	0.00	0.00
17,312.82	90.00	269.331	6,029.00	1,022.99	-11,318.58	11,305.86	0.00	0.00	0.00
TD at 17312.82									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
4-61-05-0808C PBHL - hit/miss target - Shape - plan hits target center - Point	0.00	0.000	6,029.00	1,022.99	-11,318.58	1,372,328.70	3,344,254.33	40° 20' 55.903 N	104° 15' 53.410 W
4-61-05-0808C LP - plan misses target center by 0.01ft at 6557.08ft MD (6029.00 TVD, 1148.64 N, -563.57 E) - Point	0.00	0.000	6,029.00	1,148.64	-563.57	1,372,609.06	3,355,006.40	40° 20' 57.170 N	104° 13' 34.496 W

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,000.00	1,000.00	0.00	0.00	Start Build 2.00	
2,585.44	2,505.74	427.33	-15.81	Start 300.07 hold at 2585.44 MD	
2,885.51	2,761.02	584.94	-21.65	Start Drop -1.50	
4,999.43	4,768.67	1,154.72	-42.73	Start 739.46 hold at 4999.43 MD	
5,738.89	5,508.13	1,154.72	-42.73	Start DLS 11.00 TFO 269.33	
6,557.07	6,029.00	1,148.64	-563.57	Start 10755.75 hold at 6557.07 MD	
17,312.82	6,029.00	1,022.99	-11,318.58	TD at 17312.82	