

**BILL BARRETT CORP**  
**STATE OF COLORADO 1S-66-36 4956 CDH**  
**Adams County, CO**

**Geodetic System: US State Plane 1983**  
**Zone: Colorado Northern Zone**  
**WELL @ 5245.0usft (Original Well Elev)**  
**Ground Level: 5225.0**  
**Latitude: 39° 55' 0.903 N**  
**Longitude: 104° 43' 56.852 W**

**Magnetic North is 8.49° East of True North (Magnetic Declination)**



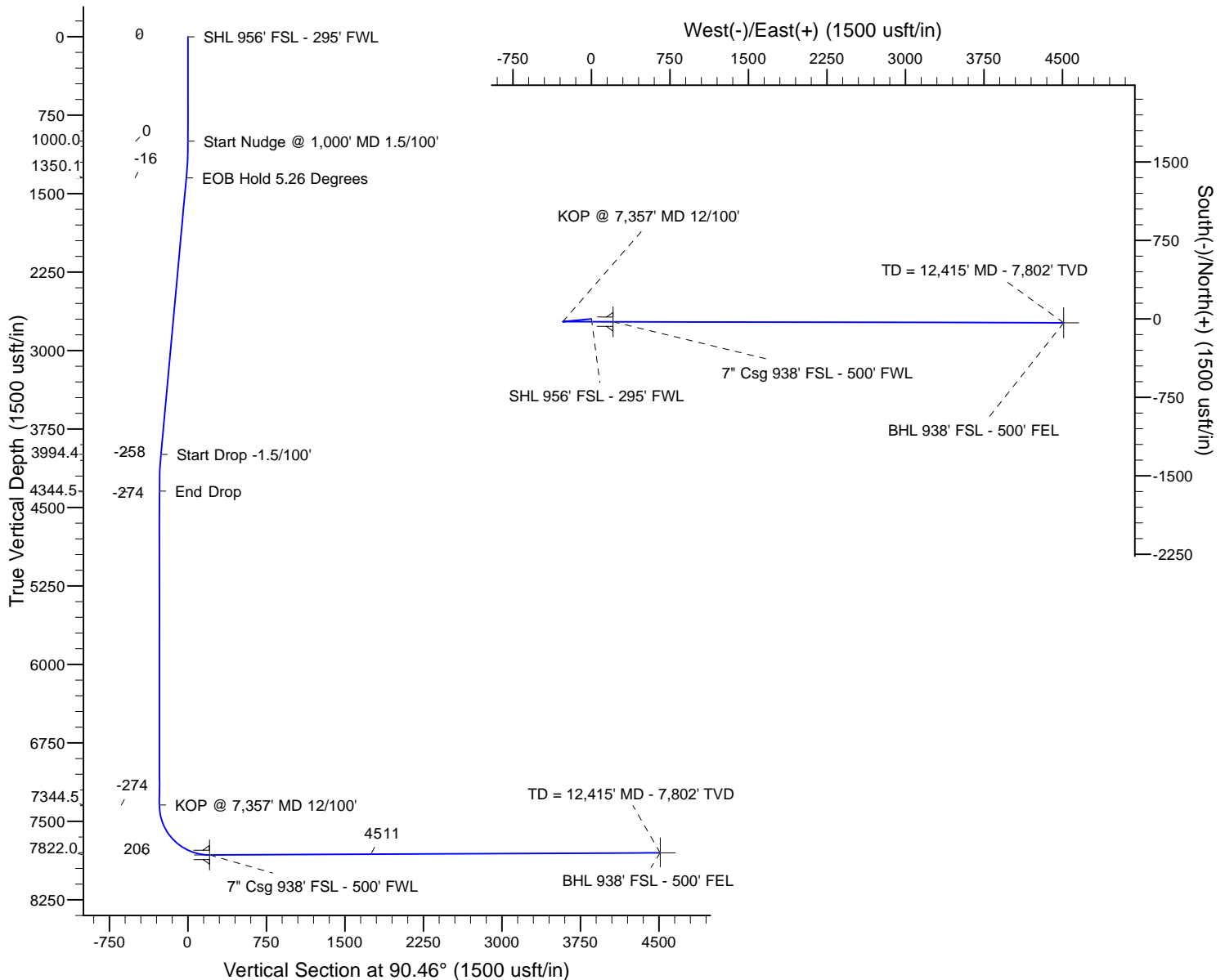
Azimuths to True North  
Magnetic North: 8.49°

Magnetic Field  
Strength: 52627.4snT  
Dip Angle: 66.58°  
Date: 10/28/2013  
Model: IGRF2010

**FORMATION TOP DETAILS**

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0
1350.6	5.26	264.38	1350.1	-1.6	-16.0	1.50	264.38	-16.0
4006.1	5.26	264.38	3994.4	-25.4	-258.2	0.00	0.00	-258.0
4356.7	0.00	0.00	4344.5	-27.0	-274.2	1.50	180.00	-274.0
7356.7	0.00	0.00	7344.5	-27.0	-274.2	0.00	0.00	-274.0
8108.9	90.26	90.11	7822.0	-28.0	205.5	12.00	90.11	205.7
12414.7	90.26	90.11	7802.0	-36.6	4511.3	0.00	0.00	4511.4

TVDPath	MDPath	Formation
845.0	845.0	Base Fox Hills
5004.3	5016.5	Shannon
7302.3	7314.5	Sharon Springs
7390.3	7402.5	Niobrara
7814.4	8021.8	Top CDLL Target
7821.2	8079.1	Landing Point



Plan: Design #1 (STATE OF COLORADO 1S-66-36 4956 CDH/Wellbore #

Created By: Mike Kirby Date: 12:12, October 28 2013  
Checked: Date:   
Reviewed: Date:   
Approved: x Date: x

## Planning Report

<b>Database:</b>	Rocky Mountain R5000 Database	<b>Local Co-ordinate Reference:</b>	Well STATE OF COLORADO 1S-66-36 4956 CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Project:</b>	Adams County, CO	<b>MD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Site:</b>	State of Coloardo 36-1S-66W South Pad	<b>North Reference:</b>	True
<b>Well:</b>	STATE OF COLORADO 1S-66-36 4956 CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Adams County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		State of Coloardo 36-1S-66W South Pad			
Site Position:		Northing:	1,213,513.90 usft	Latitude:	39° 55' 0.903 N
From:	Map	Easting:	3,215,288.70 usft	Longitude:	104° 43' 56.852 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.50 °

Well	STATE OF COLORADO 1S-66-36 4956 CDH					
Well Position	+N/-S	30.0 usft	Northing:	1,213,543.90 usft	Latitude:	39° 55' 1.199 N
	+E/-W	0.1 usft	Easting:	3,215,288.50 usft	Longitude:	104° 43' 56.851 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,245.0 usft	Ground Level:	5,225.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/28/2013	8.49	66.58	52,627

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	90.46

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,350.6	5.26	264.38	1,350.1	-1.6	-16.0	1.50	1.50	0.00	264.38	
4,006.1	5.26	264.38	3,994.4	-25.4	-258.2	0.00	0.00	0.00	0.00	
4,356.7	0.00	0.00	4,344.5	-27.0	-274.2	1.50	-1.50	0.00	180.00	
7,356.7	0.00	0.00	7,344.5	-27.0	-274.2	0.00	0.00	0.00	0.00	
8,108.9	90.27	90.12	7,822.0	-28.0	205.5	12.00	12.00	0.00	90.12	
12,414.7	90.27	90.12	7,802.0	-36.6	4,511.3	0.00	0.00	0.00	0.00	SOC 1S-66-36 4956 (

# Planning Report

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Project:</b>	Adams County, CO	<b>MD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Site:</b>	State of Colorado 36-1S-66W South Pad	<b>North Reference:</b>	True
<b>Well:</b>	STATE OF COLORADO 1S-66-36 4956 CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
2.0	0.00	0.00	2.0	0.0	0.0	0.0	0.00	0.00	0.00	
<b>SHL 956' FSL - 295' FWL</b>										
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
845.0	0.00	0.00	845.0	0.0	0.0	0.0	0.00	0.00	0.00	
<b>Base Fox Hills</b>										
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
<b>Start Nudge @ 1,000' MD 1.5/100'</b>										
1,100.0	1.50	264.38	1,100.0	-0.1	-1.3	-1.3	1.50	1.50	0.00	
1,200.0	3.00	264.38	1,199.9	-0.5	-5.2	-5.2	1.50	1.50	0.00	
1,300.0	4.50	264.38	1,299.7	-1.2	-11.7	-11.7	1.50	1.50	0.00	
1,350.6	5.26	264.38	1,350.1	-1.6	-16.0	-16.0	1.50	1.50	0.00	
<b>EOB Hold 5.26 Degrees</b>										
1,400.0	5.26	264.38	1,399.3	-2.0	-20.5	-20.5	0.00	0.00	0.00	
1,500.0	5.26	264.38	1,498.9	-2.9	-29.6	-29.6	0.00	0.00	0.00	
1,600.0	5.26	264.38	1,598.5	-3.8	-38.7	-38.7	0.00	0.00	0.00	
1,700.0	5.26	264.38	1,698.0	-4.7	-47.9	-47.8	0.00	0.00	0.00	
1,800.0	5.26	264.38	1,797.6	-5.6	-57.0	-56.9	0.00	0.00	0.00	
1,900.0	5.26	264.38	1,897.2	-6.5	-66.1	-66.1	0.00	0.00	0.00	
2,000.0	5.26	264.38	1,996.8	-7.4	-75.2	-75.2	0.00	0.00	0.00	
2,100.0	5.26	264.38	2,096.4	-8.3	-84.4	-84.3	0.00	0.00	0.00	
2,200.0	5.26	264.38	2,195.9	-9.2	-93.5	-93.4	0.00	0.00	0.00	
2,300.0	5.26	264.38	2,295.5	-10.1	-102.6	-102.5	0.00	0.00	0.00	
2,400.0	5.26	264.38	2,395.1	-11.0	-111.7	-111.6	0.00	0.00	0.00	
2,500.0	5.26	264.38	2,494.7	-11.9	-120.8	-120.7	0.00	0.00	0.00	
2,600.0	5.26	264.38	2,594.2	-12.8	-130.0	-129.8	0.00	0.00	0.00	
2,700.0	5.26	264.38	2,693.8	-13.7	-139.1	-139.0	0.00	0.00	0.00	
2,800.0	5.26	264.38	2,793.4	-14.6	-148.2	-148.1	0.00	0.00	0.00	
2,900.0	5.26	264.38	2,893.0	-15.5	-157.3	-157.2	0.00	0.00	0.00	
3,000.0	5.26	264.38	2,992.6	-16.4	-166.4	-166.3	0.00	0.00	0.00	
3,100.0	5.26	264.38	3,092.1	-17.3	-175.6	-175.4	0.00	0.00	0.00	
3,200.0	5.26	264.38	3,191.7	-18.2	-184.7	-184.5	0.00	0.00	0.00	
3,300.0	5.26	264.38	3,291.3	-19.1	-193.8	-193.6	0.00	0.00	0.00	
3,400.0	5.26	264.38	3,390.9	-20.0	-202.9	-202.8	0.00	0.00	0.00	
3,500.0	5.26	264.38	3,490.5	-20.9	-212.0	-211.9	0.00	0.00	0.00	
3,600.0	5.26	264.38	3,590.0	-21.8	-221.2	-221.0	0.00	0.00	0.00	
3,700.0	5.26	264.38	3,689.6	-22.7	-230.3	-230.1	0.00	0.00	0.00	
3,800.0	5.26	264.38	3,789.2	-23.6	-239.4	-239.2	0.00	0.00	0.00	
3,900.0	5.26	264.38	3,888.8	-24.5	-248.5	-248.3	0.00	0.00	0.00	
4,000.0	5.26	264.38	3,988.4	-25.4	-257.6	-257.4	0.00	0.00	0.00	
4,006.1	5.26	264.38	3,994.4	-25.4	-258.2	-258.0	0.00	0.00	0.00	
<b>Start Drop -1.5/100'</b>										
4,100.0	3.85	264.38	4,088.0	-26.2	-265.6	-265.4	1.50	-1.50	0.00	
4,200.0	2.35	264.38	4,187.9	-26.7	-271.0	-270.8	1.50	-1.50	0.00	

# Planning Report

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Project:</b>	Adams County, CO	<b>MD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Site:</b>	State of Colorado 36-1S-66W South Pad	<b>North Reference:</b>	True
<b>Well:</b>	STATE OF COLORADO 1S-66-36 4956 CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,300.0	0.85	264.38	4,287.8	-27.0	-273.8	-273.6	1.50	-1.50	0.00	
4,356.7	0.00	0.00	4,344.5	-27.0	-274.2	-274.0	1.50	-1.50	0.00	
End Drop										
4,400.0	0.00	0.00	4,387.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,487.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,587.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,687.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,787.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,887.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,987.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,016.5	0.00	0.00	5,004.3	-27.0	-274.2	-274.0	0.00	0.00	0.00	
Shannon										
5,100.0	0.00	0.00	5,087.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,187.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,287.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,387.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,487.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,587.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,687.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,787.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,887.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,987.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,087.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,187.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,287.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,387.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,487.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,587.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,687.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,787.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,887.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,987.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,087.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,187.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,287.8	-27.0	-274.2	-274.0	0.00	0.00	0.00	
7,314.5	0.00	0.00	7,302.3	-27.0	-274.2	-274.0	0.00	0.00	0.00	
Sharon Springs										
7,356.7	0.00	0.00	7,344.5	-27.0	-274.2	-274.0	0.00	0.00	0.00	
KOP @ 7,357' MD 12/100'										
7,400.0	5.20	90.12	7,387.8	-27.0	-272.2	-272.0	12.01	12.01	0.00	
7,402.5	5.50	90.12	7,390.3	-27.0	-272.0	-271.8	12.00	12.00	0.00	
Niobrara										
7,500.0	17.20	90.12	7,485.7	-27.0	-252.8	-252.6	12.00	12.00	0.00	
7,600.0	29.20	90.12	7,577.4	-27.1	-213.5	-213.3	12.00	12.00	0.00	
7,700.0	41.20	90.12	7,659.0	-27.2	-156.0	-155.8	12.00	12.00	0.00	
7,800.0	53.20	90.12	7,726.8	-27.4	-82.7	-82.5	12.00	12.00	0.00	
7,900.0	65.20	90.12	7,777.9	-27.6	3.0	3.2	12.00	12.00	0.00	
8,000.0	77.20	90.12	7,810.1	-27.7	97.5	97.7	12.00	12.00	0.00	
8,021.8	79.81	90.12	7,814.4	-27.8	118.8	119.1	12.00	12.00	0.00	
Top CDLL Target										
8,079.1	86.70	90.12	7,821.2	-27.9	175.8	176.0	12.00	12.00	0.00	
Landing Point										

# Planning Report

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Project:</b>	Adams County, CO	<b>MD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Site:</b>	State of Colorado 36-1S-66W South Pad	<b>North Reference:</b>	True
<b>Well:</b>	STATE OF COLORADO 1S-66-36 4956 CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,100.0	89.20	90.12	7,821.9	-27.9	196.6	196.8	12.00	12.00	0.00
8,108.9	90.27	90.12	7,822.0	-28.0	205.5	205.7	11.96	11.96	0.00
7" Csg 938' FSL - 500' FWL - 7"									
8,200.0	90.27	90.12	7,821.5	-28.1	296.6	296.8	0.00	0.00	0.00
8,300.0	90.27	90.12	7,821.1	-28.3	396.6	396.8	0.00	0.00	0.00
8,400.0	90.27	90.12	7,820.6	-28.5	496.6	496.8	0.00	0.00	0.00
8,500.0	90.27	90.12	7,820.2	-28.7	596.6	596.8	0.00	0.00	0.00
8,600.0	90.27	90.12	7,819.7	-28.9	696.6	696.8	0.00	0.00	0.00
8,700.0	90.27	90.12	7,819.2	-29.1	796.6	796.8	0.00	0.00	0.00
8,800.0	90.27	90.12	7,818.8	-29.3	896.6	896.8	0.00	0.00	0.00
8,900.0	90.27	90.12	7,818.3	-29.6	996.6	996.8	0.00	0.00	0.00
9,000.0	90.27	90.12	7,817.8	-29.8	1,096.6	1,096.8	0.00	0.00	0.00
9,100.0	90.27	90.12	7,817.4	-30.0	1,196.6	1,196.8	0.00	0.00	0.00
9,200.0	90.27	90.12	7,816.9	-30.2	1,296.6	1,296.8	0.00	0.00	0.00
9,300.0	90.27	90.12	7,816.5	-30.4	1,396.6	1,396.8	0.00	0.00	0.00
9,400.0	90.27	90.12	7,816.0	-30.6	1,496.6	1,496.8	0.00	0.00	0.00
9,500.0	90.27	90.12	7,815.5	-30.8	1,596.6	1,596.8	0.00	0.00	0.00
9,600.0	90.27	90.12	7,815.1	-31.0	1,696.6	1,696.8	0.00	0.00	0.00
9,700.0	90.27	90.12	7,814.6	-31.2	1,796.6	1,796.8	0.00	0.00	0.00
9,800.0	90.27	90.12	7,814.1	-31.4	1,896.6	1,896.8	0.00	0.00	0.00
9,900.0	90.27	90.12	7,813.7	-31.6	1,996.6	1,996.8	0.00	0.00	0.00
10,000.0	90.27	90.12	7,813.2	-31.8	2,096.6	2,096.8	0.00	0.00	0.00
10,100.0	90.27	90.12	7,812.8	-32.0	2,196.6	2,196.8	0.00	0.00	0.00
10,200.0	90.27	90.12	7,812.3	-32.2	2,296.6	2,296.8	0.00	0.00	0.00
10,300.0	90.27	90.12	7,811.8	-32.4	2,396.6	2,396.8	0.00	0.00	0.00
10,400.0	90.27	90.12	7,811.4	-32.6	2,496.6	2,496.8	0.00	0.00	0.00
10,500.0	90.27	90.12	7,810.9	-32.8	2,596.6	2,596.8	0.00	0.00	0.00
10,600.0	90.27	90.12	7,810.4	-33.0	2,696.6	2,696.8	0.00	0.00	0.00
10,700.0	90.27	90.12	7,810.0	-33.2	2,796.6	2,796.7	0.00	0.00	0.00
10,800.0	90.27	90.12	7,809.5	-33.4	2,896.6	2,896.7	0.00	0.00	0.00
10,900.0	90.27	90.12	7,809.1	-33.6	2,996.6	2,996.7	0.00	0.00	0.00
11,000.0	90.27	90.12	7,808.6	-33.8	3,096.6	3,096.7	0.00	0.00	0.00
11,100.0	90.27	90.12	7,808.1	-34.0	3,196.6	3,196.7	0.00	0.00	0.00
11,200.0	90.27	90.12	7,807.7	-34.2	3,296.6	3,296.7	0.00	0.00	0.00
11,300.0	90.27	90.12	7,807.2	-34.4	3,396.6	3,396.7	0.00	0.00	0.00
11,400.0	90.27	90.12	7,806.7	-34.6	3,496.6	3,496.7	0.00	0.00	0.00
11,500.0	90.27	90.12	7,806.3	-34.8	3,596.6	3,596.7	0.00	0.00	0.00
11,600.0	90.27	90.12	7,805.8	-35.0	3,696.6	3,696.7	0.00	0.00	0.00
11,700.0	90.27	90.12	7,805.4	-35.2	3,796.6	3,796.7	0.00	0.00	0.00
11,800.0	90.27	90.12	7,804.9	-35.4	3,896.6	3,896.7	0.00	0.00	0.00
11,900.0	90.27	90.12	7,804.4	-35.6	3,996.6	3,996.7	0.00	0.00	0.00
12,000.0	90.27	90.12	7,804.0	-35.8	4,096.6	4,096.7	0.00	0.00	0.00
12,100.0	90.27	90.12	7,803.5	-36.0	4,196.6	4,196.7	0.00	0.00	0.00
12,200.0	90.27	90.12	7,803.0	-36.2	4,296.6	4,296.7	0.00	0.00	0.00
12,300.0	90.27	90.12	7,802.6	-36.4	4,396.6	4,396.7	0.00	0.00	0.00
12,400.0	90.27	90.12	7,802.1	-36.6	4,496.5	4,496.7	0.00	0.00	0.00
12,414.0	90.27	90.12	7,802.0	-36.6	4,510.5	4,510.7	0.00	0.00	0.00
TD = 12,415' MD - 7,802' TVD - BHL 938' FSL - 500' FEL									
12,414.7	90.27	90.12	7,802.0	-36.6	4,511.3	4,511.4	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	Rocky Mountain R5000 Database	<b>Local Co-ordinate Reference:</b>	Well STATE OF COLORADO 1S-66-36 4956 CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Project:</b>	Adams County, CO	<b>MD Reference:</b>	WELL @ 5245.0usft (Original Well Elev)
<b>Site:</b>	State of Coloardo 36-1S-66W South Pad	<b>North Reference:</b>	True
<b>Well:</b>	STATE OF COLORADO 1S-66-36 4956 CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SOC 1S-66-36 4956 CD - plan hits target center - Point	0.00	0.00	7,802.0	-36.6	4,511.3	1,213,546.35	3,219,799.90	39° 55' 0.834 N	104° 42' 58.951 W
SOC 1S-66-36 4956 CD - plan hits target center - Point	0.00	0.00	7,822.0	-28.0	205.5	1,213,517.70	3,215,494.20	39° 55' 0.923 N	104° 43' 54.214 W

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
8,108.9	7,822.0	7"	7	8-3/4

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
845.0	845.0	Base Fox Hills		-0.27	90.11
5,016.5	5,004.3	Shannon		-0.27	90.11
7,314.5	7,302.3	Sharon Springs		-0.27	90.11
7,402.5	7,390.3	Niobrara		-0.27	90.11
8,021.8	7,814.4	Top CDLL Target		-0.27	90.11
8,079.1	7,821.2	Landing Point		-0.27	90.11

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2.0	2.0	0.0	0.0	SHL 956' FSL - 295' FWL
1,000.0	1,000.0	0.0	0.0	Start Nudge @ 1,000' MD 1.5/100'
1,350.6	1,350.1	-1.6	-16.0	EOB Hold 5.26 Degrees
4,006.1	3,994.4	-25.4	-258.2	Start Drop -1.5/100'
4,356.7	4,344.5	-27.0	-274.2	End Drop
7,356.7	7,344.5	-27.0	-274.2	KOP @ 7,357' MD 12/100'
8,108.9	7,822.0	-28.0	205.5	7" Csg 938' FSL - 500' FWL
12,414.0	7,802.0	-36.6	4,510.5	TD = 12,415' MD - 7,802' TVD
12,414.0	7,802.0	-36.6	4,510.5	BHL 938' FSL - 500' FEL