



**Bill Barrett Corporation**

**SITE DETAILS:** Dutch Lake 024-22H  
Briggsdale

Site Latitude: 40° 28' 44.940 N  
Site Longitude: 104° 18' 52.081 W

**COMPANY DETAILS: BILL BARRETT CORP**

Calculation Method: Minimum Curvature  
Error System: ISCWSA  
Scan Method: Closest Approach 3D  
Error Surface: Elliptical Conic  
Warning Method: Error Ratio

Positional Uncertainty: 0.0  
Convergence: 0.77  
Local North: True

**WELL DETAILS:** Dutch Lake 024-22H

Ground Level: 4790.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1419599.31	3329787.89	40° 28' 44.940 N	104° 18' 52.081 W	

**WELLBORE TARGET DETAILS (LAT/LONG)**

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BTV 024-22H	5000.0	292.0	27.2	40° 28' 47.825 N	104° 18' 51.730 W	Point
DL 24-22H PBHL	6473.0	-4364.7	-404.8	40° 28' 1.808 N	104° 18' 57.319 W	Rectangle (Sides: L200.0 W200.0)

**SECTION DETAILS**

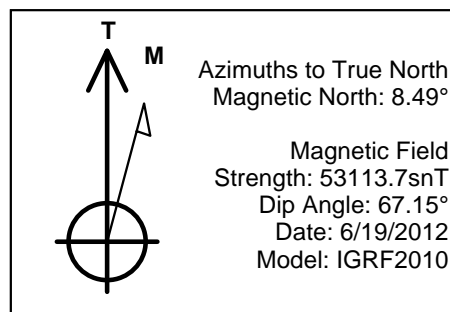
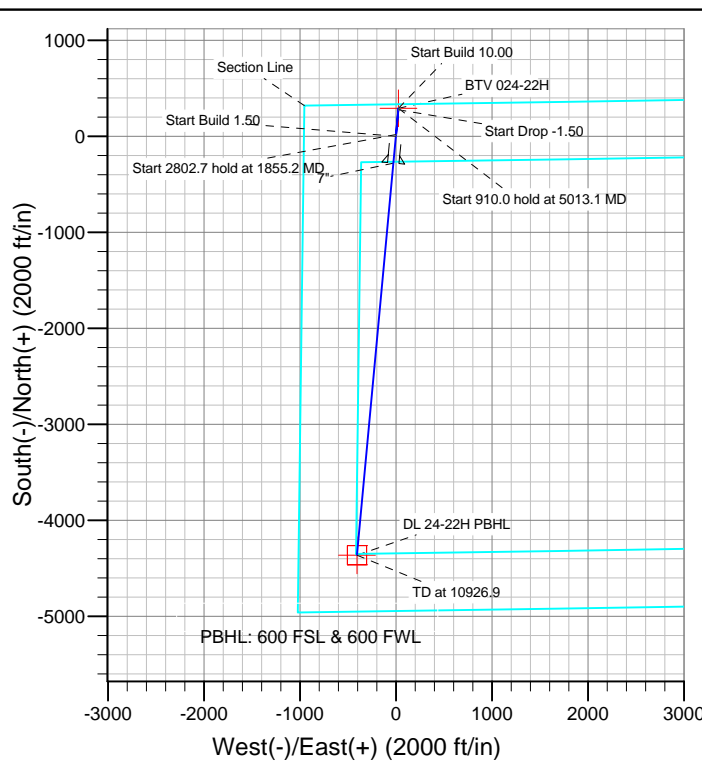
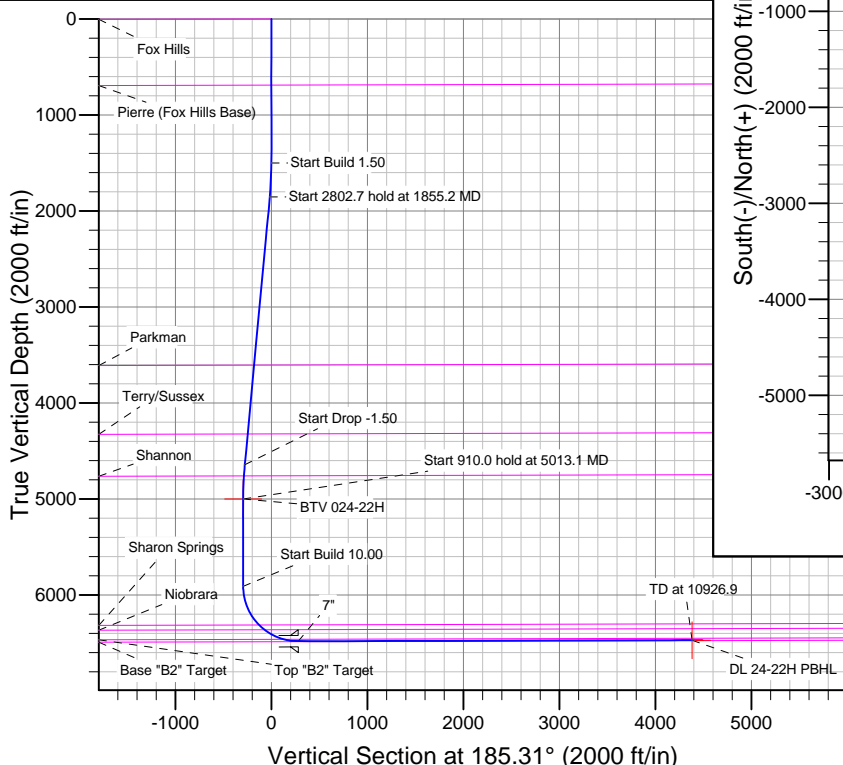
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	1855.2	5.33	5.31	1854.7	16.4	1.5	1.50	5.31	-16.5	
4	4657.9	5.33	5.31	4645.3	275.6	25.6	0.00	0.00	-276.8	
5	5013.1	0.00	0.00	5000.0	292.0	27.1	1.50	180.00	-293.3	BTV 024-22H
6	5923.1	0.00	0.00	5910.0	292.0	27.1	0.00	0.00	-293.3	
7	6824.7	90.16	185.31	6483.0	-280.1	-26.0	10.00	185.31	281.3	
8	10926.9	90.16	185.31	6471.5	-4364.6	-405.7	0.00	0.00	4383.4	DL 24-22H PBHL

**FORMATION TOP DETAILS**

TVDPath	MDPath	Formation
		Base "B2" Target
690.0	690.0	Fox Hills
3606.5	3614.6	Pierre (Fox Hills Base)
4323.6	4334.9	Parkman
4760.7	4773.7	Terry/Sussex
6313.3	6370.6	Shannon
6363.2	6445.9	Sharon Springs
6462.7	6670.2	Niobrara
		Top "B2" Target

**CASING DETAILS**

TVD	MD	Name	Size
6483.0	6824.7	7"	7



# **BILL BARRETT CORP**

**WELD COUNTY, COLORADO**

**Dutch Lake 024-22H**

**Dutch Lake 024-22H**

**Dutch Lake 024-22H**

**Plan: Design #1**

## **Standard Planning Report**

**21 June, 2012**

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Dutch Lake 024-22H
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
<b>Site:</b>	Dutch Lake 024-22H	<b>North Reference:</b>	True
<b>Well:</b>	Dutch Lake 024-22H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dutch Lake 024-22H		
<b>Design:</b>	Design #1		

<b>Project</b>	WELD COUNTY, COLORADO		
<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		Dutch Lake 024-22H			
Site Position:		Northing:	1,419,599.32 ft	Latitude:	40° 28' 44.940 N
From:	Lat/Long	Easting:	3,329,787.89 ft	Longitude:	104° 18' 52.081 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.77 °

Well	Dutch Lake 024-22H					
Well Position	+N/-S	0.0 ft	Northing:	1,419,599.31 ft	Latitude:	40° 28' 44.940 N
	+E/-W	0.0 ft	Easting:	3,329,787.89 ft	Longitude:	104° 18' 52.081 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,790.0 ft

<b>Wellbore</b>	Dutch Lake 024-22H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/19/2012	8.49	67.15	53,114

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	185.31

<b>Plan Sections</b>										
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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,855.2	5.33	5.31	1,854.7	16.4	1.5	1.50	1.50	0.00	5.31	
4,657.9	5.33	5.31	4,645.3	275.6	25.6	0.00	0.00	0.00	0.00	
5,013.1	0.00	0.00	5,000.0	292.0	27.1	1.50	-1.50	0.00	180.00	BTV 024-22H
5,923.1	0.00	0.00	5,910.0	292.0	27.1	0.00	0.00	0.00	0.00	
6,824.7	90.16	185.31	6,483.0	-280.1	-26.0	10.00	10.00	0.00	185.31	
10,926.9	90.16	185.31	6,471.5	-4,364.6	-405.7	0.00	0.00	0.00	0.00	DL 24-22H PBHL

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## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Dutch Lake 024-22H
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
<b>Site:</b>	Dutch Lake 024-22H	<b>North Reference:</b>	True
<b>Well:</b>	Dutch Lake 024-22H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dutch Lake 024-22H		
<b>Design:</b>	Design #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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
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
690.0	0.00	0.00	690.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pierre (Fox Hills Base)</b>									
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
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
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Start Build 1.50</b>									
1,600.0	1.50	5.31	1,600.0	1.3	0.1	-1.3	1.50	1.50	0.00
1,700.0	3.00	5.31	1,699.9	5.2	0.5	-5.2	1.50	1.50	0.00
1,800.0	4.50	5.31	1,799.7	11.7	1.1	-11.8	1.50	1.50	0.00
1,855.2	5.33	5.31	1,854.7	16.4	1.5	-16.5	1.50	1.50	0.00
<b>Start 2802.7 hold at 1855.2 MD</b>									
1,900.0	5.33	5.31	1,899.3	20.6	1.9	-20.7	0.00	0.00	0.00
2,000.0	5.33	5.31	1,998.9	29.8	2.8	-29.9	0.00	0.00	0.00
2,100.0	5.33	5.31	2,098.4	39.1	3.6	-39.2	0.00	0.00	0.00
2,200.0	5.33	5.31	2,198.0	48.3	4.5	-48.5	0.00	0.00	0.00
2,300.0	5.33	5.31	2,297.6	57.6	5.4	-57.8	0.00	0.00	0.00
2,400.0	5.33	5.31	2,397.1	66.8	6.2	-67.1	0.00	0.00	0.00
2,500.0	5.33	5.31	2,496.7	76.0	7.1	-76.4	0.00	0.00	0.00
2,600.0	5.33	5.31	2,596.3	85.3	7.9	-85.7	0.00	0.00	0.00
2,700.0	5.33	5.31	2,695.8	94.5	8.8	-94.9	0.00	0.00	0.00
2,800.0	5.33	5.31	2,795.4	103.8	9.7	-104.2	0.00	0.00	0.00
2,900.0	5.33	5.31	2,895.0	113.0	10.5	-113.5	0.00	0.00	0.00
3,000.0	5.33	5.31	2,994.5	122.3	11.4	-122.8	0.00	0.00	0.00
3,100.0	5.33	5.31	3,094.1	131.5	12.2	-132.1	0.00	0.00	0.00
3,200.0	5.33	5.31	3,193.7	140.8	13.1	-141.4	0.00	0.00	0.00
3,300.0	5.33	5.31	3,293.2	150.0	13.9	-150.7	0.00	0.00	0.00
3,400.0	5.33	5.31	3,392.8	159.3	14.8	-159.9	0.00	0.00	0.00
3,500.0	5.33	5.31	3,492.4	168.5	15.7	-169.2	0.00	0.00	0.00
3,600.0	5.33	5.31	3,591.9	177.8	16.5	-178.5	0.00	0.00	0.00
3,614.6	5.33	5.31	3,606.5	179.1	16.7	-179.9	0.00	0.00	0.00
<b>Parkman</b>									
3,700.0	5.33	5.31	3,691.5	187.0	17.4	-187.8	0.00	0.00	0.00
3,800.0	5.33	5.31	3,791.1	196.2	18.2	-197.1	0.00	0.00	0.00
3,900.0	5.33	5.31	3,890.7	205.5	19.1	-206.4	0.00	0.00	0.00
4,000.0	5.33	5.31	3,990.2	214.7	20.0	-215.7	0.00	0.00	0.00
4,100.0	5.33	5.31	4,089.8	224.0	20.8	-224.9	0.00	0.00	0.00
4,200.0	5.33	5.31	4,189.4	233.2	21.7	-234.2	0.00	0.00	0.00
4,300.0	5.33	5.31	4,288.9	242.5	22.5	-243.5	0.00	0.00	0.00
4,334.9	5.33	5.31	4,323.6	245.7	22.8	-246.8	0.00	0.00	0.00
<b>Terry/Sussex</b>									
4,400.0	5.33	5.31	4,388.5	251.7	23.4	-252.8	0.00	0.00	0.00

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## Planning Report

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
<b>Site:</b>	Dutch Lake 024-22H	<b>North Reference:</b>	True
<b>Well:</b>	Dutch Lake 024-22H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dutch Lake 024-22H		
<b>Design:</b>	Design #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)
4,500.0	5.33	5.31	4,488.1	261.0	24.3	-262.1	0.00	0.00	0.00
4,600.0	5.33	5.31	4,587.6	270.2	25.1	-271.4	0.00	0.00	0.00
4,657.9	5.33	5.31	4,645.3	275.6	25.6	-276.8	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
4,700.0	4.70	5.31	4,687.2	279.2	26.0	-280.4	1.50	-1.50	0.00
4,773.7	3.59	5.31	4,760.7	284.5	26.5	-285.8	1.50	-1.50	0.00
<b>Shannon</b>									
4,800.0	3.20	5.31	4,787.0	286.1	26.6	-287.3	1.50	-1.50	0.00
4,900.0	1.70	5.31	4,886.9	290.3	27.0	-291.6	1.50	-1.50	0.00
5,000.0	0.20	5.31	4,986.9	292.0	27.1	-293.2	1.50	-1.50	0.00
5,013.1	0.00	0.00	5,000.0	292.0	27.1	-293.3	1.50	-1.50	0.00
<b>Start 910.0 hold at 5013.1 MD</b>									
5,100.0	0.00	0.00	5,086.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,200.0	0.00	0.00	5,186.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,300.0	0.00	0.00	5,286.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,400.0	0.00	0.00	5,386.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,500.0	0.00	0.00	5,486.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,600.0	0.00	0.00	5,586.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,700.0	0.00	0.00	5,686.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,800.0	0.00	0.00	5,786.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,900.0	0.00	0.00	5,886.9	292.0	27.1	-293.3	0.00	0.00	0.00
5,923.1	0.00	0.00	5,910.0	292.0	27.1	-293.3	0.00	0.00	0.00
<b>Start Build 10.00</b>									
6,000.0	7.69	185.31	5,986.6	286.9	26.7	-288.1	10.00	10.00	0.00
6,100.0	17.69	185.31	6,084.1	265.0	24.6	-266.2	10.00	10.00	0.00
6,200.0	27.69	185.31	6,176.2	226.7	21.1	-227.7	10.00	10.00	0.00
6,300.0	37.69	185.31	6,260.3	173.0	16.1	-173.7	10.00	10.00	0.00
6,370.6	44.74	185.31	6,313.3	126.7	11.8	-127.2	10.00	10.00	0.00
<b>Sharon Springs</b>									
6,400.0	47.69	185.31	6,333.7	105.6	9.8	-106.0	10.00	10.00	0.00
6,445.9	52.27	185.31	6,363.2	70.6	6.6	-70.9	10.00	10.00	0.00
<b>Niobrara</b>									
6,500.0	57.69	185.31	6,394.2	26.5	2.5	-26.6	10.00	10.00	0.00
6,600.0	67.69	185.31	6,440.1	-61.9	-5.7	62.2	10.00	10.00	0.00
6,670.2	74.70	185.31	6,462.7	-128.0	-11.9	128.6	10.00	10.00	0.00
<b>Top "B2" Target</b>									
6,700.0	77.69	185.31	6,469.8	-156.8	-14.6	157.5	10.00	10.00	0.00
6,800.0	87.69	185.31	6,482.5	-255.5	-23.7	256.6	10.00	10.00	0.00
6,824.7	90.16	185.31	6,483.0	-280.1	-26.0	281.3	10.00	10.00	0.00
<b>7" Csg</b>									
6,900.0	90.16	185.31	6,482.7	-355.0	-33.0	356.6	0.00	0.00	0.00
7,000.0	90.16	185.31	6,482.5	-454.6	-42.2	456.6	0.00	0.00	0.00
7,100.0	90.16	185.31	6,482.2	-554.2	-51.5	556.6	0.00	0.00	0.00
7,200.0	90.16	185.31	6,481.9	-653.7	-60.8	656.6	0.00	0.00	0.00
7,300.0	90.16	185.31	6,481.6	-753.3	-70.0	756.6	0.00	0.00	0.00
7,400.0	90.16	185.31	6,481.4	-852.9	-79.3	856.6	0.00	0.00	0.00
7,500.0	90.16	185.31	6,481.1	-952.5	-88.5	956.6	0.00	0.00	0.00
7,600.0	90.16	185.31	6,480.8	-1,052.0	-97.8	1,056.6	0.00	0.00	0.00
7,700.0	90.16	185.31	6,480.5	-1,151.6	-107.0	1,156.6	0.00	0.00	0.00
7,800.0	90.16	185.31	6,480.2	-1,251.2	-116.3	1,256.6	0.00	0.00	0.00
7,900.0	90.16	185.31	6,480.0	-1,350.7	-125.5	1,356.6	0.00	0.00	0.00
8,000.0	90.16	185.31	6,479.7	-1,450.3	-134.8	1,456.6	0.00	0.00	0.00
8,100.0	90.16	185.31	6,479.4	-1,549.9	-144.0	1,556.6	0.00	0.00	0.00

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## Planning Report

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
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<b>Site:</b>	Dutch Lake 024-22H	<b>North Reference:</b>	True
<b>Well:</b>	Dutch Lake 024-22H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dutch Lake 024-22H		
<b>Design:</b>	Design #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)	
8,200.0	90.16	185.31	6,479.1	-1,649.5	-153.3	1,656.6	0.00	0.00	0.00	
8,300.0	90.16	185.31	6,478.8	-1,749.0	-162.5	1,756.6	0.00	0.00	0.00	
8,400.0	90.16	185.31	6,478.6	-1,848.6	-171.8	1,856.6	0.00	0.00	0.00	
8,500.0	90.16	185.31	6,478.3	-1,948.2	-181.1	1,956.6	0.00	0.00	0.00	
8,600.0	90.16	185.31	6,478.0	-2,047.7	-190.3	2,056.6	0.00	0.00	0.00	
8,700.0	90.16	185.31	6,477.7	-2,147.3	-199.6	2,156.6	0.00	0.00	0.00	
8,800.0	90.16	185.31	6,477.4	-2,246.9	-208.8	2,256.6	0.00	0.00	0.00	
8,900.0	90.16	185.31	6,477.2	-2,346.4	-218.1	2,356.6	0.00	0.00	0.00	
9,000.0	90.16	185.31	6,476.9	-2,446.0	-227.3	2,456.6	0.00	0.00	0.00	
9,100.0	90.16	185.31	6,476.6	-2,545.6	-236.6	2,556.6	0.00	0.00	0.00	
9,200.0	90.16	185.31	6,476.3	-2,645.2	-245.8	2,656.6	0.00	0.00	0.00	
9,300.0	90.16	185.31	6,476.0	-2,744.7	-255.1	2,756.6	0.00	0.00	0.00	
9,400.0	90.16	185.31	6,475.8	-2,844.3	-264.3	2,856.6	0.00	0.00	0.00	
9,500.0	90.16	185.31	6,475.5	-2,943.9	-273.6	2,956.6	0.00	0.00	0.00	
9,600.0	90.16	185.31	6,475.2	-3,043.4	-282.9	3,056.6	0.00	0.00	0.00	
9,700.0	90.16	185.31	6,474.9	-3,143.0	-292.1	3,156.6	0.00	0.00	0.00	
9,800.0	90.16	185.31	6,474.6	-3,242.6	-301.4	3,256.6	0.00	0.00	0.00	
9,900.0	90.16	185.31	6,474.4	-3,342.1	-310.6	3,356.6	0.00	0.00	0.00	
10,000.0	90.16	185.31	6,474.1	-3,441.7	-319.9	3,456.6	0.00	0.00	0.00	
10,100.0	90.16	185.31	6,473.8	-3,541.3	-329.1	3,556.6	0.00	0.00	0.00	
10,200.0	90.16	185.31	6,473.5	-3,640.9	-338.4	3,656.6	0.00	0.00	0.00	
10,300.0	90.16	185.31	6,473.3	-3,740.4	-347.6	3,756.6	0.00	0.00	0.00	
10,400.0	90.16	185.31	6,473.0	-3,840.0	-356.9	3,856.6	0.00	0.00	0.00	
10,500.0	90.16	185.31	6,472.7	-3,939.6	-366.1	3,956.6	0.00	0.00	0.00	
10,600.0	90.16	185.31	6,472.4	-4,039.1	-375.4	4,056.6	0.00	0.00	0.00	
10,700.0	90.16	185.31	6,472.1	-4,138.7	-384.7	4,156.5	0.00	0.00	0.00	
10,800.0	90.16	185.31	6,471.9	-4,238.3	-393.9	4,256.5	0.00	0.00	0.00	
10,900.0	90.16	185.31	6,471.6	-4,337.9	-403.2	4,356.5	0.00	0.00	0.00	
10,926.9	90.16	185.31	6,471.5	-4,364.6	-405.7	4,383.4	0.00	0.00	0.00	
TD at 10926.9										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,824.7	6,483.0	7"	7	7	

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Dutch Lake 024-22H
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4812.0ft (Original Well Elev)
<b>Site:</b>	Dutch Lake 024-22H	<b>North Reference:</b>	True
<b>Well:</b>	Dutch Lake 024-22H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dutch Lake 024-22H		
<b>Design:</b>	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	0.0	Fox Hills		0.15		
690.0	690.0	Pierre (Fox Hills Base)		0.15		
3,614.6	3,606.0	Parkman		0.15		
4,334.9	4,323.0	Terry/Sussex		0.15		
4,773.7	4,760.0	Shannon		0.15		
6,370.6	6,313.0	Sharon Springs		0.15		
6,445.9	6,363.0	Niobrara		0.15		
6,670.2	6,463.0	Top "B2" Target		0.15		
	6,488.0	Base "B2" Target		0.15		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,500.0	1,500.0	0.0	0.0	Start Build 1.50	
1,855.2	1,854.7	16.4	1.5	Start 2802.7 hold at 1855.2 MD	
4,657.9	4,645.3	275.6	25.6	Start Drop -1.50	
5,013.1	5,000.0	292.0	27.1	Start 910.0 hold at 5013.1 MD	
5,923.1	5,910.0	292.0	27.1	Start Build 10.00	
6,824.7	6,483.0	-280.1	-26.0	7" Csg	
10,926.9	6,471.5	-4,364.6	-405.7	TD at 10926.9	