

BILL BARRETT CORP

Weld Cty, CO

Circle B 6-66-9 Pad

Circle B 6-66-9-0362BH

Wellbore #1

Plan: Design #1

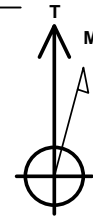
Standard Planning Report

17 October, 2013

BILL BARRETT CORP
Circle B 6-66-9-0362BH
Weld Cty, CO

Geodetic System: US State Plane 1983
Zone: Colorado Northern Zone
KB @ 4837.0usft (Original Well Elev)
Ground Level: 4814.0
Latitude: 40° 30' 33.408 N
Longitude: 104° 47' 4.452 W

Magnetic North is 8.61° East of True North (Magnetic Declination)



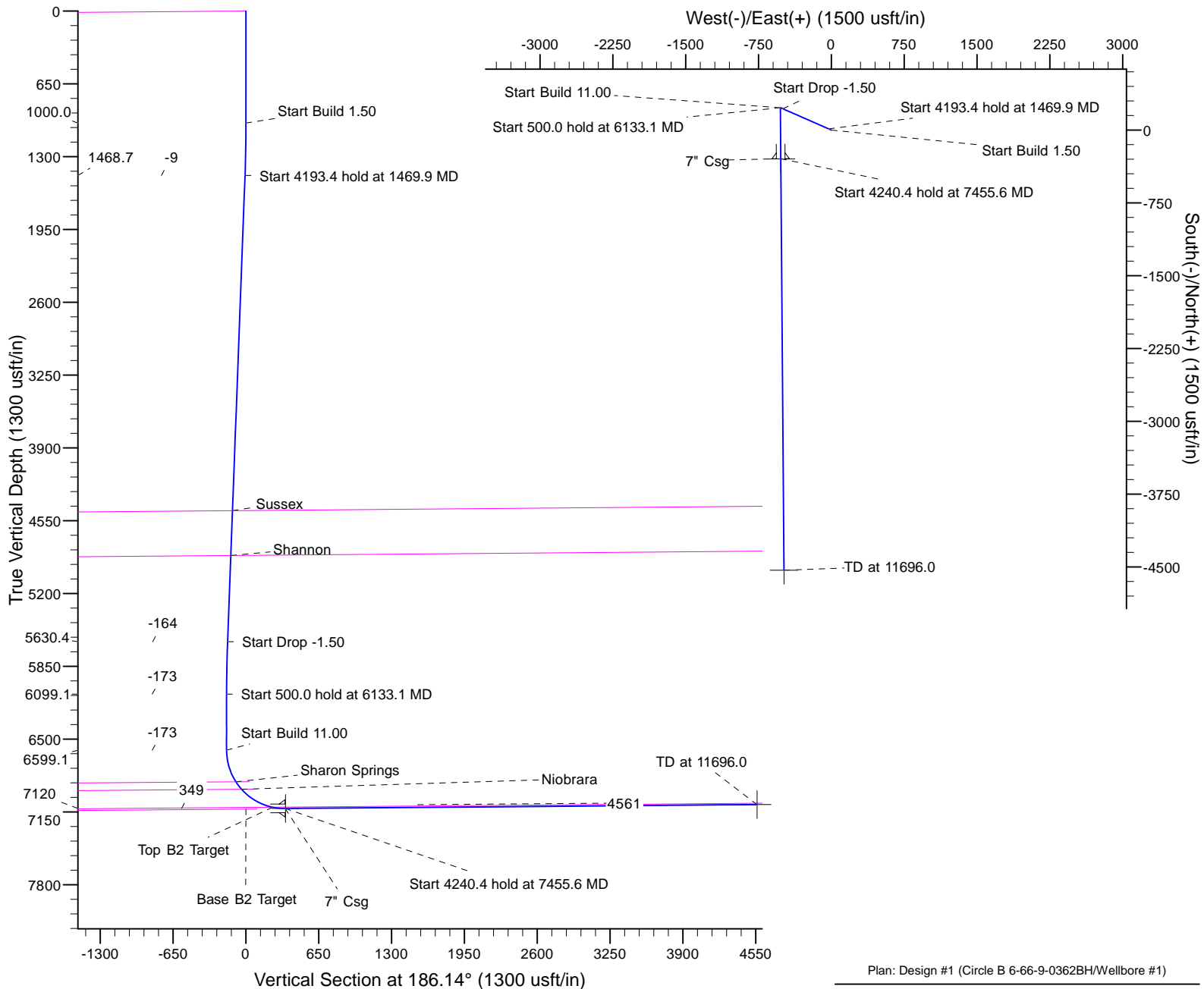
Azimuths to True North
Magnetic North: 8.62°

Magnetic Field
Strength: 52975.0snT
Dip Angle: 67.07°
Date: 6/17/2013
Model: IGRF2010

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
1469.9	7.05	293.71	1468.7	11.6	-26.4	1.50	293.71	-8.7
5663.2	7.05	293.71	5630.4	218.5	-497.6	0.00	0.00	-164.0
6133.1	0.00	0.00	6099.1	230.1	-524.0	1.50	180.00	-172.7
6633.1	0.00	0.00	6599.1	230.1	-524.0	0.00	0.00	-172.7
7455.6	90.47	179.56	7119.9	-295.0	-520.0	11.00	179.56	349.0
11696.0	90.47	179.56	7085.0	-4535.2	-487.8	0.00	0.00	4561.4

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4461.3	4485.3	Sussex
4861.5	4888.5	Shannon
6881.2	6931.3	Sharon Springs
6947.8	7015.2	Niobrara
7108.5	7342.0	Top B2 Target



Plan: Design #1 (Circle B 6-66-9-0362BH/Wellbore #1)

Created By: Mike Kirby Date: 15:19, October 17 2013
Checked: Date:
Reviewed: Date:
Approved: x Date: x

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well Circle B 6-66-9-0362BH
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4837.0usft (Original Well Elev)
Project:	Weld Cty, CO	MD Reference:	KB @ 4837.0usft (Original Well Elev)
Site:	Circle B 6-66-9 Pad	North Reference:	True
Well:	Circle B 6-66-9-0362BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Weld Cty, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Circle B 6-66-9 Pad			
Site Position:		Northing:	1,429,173.75 usft	Latitude:	40° 30' 33.408 N
From:	Lat/Long	Easting:	3,198,931.31 usft	Longitude:	104° 47' 4.452 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.46 °

Well	Circle B 6-66-9-0362BH					
Well Position	+N/-S	3.6 usft	Northing:	1,429,177.05 usft	Latitude:	40° 30' 33.444 N
	+E/-W	-41.7 usft	Easting:	3,198,889.58 usft	Longitude:	104° 47' 4.992 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	4,814.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/17/2013	8.61	67.07	52,975

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	186.14

Plan Sections										
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	
1,469.9	7.05	293.71	1,468.7	11.6	-26.4	1.50	1.50	0.00	293.71	
5,663.2	7.05	293.71	5,630.4	218.5	-497.6	0.00	0.00	0.00	0.00	
6,133.1	0.00	0.00	6,099.1	230.1	-524.0	1.50	-1.50	0.00	180.00	
6,633.1	0.00	0.00	6,599.1	230.1	-524.0	0.00	0.00	0.00	0.00	
7,455.6	90.47	179.56	7,119.9	-295.0	-520.0	11.00	11.00	0.00	179.56	CB 0362BH LP (copy)
11,696.0	90.47	179.56	7,085.0	-4,535.2	-487.8	0.00	0.00	0.00	0.00	

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well Circle B 6-66-9-0362BH
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4837.0usft (Original Well Elev)
Project:	Weld Cty, CO	MD Reference:	KB @ 4837.0usft (Original Well Elev)
Site:	Circle B 6-66-9 Pad	North Reference:	True
Well:	Circle B 6-66-9-0362BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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
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
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	1.50	293.71	1,100.0	0.5	-1.2	-0.4	1.50	1.50	0.00
1,200.0	3.00	293.71	1,199.9	2.1	-4.8	-1.6	1.50	1.50	0.00
1,300.0	4.50	293.71	1,299.7	4.7	-10.8	-3.6	1.50	1.50	0.00
1,400.0	6.00	293.71	1,399.3	8.4	-19.2	-6.3	1.50	1.50	0.00
1,469.9	7.05	293.71	1,468.7	11.6	-26.4	-8.7	1.50	1.50	0.00
1,500.0	7.05	293.71	1,498.6	13.1	-29.8	-9.8	0.00	0.00	0.00
1,600.0	7.05	293.71	1,597.8	18.0	-41.0	-13.5	0.00	0.00	0.00
1,700.0	7.05	293.71	1,697.1	23.0	-52.3	-17.2	0.00	0.00	0.00
1,800.0	7.05	293.71	1,796.3	27.9	-63.5	-20.9	0.00	0.00	0.00
1,900.0	7.05	293.71	1,895.6	32.8	-74.8	-24.6	0.00	0.00	0.00
2,000.0	7.05	293.71	1,994.8	37.8	-86.0	-28.3	0.00	0.00	0.00
2,100.0	7.05	293.71	2,094.1	42.7	-97.2	-32.1	0.00	0.00	0.00
2,200.0	7.05	293.71	2,193.3	47.6	-108.5	-35.8	0.00	0.00	0.00
2,300.0	7.05	293.71	2,292.5	52.6	-119.7	-39.5	0.00	0.00	0.00
2,400.0	7.05	293.71	2,391.8	57.5	-130.9	-43.2	0.00	0.00	0.00
2,500.0	7.05	293.71	2,491.0	62.4	-142.2	-46.9	0.00	0.00	0.00
2,600.0	7.05	293.71	2,590.3	67.4	-153.4	-50.6	0.00	0.00	0.00
2,700.0	7.05	293.71	2,689.5	72.3	-164.6	-54.3	0.00	0.00	0.00
2,800.0	7.05	293.71	2,788.8	77.2	-175.9	-58.0	0.00	0.00	0.00
2,900.0	7.05	293.71	2,888.0	82.2	-187.1	-61.7	0.00	0.00	0.00
3,000.0	7.05	293.71	2,987.3	87.1	-198.3	-65.4	0.00	0.00	0.00
3,100.0	7.05	293.71	3,086.5	92.0	-209.6	-69.1	0.00	0.00	0.00
3,200.0	7.05	293.71	3,185.7	97.0	-220.8	-72.8	0.00	0.00	0.00
3,300.0	7.05	293.71	3,285.0	101.9	-232.0	-76.5	0.00	0.00	0.00
3,400.0	7.05	293.71	3,384.2	106.8	-243.3	-80.2	0.00	0.00	0.00
3,500.0	7.05	293.71	3,483.5	111.8	-254.5	-83.9	0.00	0.00	0.00
3,600.0	7.05	293.71	3,582.7	116.7	-265.8	-87.6	0.00	0.00	0.00
3,700.0	7.05	293.71	3,682.0	121.6	-277.0	-91.3	0.00	0.00	0.00
3,800.0	7.05	293.71	3,781.2	126.6	-288.2	-95.0	0.00	0.00	0.00
3,900.0	7.05	293.71	3,880.5	131.5	-299.5	-98.7	0.00	0.00	0.00
4,000.0	7.05	293.71	3,979.7	136.4	-310.7	-102.4	0.00	0.00	0.00
4,100.0	7.05	293.71	4,078.9	141.4	-321.9	-106.1	0.00	0.00	0.00
4,200.0	7.05	293.71	4,178.2	146.3	-333.2	-109.8	0.00	0.00	0.00
4,300.0	7.05	293.71	4,277.4	151.2	-344.4	-113.5	0.00	0.00	0.00
4,400.0	7.05	293.71	4,376.7	156.2	-355.6	-117.2	0.00	0.00	0.00
4,485.3	7.05	293.71	4,461.3	160.4	-365.2	-120.4	0.00	0.00	0.00
Sussex									
4,500.0	7.05	293.71	4,475.9	161.1	-366.9	-120.9	0.00	0.00	0.00
4,600.0	7.05	293.71	4,575.2	166.0	-378.1	-124.6	0.00	0.00	0.00
4,700.0	7.05	293.71	4,674.4	171.0	-389.3	-128.4	0.00	0.00	0.00
4,800.0	7.05	293.71	4,773.6	175.9	-400.6	-132.1	0.00	0.00	0.00
4,888.5	7.05	293.71	4,861.5	180.3	-410.5	-135.3	0.00	0.00	0.00
Shannon									

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Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4837.0usft (Original Well Elev)
Project:	Weld Cty, CO	MD Reference:	KB @ 4837.0usft (Original Well Elev)
Site:	Circle B 6-66-9 Pad	North Reference:	True
Well:	Circle B 6-66-9-0362BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)
4,900.0	7.05	293.71	4,872.9	180.8	-411.8	-135.8	0.00	0.00	0.00
5,000.0	7.05	293.71	4,972.1	185.8	-423.1	-139.5	0.00	0.00	0.00
5,100.0	7.05	293.71	5,071.4	190.7	-434.3	-143.2	0.00	0.00	0.00
5,200.0	7.05	293.71	5,170.6	195.6	-445.5	-146.9	0.00	0.00	0.00
5,300.0	7.05	293.71	5,269.9	200.6	-456.8	-150.6	0.00	0.00	0.00
5,400.0	7.05	293.71	5,369.1	205.5	-468.0	-154.3	0.00	0.00	0.00
5,500.0	7.05	293.71	5,468.4	210.4	-479.2	-158.0	0.00	0.00	0.00
5,600.0	7.05	293.71	5,567.6	215.4	-490.5	-161.7	0.00	0.00	0.00
5,663.2	7.05	293.71	5,630.4	218.5	-497.6	-164.0	0.00	0.00	0.00
5,700.0	6.50	293.71	5,666.9	220.2	-501.5	-165.3	1.50	-1.50	0.00
5,800.0	5.00	293.71	5,766.4	224.3	-510.7	-168.4	1.50	-1.50	0.00
5,900.0	3.50	293.71	5,866.1	227.2	-517.5	-170.6	1.50	-1.50	0.00
6,000.0	2.00	293.71	5,966.0	229.2	-521.9	-172.0	1.50	-1.50	0.00
6,100.0	0.50	293.71	6,065.9	230.0	-523.9	-172.7	1.50	-1.50	0.00
6,133.1	0.00	0.00	6,099.1	230.1	-524.0	-172.7	1.50	-1.50	0.00
6,200.0	0.00	0.00	6,165.9	230.1	-524.0	-172.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,265.9	230.1	-524.0	-172.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,365.9	230.1	-524.0	-172.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,465.9	230.1	-524.0	-172.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,565.9	230.1	-524.0	-172.7	0.00	0.00	0.00
6,633.1	0.00	0.00	6,599.1	230.1	-524.0	-172.7	0.00	0.00	0.00
6,700.0	7.35	179.56	6,665.8	225.8	-524.0	-168.5	11.00	11.00	0.00
6,800.0	18.35	179.56	6,763.1	203.6	-523.8	-146.4	11.00	11.00	0.00
6,900.0	29.35	179.56	6,854.4	163.2	-523.5	-106.3	11.00	11.00	0.00
6,931.3	32.80	179.56	6,881.2	147.1	-523.4	-90.3	11.00	11.00	0.00
Sharon Springs									
7,000.0	40.35	179.56	6,936.4	106.2	-523.1	-49.6	11.00	11.00	0.00
7,015.2	42.03	179.56	6,947.8	96.1	-523.0	-39.7	11.00	11.00	0.00
Niobrara									
7,100.0	51.35	179.56	7,005.9	34.5	-522.5	21.6	11.00	11.00	0.00
7,200.0	62.35	179.56	7,060.5	-49.1	-521.9	104.6	11.00	11.00	0.00
7,300.0	73.35	179.56	7,098.1	-141.6	-521.2	196.5	11.00	11.00	0.00
7,342.0	77.97	179.56	7,108.5	-182.2	-520.9	236.9	11.00	11.00	0.00
Top B2 Target									
7,400.0	84.35	179.56	7,117.4	-239.5	-520.4	293.8	11.00	11.00	0.00
7,455.6	90.47	179.56	7,119.9	-295.0	-520.0	348.9	11.00	11.00	0.00
7" Csg									
7,500.0	90.47	179.56	7,119.6	-339.4	-519.7	393.1	0.00	0.00	0.00
7,600.0	90.47	179.56	7,118.8	-439.4	-518.9	492.4	0.00	0.00	0.00
7,700.0	90.47	179.56	7,117.9	-539.4	-518.2	591.7	0.00	0.00	0.00
7,800.0	90.47	179.56	7,117.1	-639.4	-517.4	691.1	0.00	0.00	0.00
7,900.0	90.47	179.56	7,116.3	-739.4	-516.6	790.4	0.00	0.00	0.00
8,000.0	90.47	179.56	7,115.5	-839.4	-515.9	889.7	0.00	0.00	0.00
8,100.0	90.47	179.56	7,114.6	-939.4	-515.1	989.1	0.00	0.00	0.00
8,200.0	90.47	179.56	7,113.8	-1,039.4	-514.4	1,088.4	0.00	0.00	0.00
8,300.0	90.47	179.56	7,113.0	-1,139.4	-513.6	1,187.8	0.00	0.00	0.00
8,400.0	90.47	179.56	7,112.2	-1,239.4	-512.8	1,287.1	0.00	0.00	0.00
8,500.0	90.47	179.56	7,111.3	-1,339.4	-512.1	1,386.4	0.00	0.00	0.00
8,600.0	90.47	179.56	7,110.5	-1,439.4	-511.3	1,485.8	0.00	0.00	0.00
8,700.0	90.47	179.56	7,109.7	-1,539.4	-510.6	1,585.1	0.00	0.00	0.00
8,800.0	90.47	179.56	7,108.9	-1,639.3	-509.8	1,684.5	0.00	0.00	0.00
8,900.0	90.47	179.56	7,108.0	-1,739.3	-509.0	1,783.8	0.00	0.00	0.00
9,000.0	90.47	179.56	7,107.2	-1,839.3	-508.3	1,883.1	0.00	0.00	0.00

Planning Report

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Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4837.0usft (Original Well Elev)
Project:	Weld Cty, CO	MD Reference:	KB @ 4837.0usft (Original Well Elev)
Site:	Circle B 6-66-9 Pad	North Reference:	True
Well:	Circle B 6-66-9-0362BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)	
9,100.0	90.47	179.56	7,106.4	-1,939.3	-507.5	1,982.5	0.00	0.00	0.00	
9,200.0	90.47	179.56	7,105.6	-2,039.3	-506.8	2,081.8	0.00	0.00	0.00	
9,300.0	90.47	179.56	7,104.7	-2,139.3	-506.0	2,181.2	0.00	0.00	0.00	
9,400.0	90.47	179.56	7,103.9	-2,239.3	-505.2	2,280.5	0.00	0.00	0.00	
9,500.0	90.47	179.56	7,103.1	-2,339.3	-504.5	2,379.8	0.00	0.00	0.00	
9,600.0	90.47	179.56	7,102.3	-2,439.3	-503.7	2,479.2	0.00	0.00	0.00	
9,700.0	90.47	179.56	7,101.5	-2,539.3	-503.0	2,578.5	0.00	0.00	0.00	
9,800.0	90.47	179.56	7,100.6	-2,639.3	-502.2	2,677.9	0.00	0.00	0.00	
9,900.0	90.47	179.56	7,099.8	-2,739.3	-501.4	2,777.2	0.00	0.00	0.00	
10,000.0	90.47	179.56	7,099.0	-2,839.3	-500.7	2,876.5	0.00	0.00	0.00	
10,100.0	90.47	179.56	7,098.2	-2,939.3	-499.9	2,975.9	0.00	0.00	0.00	
10,200.0	90.47	179.56	7,097.3	-3,039.3	-499.2	3,075.2	0.00	0.00	0.00	
10,300.0	90.47	179.56	7,096.5	-3,139.2	-498.4	3,174.5	0.00	0.00	0.00	
10,400.0	90.47	179.56	7,095.7	-3,239.2	-497.6	3,273.9	0.00	0.00	0.00	
10,500.0	90.47	179.56	7,094.9	-3,339.2	-496.9	3,373.2	0.00	0.00	0.00	
10,600.0	90.47	179.56	7,094.0	-3,439.2	-496.1	3,472.6	0.00	0.00	0.00	
10,700.0	90.47	179.56	7,093.2	-3,539.2	-495.4	3,571.9	0.00	0.00	0.00	
10,800.0	90.47	179.56	7,092.4	-3,639.2	-494.6	3,671.2	0.00	0.00	0.00	
10,900.0	90.47	179.56	7,091.6	-3,739.2	-493.8	3,770.6	0.00	0.00	0.00	
11,000.0	90.47	179.56	7,090.7	-3,839.2	-493.1	3,869.9	0.00	0.00	0.00	
11,100.0	90.47	179.56	7,089.9	-3,939.2	-492.3	3,969.3	0.00	0.00	0.00	
11,200.0	90.47	179.56	7,089.1	-4,039.2	-491.6	4,068.6	0.00	0.00	0.00	
11,300.0	90.47	179.56	7,088.3	-4,139.2	-490.8	4,167.9	0.00	0.00	0.00	
11,400.0	90.47	179.56	7,087.4	-4,239.2	-490.0	4,267.3	0.00	0.00	0.00	
11,500.0	90.47	179.56	7,086.6	-4,339.2	-489.3	4,366.6	0.00	0.00	0.00	
11,600.0	90.47	179.56	7,085.8	-4,439.2	-488.5	4,466.0	0.00	0.00	0.00	
11,696.0	90.47	179.56	7,085.0	-4,535.2	-487.8	4,561.4	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
CB 0362BH PBHL (copy - hit/miss target - Shape - Point	0.00	358.35	7,085.0	-4,535.2	-487.8	1,424,638.06	3,198,438.37	40° 29' 48.628 N		104° 47' 11.306 W
CB 0362BH LP (copy) (c - plan misses target center by 0.1usft at 7459.3usft MD (7119.9 TVD, -298.7 N, -520.0 E) - Point	0.00	358.35	7,120.0	-298.7	-520.0	1,428,874.15	3,198,372.02	40° 30' 30.492 N		104° 47' 11.724 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
7,455.6	7,119.9	7" Csg		7	8-3/4

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well Circle B 6-66-9-0362BH
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4837.0usft (Original Well Elev)
Project:	Weld Cty, CO	MD Reference:	KB @ 4837.0usft (Original Well Elev)
Site:	Circle B 6-66-9 Pad	North Reference:	True
Well:	Circle B 6-66-9-0362BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,485.3	4,461.3	Sussex		-0.47	179.51	
4,888.5	4,861.5	Shannon		-0.47	179.51	
6,931.3	6,881.2	Sharon Springs		-0.47	179.51	
7,015.2	6,947.8	Niobrara		-0.47	179.51	
7,342.0	7,108.5	Top B2 Target		-0.47	179.51	