

BILL BARRETT CORP

WELD COUNTY, COLORADO

Ruh 6-62-11_14 NWNE Pad

Ruh 6-62-11-0659BH2

Wellbore #1

Plan: Design #1

Standard Planning Report

26 March, 2014



Bill Barrett Corporation

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

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Ruh 6-62-11-0659BH2, True North
Vertical (TVD) Reference: KB @ 4770.0ft (Original Well Elev)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: KB @ 4770.0ft (Original Well Elev)
Calculation Method: Minimum Curvature

WELL DETAILS: Ruh 6-62-11-0659BH2

+N/-S +E/-W Northing Easting Latitude Longitude
0.0 0.0 1430278.15 3337468.9240° 30' 29.430 N 104° 17' 10.799 W

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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1189.1	3.78	40.33	1189.0	4.8	4.0	2.00	40.33	-4.7	
4	5497.1	3.78	40.33	5487.5	221.4	188.0	0.00	0.00	-219.2	
5	5686.2	0.00	180.45	5676.5	226.2	192.0	2.00	180.00	-223.9	
6	5936.2	0.00	180.45	5926.5	226.2	192.0	0.00	180.45	-223.9	
7	6688.9	90.32	180.45	6404.0	-253.9	188.3	12.00	180.45	256.1	R 11-0659BH2 LP
8	16062.1	90.32	180.45	6352.0	-9626.8	115.2	0.00	0.00	9627.5	R 11-0659BH2 PBHL

PROJECT DETAILS: WELD COUNTY, COLORADO

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

FORMATION TOP DETAILS

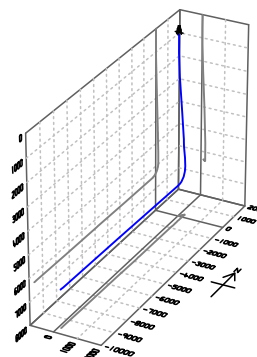
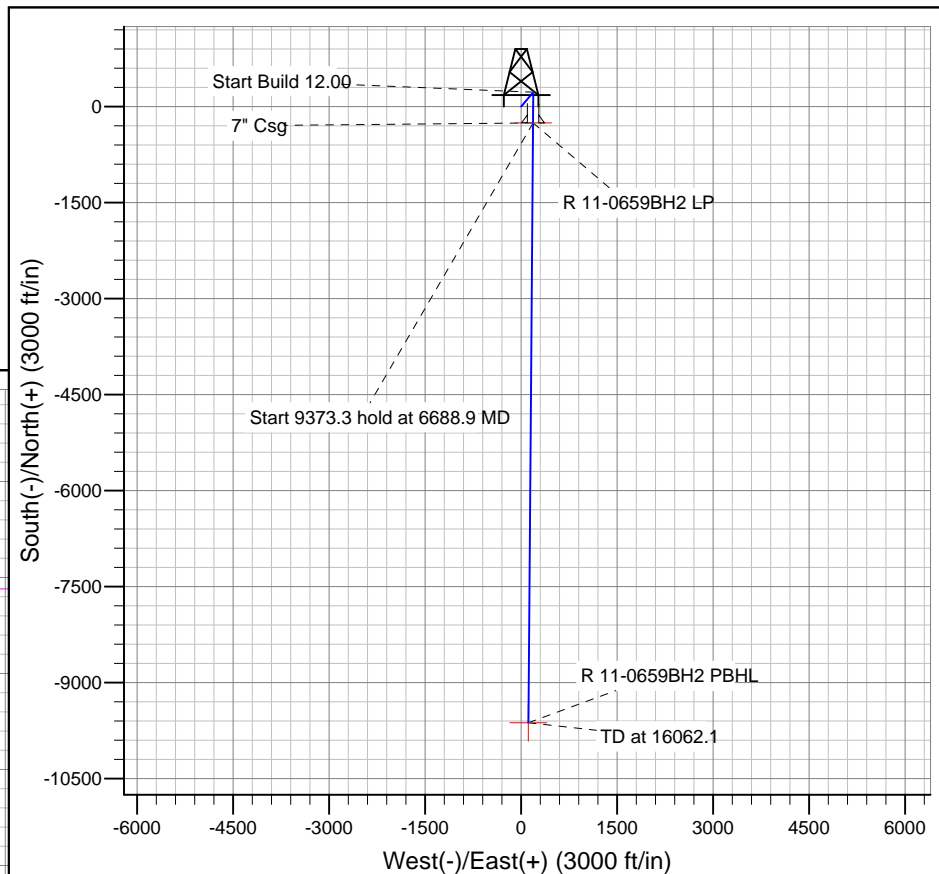
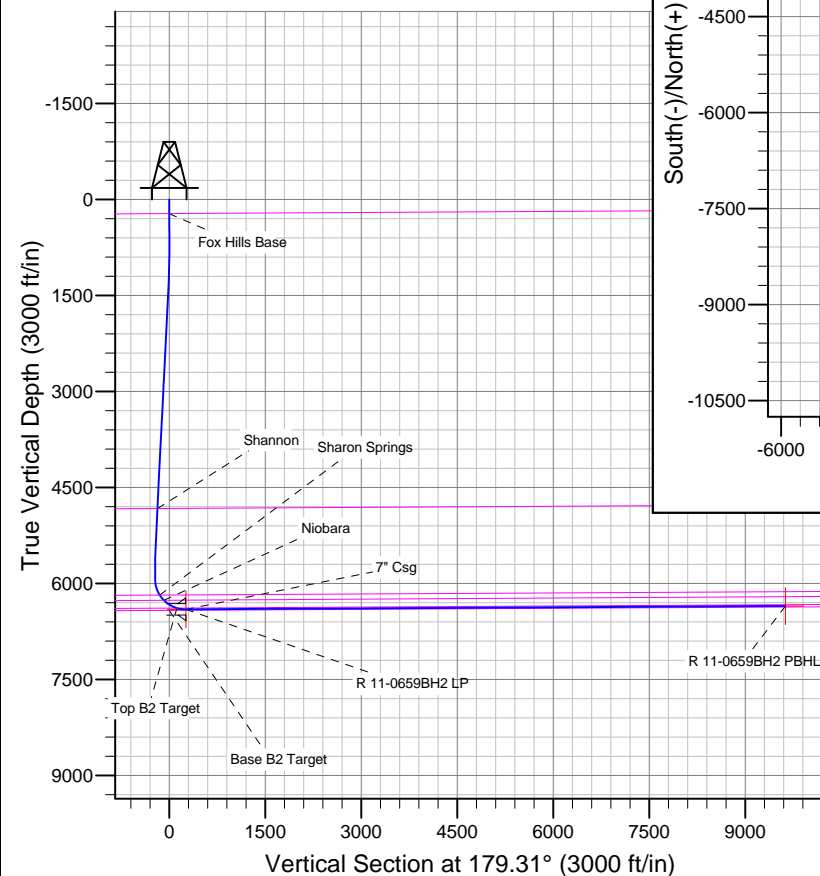
TVDPath	MDPath	Formation
220.0	220.0	Base B2 Target
4828.1	4836.1	Fox Hills Base
6182.9	6206.8	Shannon
6262.5	6308.9	Sharon Springs
6384.4	6548.8	Niobara
		Top B2 Target

CASING DETAILS

TVD	MD	Name	Size
6404.0	6688.9	7" Csg	7

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
R 11-0659BH2 PBHL	6352.0	-9626.8	115.2	Point
R 11-0659BH2 LP	6404.0	-253.9	188.3	Point



Azimuths to True North
Magnetic North: 8.24°

Magnetic Field
Strength: 52944.9snT
Dip Angle: 67.12°
Date: 3/26/2014
Model: IGRF2010

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Ruh 6-62-11-0659BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4770.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4770.0ft (Original Well Elev)
Site:	Ruh 6-62-11_14 NWNE Pad	North Reference:	True
Well:	Ruh 6-62-11-0659BH2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	WELD COUNTY, COLORADO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Ruh 6-62-11_14 NWNE Pad			
Site Position:		Northing:	1,430,278.63ft	Latitude:	40° 30' 29.441 N
From:	Lat/Long	Easting:	3,337,424.14ft	Longitude:	104° 17' 11.378 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.78 °

Well	Ruh 6-62-11-0659BH2					
Well Position	+N-S	-1.1 ft	Northing:	1,430,278.15 ft	Latitude:	40° 30' 29.430 N
	+E-W	44.8 ft	Easting:	3,337,468.92 ft	Longitude:	104° 17' 10.799 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,747.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/26/2014	8.24	67.12	52,945

Design	Design #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	179.31	

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
0.0	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	
1,189.1	3.78	40.33	1,189.0	4.8	4.0	2.00	2.00	0.00	40.33	
5,497.1	3.78	40.33	5,487.5	221.4	188.0	0.00	0.00	0.00	0.00	
5,686.2	0.00	180.45	5,676.5	226.2	192.0	2.00	-2.00	0.00	180.00	
5,936.2	0.00	180.45	5,926.5	226.2	192.0	0.00	0.00	0.00	180.45	
6,688.9	90.32	180.45	6,404.0	-253.9	188.3	12.00	12.00	0.00	180.45	R 11-0659BH2 LP
16,062.1	90.32	180.45	6,352.0	-9,626.8	115.2	0.00	0.00	0.00	0.00	R 11-0659BH2 PB

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Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Ruh 6-62-11-0659BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4770.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4770.0ft (Original Well Elev)
Site:	Ruh 6-62-11_14 NWNE Pad	North Reference:	True
Well:	Ruh 6-62-11-0659BH2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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
220.0	0.00	0.00	220.0	0.0	0.0	0.0	0.00	0.00	0.00
Fox Hills Base									
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	2.00	40.33	1,100.0	1.3	1.1	-1.3	2.00	2.00	0.00
1,189.1	3.78	40.33	1,189.0	4.8	4.0	-4.7	2.00	2.00	0.00
1,200.0	3.78	40.33	1,199.8	5.3	4.5	-5.3	0.00	0.00	0.00
1,300.0	3.78	40.33	1,299.6	10.3	8.8	-10.2	0.00	0.00	0.00
1,400.0	3.78	40.33	1,399.4	15.4	13.0	-15.2	0.00	0.00	0.00
1,500.0	3.78	40.33	1,499.2	20.4	17.3	-20.2	0.00	0.00	0.00
1,600.0	3.78	40.33	1,599.0	25.4	21.6	-25.2	0.00	0.00	0.00
1,700.0	3.78	40.33	1,698.7	30.5	25.8	-30.1	0.00	0.00	0.00
1,800.0	3.78	40.33	1,798.5	35.5	30.1	-35.1	0.00	0.00	0.00
1,900.0	3.78	40.33	1,898.3	40.5	34.4	-40.1	0.00	0.00	0.00
2,000.0	3.78	40.33	1,998.1	45.5	38.7	-45.1	0.00	0.00	0.00
2,100.0	3.78	40.33	2,097.9	50.6	42.9	-50.1	0.00	0.00	0.00
2,200.0	3.78	40.33	2,197.7	55.6	47.2	-55.0	0.00	0.00	0.00
2,300.0	3.78	40.33	2,297.4	60.6	51.5	-60.0	0.00	0.00	0.00
2,400.0	3.78	40.33	2,397.2	65.7	55.7	-65.0	0.00	0.00	0.00
2,500.0	3.78	40.33	2,497.0	70.7	60.0	-70.0	0.00	0.00	0.00
2,600.0	3.78	40.33	2,596.8	75.7	64.3	-74.9	0.00	0.00	0.00
2,700.0	3.78	40.33	2,696.6	80.7	68.5	-79.9	0.00	0.00	0.00
2,800.0	3.78	40.33	2,796.4	85.8	72.8	-84.9	0.00	0.00	0.00
2,900.0	3.78	40.33	2,896.1	90.8	77.1	-89.9	0.00	0.00	0.00
3,000.0	3.78	40.33	2,995.9	95.8	81.4	-94.9	0.00	0.00	0.00
3,100.0	3.78	40.33	3,095.7	100.9	85.6	-99.8	0.00	0.00	0.00
3,200.0	3.78	40.33	3,195.5	105.9	89.9	-104.8	0.00	0.00	0.00
3,300.0	3.78	40.33	3,295.3	110.9	94.2	-109.8	0.00	0.00	0.00
3,400.0	3.78	40.33	3,395.0	116.0	98.4	-114.8	0.00	0.00	0.00
3,500.0	3.78	40.33	3,494.8	121.0	102.7	-119.7	0.00	0.00	0.00
3,600.0	3.78	40.33	3,594.6	126.0	107.0	-124.7	0.00	0.00	0.00
3,700.0	3.78	40.33	3,694.4	131.0	111.2	-129.7	0.00	0.00	0.00
3,800.0	3.78	40.33	3,794.2	136.1	115.5	-134.7	0.00	0.00	0.00
3,900.0	3.78	40.33	3,894.0	141.1	119.8	-139.7	0.00	0.00	0.00
4,000.0	3.78	40.33	3,993.7	146.1	124.0	-144.6	0.00	0.00	0.00
4,100.0	3.78	40.33	4,093.5	151.2	128.3	-149.6	0.00	0.00	0.00
4,200.0	3.78	40.33	4,193.3	156.2	132.6	-154.6	0.00	0.00	0.00
4,300.0	3.78	40.33	4,293.1	161.2	136.9	-159.6	0.00	0.00	0.00
4,400.0	3.78	40.33	4,392.9	166.3	141.1	-164.6	0.00	0.00	0.00
4,500.0	3.78	40.33	4,492.6	171.3	145.4	-169.5	0.00	0.00	0.00
4,600.0	3.78	40.33	4,592.4	176.3	149.7	-174.5	0.00	0.00	0.00
4,700.0	3.78	40.33	4,692.2	181.3	153.9	-179.5	0.00	0.00	0.00
4,800.0	3.78	40.33	4,792.0	186.4	158.2	-184.5	0.00	0.00	0.00
4,836.1	3.78	40.33	4,828.1	188.2	159.7	-186.3	0.00	0.00	0.00
Shannon									

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Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Ruh 6-62-11-0659BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4770.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4770.0ft (Original Well Elev)
Site:	Ruh 6-62-11_14 NWNE Pad	North Reference:	True
Well:	Ruh 6-62-11-0659BH2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)
4,900.0	3.78	40.33	4,891.8	191.4	162.5	-189.4	0.00	0.00	0.00
5,000.0	3.78	40.33	4,991.6	196.4	166.7	-194.4	0.00	0.00	0.00
5,100.0	3.78	40.33	5,091.3	201.5	171.0	-199.4	0.00	0.00	0.00
5,200.0	3.78	40.33	5,191.1	206.5	175.3	-204.4	0.00	0.00	0.00
5,300.0	3.78	40.33	5,290.9	211.5	179.5	-209.4	0.00	0.00	0.00
5,400.0	3.78	40.33	5,390.7	216.5	183.8	-214.3	0.00	0.00	0.00
5,497.1	3.78	40.33	5,487.5	221.4	188.0	-219.2	0.00	0.00	0.00
5,500.0	3.72	40.33	5,490.5	221.6	188.1	-219.3	2.00	-2.00	0.00
5,600.0	1.72	40.33	5,590.4	225.2	191.2	-222.9	2.00	-2.00	0.00
5,686.2	0.00	180.45	5,676.5	226.2	192.0	-223.9	2.00	-2.00	0.00
5,700.0	0.00	180.45	5,690.3	226.2	192.0	-223.9	0.00	0.00	0.00
5,800.0	0.00	180.45	5,790.3	226.2	192.0	-223.9	0.00	0.00	0.00
5,900.0	0.00	180.45	5,890.3	226.2	192.0	-223.9	0.00	0.00	0.00
5,936.2	0.00	180.45	5,926.5	226.2	192.0	-223.9	0.00	0.00	0.00
6,000.0	7.66	180.45	5,990.2	221.9	192.0	-219.6	12.00	12.00	0.00
6,100.0	19.66	180.45	6,087.1	198.4	191.8	-196.1	12.00	12.00	0.00
6,200.0	31.66	180.45	6,177.1	155.2	191.4	-152.8	12.00	12.00	0.00
6,206.8	32.47	180.45	6,182.9	151.6	191.4	-149.3	12.00	12.00	0.00
Sharon Springs									
6,300.0	43.66	180.45	6,256.1	94.2	191.0	-91.9	12.00	12.00	0.00
6,308.9	44.72	180.45	6,262.5	88.0	190.9	-85.7	12.00	12.00	0.00
Niobara									
6,400.0	55.66	180.45	6,320.8	18.1	190.4	-15.8	12.00	12.00	0.00
6,500.0	67.66	180.45	6,368.2	-69.8	189.7	72.0	12.00	12.00	0.00
6,548.8	73.51	180.45	6,384.4	-115.7	189.3	118.0	12.00	12.00	0.00
Top B2 Target									
6,600.0	79.66	180.45	6,396.2	-165.5	188.9	167.8	12.00	12.00	0.00
6,688.9	90.31	180.45	6,404.0	-253.9	188.3	256.1	11.99	11.99	0.00
7" Csg - R 11-0659BH2 LP									
6,700.0	90.32	180.45	6,403.9	-265.1	188.2	267.3	0.05	0.05	0.00
6,800.0	90.32	180.45	6,403.4	-365.1	187.4	367.3	0.00	0.00	0.00
6,900.0	90.32	180.45	6,402.8	-465.1	186.6	467.3	0.00	0.00	0.00
7,000.0	90.32	180.45	6,402.3	-565.0	185.8	567.2	0.00	0.00	0.00
7,100.0	90.32	180.45	6,401.7	-665.0	185.0	667.2	0.00	0.00	0.00
7,200.0	90.32	180.45	6,401.2	-765.0	184.3	767.2	0.00	0.00	0.00
7,300.0	90.32	180.45	6,400.6	-865.0	183.5	867.2	0.00	0.00	0.00
7,400.0	90.32	180.45	6,400.1	-965.0	182.7	967.1	0.00	0.00	0.00
7,500.0	90.32	180.45	6,399.5	-1,065.0	181.9	1,067.1	0.00	0.00	0.00
7,600.0	90.32	180.45	6,398.9	-1,165.0	181.1	1,167.1	0.00	0.00	0.00
7,700.0	90.32	180.45	6,398.4	-1,265.0	180.4	1,267.1	0.00	0.00	0.00
7,800.0	90.32	180.45	6,397.8	-1,365.0	179.6	1,367.1	0.00	0.00	0.00
7,900.0	90.32	180.45	6,397.3	-1,465.0	178.8	1,467.0	0.00	0.00	0.00
8,000.0	90.32	180.45	6,396.7	-1,565.0	178.0	1,567.0	0.00	0.00	0.00
8,100.0	90.32	180.45	6,396.2	-1,665.0	177.2	1,667.0	0.00	0.00	0.00
8,200.0	90.32	180.45	6,395.6	-1,765.0	176.5	1,767.0	0.00	0.00	0.00
8,300.0	90.32	180.45	6,395.1	-1,865.0	175.7	1,867.0	0.00	0.00	0.00
8,400.0	90.32	180.45	6,394.5	-1,965.0	174.9	1,966.9	0.00	0.00	0.00
8,500.0	90.32	180.45	6,394.0	-2,065.0	174.1	2,066.9	0.00	0.00	0.00
8,600.0	90.32	180.45	6,393.4	-2,165.0	173.4	2,166.9	0.00	0.00	0.00
8,700.0	90.32	180.45	6,392.8	-2,265.0	172.6	2,266.9	0.00	0.00	0.00
8,800.0	90.32	180.45	6,392.3	-2,365.0	171.8	2,366.9	0.00	0.00	0.00
8,900.0	90.32	180.45	6,391.7	-2,465.0	171.0	2,466.8	0.00	0.00	0.00
9,000.0	90.32	180.45	6,391.2	-2,565.0	170.2	2,566.8	0.00	0.00	0.00

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Database:	Compass	Local Co-ordinate Reference:	Well Ruh 6-62-11-0659BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4770.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4770.0ft (Original Well Elev)
Site:	Ruh 6-62-11_14 NWNE Pad	North Reference:	True
Well:	Ruh 6-62-11-0659BH2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)
9,100.0	90.32	180.45	6,390.6	-2,665.0	169.5	2,666.8	0.00	0.00	0.00
9,200.0	90.32	180.45	6,390.1	-2,764.9	168.7	2,766.8	0.00	0.00	0.00
9,300.0	90.32	180.45	6,389.5	-2,864.9	167.9	2,866.7	0.00	0.00	0.00
9,400.0	90.32	180.45	6,389.0	-2,964.9	167.1	2,966.7	0.00	0.00	0.00
9,500.0	90.32	180.45	6,388.4	-3,064.9	166.3	3,066.7	0.00	0.00	0.00
9,600.0	90.32	180.45	6,387.8	-3,164.9	165.6	3,166.7	0.00	0.00	0.00
9,700.0	90.32	180.45	6,387.3	-3,264.9	164.8	3,266.7	0.00	0.00	0.00
9,800.0	90.32	180.45	6,386.7	-3,364.9	164.0	3,366.6	0.00	0.00	0.00
9,900.0	90.32	180.45	6,386.2	-3,464.9	163.2	3,466.6	0.00	0.00	0.00
10,000.0	90.32	180.45	6,385.6	-3,564.9	162.4	3,566.6	0.00	0.00	0.00
10,100.0	90.32	180.45	6,385.1	-3,664.9	161.7	3,666.6	0.00	0.00	0.00
10,200.0	90.32	180.45	6,384.5	-3,764.9	160.9	3,766.6	0.00	0.00	0.00
10,300.0	90.32	180.45	6,384.0	-3,864.9	160.1	3,866.5	0.00	0.00	0.00
10,400.0	90.32	180.45	6,383.4	-3,964.9	159.3	3,966.5	0.00	0.00	0.00
10,500.0	90.32	180.45	6,382.9	-4,064.9	158.5	4,066.5	0.00	0.00	0.00
10,600.0	90.32	180.45	6,382.3	-4,164.9	157.8	4,166.5	0.00	0.00	0.00
10,700.0	90.32	180.45	6,381.7	-4,264.9	157.0	4,266.5	0.00	0.00	0.00
10,800.0	90.32	180.45	6,381.2	-4,364.9	156.2	4,366.4	0.00	0.00	0.00
10,900.0	90.32	180.45	6,380.6	-4,464.9	155.4	4,466.4	0.00	0.00	0.00
11,000.0	90.32	180.45	6,380.1	-4,564.9	154.6	4,566.4	0.00	0.00	0.00
11,100.0	90.32	180.45	6,379.5	-4,664.9	153.9	4,666.4	0.00	0.00	0.00
11,200.0	90.32	180.45	6,379.0	-4,764.9	153.1	4,766.3	0.00	0.00	0.00
11,300.0	90.32	180.45	6,378.4	-4,864.9	152.3	4,866.3	0.00	0.00	0.00
11,400.0	90.32	180.45	6,377.9	-4,964.8	151.5	4,966.3	0.00	0.00	0.00
11,500.0	90.32	180.45	6,377.3	-5,064.8	150.7	5,066.3	0.00	0.00	0.00
11,600.0	90.32	180.45	6,376.8	-5,164.8	150.0	5,166.3	0.00	0.00	0.00
11,700.0	90.32	180.45	6,376.2	-5,264.8	149.2	5,266.2	0.00	0.00	0.00
11,800.0	90.32	180.45	6,375.6	-5,364.8	148.4	5,366.2	0.00	0.00	0.00
11,900.0	90.32	180.45	6,375.1	-5,464.8	147.6	5,466.2	0.00	0.00	0.00
12,000.0	90.32	180.45	6,374.5	-5,564.8	146.8	5,566.2	0.00	0.00	0.00
12,100.0	90.32	180.45	6,374.0	-5,664.8	146.1	5,666.2	0.00	0.00	0.00
12,200.0	90.32	180.45	6,373.4	-5,764.8	145.3	5,766.1	0.00	0.00	0.00
12,300.0	90.32	180.45	6,372.9	-5,864.8	144.5	5,866.1	0.00	0.00	0.00
12,400.0	90.32	180.45	6,372.3	-5,964.8	143.7	5,966.1	0.00	0.00	0.00
12,500.0	90.32	180.45	6,371.8	-6,064.8	142.9	6,066.1	0.00	0.00	0.00
12,600.0	90.32	180.45	6,371.2	-6,164.8	142.2	6,166.1	0.00	0.00	0.00
12,700.0	90.32	180.45	6,370.7	-6,264.8	141.4	6,266.0	0.00	0.00	0.00
12,800.0	90.32	180.45	6,370.1	-6,364.8	140.6	6,366.0	0.00	0.00	0.00
12,900.0	90.32	180.45	6,369.5	-6,464.8	139.8	6,466.0	0.00	0.00	0.00
13,000.0	90.32	180.45	6,369.0	-6,564.8	139.0	6,566.0	0.00	0.00	0.00
13,100.0	90.32	180.45	6,368.4	-6,664.8	138.3	6,665.9	0.00	0.00	0.00
13,200.0	90.32	180.45	6,367.9	-6,764.8	137.5	6,765.9	0.00	0.00	0.00
13,300.0	90.32	180.45	6,367.3	-6,864.8	136.7	6,865.9	0.00	0.00	0.00
13,400.0	90.32	180.45	6,366.8	-6,964.8	135.9	6,965.9	0.00	0.00	0.00
13,500.0	90.32	180.45	6,366.2	-7,064.7	135.1	7,065.9	0.00	0.00	0.00
13,600.0	90.32	180.45	6,365.7	-7,164.7	134.4	7,165.8	0.00	0.00	0.00
13,700.0	90.32	180.45	6,365.1	-7,264.7	133.6	7,265.8	0.00	0.00	0.00
13,800.0	90.32	180.45	6,364.5	-7,364.7	132.8	7,365.8	0.00	0.00	0.00
13,900.0	90.32	180.45	6,364.0	-7,464.7	132.0	7,465.8	0.00	0.00	0.00
14,000.0	90.32	180.45	6,363.4	-7,564.7	131.2	7,565.8	0.00	0.00	0.00
14,100.0	90.32	180.45	6,362.9	-7,664.7	130.5	7,665.7	0.00	0.00	0.00
14,200.0	90.32	180.45	6,362.3	-7,764.7	129.7	7,765.7	0.00	0.00	0.00
14,300.0	90.32	180.45	6,361.8	-7,864.7	128.9	7,865.7	0.00	0.00	0.00
14,400.0	90.32	180.45	6,361.2	-7,964.7	128.1	7,965.7	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

Database: Compass
Company: BILL BARRETT CORP
Project: WELD COUNTY, COLORADO
Site: Ruh 6-62-11_14 NWNE Pad
Well: Ruh 6-62-11-0659BH2
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Ruh 6-62-11-0659BH2
TVD Reference: KB @ 4770.0ft (Original Well Elev)
MD Reference: KB @ 4770.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
14,500.0	90.32	180.45	6,360.7	-8,064.7	127.3	8,065.6	0.00	0.00	0.00
14,600.0	90.32	180.45	6,360.1	-8,164.7	126.6	8,165.6	0.00	0.00	0.00
14,700.0	90.32	180.45	6,359.6	-8,264.7	125.8	8,265.6	0.00	0.00	0.00
14,800.0	90.32	180.45	6,359.0	-8,364.7	125.0	8,365.6	0.00	0.00	0.00
14,900.0	90.32	180.45	6,358.4	-8,464.7	124.2	8,465.6	0.00	0.00	0.00
15,000.0	90.32	180.45	6,357.9	-8,564.7	123.4	8,565.5	0.00	0.00	0.00
15,100.0	90.32	180.45	6,357.3	-8,664.7	122.7	8,665.5	0.00	0.00	0.00
15,200.0	90.32	180.45	6,356.8	-8,764.7	121.9	8,765.5	0.00	0.00	0.00
15,300.0	90.32	180.45	6,356.2	-8,864.7	121.1	8,865.5	0.00	0.00	0.00
15,400.0	90.32	180.45	6,355.7	-8,964.7	120.3	8,965.5	0.00	0.00	0.00
15,500.0	90.32	180.45	6,355.1	-9,064.7	119.5	9,065.4	0.00	0.00	0.00
15,600.0	90.32	180.45	6,354.6	-9,164.7	118.8	9,165.4	0.00	0.00	0.00
15,700.0	90.32	180.45	6,354.0	-9,264.6	118.0	9,265.4	0.00	0.00	0.00
15,800.0	90.32	180.45	6,353.5	-9,364.6	117.2	9,365.4	0.00	0.00	0.00
15,900.0	90.32	180.45	6,352.9	-9,464.6	116.4	9,465.4	0.00	0.00	0.00
16,000.0	90.32	180.45	6,352.3	-9,564.6	115.6	9,565.3	0.00	0.00	0.00
16,062.1	90.32	180.45	6,352.0	-9,626.8	115.2	9,627.5	0.00	0.00	0.00

R 11-0659BH2 PBHL

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,688.9	6,404.0	7" Csg	7	8-3/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
220.0	220.0	Fox Hills Base		-0.32	180.45
4,836.1	4,827.0	Shannon		-0.32	180.45
6,206.8	6,182.0	Sharon Springs		-0.32	180.45
6,308.9	6,262.0	Niobara		-0.32	180.45
6,548.8	6,385.0	Top B2 Target		-0.32	180.45
	6,422.0	Base B2 Target		-0.32	180.45