

# **BILL BARRETT CORP**

**WELD COUNTY, COLORADO  
COFFELT 5-61-35\_36 NWNW PAD  
COFFELT 5-61-35-1609CH2**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**08 September, 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 COFFELT 5-61-35-1609CH2, True North  
Vertical (TVD) Reference: KB @ 4515.0ft (Original Well Elev)  
Section (VS) Reference: Slot - (0.0N, 0.0E)  
Measured Depth Reference: KB @ 4515.0ft (Original Well Elev)  
Calculation Method: Minimum Curvature

**WELL DETAILS: COFFELT 5-61-35-1609CH2**

+N/-S +E/-W Northing Easting Latitude Longitude  
0.0 0.0 1377684.67 3366591.1840° 21' 45.651 N 104° 11' 3.908 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	1514.6	10.29	204.62	1511.8	-41.9	-19.2	2.00	204.62	-16.8	
4	4765.8	10.29	204.62	4710.7	-569.9	-261.2	0.00	0.00	-228.2	
5	5280.4	0.00	89.72	5222.5	-611.8	-280.4	2.00	180.00	-245.0	
6	5530.4	0.00	89.72	5472.5	-611.8	-280.4	0.00	89.72	-245.0	
7	6280.6	90.03	89.72	5950.0	-609.5	197.3	12.00	89.72	231.8	C 35-1609CH2 LP
8	15895.7	90.03	89.72	5945.0	-562.0	9812.3	0.00	0.00	9828.3	C 35-1609CH2 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**

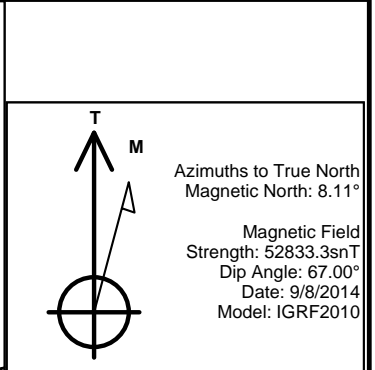
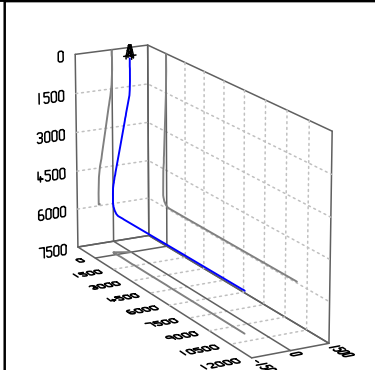
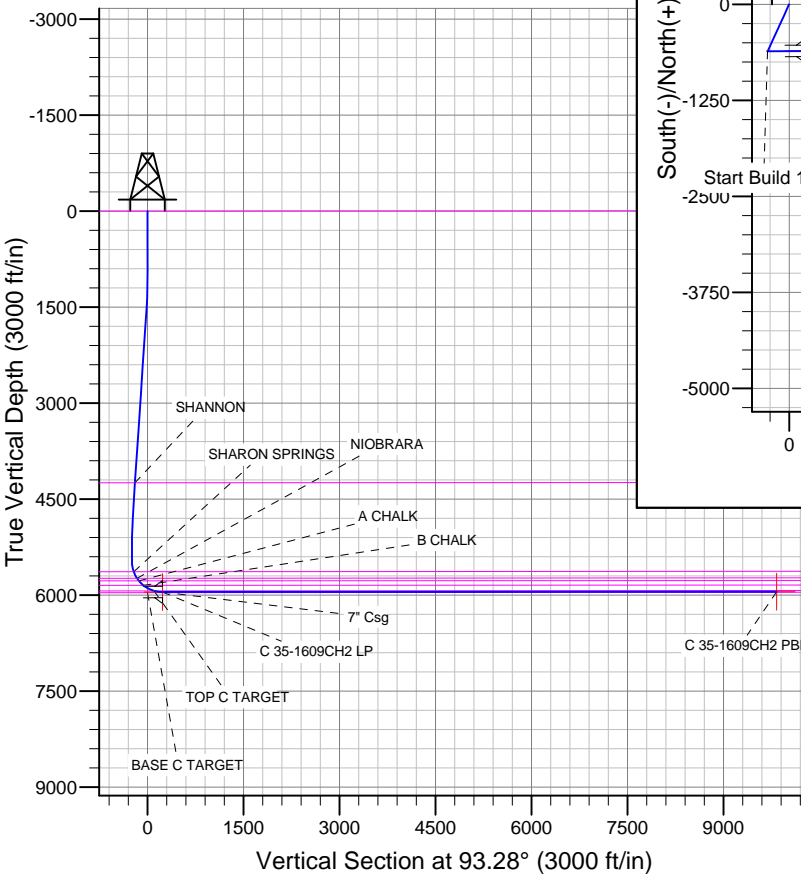
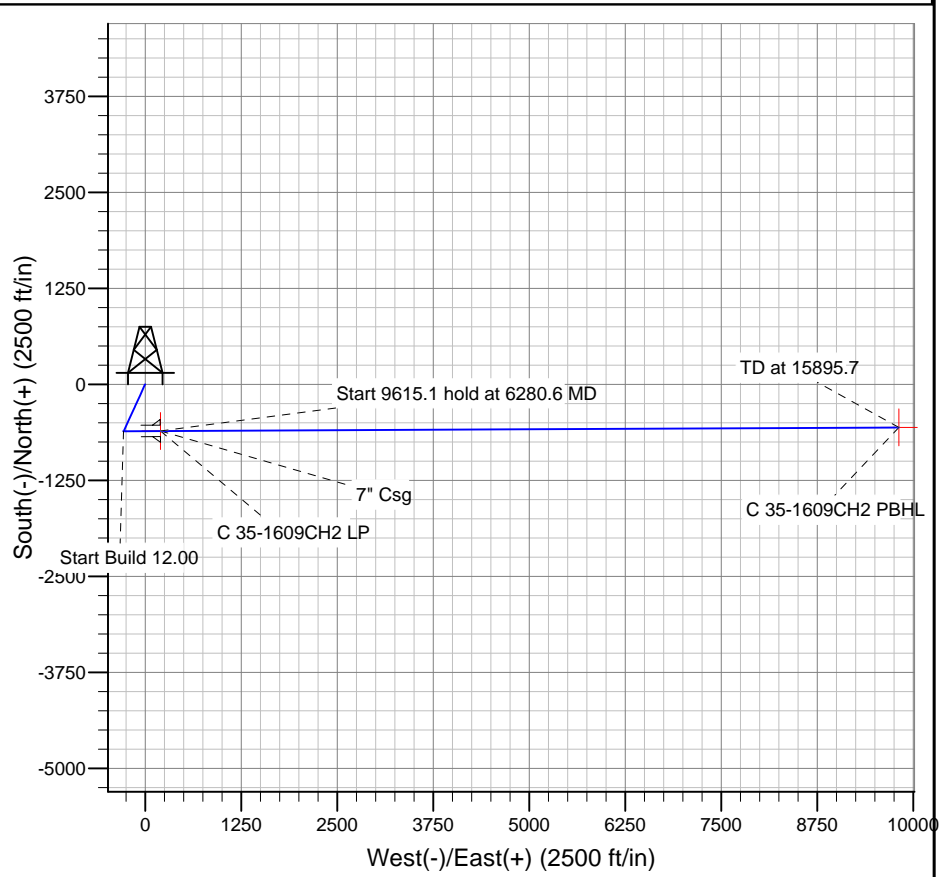
TVDPath	MDPath	Formation
0.0	0.0	BASE C TARGET
4244.0	4291.4	FOX HILLS BASE
5634.0	5695.1	SHANNON
5735.0	5808.3	SHARON SPRINGS
5776.0	5859.2	NIOBRARA
5846.0	5959.2	A CHALK
5932.0	6148.8	B CHALK
		TOP C TARGET

**WELLBORE TARGET DETAILS**

Name	TVD	+N/-S	+E/-W	Shape
C 35-1609CH2 PBHL	5945.0	-562.0	9812.3	Point
C 35-1609CH2 LP	5950.0	-609.5	197.3	Point

**CASING DETAILS**

TVD	MD	Name	Size
5950.0	6280.6	7" Csg	7



**Bill Barrett Corp**  
Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well COFFELT 5-61-35-1609CH2
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Site:</b>	COFFELT 5-61-35_36 NWNW PAD	<b>North Reference:</b>	True
<b>Well:</b>	COFFELT 5-61-35-1609CH2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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		

<b>Site</b>	COFFELT 5-61-35_36 NWNW PAD				
<b>Site Position:</b>		<b>Northing:</b>	1,377,730.21 ft	<b>Latitude:</b>	40° 21' 46.102 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,366,590.51 ft	<b>Longitude:</b>	104° 11' 3.908 W
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b>	0.85 °

<b>Well</b>	COFFELT 5-61-35-1609CH2					
<b>Well Position</b>	<b>+N-S</b>	-45.5 ft	<b>Northing:</b>	1,377,684.67 ft	<b>Latitude:</b>	40° 21' 45.651 N
	<b>+E-W</b>	0.0 ft	<b>Easting:</b>	3,366,591.18 ft	<b>Longitude:</b>	104° 11' 3.908 W
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,499.0 ft

<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	9/8/2014	8.11	67.00	52,833

<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	93.28

<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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,514.6	10.29	204.62	1,511.8	-41.9	-19.2	2.00	2.00	0.00	204.62	
4,765.8	10.29	204.62	4,710.7	-569.9	-261.2	0.00	0.00	0.00	0.00	
5,280.4	0.00	89.72	5,222.5	-611.8	-280.4	2.00	-2.00	0.00	180.00	
5,530.4	0.00	89.72	5,472.5	-611.8	-280.4	0.00	0.00	0.00	89.72	
6,280.6	90.03	89.72	5,950.0	-609.5	197.3	12.00	12.00	0.00	89.72	C 35-1609CH2 LP
15,895.7	90.03	89.72	5,945.0	-562.0	9,812.3	0.00	0.00	0.00	0.00	C 35-1609CH2 PBI

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<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well COFFELT 5-61-35-1609CH2
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Site:</b>	COFFELT 5-61-35_36 NWNW PAD	<b>North Reference:</b>	True
<b>Well:</b>	COFFELT 5-61-35-1609CH2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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	
<b>FOX HILLS BASE</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	
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	204.62	1,100.0	-1.6	-0.7	-0.6	2.00	2.00	0.00	
1,200.0	4.00	204.62	1,199.8	-6.3	-2.9	-2.5	2.00	2.00	0.00	
1,300.0	6.00	204.62	1,299.5	-14.3	-6.5	-5.7	2.00	2.00	0.00	
1,400.0	8.00	204.62	1,398.7	-25.3	-11.6	-10.1	2.00	2.00	0.00	
1,500.0	10.00	204.62	1,497.5	-39.6	-18.1	-15.8	2.00	2.00	0.00	
1,514.6	10.29	204.62	1,511.8	-41.9	-19.2	-16.8	2.00	2.00	0.00	
1,600.0	10.29	204.62	1,595.9	-55.8	-25.6	-22.3	0.00	0.00	0.00	
1,700.0	10.29	204.62	1,694.3	-72.0	-33.0	-28.8	0.00	0.00	0.00	
1,800.0	10.29	204.62	1,792.6	-88.3	-40.4	-35.3	0.00	0.00	0.00	
1,900.0	10.29	204.62	1,891.0	-104.5	-47.9	-41.8	0.00	0.00	0.00	
2,000.0	10.29	204.62	1,989.4	-120.7	-55.3	-48.3	0.00	0.00	0.00	
2,100.0	10.29	204.62	2,087.8	-137.0	-62.8	-54.8	0.00	0.00	0.00	
2,200.0	10.29	204.62	2,186.2	-153.2	-70.2	-61.3	0.00	0.00	0.00	
2,300.0	10.29	204.62	2,284.6	-169.5	-77.7	-67.8	0.00	0.00	0.00	
2,400.0	10.29	204.62	2,383.0	-185.7	-85.1	-74.4	0.00	0.00	0.00	
2,500.0	10.29	204.62	2,481.4	-201.9	-92.6	-80.9	0.00	0.00	0.00	
2,600.0	10.29	204.62	2,579.8	-218.2	-100.0	-87.4	0.00	0.00	0.00	
2,700.0	10.29	204.62	2,678.2	-234.4	-107.4	-93.9	0.00	0.00	0.00	
2,800.0	10.29	204.62	2,776.6	-250.7	-114.9	-100.4	0.00	0.00	0.00	
2,900.0	10.29	204.62	2,874.9	-266.9	-122.3	-106.9	0.00	0.00	0.00	
3,000.0	10.29	204.62	2,973.3	-283.1	-129.8	-113.4	0.00	0.00	0.00	
3,100.0	10.29	204.62	3,071.7	-299.4	-137.2	-119.9	0.00	0.00	0.00	
3,200.0	10.29	204.62	3,170.1	-315.6	-144.7	-126.4	0.00	0.00	0.00	
3,300.0	10.29	204.62	3,268.5	-331.9	-152.1	-132.9	0.00	0.00	0.00	
3,400.0	10.29	204.62	3,366.9	-348.1	-159.5	-139.4	0.00	0.00	0.00	
3,500.0	10.29	204.62	3,465.3	-364.3	-167.0	-145.9	0.00	0.00	0.00	
3,600.0	10.29	204.62	3,563.7	-380.6	-174.4	-152.4	0.00	0.00	0.00	
3,700.0	10.29	204.62	3,662.1	-396.8	-181.9	-158.9	0.00	0.00	0.00	
3,800.0	10.29	204.62	3,760.5	-413.1	-189.3	-165.4	0.00	0.00	0.00	
3,900.0	10.29	204.62	3,858.9	-429.3	-196.8	-171.9	0.00	0.00	0.00	
4,000.0	10.29	204.62	3,957.3	-445.5	-204.2	-178.4	0.00	0.00	0.00	
4,100.0	10.29	204.62	4,055.6	-461.8	-211.6	-184.9	0.00	0.00	0.00	
4,200.0	10.29	204.62	4,154.0	-478.0	-219.1	-191.4	0.00	0.00	0.00	
4,291.4	10.29	204.62	4,244.0	-492.9	-225.9	-197.3	0.00	0.00	0.00	
<b>SHANNON</b>										
4,300.0	10.29	204.62	4,252.4	-494.3	-226.5	-197.9	0.00	0.00	0.00	
4,400.0	10.29	204.62	4,350.8	-510.5	-234.0	-204.4	0.00	0.00	0.00	
4,500.0	10.29	204.62	4,449.2	-526.8	-241.4	-210.9	0.00	0.00	0.00	
4,600.0	10.29	204.62	4,547.6	-543.0	-248.9	-217.4	0.00	0.00	0.00	
4,700.0	10.29	204.62	4,646.0	-559.2	-256.3	-223.9	0.00	0.00	0.00	
4,765.8	10.29	204.62	4,710.7	-569.9	-261.2	-228.2	0.00	0.00	0.00	
4,800.0	9.61	204.62	4,744.4	-575.3	-263.7	-230.3	2.00	-2.00	0.00	

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Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well COFFELT 5-61-35-1609CH2
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Site:</b>	COFFELT 5-61-35_36 NWNW PAD	<b>North Reference:</b>	True
<b>Well:</b>	COFFELT 5-61-35-1609CH2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)	
4,900.0	7.61	204.62	4,843.3	-588.9	-269.9	-235.8	2.00	-2.00	0.00	
5,000.0	5.61	204.62	4,942.6	-599.4	-274.7	-240.0	2.00	-2.00	0.00	
5,100.0	3.61	204.62	5,042.3	-606.7	-278.0	-242.9	2.00	-2.00	0.00	
5,200.0	1.61	204.62	5,142.2	-610.8	-279.9	-244.6	2.00	-2.00	0.00	
5,280.4	0.00	89.72	5,222.5	-611.8	-280.4	-245.0	2.00	-2.00	0.00	
5,300.0	0.00	89.72	5,242.2	-611.8	-280.4	-245.0	0.00	0.00	0.00	
5,400.0	0.00	89.72	5,342.2	-611.8	-280.4	-245.0	0.00	0.00	0.00	
5,500.0	0.00	89.72	5,442.2	-611.8	-280.4	-245.0	0.00	0.00	0.00	
5,530.4	0.00	89.72	5,472.5	-611.8	-280.4	-245.0	0.00	0.00	0.00	
5,600.0	8.36	89.72	5,541.9	-611.8	-275.3	-239.9	12.00	12.00	0.00	
5,695.1	19.77	89.72	5,634.0	-611.7	-252.3	-216.9	12.00	12.00	0.00	
<b>SHARON SPRINGS</b>										
5,700.0	20.36	89.72	5,638.6	-611.7	-250.6	-215.2	12.00	12.00	0.00	
5,800.0	32.36	89.72	5,728.1	-611.4	-206.3	-171.0	12.00	12.00	0.00	
5,808.3	33.35	89.72	5,735.0	-611.4	-201.8	-166.5	12.00	12.00	0.00	
<b>NIOBRARA</b>										
5,859.2	39.46	89.72	5,776.0	-611.3	-171.6	-136.3	12.00	12.00	0.00	
<b>A CHALK</b>										
5,900.0	44.36	89.72	5,806.3	-611.1	-144.3	-109.2	12.00	12.00	0.00	
5,959.2	51.46	89.72	5,846.0	-610.9	-100.4	-65.3	12.00	12.00	0.00	
<b>B CHALK</b>										
6,000.0	56.36	89.72	5,870.0	-610.8	-67.5	-32.4	12.00	12.00	0.00	
6,100.0	68.36	89.72	5,916.3	-610.3	20.9	55.8	12.00	12.00	0.00	
6,148.8	74.22	89.72	5,932.0	-610.1	67.2	102.0	12.00	12.00	0.00	
<b>TOP C TARGET</b>										
6,200.0	80.36	89.72	5,943.3	-609.9	117.1	151.7	12.00	12.00	0.00	
6,280.6	90.03	89.72	5,950.0	-609.5	197.3	231.8	12.00	12.00	0.00	
<b>7" Csg - C 35-1609CH2 LP</b>										
6,300.0	90.03	89.72	5,950.0	-609.4	216.7	251.2	0.01	0.01	0.00	
6,400.0	90.03	89.72	5,949.9	-608.9	316.7	351.0	0.00	0.00	0.00	
6,500.0	90.03	89.72	5,949.9	-608.4	416.7	450.8	0.00	0.00	0.00	
6,600.0	90.03	89.72	5,949.8	-607.9	516.7	550.6	0.00	0.00	0.00	
6,700.0	90.03	89.72	5,949.8	-607.4	616.7	650.4	0.00	0.00	0.00	
6,800.0	90.03	89.72	5,949.7	-606.9	716.7	750.2	0.00	0.00	0.00	
6,900.0	90.03	89.72	5,949.7	-606.4	816.7	850.0	0.00	0.00	0.00	
7,000.0	90.03	89.72	5,949.6	-605.9	916.7	949.8	0.00	0.00	0.00	
7,100.0	90.03	89.72	5,949.6	-605.4	1,016.7	1,049.6	0.00	0.00	0.00	
7,200.0	90.03	89.72	5,949.5	-604.9	1,116.7	1,149.4	0.00	0.00	0.00	
7,300.0	90.03	89.72	5,949.5	-604.4	1,216.7	1,249.2	0.00	0.00	0.00	
7,400.0	90.03	89.72	5,949.4	-603.9	1,316.7	1,349.0	0.00	0.00	0.00	
7,500.0	90.03	89.72	5,949.4	-603.4	1,416.7	1,448.9	0.00	0.00	0.00	
7,600.0	90.03	89.72	5,949.3	-602.9	1,516.7	1,548.7	0.00	0.00	0.00	
7,700.0	90.03	89.72	5,949.3	-602.4	1,616.7	1,648.5	0.00	0.00	0.00	
7,800.0	90.03	89.72	5,949.2	-602.0	1,716.7	1,748.3	0.00	0.00	0.00	
7,900.0	90.03	89.72	5,949.2	-601.5	1,816.7	1,848.1	0.00	0.00	0.00	
8,000.0	90.03	89.72	5,949.1	-601.0	1,916.7	1,947.9	0.00	0.00	0.00	
8,100.0	90.03	89.72	5,949.1	-600.5	2,016.7	2,047.7	0.00	0.00	0.00	
8,200.0	90.03	89.72	5,949.0	-600.0	2,116.7	2,147.5	0.00	0.00	0.00	
8,300.0	90.03	89.72	5,948.9	-599.5	2,216.7	2,247.3	0.00	0.00	0.00	
8,400.0	90.03	89.72	5,948.9	-599.0	2,316.7	2,347.1	0.00	0.00	0.00	
8,500.0	90.03	89.72	5,948.8	-598.5	2,416.7	2,446.9	0.00	0.00	0.00	
8,600.0	90.03	89.72	5,948.8	-598.0	2,516.7	2,546.7	0.00	0.00	0.00	
8,700.0	90.03	89.72	5,948.7	-597.5	2,616.7	2,646.5	0.00	0.00	0.00	

**Bill Barrett Corp**  
Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well COFFELT 5-61-35-1609CH2
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Site:</b>	COFFELT 5-61-35_36 NWNW PAD	<b>North Reference:</b>	True
<b>Well:</b>	COFFELT 5-61-35-1609CH2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)
8,800.0	90.03	89.72	5,948.7	-597.0	2,716.7	2,746.3	0.00	0.00	0.00
8,900.0	90.03	89.72	5,948.6	-596.5	2,816.7	2,846.2	0.00	0.00	0.00
9,000.0	90.03	89.72	5,948.6	-596.0	2,916.7	2,946.0	0.00	0.00	0.00
9,100.0	90.03	89.72	5,948.5	-595.5	3,016.7	3,045.8	0.00	0.00	0.00
9,200.0	90.03	89.72	5,948.5	-595.0	3,116.6	3,145.6	0.00	0.00	0.00
9,300.0	90.03	89.72	5,948.4	-594.5	3,216.6	3,245.4	0.00	0.00	0.00
9,400.0	90.03	89.72	5,948.4	-594.1	3,316.6	3,345.2	0.00	0.00	0.00
9,500.0	90.03	89.72	5,948.3	-593.6	3,416.6	3,445.0	0.00	0.00	0.00
9,600.0	90.03	89.72	5,948.3	-593.1	3,516.6	3,544.8	0.00	0.00	0.00
9,700.0	90.03	89.72	5,948.2	-592.6	3,616.6	3,644.6	0.00	0.00	0.00
9,800.0	90.03	89.72	5,948.2	-592.1	3,716.6	3,744.4	0.00	0.00	0.00
9,900.0	90.03	89.72	5,948.1	-591.6	3,816.6	3,844.2	0.00	0.00	0.00
10,000.0	90.03	89.72	5,948.1	-591.1	3,916.6	3,944.0	0.00	0.00	0.00
10,100.0	90.03	89.72	5,948.0	-590.6	4,016.6	4,043.8	0.00	0.00	0.00
10,200.0	90.03	89.72	5,948.0	-590.1	4,116.6	4,143.6	0.00	0.00	0.00
10,300.0	90.03	89.72	5,947.9	-589.6	4,216.6	4,243.5	0.00	0.00	0.00
10,400.0	90.03	89.72	5,947.9	-589.1	4,316.6	4,343.3	0.00	0.00	0.00
10,500.0	90.03	89.72	5,947.8	-588.6	4,416.6	4,443.1	0.00	0.00	0.00
10,600.0	90.03	89.72	5,947.8	-588.1	4,516.6	4,542.9	0.00	0.00	0.00
10,700.0	90.03	89.72	5,947.7	-587.6	4,616.6	4,642.7	0.00	0.00	0.00
10,800.0	90.03	89.72	5,947.6	-587.1	4,716.6	4,742.5	0.00	0.00	0.00
10,900.0	90.03	89.72	5,947.6	-586.6	4,816.6	4,842.3	0.00	0.00	0.00
11,000.0	90.03	89.72	5,947.5	-586.1	4,916.6	4,942.1	0.00	0.00	0.00
11,100.0	90.03	89.72	5,947.5	-585.7	5,016.6	5,041.9	0.00	0.00	0.00
11,200.0	90.03	89.72	5,947.4	-585.2	5,116.6	5,141.7	0.00	0.00	0.00
11,300.0	90.03	89.72	5,947.4	-584.7	5,216.6	5,241.5	0.00	0.00	0.00
11,400.0	90.03	89.72	5,947.3	-584.2	5,316.6	5,341.3	0.00	0.00	0.00
11,500.0	90.03	89.72	5,947.3	-583.7	5,416.6	5,441.1	0.00	0.00	0.00
11,600.0	90.03	89.72	5,947.2	-583.2	5,516.6	5,540.9	0.00	0.00	0.00
11,700.0	90.03	89.72	5,947.2	-582.7	5,616.6	5,640.7	0.00	0.00	0.00
11,800.0	90.03	89.72	5,947.1	-582.2	5,716.6	5,740.6	0.00	0.00	0.00
11,900.0	90.03	89.72	5,947.1	-581.7	5,816.6	5,840.4	0.00	0.00	0.00
12,000.0	90.03	89.72	5,947.0	-581.2	5,916.6	5,940.2	0.00	0.00	0.00
12,100.0	90.03	89.72	5,947.0	-580.7	6,016.6	6,040.0	0.00	0.00	0.00
12,200.0	90.03	89.72	5,946.9	-580.2	6,116.6	6,139.8	0.00	0.00	0.00
12,300.0	90.03	89.72	5,946.9	-579.7	6,216.6	6,239.6	0.00	0.00	0.00
12,400.0	90.03	89.72	5,946.8	-579.2	6,316.6	6,339.4	0.00	0.00	0.00
12,500.0	90.03	89.72	5,946.8	-578.7	6,416.6	6,439.2	0.00	0.00	0.00
12,600.0	90.03	89.72	5,946.7	-578.2	6,516.6	6,539.0	0.00	0.00	0.00
12,700.0	90.03	89.72	5,946.7	-577.8	6,616.6	6,638.8	0.00	0.00	0.00
12,800.0	90.03	89.72	5,946.6	-577.3	6,716.6	6,738.6	0.00	0.00	0.00
12,900.0	90.03	89.72	5,946.6	-576.8	6,816.6	6,838.4	0.00	0.00	0.00
13,000.0	90.03	89.72	5,946.5	-576.3	6,916.6	6,938.2	0.00	0.00	0.00
13,100.0	90.03	89.72	5,946.5	-575.8	7,016.6	7,038.0	0.00	0.00	0.00
13,200.0	90.03	89.72	5,946.4	-575.3	7,116.6	7,137.9	0.00	0.00	0.00
13,300.0	90.03	89.72	5,946.3	-574.8	7,216.6	7,237.7	0.00	0.00	0.00
13,400.0	90.03	89.72	5,946.3	-574.3	7,316.6	7,337.5	0.00	0.00	0.00
13,500.0	90.03	89.72	5,946.2	-573.8	7,416.6	7,437.3	0.00	0.00	0.00
13,600.0	90.03	89.72	5,946.2	-573.3	7,516.6	7,537.1	0.00	0.00	0.00
13,700.0	90.03	89.72	5,946.1	-572.8	7,616.6	7,636.9	0.00	0.00	0.00
13,800.0	90.03	89.72	5,946.1	-572.3	7,716.6	7,736.7	0.00	0.00	0.00
13,900.0	90.03	89.72	5,946.0	-571.8	7,816.6	7,836.5	0.00	0.00	0.00
14,000.0	90.03	89.72	5,946.0	-571.3	7,916.6	7,936.3	0.00	0.00	0.00
14,100.0	90.03	89.72	5,945.9	-570.8	8,016.6	8,036.1	0.00	0.00	0.00

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well COFFELT 5-61-35-1609CH2
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4515.0ft (Original Well Elev)
<b>Site:</b>	COFFELT 5-61-35_36 NWNW PAD	<b>North Reference:</b>	True
<b>Well:</b>	COFFELT 5-61-35-1609CH2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)
14,200.0	90.03	89.72	5,945.9	-570.3	8,116.6	8,135.9	0.00	0.00	0.00
14,300.0	90.03	89.72	5,945.8	-569.9	8,216.6	8,235.7	0.00	0.00	0.00
14,400.0	90.03	89.72	5,945.8	-569.4	8,316.6	8,335.5	0.00	0.00	0.00
14,500.0	90.03	89.72	5,945.7	-568.9	8,416.6	8,435.3	0.00	0.00	0.00
14,600.0	90.03	89.72	5,945.7	-568.4	8,516.6	8,535.1	0.00	0.00	0.00
14,700.0	90.03	89.72	5,945.6	-567.9	8,616.6	8,635.0	0.00	0.00	0.00
14,800.0	90.03	89.72	5,945.6	-567.4	8,716.6	8,734.8	0.00	0.00	0.00
14,900.0	90.03	89.72	5,945.5	-566.9	8,816.6	8,834.6	0.00	0.00	0.00
15,000.0	90.03	89.72	5,945.5	-566.4	8,916.6	8,934.4	0.00	0.00	0.00
15,100.0	90.03	89.72	5,945.4	-565.9	9,016.6	9,034.2	0.00	0.00	0.00
15,200.0	90.03	89.72	5,945.4	-565.4	9,116.6	9,134.0	0.00	0.00	0.00
15,300.0	90.03	89.72	5,945.3	-564.9	9,216.6	9,233.8	0.00	0.00	0.00
15,400.0	90.03	89.72	5,945.3	-564.4	9,316.6	9,333.6	0.00	0.00	0.00
15,500.0	90.03	89.72	5,945.2	-563.9	9,416.6	9,433.4	0.00	0.00	0.00
15,600.0	90.03	89.72	5,945.2	-563.4	9,516.6	9,533.2	0.00	0.00	0.00
15,700.0	90.03	89.72	5,945.1	-562.9	9,616.6	9,633.0	0.00	0.00	0.00
15,800.0	90.03	89.72	5,945.0	-562.4	9,716.6	9,732.8	0.00	0.00	0.00
15,895.7	90.03	89.72	5,945.0	-562.0	9,812.3	9,828.3	0.00	0.00	0.00
<b>C 35-1609CH2 PBHL</b>									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,280.6	5,950.0	7" Csg	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.0	0.0	FOX HILLS BASE		-0.03	89.72
4,291.4	4,244.0	SHANNON		-0.03	89.72
5,695.1	5,634.0	SHARON SPRINGS		-0.03	89.72
5,808.3	5,735.0	NIOBRARA		-0.03	89.72
5,859.2	5,776.0	A CHALK		-0.03	89.72
5,959.2	5,846.0	B CHALK		-0.03	89.72
6,148.8	5,932.0	TOP C TARGET		-0.03	89.72
	5,960.0	BASE C TARGET		-0.03	89.72