



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.11-T6N-R62W

RUH 6-62-11-0461BH2

Wellbore #1

Plan: Design #1

Standard Planning Report

01 April, 2014

Archer



Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.11-T6N-R62W
Well: RUH 6-62-11-0461BH2
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 30' 29.721 N
Long: 104° 17' 29.558 W
Pad GL: 4777.00
KB: WELL @ 4800.00usft (Original Well Elev)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
1486.43	8.80	70.29	1484.13	15.15	42.30	1.50	70.29	-15.14	Start 3429.62 hold at 1486.43 MD
4916.05	8.80	70.29	4873.41	192.03	536.04	0.00	0.00	-191.93	Start Drop -1.50
5502.48	0.00	0.00	5457.54	207.18	578.34	1.50	180.00	-207.08	Start 500.00 hold at 5502.48 MD
6002.48	0.00	0.00	5957.54	207.18	578.34	0.00	0.00	-207.08	Start Build 12.00
6753.80	90.16	179.99	6435.00	-271.61	578.43	12.00	179.99	271.71	Start 9400.71 hold at 6753.80 MD
16154.51	90.16	179.99	6409.00	-9672.28	580.27	0.00	0.00	9672.38	TD at 16154.51

WELL DETAILS: RUH 6-62-11-0461BH2

+N/-S	+E/-W	Northing	Ground Level: Easting	4777.00 Latitude	Longitude	Slot
0.00	0.00	1430287.862	3336019.654	40° 30' 29.721 N	104° 17' 29.558 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
RUH 6-62-11-0461BH2 tgt	6409.00	-9672.28	580.27	40° 28' 54.142 N	104° 17' 22.049 W	

CASING DETAILS

TVD	MD	Name
800.00	800.00	9 5/8" Csg.
6435.00	6753.80	7" Csg.

PROJECT DETAILS: Weld Co., CO

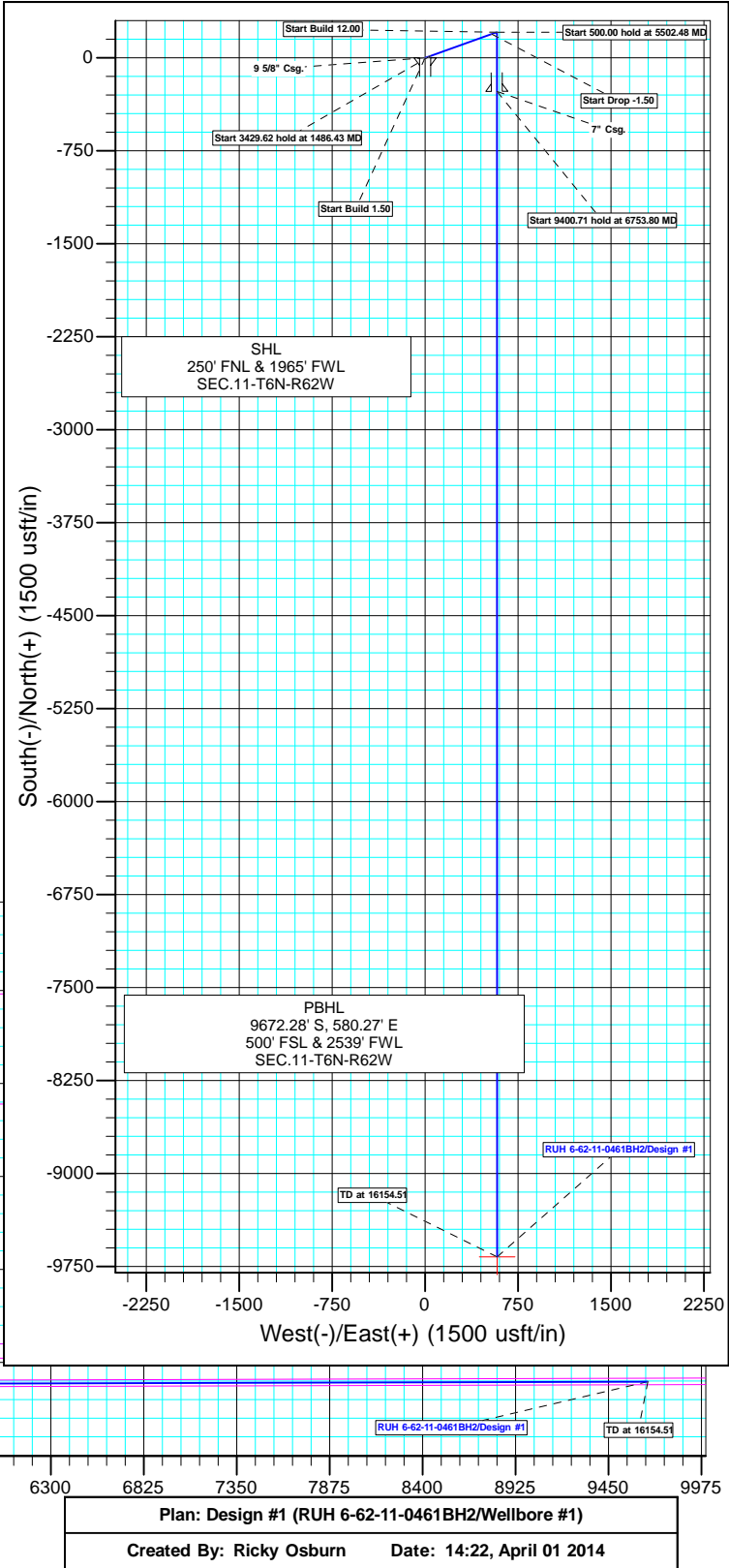
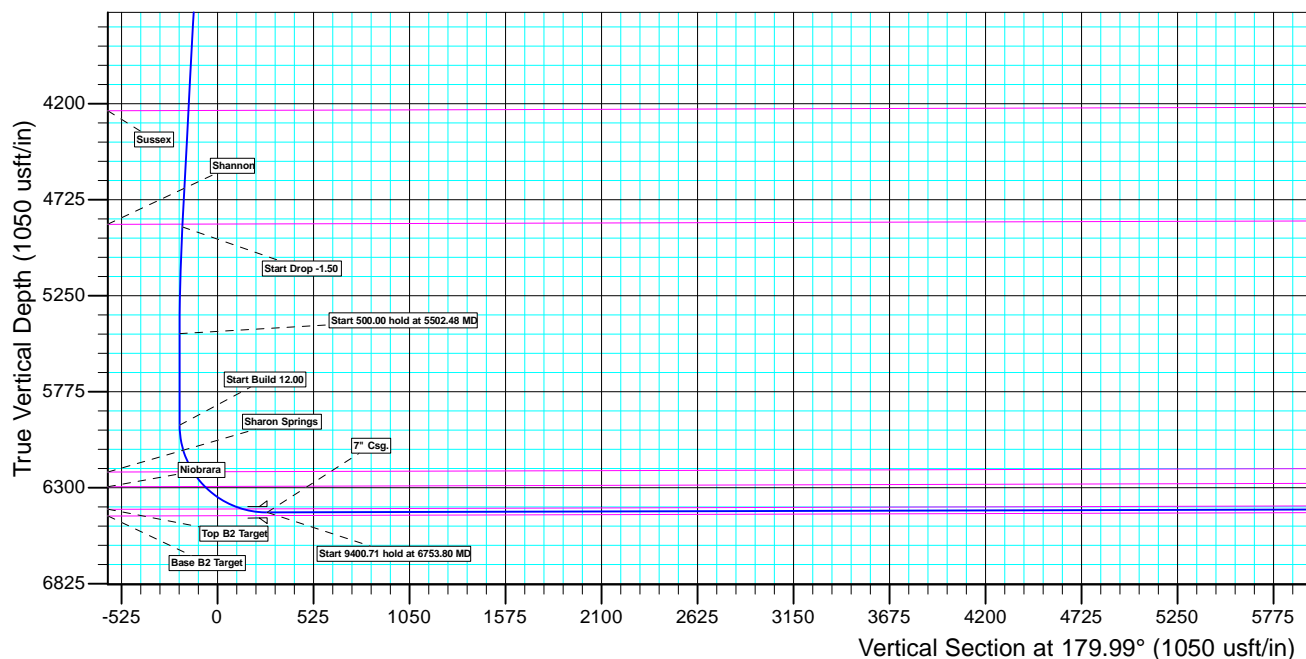
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

Azimuths to True North
Magnetic North: 8.24°

Magnetic Field
Strength: 52942.5snT
Dip Angle: 67.12°
Date: 04/01/2014
Model: IGRF2010



Archer



Plan: Design #1 (RUH 6-62-11-0461BH2/Wellbore #1)

Created By: Ricky Osburn Date: 14:22, April 01 2014

Database:	EDMDBBW	Local Co-ordinate Reference:	Well RUH 6-62-11-0461BH2
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 4800.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4800.00usft (Original Well Elev)
Site:	Sec.11-T6N-R62W	North Reference:	True
Well:	RUH 6-62-11-0461BH2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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

Site		Sec.11-T6N-R62W			
Site Position:		Northing:	1,430,288.186 usft	Latitude:	40° 30' 29.729 N
From:	Lat/Long	Easting:	3,335,989.337 usft	Longitude:	104° 17' 29.951 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.78 °

Well	RUH 6-62-11-0461BH2					
Well Position	+N/-S	-0.74 usft	Northing:	1,430,287.862 usft	Latitude:	40° 30' 29.721 N
	+E/-W	30.31 usft	Easting:	3,336,019.654 usft	Longitude:	104° 17' 29.558 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,777.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2014/04/01	8.24	67.12	52,942

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.99

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,486.43	8.80	70.29	1,484.13	15.15	42.30	1.50	1.50	0.00	70.29	
4,916.05	8.80	70.29	4,873.41	192.03	536.04	0.00	0.00	0.00	0.00	
5,502.48	0.00	0.00	5,457.54	207.18	578.34	1.50	-1.50	0.00	180.00	
6,002.48	0.00	0.00	5,957.54	207.18	578.34	0.00	0.00	0.00	0.00	
6,753.80	90.16	179.99	6,435.00	-271.61	578.43	12.00	12.00	0.00	179.99	RUH 6-62-11-0461BH
16,154.51	90.16	179.99	6,409.00	-9,672.28	580.27	0.00	0.00	0.00	0.00	RUH 6-62-11-0461BH

Database:	EDMDBBW	Local Co-ordinate Reference:	Well RUH 6-62-11-0461BH2
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 4800.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4800.00usft (Original Well Elev)
Site:	Sec.11-T6N-R62W	North Reference:	True
Well:	RUH 6-62-11-0461BH2	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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8" Csg.									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	1.50	70.29	999.99	0.44	1.23	-0.44	1.50	1.50	0.00
1,100.00	3.00	70.29	1,099.91	1.77	4.93	-1.76	1.50	1.50	0.00
1,200.00	4.50	70.29	1,199.69	3.97	11.09	-3.97	1.50	1.50	0.00
1,300.00	6.00	70.29	1,299.27	7.06	19.70	-7.05	1.50	1.50	0.00
1,400.00	7.50	70.29	1,398.57	11.02	30.76	-11.02	1.50	1.50	0.00
Start 3429.62 hold at 1486.43 MD									
1,486.43	8.80	70.29	1,484.13	15.15	42.30	-15.14	1.50	1.50	0.00
1,500.00	8.80	70.29	1,497.54	15.85	44.25	-15.84	0.00	0.00	0.00
1,600.00	8.80	70.29	1,596.36	21.01	58.65	-21.00	0.00	0.00	0.00
1,700.00	8.80	70.29	1,695.19	26.17	73.04	-26.15	0.00	0.00	0.00
1,800.00	8.80	70.29	1,794.01	31.32	87.44	-31.31	0.00	0.00	0.00
1,900.00	8.80	70.29	1,892.83	36.48	101.84	-36.46	0.00	0.00	0.00
2,000.00	8.80	70.29	1,991.66	41.64	116.23	-41.62	0.00	0.00	0.00
2,100.00	8.80	70.29	2,090.48	46.80	130.63	-46.77	0.00	0.00	0.00
2,200.00	8.80	70.29	2,189.31	51.95	145.03	-51.93	0.00	0.00	0.00
2,300.00	8.80	70.29	2,288.13	57.11	159.42	-57.08	0.00	0.00	0.00
2,400.00	8.80	70.29	2,386.95	62.27	173.82	-62.24	0.00	0.00	0.00
2,500.00	8.80	70.29	2,485.78	67.42	188.22	-67.39	0.00	0.00	0.00
2,600.00	8.80	70.29	2,584.60	72.58	202.61	-72.55	0.00	0.00	0.00
2,700.00	8.80	70.29	2,683.42	77.74	217.01	-77.70	0.00	0.00	0.00
2,800.00	8.80	70.29	2,782.25	82.90	231.41	-82.86	0.00	0.00	0.00
2,900.00	8.80	70.29	2,881.07	88.05	245.80	-88.01	0.00	0.00	0.00
3,000.00	8.80	70.29	2,979.90	93.21	260.20	-93.17	0.00	0.00	0.00
3,100.00	8.80	70.29	3,078.72	98.37	274.59	-98.32	0.00	0.00	0.00
3,200.00	8.80	70.29	3,177.54	103.53	288.99	-103.48	0.00	0.00	0.00
3,300.00	8.80	70.29	3,276.37	108.68	303.39	-108.63	0.00	0.00	0.00
3,400.00	8.80	70.29	3,375.19	113.84	317.78	-113.79	0.00	0.00	0.00
Parkman									
3,487.16	8.80	70.29	3,461.33	118.34	330.33	-118.28	0.00	0.00	0.00
3,500.00	8.80	70.29	3,474.02	119.00	332.18	-118.94	0.00	0.00	0.00
3,600.00	8.80	70.29	3,572.84	124.16	346.58	-124.09	0.00	0.00	0.00
3,700.00	8.80	70.29	3,671.66	129.31	360.97	-129.25	0.00	0.00	0.00
3,800.00	8.80	70.29	3,770.49	134.47	375.37	-134.40	0.00	0.00	0.00
3,900.00	8.80	70.29	3,869.31	139.63	389.77	-139.56	0.00	0.00	0.00
4,000.00	8.80	70.29	3,968.13	144.78	404.16	-144.71	0.00	0.00	0.00
4,100.00	8.80	70.29	4,066.96	149.94	418.56	-149.87	0.00	0.00	0.00
4,200.00	8.80	70.29	4,165.78	155.10	432.96	-155.02	0.00	0.00	0.00
Sussex									
4,271.50	8.80	70.29	4,236.44	158.79	443.25	-158.71	0.00	0.00	0.00
4,300.00	8.80	70.29	4,264.61	160.26	447.35	-160.18	0.00	0.00	0.00
4,400.00	8.80	70.29	4,363.43	165.41	461.75	-165.33	0.00	0.00	0.00
4,500.00	8.80	70.29	4,462.25	170.57	476.15	-170.49	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well RUH 6-62-11-0461BH2
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 4800.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4800.00usft (Original Well Elev)
Site:	Sec.11-T6N-R62W	North Reference:	True
Well:	RUH 6-62-11-0461BH2	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)
4,600.00	8.80	70.29	4,561.08	175.73	490.54	-175.64	0.00	0.00	0.00
4,700.00	8.80	70.29	4,659.90	180.89	504.94	-180.80	0.00	0.00	0.00
4,800.00	8.80	70.29	4,758.72	186.04	519.34	-185.95	0.00	0.00	0.00
4,900.00	8.80	70.29	4,857.55	191.20	533.73	-191.11	0.00	0.00	0.00
Shannon									
4,901.00	8.80	70.29	4,858.53	191.25	533.88	-191.16	0.00	0.00	0.00
Start Drop -1.50									
4,916.05	8.80	70.29	4,873.41	192.03	536.04	-191.93	0.00	0.00	0.00
5,000.00	7.54	70.29	4,956.51	196.05	547.27	-195.95	1.50	-1.50	0.00
5,100.00	6.04	70.29	5,055.80	200.04	558.40	-199.94	1.50	-1.50	0.00
5,200.00	4.54	70.29	5,155.37	203.14	567.07	-203.04	1.50	-1.50	0.00
5,300.00	3.04	70.29	5,255.15	205.37	573.29	-205.27	1.50	-1.50	0.00
5,400.00	1.54	70.29	5,355.07	206.72	577.05	-206.62	1.50	-1.50	0.00
Start 500.00 hold at 5502.48 MD									
5,502.48	0.00	0.00	5,457.54	207.18	578.34	-207.08	1.50	-1.50	0.00
5,600.00	0.00	0.00	5,555.06	207.18	578.34	-207.08	0.00	0.00	0.00
5,700.00	0.00	0.00	5,655.06	207.18	578.34	-207.08	0.00	0.00	0.00
5,800.00	0.00	0.00	5,755.06	207.18	578.34	-207.08	0.00	0.00	0.00
5,900.00	0.00	0.00	5,855.06	207.18	578.34	-207.08	0.00	0.00	0.00
Start Build 12.00									
6,002.48	0.00	0.00	5,957.54	207.18	578.34	-207.08	0.00	0.00	0.00
6,025.00	2.70	179.99	5,980.05	206.65	578.34	-206.55	12.00	12.00	0.00
6,050.00	5.70	179.99	6,004.98	204.82	578.34	-204.72	12.00	12.00	0.00
6,075.00	8.70	179.99	6,029.78	201.68	578.34	-201.58	12.00	12.00	0.00
6,100.00	11.70	179.99	6,054.38	197.26	578.34	-197.15	12.00	12.00	0.00
6,125.00	14.70	179.99	6,078.72	191.55	578.34	-191.45	12.00	12.00	0.00
6,150.00	17.70	179.99	6,102.72	184.57	578.34	-184.47	12.00	12.00	0.00
6,175.00	20.70	179.99	6,126.33	176.35	578.35	-176.25	12.00	12.00	0.00
6,200.00	23.70	179.99	6,149.47	166.90	578.35	-166.80	12.00	12.00	0.00
6,225.00	26.70	179.99	6,172.09	156.26	578.35	-156.16	12.00	12.00	0.00
6,250.00	29.70	179.99	6,194.12	144.45	578.35	-144.35	12.00	12.00	0.00
Sharon Springs									
6,272.47	32.40	179.99	6,213.37	132.86	578.35	-132.76	12.00	12.00	0.00
6,275.00	32.70	179.99	6,215.50	131.50	578.35	-131.40	12.00	12.00	0.00
6,300.00	35.70	179.99	6,236.18	117.45	578.36	-117.34	12.00	12.00	0.00
6,325.00	38.70	179.99	6,256.09	102.33	578.36	-102.23	12.00	12.00	0.00
6,350.00	41.70	179.99	6,275.18	86.20	578.36	-86.10	12.00	12.00	0.00
Niobrara									
6,374.71	44.67	179.99	6,293.19	69.29	578.37	-69.19	12.00	12.00	0.00
6,375.00	44.70	179.99	6,293.40	69.08	578.37	-68.98	12.00	12.00	0.00
6,400.00	47.70	179.99	6,310.70	51.04	578.37	-50.94	12.00	12.00	0.00
6,425.00	50.70	179.99	6,327.03	32.12	578.37	-32.02	12.00	12.00	0.00
6,450.00	53.70	179.99	6,342.35	12.37	578.38	-12.27	12.00	12.00	0.00
6,475.00	56.70	179.99	6,356.62	-8.16	578.38	8.26	12.00	12.00	0.00
6,500.00	59.70	179.99	6,369.79	-29.41	578.39	29.51	12.00	12.00	0.00
6,525.00	62.70	179.99	6,381.83	-51.31	578.39	51.41	12.00	12.00	0.00
6,550.00	65.70	179.99	6,392.71	-73.82	578.39	73.92	12.00	12.00	0.00
6,575.00	68.70	179.99	6,402.40	-96.86	578.40	96.96	12.00	12.00	0.00
6,600.00	71.70	179.99	6,410.86	-120.38	578.40	120.48	12.00	12.00	0.00
Top B2 Target									
6,615.97	73.62	179.99	6,415.62	-135.62	578.41	135.72	12.00	12.00	0.00
6,625.00	74.70	179.99	6,418.09	-144.31	578.41	144.41	12.00	12.00	0.00
6,650.00	77.70	179.99	6,424.05	-168.59	578.41	168.69	12.00	12.00	0.00

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Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 4800.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4800.00usft (Original Well Elev)
Site:	Sec.11-T6N-R62W	North Reference:	True
Well:	RUH 6-62-11-0461BH2	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)
6,675.00	80.70	179.99	6,428.73	-193.14	578.42	193.24	12.00	12.00	0.00
6,700.00	83.70	179.99	6,432.12	-217.91	578.42	218.01	12.00	12.00	0.00
6,725.00	86.70	179.99	6,434.21	-242.82	578.43	242.92	12.00	12.00	0.00
6,750.00	89.70	179.99	6,435.00	-267.80	578.43	267.90	12.00	12.00	0.00
Start 9400.71 hold at 6753.80 MD - 7" Csg.									
6,753.80	90.16	179.99	6,435.00	-271.60	578.43	271.70	12.00	12.00	0.00
6,800.00	90.16	179.99	6,434.88	-317.80	578.44	317.90	0.00	0.00	0.00
6,900.00	90.16	179.99	6,434.60	-417.80	578.46	417.90	0.00	0.00	0.00
7,000.00	90.16	179.99	6,434.32	-517.80	578.48	517.90	0.00	0.00	0.00
7,100.00	90.16	179.99	6,434.05	-617.80	578.50	617.90	0.00	0.00	0.00
7,200.00	90.16	179.99	6,433.77	-717.80	578.52	717.90	0.00	0.00	0.00
7,300.00	90.16	179.99	6,433.49	-817.80	578.54	817.90	0.00	0.00	0.00
7,400.00	90.16	179.99	6,433.22	-917.80	578.56	917.90	0.00	0.00	0.00
7,500.00	90.16	179.99	6,432.94	-1,017.80	578.58	1,017.90	0.00	0.00	0.00
7,600.00	90.16	179.99	6,432.66	-1,117.80	578.60	1,117.90	0.00	0.00	0.00
7,700.00	90.16	179.99	6,432.39	-1,217.80	578.62	1,217.90	0.00	0.00	0.00
7,800.00	90.16	179.99	6,432.11	-1,317.80	578.64	1,317.90	0.00	0.00	0.00
7,900.00	90.16	179.99	6,431.83	-1,417.80	578.66	1,417.90	0.00	0.00	0.00
8,000.00	90.16	179.99	6,431.56	-1,517.80	578.68	1,517.90	0.00	0.00	0.00
8,100.00	90.16	179.99	6,431.28	-1,617.80	578.70	1,617.90	0.00	0.00	0.00
8,200.00	90.16	179.99	6,431.00	-1,717.80	578.72	1,717.90	0.00	0.00	0.00
8,300.00	90.16	179.99	6,430.73	-1,817.80	578.74	1,817.90	0.00	0.00	0.00
8,400.00	90.16	179.99	6,430.45	-1,917.80	578.76	1,917.90	0.00	0.00	0.00
8,500.00	90.16	179.99	6,430.17	-2,017.80	578.78	2,017.90	0.00	0.00	0.00
8,600.00	90.16	179.99	6,429.90	-2,117.80	578.79	2,117.90	0.00	0.00	0.00
8,700.00	90.16	179.99	6,429.62	-2,217.80	578.81	2,217.90	0.00	0.00	0.00
8,800.00	90.16	179.99	6,429.34	-2,317.80	578.83	2,317.90	0.00	0.00	0.00
8,900.00	90.16	179.99	6,429.07	-2,417.79	578.85	2,417.90	0.00	0.00	0.00
9,000.00	90.16	179.99	6,428.79	-2,517.79	578.87	2,517.90	0.00	0.00	0.00
9,100.00	90.16	179.99	6,428.51	-2,617.79	578.89	2,617.89	0.00	0.00	0.00
9,200.00	90.16	179.99	6,428.24	-2,717.79	578.91	2,717.89	0.00	0.00	0.00
9,300.00	90.16	179.99	6,427.96	-2,817.79	578.93	2,817.89	0.00	0.00	0.00
9,400.00	90.16	179.99	6,427.68	-2,917.79	578.95	2,917.89	0.00	0.00	0.00
9,500.00	90.16	179.99	6,427.41	-3,017.79	578.97	3,017.89	0.00	0.00	0.00
9,600.00	90.16	179.99	6,427.13	-3,117.79	578.99	3,117.89	0.00	0.00	0.00
9,700.00	90.16	179.99	6,426.85	-3,217.79	579.01	3,217.89	0.00	0.00	0.00
9,800.00	90.16	179.99	6,426.58	-3,317.79	579.03	3,317.89	0.00	0.00	0.00
9,900.00	90.16	179.99	6,426.30	-3,417.79	579.05	3,417.89	0.00	0.00	0.00
10,000.00	90.16	179.99	6,426.02	-3,517.79	579.07	3,517.89	0.00	0.00	0.00
10,100.00	90.16	179.99	6,425.75	-3,617.79	579.09	3,617.89	0.00	0.00	0.00
10,200.00	90.16	179.99	6,425.47	-3,717.79	579.11	3,717.89	0.00	0.00	0.00
10,300.00	90.16	179.99	6,425.19	-3,817.79	579.13	3,817.89	0.00	0.00	0.00
10,400.00	90.16	179.99	6,424.92	-3,917.79	579.15	3,917.89	0.00	0.00	0.00
10,500.00	90.16	179.99	6,424.64	-4,017.79	579.17	4,017.89	0.00	0.00	0.00
10,600.00	90.16	179.99	6,424.36	-4,117.79	579.19	4,117.89	0.00	0.00	0.00
10,700.00	90.16	179.99	6,424.09	-4,217.79	579.21	4,217.89	0.00	0.00	0.00
10,800.00	90.16	179.99	6,423.81	-4,317.79	579.23	4,317.89	0.00	0.00	0.00
10,900.00	90.16	179.99	6,423.53	-4,417.79	579.24	4,417.89	0.00	0.00	0.00
11,000.00	90.16	179.99	6,423.26	-4,517.79	579.26	4,517.89	0.00	0.00	0.00
11,100.00	90.16	179.99	6,422.98	-4,617.79	579.28	4,617.89	0.00	0.00	0.00
11,200.00	90.16	179.99	6,422.70	-4,717.79	579.30	4,717.89	0.00	0.00	0.00
11,300.00	90.16	179.99	6,422.43	-4,817.79	579.32	4,817.89	0.00	0.00	0.00
11,400.00	90.16	179.99	6,422.15	-4,917.79	579.34	4,917.89	0.00	0.00	0.00
11,500.00	90.16	179.99	6,421.87	-5,017.78	579.36	5,017.89	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well RUH 6-62-11-0461BH2
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 4800.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4800.00usft (Original Well Elev)
Site:	Sec.11-T6N-R62W	North Reference:	True
Well:	RUH 6-62-11-0461BH2	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)
11,600.00	90.16	179.99	6,421.60	-5,117.78	579.38	5,117.89	0.00	0.00	0.00
11,700.00	90.16	179.99	6,421.32	-5,217.78	579.40	5,217.89	0.00	0.00	0.00
11,800.00	90.16	179.99	6,421.04	-5,317.78	579.42	5,317.88	0.00	0.00	0.00
11,900.00	90.16	179.99	6,420.77	-5,417.78	579.44	5,417.88	0.00	0.00	0.00
12,000.00	90.16	179.99	6,420.49	-5,517.78	579.46	5,517.88	0.00	0.00	0.00
12,100.00	90.16	179.99	6,420.21	-5,617.78	579.48	5,617.88	0.00	0.00	0.00
12,200.00	90.16	179.99	6,419.94	-5,717.78	579.50	5,717.88	0.00	0.00	0.00
12,300.00	90.16	179.99	6,419.66	-5,817.78	579.52	5,817.88	0.00	0.00	0.00
12,400.00	90.16	179.99	6,419.38	-5,917.78	579.54	5,917.88	0.00	0.00	0.00
12,500.00	90.16	179.99	6,419.11	-6,017.78	579.56	6,017.88	0.00	0.00	0.00
12,600.00	90.16	179.99	6,418.83	-6,117.78	579.58	6,117.88	0.00	0.00	0.00
12,700.00	90.16	179.99	6,418.55	-6,217.78	579.60	6,217.88	0.00	0.00	0.00
12,800.00	90.16	179.99	6,418.28	-6,317.78	579.62	6,317.88	0.00	0.00	0.00
12,900.00	90.16	179.99	6,418.00	-6,417.78	579.64	6,417.88	0.00	0.00	0.00
13,000.00	90.16	179.99	6,417.72	-6,517.78	579.66	6,517.88	0.00	0.00	0.00
13,100.00	90.16	179.99	6,417.45	-6,617.78	579.67	6,617.88	0.00	0.00	0.00
13,200.00	90.16	179.99	6,417.17	-6,717.78	579.69	6,717.88	0.00	0.00	0.00
13,300.00	90.16	179.99	6,416.89	-6,817.78	579.71	6,817.88	0.00	0.00	0.00
13,400.00	90.16	179.99	6,416.62	-6,917.78	579.73	6,917.88	0.00	0.00	0.00
13,500.00	90.16	179.99	6,416.34	-7,017.78	579.75	7,017.88	0.00	0.00	0.00
13,600.00	90.16	179.99	6,416.06	-7,117.78	579.77	7,117.88	0.00	0.00	0.00
13,700.00	90.16	179.99	6,415.79	-7,217.78	579.79	7,217.88	0.00	0.00	0.00
13,800.00	90.16	179.99	6,415.51	-7,317.78	579.81	7,317.88	0.00	0.00	0.00
13,900.00	90.16	179.99	6,415.23	-7,417.78	579.83	7,417.88	0.00	0.00	0.00
14,000.00	90.16	179.99	6,414.96	-7,517.78	579.85	7,517.88	0.00	0.00	0.00
14,100.00	90.16	179.99	6,414.68	-7,617.77	579.87	7,617.88	0.00	0.00	0.00
14,200.00	90.16	179.99	6,414.40	-7,717.77	579.89	7,717.88	0.00	0.00	0.00
14,300.00	90.16	179.99	6,414.13	-7,817.77	579.91	7,817.88	0.00	0.00	0.00
14,400.00	90.16	179.99	6,413.85	-7,917.77	579.93	7,917.87	0.00	0.00	0.00
14,500.00	90.16	179.99	6,413.57	-8,017.77	579.95	8,017.87	0.00	0.00	0.00
14,600.00	90.16	179.99	6,413.30	-8,117.77	579.97	8,117.87	0.00	0.00	0.00
14,700.00	90.16	179.99	6,413.02	-8,217.77	579.99	8,217.87	0.00	0.00	0.00
14,800.00	90.16	179.99	6,412.74	-8,317.77	580.01	8,317.87	0.00	0.00	0.00
14,900.00	90.16	179.99	6,412.47	-8,417.77	580.03	8,417.87	0.00	0.00	0.00
15,000.00	90.16	179.99	6,412.19	-8,517.77	580.05	8,517.87	0.00	0.00	0.00
15,100.00	90.16	179.99	6,411.91	-8,617.77	580.07	8,617.87	0.00	0.00	0.00
15,200.00	90.16	179.99	6,411.64	-8,717.77	580.09	8,717.87	0.00	0.00	0.00
15,300.00	90.16	179.99	6,411.36	-8,817.77	580.11	8,817.87	0.00	0.00	0.00
15,400.00	90.16	179.99	6,411.08	-8,917.77	580.12	8,917.87	0.00	0.00	0.00
15,500.00	90.16	179.99	6,410.81	-9,017.77	580.14	9,017.87	0.00	0.00	0.00
15,600.00	90.16	179.99	6,410.53	-9,117.77	580.16	9,117.87	0.00	0.00	0.00
15,700.00	90.16	179.99	6,410.25	-9,217.77	580.18	9,217.87	0.00	0.00	0.00
15,800.00	90.16	179.99	6,409.98	-9,317.77	580.20	9,317.87	0.00	0.00	0.00
15,900.00	90.16	179.99	6,409.70	-9,417.77	580.22	9,417.87	0.00	0.00	0.00
16,000.00	90.16	179.99	6,409.42	-9,517.77	580.24	9,517.87	0.00	0.00	0.00
16,100.00	90.16	179.99	6,409.15	-9,617.77	580.26	9,617.87	0.00	0.00	0.00
TD at 16154.51									
16,154.51	90.16	179.99	6,409.00	-9,672.28	580.27	9,672.38	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well RUH 6-62-11-0461BH2
Company:	Bill Barrett Corp.	TVD Reference:	WELL @ 4800.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4800.00usft (Original Well Elev)
Site:	Sec.11-T6N-R62W	North Reference:	True
Well:	RUH 6-62-11-0461BH2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
RUH 6-62-11-0461BH2 1	0.00	0.00	6,409.00	-9,672.28	580.27	1,420,624.386	3,336,731.682	40° 28' 54.142 N	104° 17' 22.049 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(")	(")
800.00	800.00	9 5/8" Csg.		9-5/8	12-1/4
6,753.80	6,435.00	7" Csg.		7	8-3/4

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(usft)	(usft)				(°)	(°)
3,487.16	3,461.00	Parkman			-0.16	179.99
4,271.50	4,236.00	Sussex			-0.16	179.99
4,901.00	4,858.00	Shannon			-0.16	179.99
6,272.47	6,213.00	Sharon Springs			-0.16	179.99
6,374.71	6,293.00	Niobrara			-0.16	179.99
6,615.97	6,416.00	Top B2 Target			-0.16	179.99

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)		
900.00	900.00	0.00	0.00	Start Build 1.50	
1,486.43	1,484.13	15.15	42.30	Start 3429.62 hold at 1486.43 MD	
4,916.05	4,873.41	192.03	536.04	Start Drop -1.50	
5,502.48	5,457.54	207.18	578.34	Start 500.00 hold at 5502.48 MD	
6,002.48	5,957.54	207.18	578.34	Start Build 12.00	
6,753.80	6,435.00	-271.61	578.43	Start 9400.71 hold at 6753.80 MD	
16,154.51	6,409.00	-9,672.28	580.27	TD at 16154.51	