



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.15-T6N-R62W

Will 6-62-15-0164C2B

Wellbore #1

Plan: Design #1

Standard Planning Report

08 April, 2015

Archer



Bill Barrett Corporation

Plan: Design #1 (Will 6-62-15-0164C2B/Wellbore #1)

Created By: Ricky Osburn

Date: 11:36, April 08 2015

Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.15-T6N-R62W
Well: Will 6-62-15-0164C2B
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 29' 37.061 N
Long: 104° 18' 49.972 W
Pad GL: 4761.00
KB: Well @ 4777.00usft

Archer

SECTION DETAILS

	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0	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 2.00
	1445.13	10.90	291.22	1441.85	18.71	-48.20	2.00	291.22	-18.54	Start 3610.00 hold at 1445.13 MD
	5055.14	10.90	291.22	4986.69	265.81	-684.73	0.00	0.00	-263.42	Start Drop -2.00
	5600.27	0.00	0.00	5732.52	284.52	-281.96	0.00	189.20	281.93	Start 3610.00 hold at 5600.27 MD
	6100.27	0.00	0.00	6088.54	284.52	-732.93	0.00	0.00	-281.96	Start Build 12.00
	6852.52	90.27	180.20	6506.00	-195.19	-734.64	12.00	180.20	197.76	Start 9547.16 hold at 6852.52 MD
550	16399.68	90.27	180.20	6461.00	-9742.19	-768.76	0.00	0.00	9744.81	TD at 16399.68

WELL DETAILS: Will 6-62-15-0164C2E

+N/-S	+E/-W	Northings	Ground Level: Easting	4761.00 Latitude	Longitude	Slot
0.00	0.00	1424875.418	3329880.348	40° 29' 37.061 N	104° 18' 49.972 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Will 6-62-15-0164C2B tgt	6461.00	-9742.19	-768.76	40° 28' 0.790 N	104° 18' 59.918 W	Point

CASING DETAILS

TVD	MD	Name
6506.00	6852.52	7" Csg.

PROJECT DETAILS: Weld Co., CO

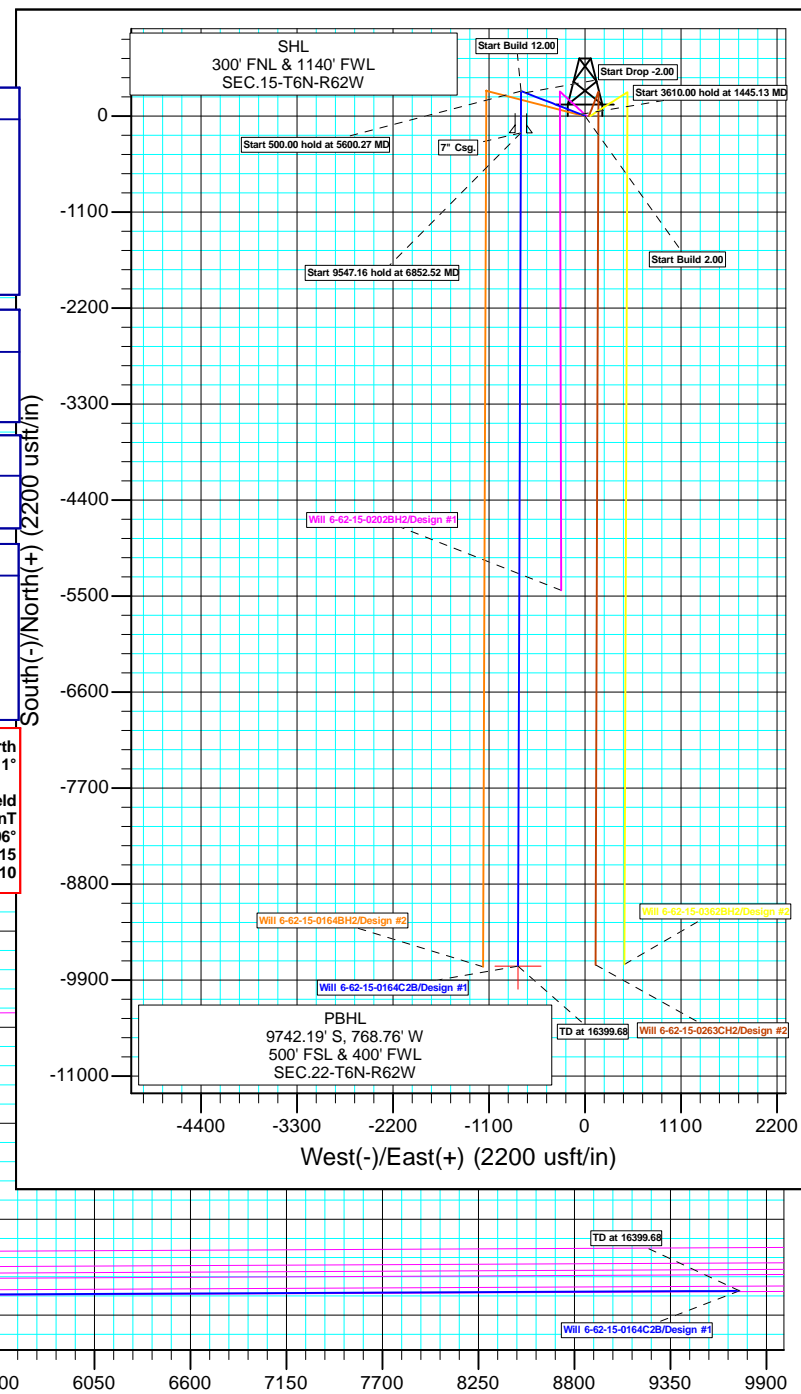
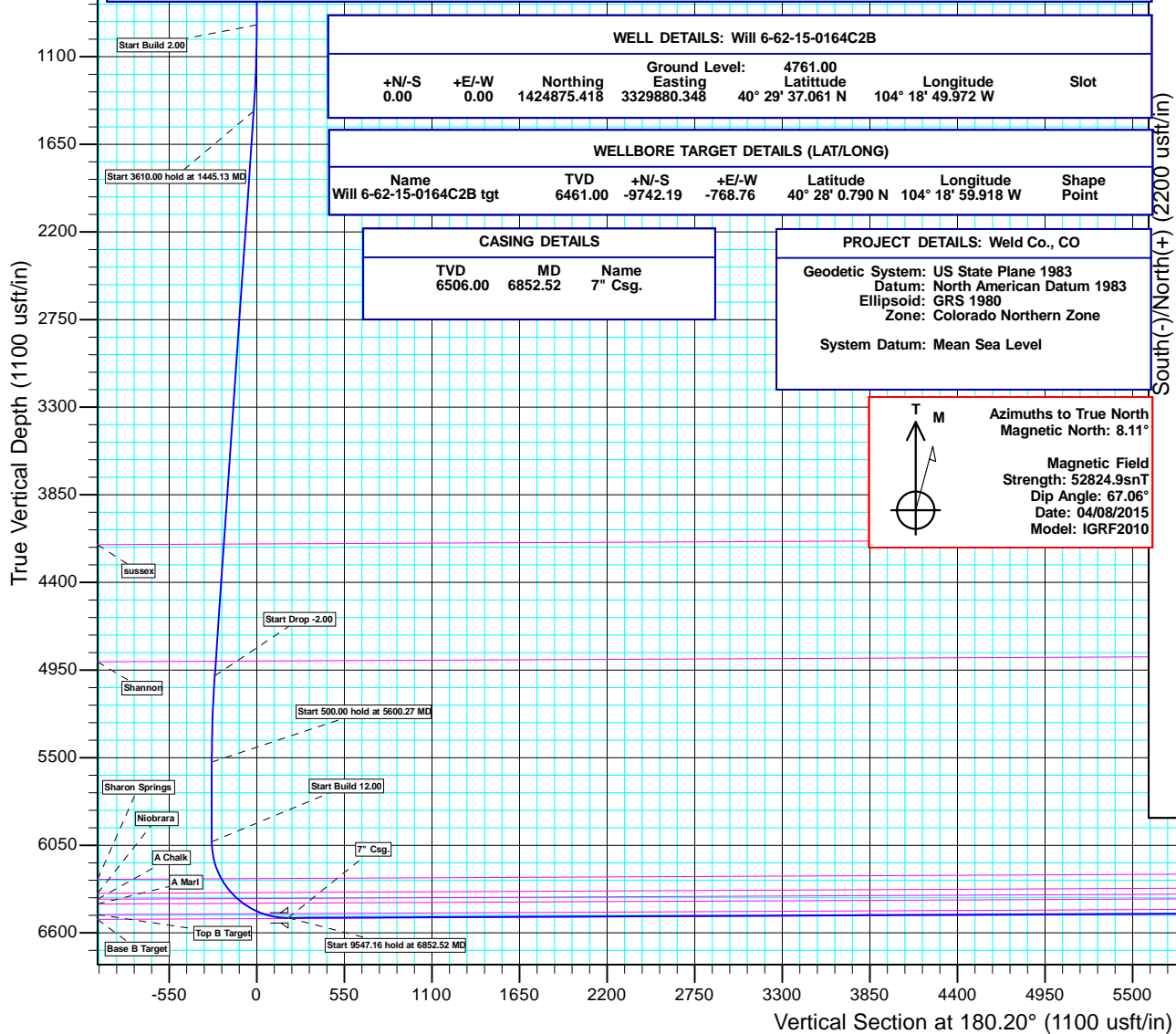
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 8.11°

**Magnetic Field
Strength: 52824.9snT
Dip Angle: 67.06°
Date: 04/08/2015
Model: IGRF2010**



Database:	EDMDBBW	Local Co-ordinate Reference:	Well Will 6-62-15-0164C2B
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4777.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4777.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Will 6-62-15-0164C2B	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.15-T6N-R62W				
Site Position:		Northing:	1,424,875.232 usft	Latitude:	40° 29' 37.061 N
From:	Lat/Long	Easting:	3,329,865.887 usft	Longitude:	104° 18' 50.159 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.77 °

Well	Will 6-62-15-0164C2B					
Well Position	+N/-S	-0.01 usft	Northing:	1,424,875.418 usft	Latitude:	40° 29' 37.061 N
	+E/-W	14.46 usft	Easting:	3,329,880.348 usft	Longitude:	104° 18' 49.972 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,761.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/04/08	8.11	67.06	52,825

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	180.20

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	
1,445.13	10.90	291.22	1,441.85	18.71	-48.20	2.00	2.00	0.00	291.22	
5,055.14	10.90	291.22	4,986.69	265.81	-684.73	0.00	0.00	0.00	0.00	
5,600.27	0.00	0.00	5,528.54	284.52	-732.93	2.00	-2.00	0.00	180.00	
6,100.27	0.00	0.00	6,028.54	284.52	-732.93	0.00	0.00	0.00	0.00	
6,852.52	90.27	180.20	6,506.00	-195.19	-734.64	12.00	12.00	0.00	180.20	Will 6-62-15-0164C2E
16,399.68	90.27	180.20	6,461.00	-9,742.19	-768.76	0.00	0.00	0.00	0.00	Will 6-62-15-0164C2E

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Will 6-62-15-0164C2B
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4777.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4777.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Will 6-62-15-0164C2B	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
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	2.00	291.22	999.98	0.63	-1.63	-0.63	2.00	2.00	0.00
1,100.00	4.00	291.22	1,099.84	2.53	-6.51	-2.50	2.00	2.00	0.00
1,200.00	6.00	291.22	1,199.45	5.68	-14.63	-5.63	2.00	2.00	0.00
1,300.00	8.00	291.22	1,298.70	10.09	-25.99	-10.00	2.00	2.00	0.00
1,400.00	10.00	291.22	1,397.47	15.75	-40.57	-15.61	2.00	2.00	0.00
Start 3610.00 hold at 1445.13 MD									
1,445.13	10.90	291.22	1,441.85	18.71	-48.20	-18.54	2.00	2.00	0.00
1,500.00	10.90	291.22	1,495.73	22.47	-57.88	-22.27	0.00	0.00	0.00
1,600.00	10.90	291.22	1,593.92	29.31	-75.51	-29.05	0.00	0.00	0.00
1,700.00	10.90	291.22	1,692.12	36.16	-93.14	-35.83	0.00	0.00	0.00
1,800.00	10.90	291.22	1,790.31	43.00	-110.78	-42.62	0.00	0.00	0.00
1,900.00	10.90	291.22	1,888.51	49.85	-128.41	-49.40	0.00	0.00	0.00
2,000.00	10.90	291.22	1,986.70	56.69	-146.04	-56.18	0.00	0.00	0.00
2,100.00	10.90	291.22	2,084.90	63.54	-163.67	-62.96	0.00	0.00	0.00
2,200.00	10.90	291.22	2,183.09	70.38	-181.30	-69.75	0.00	0.00	0.00
2,300.00	10.90	291.22	2,281.29	77.23	-198.94	-76.53	0.00	0.00	0.00
2,400.00	10.90	291.22	2,379.48	84.07	-216.57	-83.31	0.00	0.00	0.00
2,500.00	10.90	291.22	2,477.68	90.92	-234.20	-90.10	0.00	0.00	0.00
2,600.00	10.90	291.22	2,575.87	97.76	-251.83	-96.88	0.00	0.00	0.00
2,700.00	10.90	291.22	2,674.07	104.60	-269.46	-103.66	0.00	0.00	0.00
2,800.00	10.90	291.22	2,772.26	111.45	-287.10	-110.45	0.00	0.00	0.00
2,900.00	10.90	291.22	2,870.46	118.29	-304.73	-117.23	0.00	0.00	0.00
3,000.00	10.90	291.22	2,968.65	125.14	-322.36	-124.01	0.00	0.00	0.00
3,100.00	10.90	291.22	3,066.85	131.98	-339.99	-130.80	0.00	0.00	0.00
3,200.00	10.90	291.22	3,165.04	138.83	-357.63	-137.58	0.00	0.00	0.00
3,300.00	10.90	291.22	3,263.24	145.67	-375.26	-144.36	0.00	0.00	0.00
3,400.00	10.90	291.22	3,361.43	152.52	-392.89	-151.15	0.00	0.00	0.00
3,500.00	10.90	291.22	3,459.63	159.36	-410.52	-157.93	0.00	0.00	0.00
3,600.00	10.90	291.22	3,557.82	166.21	-428.15	-164.71	0.00	0.00	0.00
3,700.00	10.90	291.22	3,656.02	173.05	-445.79	-171.49	0.00	0.00	0.00
3,800.00	10.90	291.22	3,754.21	179.90	-463.42	-178.28	0.00	0.00	0.00
3,900.00	10.90	291.22	3,852.41	186.74	-481.05	-185.06	0.00	0.00	0.00
4,000.00	10.90	291.22	3,950.60	193.59	-498.68	-191.84	0.00	0.00	0.00
4,100.00	10.90	291.22	4,048.80	200.43	-516.31	-198.63	0.00	0.00	0.00
4,200.00	10.90	291.22	4,146.99	207.28	-533.95	-205.41	0.00	0.00	0.00
sussex									
4,212.20	10.90	291.22	4,158.97	208.11	-536.10	-206.24	0.00	0.00	0.00
4,300.00	10.90	291.22	4,245.19	214.12	-551.58	-212.19	0.00	0.00	0.00
4,400.00	10.90	291.22	4,343.38	220.96	-569.21	-218.98	0.00	0.00	0.00
4,500.00	10.90	291.22	4,441.58	227.81	-586.84	-225.76	0.00	0.00	0.00
4,600.00	10.90	291.22	4,539.77	234.65	-604.48	-232.54	0.00	0.00	0.00
4,700.00	10.90	291.22	4,637.97	241.50	-622.11	-239.33	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Will 6-62-15-0164C2B
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4777.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4777.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Will 6-62-15-0164C2B	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)
4,800.00	10.90	291.22	4,736.16	248.34	-639.74	-246.11	0.00	0.00	0.00
4,900.00	10.90	291.22	4,834.36	255.19	-657.37	-252.89	0.00	0.00	0.00
Shannon									
4,961.97	10.90	291.22	4,895.21	259.43	-668.30	-257.10	0.00	0.00	0.00
5,000.00	10.90	291.22	4,932.55	262.03	-675.00	-259.68	0.00	0.00	0.00
Start Drop -2.00									
5,055.14	10.90	291.22	4,986.69	265.81	-684.73	-263.42	0.00	0.00	0.00
5,100.00	10.01	291.22	5,030.81	268.75	-692.31	-266.33	2.00	-2.00	0.00
5,200.00	8.01	291.22	5,129.57	274.42	-706.90	-271.95	2.00	-2.00	0.00
5,300.00	6.01	291.22	5,228.82	278.83	-718.27	-276.32	2.00	-2.00	0.00
5,400.00	4.01	291.22	5,328.43	281.99	-726.41	-279.45	2.00	-2.00	0.00
5,500.00	2.01	291.22	5,428.29	283.89	-731.29	-281.33	2.00	-2.00	0.00
Start 500.00 hold at 5600.27 MD									
5,600.27	0.00	0.00	5,528.54	284.52	-732.93	-281.96	2.00	-2.00	0.00
5,700.00	0.00	0.00	5,628.27	284.52	-732.93	-281.96	0.00	0.00	0.00
5,800.00	0.00	0.00	5,728.27	284.52	-732.93	-281.96	0.00	0.00	0.00
5,900.00	0.00	0.00	5,828.27	284.52	-732.93	-281.96	0.00	0.00	0.00
6,000.00	0.00	0.00	5,928.27	284.52	-732.93	-281.96	0.00	0.00	0.00
Start Build 12.00									
6,100.27	0.00	0.00	6,028.54	284.52	-732.93	-281.96	0.00	0.00	0.00
6,125.00	2.97	180.20	6,053.26	283.88	-732.93	-281.32	12.00	12.00	0.00
6,150.00	5.97	180.20	6,078.18	281.93	-732.94	-279.37	12.00	12.00	0.00
6,175.00	8.97	180.20	6,102.97	278.68	-732.95	-276.12	12.00	12.00	0.00
6,200.00	11.97	180.20	6,127.55	274.14	-732.97	-271.58	12.00	12.00	0.00
6,225.00	14.97	180.20	6,151.86	268.32	-732.99	-265.76	12.00	12.00	0.00
6,250.00	17.97	180.20	6,175.83	261.23	-733.01	-258.67	12.00	12.00	0.00
6,275.00	20.97	180.20	6,199.40	252.90	-733.04	-250.34	12.00	12.00	0.00
6,300.00	23.97	180.20	6,222.50	243.35	-733.08	-240.79	12.00	12.00	0.00
6,325.00	26.97	180.20	6,245.07	232.60	-733.12	-230.04	12.00	12.00	0.00
Sharon Springs									
6,341.97	29.00	180.20	6,260.05	224.64	-733.14	-222.08	12.00	12.00	0.00
6,350.00	29.97	180.20	6,267.04	220.69	-733.16	-218.13	12.00	12.00	0.00
6,375.00	32.97	180.20	6,288.36	207.64	-733.20	-205.08	12.00	12.00	0.00
6,400.00	35.97	180.20	6,308.97	193.49	-733.26	-190.93	12.00	12.00	0.00
6,425.00	38.97	180.20	6,328.81	178.28	-733.31	-175.72	12.00	12.00	0.00
Niobrara									
6,449.90	41.96	180.20	6,347.75	162.13	-733.37	-159.57	12.00	12.00	0.00
6,450.00	41.97	180.20	6,347.83	162.06	-733.37	-159.50	12.00	12.00	0.00
6,475.00	44.97	180.20	6,365.97	144.86	-733.43	-142.30	12.00	12.00	0.00
6,500.00	47.97	180.20	6,383.19	126.74	-733.49	-124.18	12.00	12.00	0.00
A Chalk									
6,503.58	48.40	180.20	6,385.57	124.07	-733.50	-121.51	12.00	12.00	0.00
6,525.00	50.97	180.20	6,399.43	107.74	-733.56	-105.18	12.00	12.00	0.00
A Marl									
6,549.57	53.92	180.20	6,414.40	88.27	-733.63	-85.71	12.00	12.00	0.00
6,550.00	53.97	180.20	6,414.66	87.92	-733.63	-85.36	12.00	12.00	0.00
6,575.00	56.97	180.20	6,428.83	67.33	-733.71	-64.77	12.00	12.00	0.00
6,600.00	59.97	180.20	6,441.90	46.02	-733.78	-43.46	12.00	12.00	0.00
6,625.00	62.97	180.20	6,453.84	24.06	-733.86	-21.50	12.00	12.00	0.00
6,650.00	65.97	180.20	6,464.62	1.50	-733.94	1.06	12.00	12.00	0.00
6,675.00	68.97	180.20	6,474.20	-21.58	-734.02	24.15	12.00	12.00	0.00
Top B Target									
6,691.39	70.93	180.20	6,479.81	-36.98	-734.08	39.54	12.00	12.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Will 6-62-15-0164C2B
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4777.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4777.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Will 6-62-15-0164C2B	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)
6,700.00	71.97	180.20	6,482.55	-45.14	-734.11	47.71	12.00	12.00	0.00
6,725.00	74.97	180.20	6,489.67	-69.11	-734.19	71.67	12.00	12.00	0.00
6,750.00	77.97	180.20	6,495.52	-93.41	-734.28	95.97	12.00	12.00	0.00
6,775.00	80.97	180.20	6,500.08	-117.99	-734.37	120.55	12.00	12.00	0.00
6,800.00	83.97	180.20	6,503.36	-142.77	-734.46	145.33	12.00	12.00	0.00
6,825.00	86.97	180.20	6,505.34	-167.69	-734.55	170.25	12.00	12.00	0.00
6,850.00	89.97	180.20	6,506.00	-192.67	-734.64	195.24	12.00	12.00	0.00
Start 9547.16 hold at 6852.52 MD - 7" Csg.									
6,852.52	90.27	180.20	6,506.00	-195.19	-734.64	197.76	11.99	11.99	0.00
6,900.00	90.27	180.20	6,505.78	-242.67	-734.81	245.24	0.00	0.00	0.00
7,000.00	90.27	180.20	6,505.30	-342.67	-735.17	345.24	0.00	0.00	0.00
7,100.00	90.27	180.20	6,504.83	-442.67	-735.53	445.23	0.00	0.00	0.00
7,200.00	90.27	180.20	6,504.36	-542.67	-735.89	545.23	0.00	0.00	0.00
7,300.00	90.27	180.20	6,503.89	-642.67	-736.24	645.23	0.00	0.00	0.00
7,400.00	90.27	180.20	6,503.42	-742.66	-736.60	745.23	0.00	0.00	0.00
7,500.00	90.27	180.20	6,502.95	-842.66	-736.96	845.23	0.00	0.00	0.00
7,600.00	90.27	180.20	6,502.48	-942.66	-737.32	945.23	0.00	0.00	0.00
7,700.00	90.27	180.20	6,502.01	-1,042.66	-737.67	1,045.23	0.00	0.00	0.00
7,800.00	90.27	180.20	6,501.53	-1,142.66	-738.03	1,145.23	0.00	0.00	0.00
7,900.00	90.27	180.20	6,501.06	-1,242.66	-738.39	1,245.23	0.00	0.00	0.00
8,000.00	90.27	180.20	6,500.59	-1,342.65	-738.75	1,345.22	0.00	0.00	0.00
8,100.00	90.27	180.20	6,500.12	-1,442.65	-739.10	1,445.22	0.00	0.00	0.00
8,200.00	90.27	180.20	6,499.65	-1,542.65	-739.46	1,545.22	0.00	0.00	0.00
8,300.00	90.27	180.20	6,499.18	-1,642.65	-739.82	1,645.22	0.00	0.00	0.00
8,400.00	90.27	180.20	6,498.71	-1,742.65	-740.17	1,745.22	0.00	0.00	0.00
8,500.00	90.27	180.20	6,498.23	-1,842.64	-740.53	1,845.22	0.00	0.00	0.00
8,600.00	90.27	180.20	6,497.76	-1,942.64	-740.89	1,945.22	0.00	0.00	0.00
8,700.00	90.27	180.20	6,497.29	-2,042.64	-741.25	2,045.22	0.00	0.00	0.00
8,800.00	90.27	180.20	6,496.82	-2,142.64	-741.60	2,145.22	0.00	0.00	0.00
8,900.00	90.27	180.20	6,496.35	-2,242.64	-741.96	2,245.21	0.00	0.00	0.00
9,000.00	90.27	180.20	6,495.88	-2,342.64	-742.32	2,345.21	0.00	0.00	0.00
9,100.00	90.27	180.20	6,495.41	-2,442.63	-742.68	2,445.21	0.00	0.00	0.00
9,200.00	90.27	180.20	6,494.94	-2,542.63	-743.03	2,545.21	0.00	0.00	0.00
9,300.00	90.27	180.20	6,494.46	-2,642.63	-743.39	2,645.21	0.00	0.00	0.00
9,400.00	90.27	180.20	6,493.99	-2,742.63	-743.75	2,745.21	0.00	0.00	0.00
9,500.00	90.27	180.20	6,493.52	-2,842.63	-744.11	2,845.21	0.00	0.00	0.00
9,600.00	90.27	180.20	6,493.05	-2,942.63	-744.46	2,945.21	0.00	0.00	0.00
9,700.00	90.27	180.20	6,492.58	-3,042.62	-744.82	3,045.21	0.00	0.00	0.00
9,800.00	90.27	180.20	6,492.11	-3,142.62	-745.18	3,145.20	0.00	0.00	0.00
9,900.00	90.27	180.20	6,491.64	-3,242.62	-745.54	3,245.20	0.00	0.00	0.00
10,000.00	90.27	180.20	6,491.16	-3,342.62	-745.89	3,345.20	0.00	0.00	0.00
10,100.00	90.27	180.20	6,490.69	-3,442.62	-746.25	3,445.20	0.00	0.00	0.00
10,200.00	90.27	180.20	6,490.22	-3,542.61	-746.61	3,545.20	0.00	0.00	0.00
10,300.00	90.27	180.20	6,489.75	-3,642.61	-746.97	3,645.20	0.00	0.00	0.00
10,400.00	90.27	180.20	6,489.28	-3,742.61	-747.32	3,745.20	0.00	0.00	0.00
10,500.00	90.27	180.20	6,488.81	-3,842.61	-747.68	3,845.20	0.00	0.00	0.00
10,600.00	90.27	180.20	6,488.34	-3,942.61	-748.04	3,945.20	0.00	0.00	0.00
10,700.00	90.27	180.20	6,487.87	-4,042.61	-748.39	4,045.19	0.00	0.00	0.00
10,800.00	90.27	180.20	6,487.39	-4,142.60	-748.75	4,145.19	0.00	0.00	0.00
10,900.00	90.27	180.20	6,486.92	-4,242.60	-749.11	4,245.19	0.00	0.00	0.00
11,000.00	90.27	180.20	6,486.45	-4,342.60	-749.47	4,345.19	0.00	0.00	0.00
11,100.00	90.27	180.20	6,485.98	-4,442.60	-749.82	4,445.19	0.00	0.00	0.00
11,200.00	90.27	180.20	6,485.51	-4,542.60	-750.18	4,545.19	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Will 6-62-15-0164C2B
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4777.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4777.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Will 6-62-15-0164C2B	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)
11,300.00	90.27	180.20	6,485.04	-4,642.60	-750.54	4,645.19	0.00	0.00	0.00
11,400.00	90.27	180.20	6,484.57	-4,742.59	-750.90	4,745.19	0.00	0.00	0.00
11,500.00	90.27	180.20	6,484.09	-4,842.59	-751.25	4,845.19	0.00	0.00	0.00
11,600.00	90.27	180.20	6,483.62	-4,942.59	-751.61	4,945.18	0.00	0.00	0.00
11,700.00	90.27	180.20	6,483.15	-5,042.59	-751.97	5,045.18	0.00	0.00	0.00
11,800.00	90.27	180.20	6,482.68	-5,142.59	-752.33	5,145.18	0.00	0.00	0.00
11,900.00	90.27	180.20	6,482.21	-5,242.59	-752.68	5,245.18	0.00	0.00	0.00
12,000.00	90.27	180.20	6,481.74	-5,342.58	-753.04	5,345.18	0.00	0.00	0.00
12,100.00	90.27	180.20	6,481.27	-5,442.58	-753.40	5,445.18	0.00	0.00	0.00
12,200.00	90.27	180.20	6,480.80	-5,542.58	-753.76	5,545.18	0.00	0.00	0.00
12,300.00	90.27	180.20	6,480.32	-5,642.58	-754.11	5,645.18	0.00	0.00	0.00
12,400.00	90.27	180.20	6,479.85	-5,742.58	-754.47	5,745.18	0.00	0.00	0.00
12,500.00	90.27	180.20	6,479.38	-5,842.57	-754.83	5,845.17	0.00	0.00	0.00
12,600.00	90.27	180.20	6,478.91	-5,942.57	-755.19	5,945.17	0.00	0.00	0.00
12,700.00	90.27	180.20	6,478.44	-6,042.57	-755.54	6,045.17	0.00	0.00	0.00
12,800.00	90.27	180.20	6,477.97	-6,142.57	-755.90	6,145.17	0.00	0.00	0.00
12,900.00	90.27	180.20	6,477.50	-6,242.57	-756.26	6,245.17	0.00	0.00	0.00
13,000.00	90.27	180.20	6,477.02	-6,342.57	-756.61	6,345.17	0.00	0.00	0.00
13,100.00	90.27	180.20	6,476.55	-6,442.56	-756.97	6,445.17	0.00	0.00	0.00
13,200.00	90.27	180.20	6,476.08	-6,542.56	-757.33	6,545.17	0.00	0.00	0.00
13,300.00	90.27	180.20	6,475.61	-6,642.56	-757.69	6,645.17	0.00	0.00	0.00
13,400.00	90.27	180.20	6,475.14	-6,742.56	-758.04	6,745.16	0.00	0.00	0.00
13,500.00	90.27	180.20	6,474.67	-6,842.56	-758.40	6,845.16	0.00	0.00	0.00
13,600.00	90.27	180.20	6,474.20	-6,942.56	-758.76	6,945.16	0.00	0.00	0.00
13,700.00	90.27	180.20	6,473.73	-7,042.55	-759.12	7,045.16	0.00	0.00	0.00
13,800.00	90.27	180.20	6,473.25	-7,142.55	-759.47	7,145.16	0.00	0.00	0.00
13,900.00	90.27	180.20	6,472.78	-7,242.55	-759.83	7,245.16	0.00	0.00	0.00
14,000.00	90.27	180.20	6,472.31	-7,342.55	-760.19	7,345.16	0.00	0.00	0.00
14,100.00	90.27	180.20	6,471.84	-7,442.55	-760.55	7,445.16	0.00	0.00	0.00
14,200.00	90.27	180.20	6,471.37	-7,542.54	-760.90	7,545.16	0.00	0.00	0.00
14,300.00	90.27	180.20	6,470.90	-7,642.54	-761.26	7,645.15	0.00	0.00	0.00
14,400.00	90.27	180.20	6,470.43	-7,742.54	-761.62	7,745.15	0.00	0.00	0.00
14,500.00	90.27	180.20	6,469.96	-7,842.54	-761.98	7,845.15	0.00	0.00	0.00
14,600.00	90.27	180.20	6,469.48	-7,942.54	-762.33	7,945.15	0.00	0.00	0.00
14,700.00	90.27	180.20	6,469.01	-8,042.54	-762.69	8,045.15	0.00	0.00	0.00
14,800.00	90.27	180.20	6,468.54	-8,142.53	-763.05	8,145.15	0.00	0.00	0.00
14,900.00	90.27	180.20	6,468.07	-8,242.53	-763.41	8,245.15	0.00	0.00	0.00
15,000.00	90.27	180.20	6,467.60	-8,342.53	-763.76	8,345.15	0.00	0.00	0.00
15,100.00	90.27	180.20	6,467.13	-8,442.53	-764.12	8,445.15	0.00	0.00	0.00
15,200.00	90.27	180.20	6,466.66	-8,542.53	-764.48	8,545.14	0.00	0.00	0.00
15,300.00	90.27	180.20	6,466.18	-8,642.53	-764.83	8,645.14	0.00	0.00	0.00
15,400.00	90.27	180.20	6,465.71	-8,742.52	-765.19	8,745.14	0.00	0.00	0.00
15,500.00	90.27	180.20	6,465.24	-8,842.52	-765.55	8,845.14	0.00	0.00	0.00
15,600.00	90.27	180.20	6,464.77	-8,942.52	-765.91	8,945.14	0.00	0.00	0.00
15,700.00	90.27	180.20	6,464.30	-9,042.52	-766.26	9,045.14	0.00	0.00	0.00
15,800.00	90.27	180.20	6,463.83	-9,142.52	-766.62	9,145.14	0.00	0.00	0.00
15,900.00	90.27	180.20	6,463.36	-9,242.52	-766.98	9,245.14	0.00	0.00	0.00
16,000.00	90.27	180.20	6,462.89	-9,342.51	-767.34	9,345.14	0.00	0.00	0.00
16,100.00	90.27	180.20	6,462.41	-9,442.51	-767.69	9,445.13	0.00	0.00	0.00
16,200.00	90.27	180.20	6,461.94	-9,542.51	-768.05	9,545.13	0.00	0.00	0.00
16,300.00	90.27	180.20	6,461.47	-9,642.51	-768.41	9,645.13	0.00	0.00	0.00
TD at 16399.68									
16,399.68	90.27	180.20	6,461.00	-9,742.19	-768.76	9,744.81	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Will 6-62-15-0164C2B
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4777.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4777.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Will 6-62-15-0164C2B	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									
Will 6-62-15-0164C2B tc	0.00	0.00	6,461.00	-9,742.19	-768.76	1,415,123.818	3,329,241.960	40° 28' 0.790 N	104° 18' 59.918 W
- plan hits target center									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(usft)	(usft)		(")	(")
6,852.52	6,506.00	7" Csg.	7	8-3/4

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
4,212.20	4,158.00	sussex		-0.27	180.20	
4,961.97	4,894.00	Shannon		-0.27	180.20	
6,341.97	6,259.00	Sharon Springs		-0.27	180.20	
6,449.90	6,347.00	Niobrara		-0.27	180.20	
6,503.58	6,385.00	A Chalk		-0.27	180.20	
6,549.57	6,414.00	A Marl		-0.27	180.20	
6,691.39	6,480.00	Top B Target		-0.27	180.20	

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 2.00
1,445.13	1,441.85	18.71	-48.20	Start 3610.00 hold at 1445.13 MD
5,055.14	4,986.69	265.81	-684.73	Start Drop -2.00
5,600.27	5,528.54	284.52	-732.93	Start 500.00 hold at 5600.27 MD
6,100.27	6,028.54	284.52	-732.93	Start Build 12.00
6,852.52	6,506.00	-195.19	-734.64	Start 9547.16 hold at 6852.52 MD
16,399.68	6,461.00	-9,742.19	-768.76	TD at 16399.68