



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.15-T6N-R62W

Heath 6-62-15-0758AH2

Wellbore #1

Plan: Design #1

Standard Planning Report

17 April, 2015

Archer



Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.15-T6N-R62W
Well: Heath 6-62-15-0758AH2
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 29' 37.071 N
Long: 104° 18' 8.449 W
Pad GL: 4732.00
KB: Well @ 4748.00usft

Archer

Plan: Design #1 (Heath 6-62-15-0758AH2/Wellbore #1)

Created By: Ricky Osburn Date: 14:21, April 17 2015

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 2.00
1094.94	3.90	18.09	1094.79	6.30	2.06	2.00	18.09	-6.31	Start 4067.37 hold at 1094.94 MD
5162.31	3.90	18.09	5152.75	269.19	87.94	0.00	0.00	-269.57	Start Drop -2.00
5357.25	0.00	0.00	5347.54	275.49	90.00	2.00	180.00	-275.88	Start 500.00 hold at 5357.25 MD
5857.25	0.00	0.00	5847.54	275.49	90.00	0.00	0.00	-275.88	Start Build 12.00
6609.62	90.28	180.25	6325.00	-204.34	87.89	12.00	180.25	203.95	Start 9473.22 hold at 6609.62 MD
16082.84	90.28	180.25	6278.00	-9677.35	46.19	0.00	0.00	9677.05	TD at 16082.84

WELL DETAILS: Heath 6-62-15-0758AH2

+N/-S	+E/-W	Northing	Ground Level: Easting	4732.00 Latitude	104° 18' 8.449 W	Slot
0.00	0.00	1424919.619	3333087.945	40° 29' 37.071 N		

WELLBORE TARGET DETAILS (LAT/LONG)

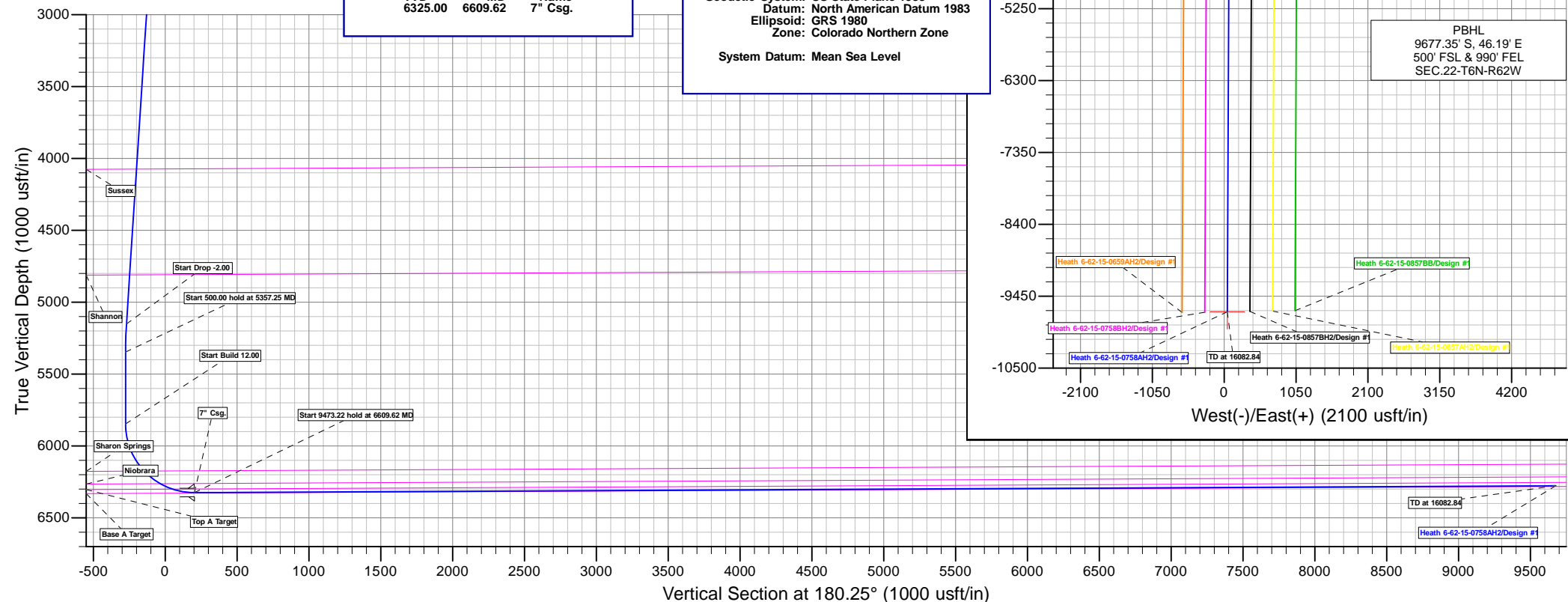
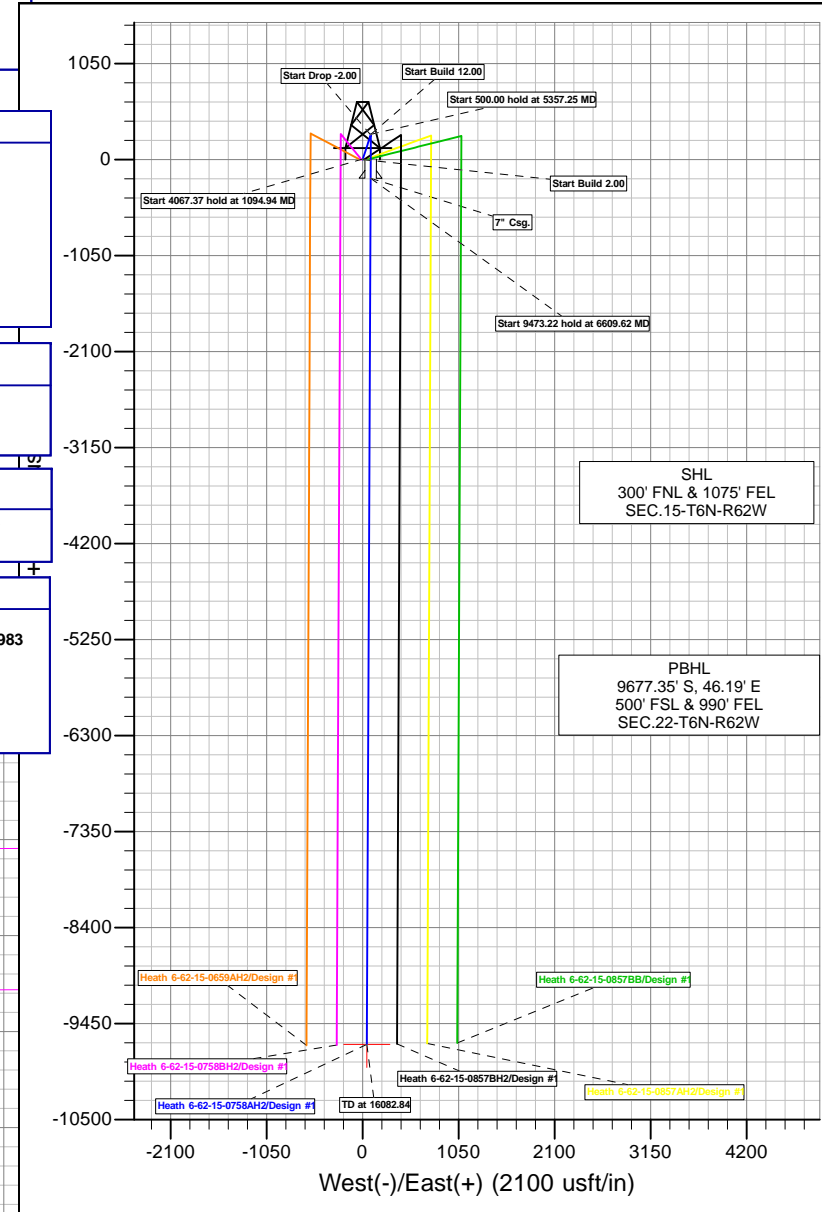
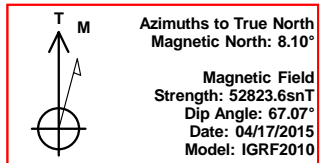
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Heath 6-62-15-0758AH2 tgt	6278.00	-9677.35	46.19	40° 28' 1.441 N	104° 18' 7.852 W	Point

CASING DETAILS

TVD	MD	Name
6325.00	6609.62	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



Database:	EDMDBBW	Local Co-ordinate Reference:	Well Heath 6-62-15-0758AH2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4748.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4748.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Heath 6-62-15-0758AH2	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	Heath 6-62-15-0758AH2					
Well Position	+N/-S	1.29 usft	Northing:	1,424,919.619 usft	Latitude:	40° 29' 37.071 N
	+E/-W	3,222.36 usft	Easting:	3,333,087.945 usft	Longitude:	104° 18' 8.449 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,732.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/04/17	8.10	67.07	52,824

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	180.25

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	
1,094.94	3.90	18.09	1,094.79	6.30	2.06	2.00	2.00	0.00	18.09	
5,162.31	3.90	18.09	5,152.75	269.19	87.94	0.00	0.00	0.00	0.00	
5,357.25	0.00	0.00	5,347.54	275.49	90.00	2.00	-2.00	0.00	180.00	
5,857.25	0.00	0.00	5,847.54	275.49	90.00	0.00	0.00	0.00	0.00	
6,609.62	90.28	180.25	6,325.00	-204.34	87.89	12.00	12.00	0.00	180.25	Heath 6-62-15-0758A
16,082.84	90.28	180.25	6,278.00	-9,677.35	46.19	0.00	0.00	0.00	0.00	Heath 6-62-15-0758A

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Heath 6-62-15-0758AH2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4748.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4748.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Heath 6-62-15-0758AH2	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	18.09	999.98	1.66	0.54	-1.66	2.00	2.00	0.00
Start 4067.37 hold at 1094.94 MD									
1,094.94	3.90	18.09	1,094.79	6.30	2.06	-6.31	2.00	2.00	0.00
1,100.00	3.90	18.09	1,099.84	6.63	2.17	-6.64	0.00	0.00	0.00
1,200.00	3.90	18.09	1,199.61	13.09	4.28	-13.11	0.00	0.00	0.00
1,300.00	3.90	18.09	1,299.38	19.56	6.39	-19.58	0.00	0.00	0.00
1,400.00	3.90	18.09	1,399.14	26.02	8.50	-26.06	0.00	0.00	0.00
1,500.00	3.90	18.09	1,498.91	32.48	10.61	-32.53	0.00	0.00	0.00
1,600.00	3.90	18.09	1,598.68	38.95	12.72	-39.00	0.00	0.00	0.00
1,700.00	3.90	18.09	1,698.45	45.41	14.83	-45.47	0.00	0.00	0.00
1,800.00	3.90	18.09	1,798.22	51.87	16.95	-51.95	0.00	0.00	0.00
1,900.00	3.90	18.09	1,897.99	58.34	19.06	-58.42	0.00	0.00	0.00
2,000.00	3.90	18.09	1,997.76	64.80	21.17	-64.89	0.00	0.00	0.00
2,100.00	3.90	18.09	2,097.52	71.26	23.28	-71.36	0.00	0.00	0.00
2,200.00	3.90	18.09	2,197.29	77.73	25.39	-77.84	0.00	0.00	0.00
2,300.00	3.90	18.09	2,297.06	84.19	27.50	-84.31	0.00	0.00	0.00
2,400.00	3.90	18.09	2,396.83	90.65	29.62	-90.78	0.00	0.00	0.00
2,500.00	3.90	18.09	2,496.60	97.12	31.73	-97.25	0.00	0.00	0.00
2,600.00	3.90	18.09	2,596.37	103.58	33.84	-103.73	0.00	0.00	0.00
2,700.00	3.90	18.09	2,696.14	110.04	35.95	-110.20	0.00	0.00	0.00
2,800.00	3.90	18.09	2,795.90	116.50	38.06	-116.67	0.00	0.00	0.00
2,900.00	3.90	18.09	2,895.67	122.97	40.17	-123.14	0.00	0.00	0.00
3,000.00	3.90	18.09	2,995.44	129.43	42.28	-129.61	0.00	0.00	0.00
3,100.00	3.90	18.09	3,095.21	135.89	44.40	-136.09	0.00	0.00	0.00
3,200.00	3.90	18.09	3,194.98	142.36	46.51	-142.56	0.00	0.00	0.00
3,300.00	3.90	18.09	3,294.75	148.82	48.62	-149.03	0.00	0.00	0.00
3,400.00	3.90	18.09	3,394.52	155.28	50.73	-155.50	0.00	0.00	0.00
3,500.00	3.90	18.09	3,494.28	161.75	52.84	-161.98	0.00	0.00	0.00
3,600.00	3.90	18.09	3,594.05	168.21	54.95	-168.45	0.00	0.00	0.00
3,700.00	3.90	18.09	3,693.82	174.67	57.06	-174.92	0.00	0.00	0.00
3,800.00	3.90	18.09	3,793.59	181.14	59.18	-181.39	0.00	0.00	0.00
3,900.00	3.90	18.09	3,893.36	187.60	61.29	-187.87	0.00	0.00	0.00
4,000.00	3.90	18.09	3,993.13	194.06	63.40	-194.34	0.00	0.00	0.00
Sussex									
4,082.04	3.90	18.09	4,074.98	199.37	65.13	-199.65	0.00	0.00	0.00
4,100.00	3.90	18.09	4,092.89	200.53	65.51	-200.81	0.00	0.00	0.00
4,200.00	3.90	18.09	4,192.66	206.99	67.62	-207.28	0.00	0.00	0.00
4,300.00	3.90	18.09	4,292.43	213.45	69.73	-213.76	0.00	0.00	0.00
4,400.00	3.90	18.09	4,392.20	219.92	71.84	-220.23	0.00	0.00	0.00
4,500.00	3.90	18.09	4,491.97	226.38	73.96	-226.70	0.00	0.00	0.00
4,600.00	3.90	18.09	4,591.74	232.84	76.07	-233.17	0.00	0.00	0.00
4,700.00	3.90	18.09	4,691.51	239.31	78.18	-239.65	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Heath 6-62-15-0758AH2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4748.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4748.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Heath 6-62-15-0758AH2	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	3.90	18.09	4,791.27	245.77	80.29	-246.12	0.00	0.00	0.00
Shannon									
4,819.98	3.90	18.09	4,811.21	247.06	80.71	-247.41	0.00	0.00	0.00
4,900.00	3.90	18.09	4,891.04	252.23	82.40	-252.59	0.00	0.00	0.00
5,000.00	3.90	18.09	4,990.81	258.70	84.51	-259.06	0.00	0.00	0.00
5,100.00	3.90	18.09	5,090.58	265.16	86.63	-265.54	0.00	0.00	0.00
Start Drop -2.00									
5,162.31	3.90	18.09	5,152.75	269.19	87.94	-269.57	0.00	0.00	0.00
5,200.00	3.15	18.09	5,190.37	271.39	88.66	-271.77	2.00	-2.00	0.00
5,300.00	1.15	18.09	5,290.29	274.95	89.82	-275.34	2.00	-2.00	0.00
Start 500.00 hold at 5357.25 MD									
5,357.25	0.00	0.00	5,347.54	275.49	90.00	-275.88	2.00	-2.00	0.00
5,400.00	0.00	0.00	5,390.29	275.49	90.00	-275.88	0.00	0.00	0.00
5,500.00	0.00	0.00	5,490.29	275.49	90.00	-275.88	0.00	0.00	0.00
5,600.00	0.00	0.00	5,590.29	275.49	90.00	-275.88	0.00	0.00	0.00
5,700.00	0.00	0.00	5,690.29	275.49	90.00	-275.88	0.00	0.00	0.00
5,800.00	0.00	0.00	5,790.29	275.49	90.00	-275.88	0.00	0.00	0.00
Start Build 12.00									
5,857.25	0.00	0.00	5,847.54	275.49	90.00	-275.88	0.00	0.00	0.00
5,875.00	2.13	180.25	5,865.28	275.16	90.00	-275.55	12.00	12.00	0.00
5,900.00	5.13	180.25	5,890.23	273.58	89.99	-273.97	12.00	12.00	0.00
5,925.00	8.13	180.25	5,915.06	270.69	89.98	-271.08	12.00	12.00	0.00
5,950.00	11.13	180.25	5,939.70	266.51	89.96	-266.90	12.00	12.00	0.00
5,975.00	14.13	180.25	5,964.10	261.05	89.94	-261.44	12.00	12.00	0.00
6,000.00	17.13	180.25	5,988.17	254.31	89.91	-254.70	12.00	12.00	0.00
6,025.00	20.13	180.25	6,011.86	246.33	89.87	-246.72	12.00	12.00	0.00
6,050.00	23.13	180.25	6,035.09	237.11	89.83	-237.50	12.00	12.00	0.00
6,075.00	26.13	180.25	6,057.82	226.69	89.79	-227.08	12.00	12.00	0.00
6,100.00	29.13	180.25	6,079.96	215.10	89.73	-215.49	12.00	12.00	0.00
6,125.00	32.13	180.25	6,101.47	202.37	89.68	-202.76	12.00	12.00	0.00
6,150.00	35.13	180.25	6,122.29	188.52	89.62	-188.91	12.00	12.00	0.00
6,175.00	38.13	180.25	6,142.35	173.61	89.55	-174.00	12.00	12.00	0.00
6,200.00	41.13	180.25	6,161.60	157.66	89.48	-158.05	12.00	12.00	0.00
Sharon Springs									
6,219.07	43.42	180.25	6,175.71	144.84	89.42	-145.23	12.00	12.00	0.00
6,225.00	44.13	180.25	6,179.99	140.74	89.41	-141.12	12.00	12.00	0.00
6,250.00	47.13	180.25	6,197.47	122.87	89.33	-123.26	12.00	12.00	0.00
6,275.00	50.13	180.25	6,213.99	104.11	89.25	-104.50	12.00	12.00	0.00
6,300.00	53.13	180.25	6,229.51	84.51	89.16	-84.90	12.00	12.00	0.00
6,325.00	56.13	180.25	6,243.98	64.13	89.07	-64.51	12.00	12.00	0.00
6,350.00	59.13	180.25	6,257.36	43.01	88.98	-43.40	12.00	12.00	0.00
Niobrara									
6,361.54	60.51	180.25	6,263.16	33.04	88.93	-33.43	12.00	12.00	0.00
6,375.00	62.13	180.25	6,269.62	21.23	88.88	-21.62	12.00	12.00	0.00
6,400.00	65.13	180.25	6,280.73	-1.17	88.78	0.78	12.00	12.00	0.00
6,425.00	68.13	180.25	6,290.64	-24.11	88.68	23.72	12.00	12.00	0.00
6,450.00	71.13	180.25	6,299.34	-47.55	88.58	47.16	12.00	12.00	0.00
Top A Target									
6,454.41	71.66	180.25	6,300.75	-51.72	88.56	51.34	12.00	12.00	0.00
6,475.00	74.13	180.25	6,306.80	-71.40	88.47	71.02	12.00	12.00	0.00
6,500.00	77.13	180.25	6,313.01	-95.62	88.37	95.23	12.00	12.00	0.00
6,525.00	80.13	180.25	6,317.94	-120.12	88.26	119.74	12.00	12.00	0.00
6,550.00	83.13	180.25	6,321.58	-144.85	88.15	144.47	12.00	12.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Heath 6-62-15-0758AH2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4748.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4748.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Heath 6-62-15-0758AH2	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)
6,575.00	86.13	180.25	6,323.92	-169.74	88.04	169.36	12.00	12.00	0.00
6,600.00	89.13	180.25	6,324.95	-194.72	87.93	194.33	12.00	12.00	0.00
Start 9473.22 hold at 6609.62 MD - 7" Csg.									
6,609.62	90.28	180.25	6,325.00	-204.34	87.89	203.95	12.00	12.00	0.00
6,700.00	90.28	180.25	6,324.55	-294.71	87.49	294.33	0.00	0.00	0.00
6,800.00	90.28	180.25	6,324.05	-394.71	87.05	394.33	0.00	0.00	0.00
6,900.00	90.28	180.25	6,323.56	-494.71	86.61	494.33	0.00	0.00	0.00
7,000.00	90.28	180.25	6,323.06	-594.71	86.17	594.33	0.00	0.00	0.00
7,100.00	90.28	180.25	6,322.57	-694.71	85.73	694.32	0.00	0.00	0.00
7,200.00	90.28	180.25	6,322.07	-794.70	85.29	794.32	0.00	0.00	0.00
7,300.00	90.28	180.25	6,321.57	-894.70	84.85	894.32	0.00	0.00	0.00
7,400.00	90.28	180.25	6,321.08	-994.70	84.41	994.32	0.00	0.00	0.00
7,500.00	90.28	180.25	6,320.58	-1,094.70	83.97	1,094.32	0.00	0.00	0.00
7,600.00	90.28	180.25	6,320.09	-1,194.69	83.53	1,194.32	0.00	0.00	0.00
7,700.00	90.28	180.25	6,319.59	-1,294.69	83.09	1,294.32	0.00	0.00	0.00
7,800.00	90.28	180.25	6,319.09	-1,394.69	82.65	1,394.32	0.00	0.00	0.00
7,900.00	90.28	180.25	6,318.60	-1,494.69	82.21	1,494.31	0.00	0.00	0.00
8,000.00	90.28	180.25	6,318.10	-1,594.69	81.77	1,594.31	0.00	0.00	0.00
8,100.00	90.28	180.25	6,317.60	-1,694.68	81.33	1,694.31	0.00	0.00	0.00
8,200.00	90.28	180.25	6,317.11	-1,794.68	80.89	1,794.31	0.00	0.00	0.00
8,300.00	90.28	180.25	6,316.61	-1,894.68	80.45	1,894.31	0.00	0.00	0.00
8,400.00	90.28	180.25	6,316.12	-1,994.68	80.01	1,994.31	0.00	0.00	0.00
8,500.00	90.28	180.25	6,315.62	-2,094.67	79.57	2,094.31	0.00	0.00	0.00
8,600.00	90.28	180.25	6,315.12	-2,194.67	79.13	2,194.31	0.00	0.00	0.00
8,700.00	90.28	180.25	6,314.63	-2,294.67	78.69	2,294.31	0.00	0.00	0.00
8,800.00	90.28	180.25	6,314.13	-2,394.67	78.25	2,394.30	0.00	0.00	0.00
8,900.00	90.28	180.25	6,313.64	-2,494.67	77.81	2,494.30	0.00	0.00	0.00
9,000.00	90.28	180.25	6,313.14	-2,594.66	77.37	2,594.30	0.00	0.00	0.00
9,100.00	90.28	180.25	6,312.64	-2,694.66	76.93	2,694.30	0.00	0.00	0.00
9,200.00	90.28	180.25	6,312.15	-2,794.66	76.49	2,794.30	0.00	0.00	0.00
9,300.00	90.28	180.25	6,311.65	-2,894.66	76.04	2,894.30	0.00	0.00	0.00
9,400.00	90.28	180.25	6,311.15	-2,994.65	75.60	2,994.30	0.00	0.00	0.00
9,500.00	90.28	180.25	6,310.66	-3,094.65	75.16	3,094.30	0.00	0.00	0.00
9,600.00	90.28	180.25	6,310.16	-3,194.65	74.72	3,194.29	0.00	0.00	0.00
9,700.00	90.28	180.25	6,309.67	-3,294.65	74.28	3,294.29	0.00	0.00	0.00
9,800.00	90.28	180.25	6,309.17	-3,394.65	73.84	3,394.29	0.00	0.00	0.00
9,900.00	90.28	180.25	6,308.67	-3,494.64	73.40	3,494.29	0.00	0.00	0.00
10,000.00	90.28	180.25	6,308.18	-3,594.64	72.96	3,594.29	0.00	0.00	0.00
10,100.00	90.28	180.25	6,307.68	-3,694.64	72.52	3,694.29	0.00	0.00	0.00
10,200.00	90.28	180.25	6,307.19	-3,794.64	72.08	3,794.29	0.00	0.00	0.00
10,300.00	90.28	180.25	6,306.69	-3,894.64	71.64	3,894.29	0.00	0.00	0.00
10,400.00	90.28	180.25	6,306.19	-3,994.63	71.20	3,994.28	0.00	0.00	0.00
10,500.00	90.28	180.25	6,305.70	-4,094.63	70.76	4,094.28	0.00	0.00	0.00
10,600.00	90.28	180.25	6,305.20	-4,194.63	70.32	4,194.28	0.00	0.00	0.00
10,700.00	90.28	180.25	6,304.70	-4,294.63	69.88	4,294.28	0.00	0.00	0.00
10,800.00	90.28	180.25	6,304.21	-4,394.62	69.44	4,394.28	0.00	0.00	0.00
10,900.00	90.28	180.25	6,303.71	-4,494.62	69.00	4,494.28	0.00	0.00	0.00
11,000.00	90.28	180.25	6,303.22	-4,594.62	68.56	4,594.28	0.00	0.00	0.00
11,100.00	90.28	180.25	6,302.72	-4,694.62	68.12	4,694.28	0.00	0.00	0.00
11,200.00	90.28	180.25	6,302.22	-4,794.62	67.68	4,794.27	0.00	0.00	0.00
11,300.00	90.28	180.25	6,301.73	-4,894.61	67.24	4,894.27	0.00	0.00	0.00
11,400.00	90.28	180.25	6,301.23	-4,994.61	66.80	4,994.27	0.00	0.00	0.00
11,500.00	90.28	180.25	6,300.74	-5,094.61	66.36	5,094.27	0.00	0.00	0.00
11,600.00	90.28	180.25	6,300.24	-5,194.61	65.92	5,194.27	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Heath 6-62-15-0758AH2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4748.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4748.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Heath 6-62-15-0758AH2	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)
11,700.00	90.28	180.25	6,299.74	-5,294.60	65.48	5,294.27	0.00	0.00	0.00
11,800.00	90.28	180.25	6,299.25	-5,394.60	65.04	5,394.27	0.00	0.00	0.00
11,900.00	90.28	180.25	6,298.75	-5,494.60	64.60	5,494.27	0.00	0.00	0.00
12,000.00	90.28	180.25	6,298.25	-5,594.60	64.16	5,594.26	0.00	0.00	0.00
12,100.00	90.28	180.25	6,297.76	-5,694.60	63.72	5,694.26	0.00	0.00	0.00
12,200.00	90.28	180.25	6,297.26	-5,794.59	63.28	5,794.26	0.00	0.00	0.00
12,300.00	90.28	180.25	6,296.77	-5,894.59	62.84	5,894.26	0.00	0.00	0.00
12,400.00	90.28	180.25	6,296.27	-5,994.59	62.40	5,994.26	0.00	0.00	0.00
12,500.00	90.28	180.25	6,295.77	-6,094.59	61.96	6,094.26	0.00	0.00	0.00
12,600.00	90.28	180.25	6,295.28	-6,194.58	61.52	6,194.26	0.00	0.00	0.00
12,700.00	90.28	180.25	6,294.78	-6,294.58	61.08	6,294.26	0.00	0.00	0.00
12,800.00	90.28	180.25	6,294.29	-6,394.58	60.64	6,394.25	0.00	0.00	0.00
12,900.00	90.28	180.25	6,293.79	-6,494.58	60.20	6,494.25	0.00	0.00	0.00
13,000.00	90.28	180.25	6,293.29	-6,594.58	59.76	6,594.25	0.00	0.00	0.00
13,100.00	90.28	180.25	6,292.80	-6,694.57	59.32	6,694.25	0.00	0.00	0.00
13,200.00	90.28	180.25	6,292.30	-6,794.57	58.88	6,794.25	0.00	0.00	0.00
13,300.00	90.28	180.25	6,291.81	-6,894.57	58.44	6,894.25	0.00	0.00	0.00
13,400.00	90.28	180.25	6,291.31	-6,994.57	58.00	6,994.25	0.00	0.00	0.00
13,500.00	90.28	180.25	6,290.81	-7,094.56	57.56	7,094.25	0.00	0.00	0.00
13,600.00	90.28	180.25	6,290.32	-7,194.56	57.12	7,194.24	0.00	0.00	0.00
13,700.00	90.28	180.25	6,289.82	-7,294.56	56.68	7,294.24	0.00	0.00	0.00
13,800.00	90.28	180.25	6,289.32	-7,394.56	56.24	7,394.24	0.00	0.00	0.00
13,900.00	90.28	180.25	6,288.83	-7,494.56	55.80	7,494.24	0.00	0.00	0.00
14,000.00	90.28	180.25	6,288.33	-7,594.55	55.36	7,594.24	0.00	0.00	0.00
14,100.00	90.28	180.25	6,287.84	-7,694.55	54.92	7,694.24	0.00	0.00	0.00
14,200.00	90.28	180.25	6,287.34	-7,794.55	54.48	7,794.24	0.00	0.00	0.00
14,300.00	90.28	180.25	6,286.84	-7,894.55	54.03	7,894.24	0.00	0.00	0.00
14,400.00	90.28	180.25	6,286.35	-7,994.54	53.59	7,994.23	0.00	0.00	0.00
14,500.00	90.28	180.25	6,285.85	-8,094.54	53.15	8,094.23	0.00	0.00	0.00
14,600.00	90.28	180.25	6,285.36	-8,194.54	52.71	8,194.23	0.00	0.00	0.00
14,700.00	90.28	180.25	6,284.86	-8,294.54	52.27	8,294.23	0.00	0.00	0.00
14,800.00	90.28	180.25	6,284.36	-8,394.54	51.83	8,394.23	0.00	0.00	0.00
14,900.00	90.28	180.25	6,283.87	-8,494.53	51.39	8,494.23	0.00	0.00	0.00
15,000.00	90.28	180.25	6,283.37	-8,594.53	50.95	8,594.23	0.00	0.00	0.00
15,100.00	90.28	180.25	6,282.87	-8,694.53	50.51	8,694.23	0.00	0.00	0.00
15,200.00	90.28	180.25	6,282.38	-8,794.53	50.07	8,794.23	0.00	0.00	0.00
15,300.00	90.28	180.25	6,281.88	-8,894.53	49.63	8,894.22	0.00	0.00	0.00
15,400.00	90.28	180.25	6,281.39	-8,994.52	49.19	8,994.22	0.00	0.00	0.00
15,500.00	90.28	180.25	6,280.89	-9,094.52	48.75	9,094.22	0.00	0.00	0.00
15,600.00	90.28	180.25	6,280.39	-9,194.52	48.31	9,194.22	0.00	0.00	0.00
15,700.00	90.28	180.25	6,279.90	-9,294.52	47.87	9,294.22	0.00	0.00	0.00
15,800.00	90.28	180.25	6,279.40	-9,394.51	47.43	9,394.22	0.00	0.00	0.00
15,900.00	90.28	180.25	6,278.91	-9,494.51	46.99	9,494.22	0.00	0.00	0.00
16,000.00	90.28	180.25	6,278.41	-9,594.51	46.55	9,594.22	0.00	0.00	0.00
TD at 16082.84									
16,082.84	90.28	180.25	6,278.00	-9,677.35	46.19	9,677.05	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Heath 6-62-15-0758AH2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4748.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4748.00usft
Site:	Sec.15-T6N-R62W	North Reference:	True
Well:	Heath 6-62-15-0758AH2	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									
Heath 6-62-15-0758AH2	0.00	0.00	6,278.00	-9,677.35	46.19	1,415,243.779	3,333,264.828	40° 28' 1.441 N	104° 18' 7.852 W
- plan hits target center									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(usft)	(usft)		(")	(")
6,609.62	6,325.00	7" Csg.	7	8-3/4

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
4,082.04	4,074.00	Sussex		-0.28	180.25
4,819.98	4,810.00	Shannon		-0.28	180.25
6,219.07	6,175.00	Sharon Springs		-0.28	180.25
6,361.54	6,263.00	Niobrara		-0.28	180.25
6,454.41	6,301.00	Top A Target		-0.28	180.25

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
1,094.94	1,094.79	6.30	2.06	Start 4067.37 hold at 1094.94 MD
5,162.31	5,152.75	269.19	87.94	Start Drop -2.00
5,357.25	5,347.54	275.49	90.00	Start 500.00 hold at 5357.25 MD
5,857.25	5,847.54	275.49	90.00	Start Build 12.00
6,609.62	6,325.00	-204.34	87.89	Start 9473.22 hold at 6609.62 MD
16,082.84	6,278.00	-9,677.35	46.19	TD at 16082.84