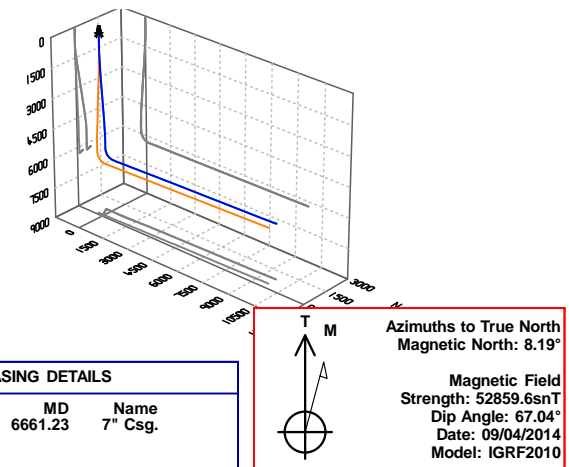




Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.34-T6N-R62W
Well: Fiducial 6-62-34-4956BH2
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 26' 21.941 N
Long: 104° 19' 3.410 W
Pad GL: 4677.00
KB: WELL @ 4699.00usft (Original Well Elev)

Archer



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 |
| 1400.18 | 10.00 | 331.78 | 1397.64 | 38.38 | -20.59 | 2.00 | 331.78 | -19.64 | Start 3506.56 hold at 1400.18 MD |
| 4906.74 | 10.00 | 331.78 | 4850.90 | 575.11 | -308.61 | 0.00 | 0.00 | -294.36 | Start Drop -2.00 |
| 5406.93 | 0.00 | 0.00 | 5348.54 | 613.49 | -329.20 | 2.00 | 180.00 | -314.00 | Start 500.01 hold at 5406.93 MD |
| 5906.94 | 0.00 | 0.00 | 5848.55 | 613.49 | -329.20 | 0.00 | 0.00 | -314.00 | Start Build 12.00 |
| 6661.23 | 90.52 | 88.59 | 6326.00 | 625.37 | 152.42 | 12.00 | 88.59 | 167.76 | Start 9553.21 hold at 6661.23 MD |
| 16214.44 | 90.52 | 88.59 | 6240.00 | 860.94 | 9702.33 | 0.00 | 0.00 | 9720.58 | TD at 16214.44 |

WELL DETAILS: Fiducial 6-62-34-4956BH2

| +N/-S | +E/-W | Northing | Ground Level: 4677.00 | Latitude | Longitude | Slot |
|-------|-------|-------------|-----------------------|------------------|------------------|------|
| 0.00 | 0.00 | 1405118.115 | Easting 3329105.471 | 40° 26' 21.941 N | 104° 19' 3.410 W | |

PROJECT DETAILS: Weld Co., CO

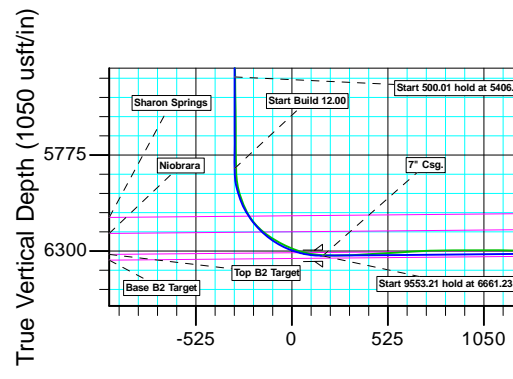
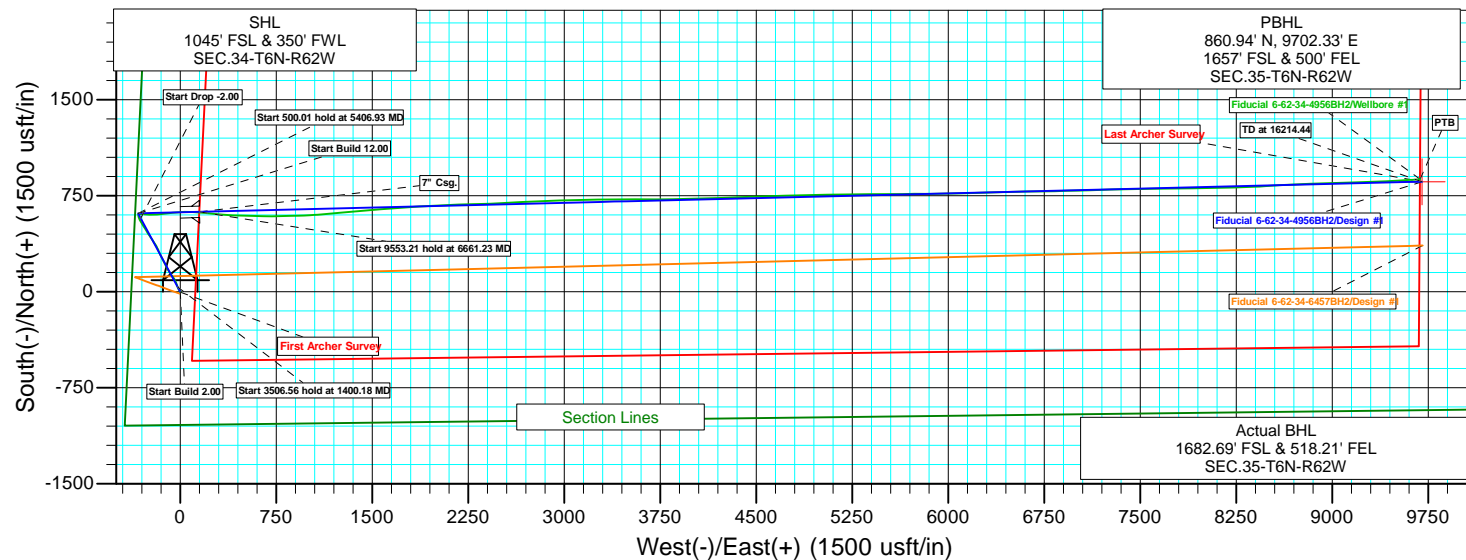
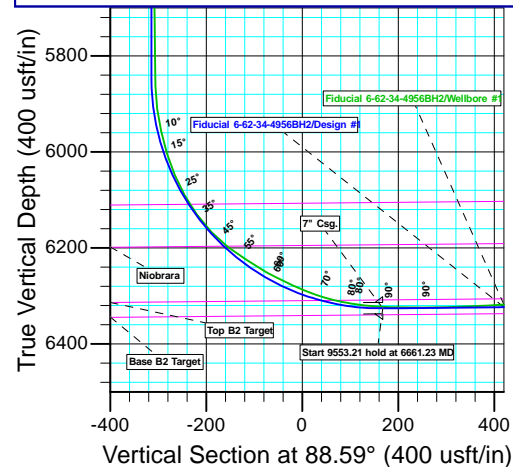
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

CASING DETAILS

| TVD | MD | Name |
|---------|---------|---------|
| 6326.00 | 6661.23 | 7" Csg. |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape Point |
|------------------------------|---------|--------|---------|------------------|-------------------|-------------|
| Fiducial 6-62-34-4956BH2 tgt | 6240.00 | 860.94 | 9702.33 | 40° 26' 30.430 N | 104° 16' 57.922 W | |



Plan: Design #1 (Fiducial 6-62-34-4956BH2/Wellbore #1)

Created By: Ricky Osburn

Date: 10:06, October 20 2014



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.34-T6N-R62W

Fiducial 6-62-34-4956BH2

Wellbore #1

Survey: Survey #1

Standard Survey Report

07 October, 2014

Archer

| | | | |
|------------------|--------------------------|-------------------------------------|---|
| Company: | Bill Barrett Corp. | Local Co-ordinate Reference: | Well Fiducial 6-62-34-4956BH2 |
| Project: | Weld Co., CO | TVD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Site: | Sec.34-T6N-R62W | MD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Well: | Fiducial 6-62-34-4956BH2 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDMDBBW |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| 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.34-T6N-R62W | | | |
| Site Position: | | Northing: | 1,407,388.563 usft | Latitude: | 40° 26' 44.369 N |
| From: | Lat/Long | Easting: | 3,329,153.968 usft | Longitude: | 104° 19' 2.392 W |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.76 ° |

| | | | | | | |
|----------------------|--------------------------|-----------|---------------------|--------------------|---------------|------------------|
| Well | Fiducial 6-62-34-4956BH2 | | | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 1,405,118.115 usft | Latitude: | 40° 26' 21.941 N |
| | +E/-W | 0.00 usft | Easting: | 3,329,105.471 usft | Longitude: | 104° 19' 3.410 W |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | usft | Ground Level: | 4,677.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 09/04/14 | 8.19 | 67.04 | 52,860 |

| | | | | |
|-------------------|----------------------------|-----------------|-----------------|--------------------|
| Design | Wellbore #1 | | | |
| Audit Notes: | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 88.59 |

| | | | | |
|-----------------------|------------------|--------------------------|------------------|--------------------|
| Survey Program | Date | 10/07/14 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 853.00 | 16,200.00 | Survey #1 (Wellbore #1) | MWD | MWD - Standard |

| | | | | | | | | | | |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| 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 | |
| First Archer Survey | | | | | | | | | | |
| 853.00 | 0.30 | 144.20 | 853.00 | -1.81 | 1.31 | 1.26 | 0.04 | 0.04 | 0.00 | |
| 884.00 | 0.20 | 165.20 | 884.00 | -1.93 | 1.37 | 1.32 | 0.43 | -0.32 | 67.74 | |
| 974.00 | 2.10 | 330.60 | 973.98 | -0.64 | 0.60 | 0.58 | 2.55 | 2.11 | 183.78 | |
| 1,065.00 | 4.60 | 325.70 | 1,064.81 | 3.82 | -2.28 | -2.18 | 2.76 | 2.75 | -5.38 | |
| 1,156.00 | 7.60 | 327.40 | 1,155.29 | 11.91 | -7.58 | -7.28 | 3.30 | 3.30 | 1.87 | |
| 1,247.00 | 10.00 | 334.90 | 1,245.21 | 24.14 | -14.17 | -13.57 | 2.92 | 2.64 | 8.24 | |
| 1,339.00 | 10.40 | 339.40 | 1,335.76 | 39.14 | -20.48 | -19.51 | 0.97 | 0.43 | 4.89 | |
| 1,430.00 | 10.20 | 340.00 | 1,425.30 | 54.40 | -26.13 | -24.78 | 0.25 | -0.22 | 0.66 | |
| 1,522.00 | 9.90 | 339.70 | 1,515.88 | 69.47 | -31.66 | -29.94 | 0.33 | -0.33 | -0.33 | |
| 1,613.00 | 10.80 | 331.50 | 1,605.41 | 84.31 | -38.44 | -36.35 | 1.89 | 0.99 | -9.01 | |
| 1,704.00 | 10.40 | 328.70 | 1,694.85 | 98.82 | -46.78 | -44.33 | 0.72 | -0.44 | -3.08 | |

| | | | |
|------------------|--------------------------|-------------------------------------|---|
| Company: | Bill Barrett Corp. | Local Co-ordinate Reference: | Well Fiducial 6-62-34-4956BH2 |
| Project: | Weld Co., CO | TVD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Site: | Sec.34-T6N-R62W | MD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Well: | Fiducial 6-62-34-4956BH2 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDMDBBW |

| 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) | |
| 1,795.00 | 10.50 | 326.60 | 1,784.35 | 112.76 | -55.61 | -52.82 | 0.43 | 0.11 | -2.31 | |
| 1,886.00 | 10.50 | 323.80 | 1,873.82 | 126.37 | -65.07 | -61.94 | 0.56 | 0.00 | -3.08 | |
| 1,982.00 | 10.40 | 323.80 | 1,968.23 | 140.42 | -75.35 | -71.87 | 0.10 | -0.10 | 0.00 | |
| 2,077.00 | 10.60 | 330.50 | 2,061.64 | 154.95 | -84.72 | -80.88 | 1.30 | 0.21 | 7.05 | |
| 2,172.00 | 10.30 | 330.80 | 2,155.07 | 169.97 | -93.17 | -88.96 | 0.32 | -0.32 | 0.32 | |
| 2,267.00 | 9.80 | 330.40 | 2,248.61 | 184.41 | -101.30 | -96.73 | 0.53 | -0.53 | -0.42 | |
| 2,362.00 | 9.30 | 332.20 | 2,342.29 | 198.23 | -108.88 | -103.97 | 0.61 | -0.53 | 1.89 | |
| 2,457.00 | 10.40 | 333.60 | 2,435.89 | 212.70 | -116.27 | -111.00 | 1.18 | 1.16 | 1.47 | |
| 2,551.00 | 10.20 | 332.90 | 2,528.38 | 227.71 | -123.83 | -118.19 | 0.25 | -0.21 | -0.74 | |
| 2,646.00 | 10.00 | 332.30 | 2,621.90 | 242.50 | -131.50 | -125.49 | 0.24 | -0.21 | -0.63 | |
| 2,741.00 | 9.90 | 332.70 | 2,715.47 | 257.06 | -139.08 | -132.71 | 0.13 | -0.11 | 0.42 | |
| 2,836.00 | 10.60 | 335.00 | 2,808.96 | 272.24 | -146.52 | -139.77 | 0.85 | 0.74 | 2.42 | |
| 2,931.00 | 10.50 | 334.50 | 2,902.35 | 287.97 | -153.94 | -146.80 | 0.14 | -0.11 | -0.53 | |
| 3,026.00 | 10.00 | 335.00 | 2,995.84 | 303.26 | -161.15 | -153.64 | 0.53 | -0.53 | 0.53 | |
| 3,121.00 | 9.60 | 335.30 | 3,089.45 | 317.93 | -167.95 | -160.07 | 0.42 | -0.42 | 0.32 | |
| 3,216.00 | 8.80 | 334.00 | 3,183.23 | 331.66 | -174.44 | -166.23 | 0.87 | -0.84 | -1.37 | |
| 3,311.00 | 10.20 | 332.90 | 3,276.92 | 345.68 | -181.46 | -172.90 | 1.49 | 1.47 | -1.16 | |
| 3,407.00 | 10.50 | 333.00 | 3,371.36 | 361.04 | -189.30 | -180.36 | 0.31 | 0.31 | 0.10 | |
| 3,502.00 | 10.70 | 326.40 | 3,464.74 | 376.10 | -198.11 | -188.80 | 1.29 | 0.21 | -6.95 | |
| 3,597.00 | 11.30 | 326.40 | 3,558.00 | 391.20 | -208.14 | -198.46 | 0.63 | 0.63 | 0.00 | |
| 3,692.00 | 11.50 | 326.30 | 3,651.12 | 406.83 | -218.55 | -208.47 | 0.21 | 0.21 | -0.11 | |
| 3,788.00 | 11.70 | 326.10 | 3,745.16 | 422.87 | -229.29 | -218.81 | 0.21 | 0.21 | -0.21 | |
| 3,884.00 | 11.60 | 326.40 | 3,839.18 | 438.99 | -240.06 | -229.18 | 0.12 | -0.10 | 0.31 | |
| 3,977.00 | 10.80 | 328.50 | 3,930.41 | 454.20 | -249.79 | -238.53 | 0.97 | -0.86 | 2.26 | |
| 4,072.00 | 10.20 | 328.30 | 4,023.82 | 468.95 | -258.86 | -247.24 | 0.63 | -0.63 | -0.21 | |
| 4,167.00 | 9.50 | 328.60 | 4,117.42 | 482.80 | -267.36 | -255.40 | 0.74 | -0.74 | 0.32 | |
| 4,261.00 | 9.40 | 327.10 | 4,210.14 | 495.86 | -275.57 | -263.29 | 0.28 | -0.11 | -1.60 | |
| 4,356.00 | 8.90 | 326.30 | 4,303.93 | 508.49 | -283.86 | -271.27 | 0.54 | -0.53 | -0.84 | |
| 4,451.00 | 9.40 | 327.00 | 4,397.73 | 521.11 | -292.17 | -279.25 | 0.54 | 0.53 | 0.74 | |
| 4,546.00 | 9.00 | 327.00 | 4,491.50 | 533.85 | -300.44 | -287.21 | 0.42 | -0.42 | 0.00 | |
| 4,641.00 | 9.70 | 332.30 | 4,585.24 | 547.17 | -308.21 | -294.65 | 1.17 | 0.74 | 5.58 | |
| 4,736.00 | 8.90 | 333.20 | 4,678.99 | 560.81 | -315.24 | -301.34 | 0.86 | -0.84 | 0.95 | |
| 4,831.00 | 8.70 | 336.60 | 4,772.88 | 573.97 | -321.41 | -307.19 | 0.59 | -0.21 | 3.58 | |
| 4,927.00 | 7.50 | 346.90 | 4,867.92 | 586.73 | -325.71 | -311.17 | 1.96 | -1.25 | 10.73 | |
| 5,021.00 | 5.20 | 6.40 | 4,961.35 | 596.94 | -326.63 | -311.84 | 3.32 | -2.45 | 20.74 | |
| 5,116.00 | 3.70 | 358.10 | 5,056.06 | 604.29 | -326.25 | -311.28 | 1.71 | -1.58 | -8.74 | |
| 5,211.00 | 2.10 | 332.30 | 5,150.94 | 608.89 | -327.16 | -312.08 | 2.13 | -1.68 | -27.16 | |
| 5,307.00 | 0.70 | 107.20 | 5,246.92 | 610.28 | -327.42 | -312.30 | 2.75 | -1.46 | 140.52 | |
| 5,401.00 | 1.00 | 116.80 | 5,340.91 | 609.74 | -326.14 | -311.03 | 0.35 | 0.32 | 10.21 | |
| 5,497.00 | 0.70 | 112.10 | 5,436.90 | 609.14 | -324.84 | -309.76 | 0.32 | -0.31 | -4.90 | |
| 5,591.00 | 0.70 | 130.40 | 5,530.89 | 608.55 | -323.88 | -308.80 | 0.24 | 0.00 | 19.47 | |
| 5,686.00 | 0.70 | 132.60 | 5,625.89 | 607.78 | -323.01 | -307.95 | 0.03 | 0.00 | 2.32 | |
| 5,781.00 | 0.50 | 129.60 | 5,720.88 | 607.12 | -322.26 | -307.22 | 0.21 | -0.21 | -3.16 | |
| 5,844.00 | 0.50 | 144.00 | 5,783.88 | 606.73 | -321.89 | -306.86 | 0.20 | 0.00 | 22.86 | |
| 5,876.00 | 0.40 | 167.90 | 5,815.88 | 606.50 | -321.78 | -306.76 | 0.66 | -0.31 | 74.69 | |
| 5,923.00 | 2.10 | 90.50 | 5,862.87 | 606.34 | -320.89 | -305.87 | 4.36 | 3.62 | -164.68 | |
| 5,971.00 | 7.10 | 87.80 | 5,910.70 | 606.44 | -317.04 | -302.02 | 10.42 | 10.42 | -5.62 | |
| 6,018.00 | 12.80 | 84.00 | 5,956.97 | 607.10 | -308.95 | -293.92 | 12.20 | 12.13 | -8.09 | |
| 6,066.00 | 17.00 | 90.70 | 6,003.35 | 607.57 | -296.64 | -281.60 | 9.44 | 8.75 | 13.96 | |
| 6,113.00 | 23.00 | 95.50 | 6,047.50 | 606.60 | -280.62 | -265.60 | 13.22 | 12.77 | 10.21 | |
| 6,161.00 | 28.70 | 96.20 | 6,090.68 | 604.46 | -259.81 | -244.85 | 11.89 | 11.87 | 1.46 | |
| 6,208.00 | 36.20 | 91.20 | 6,130.32 | 602.95 | -234.67 | -219.76 | 16.94 | 15.96 | -10.64 | |
| 6,256.00 | 43.00 | 87.80 | 6,167.28 | 603.28 | -204.10 | -189.20 | 14.86 | 14.17 | -7.08 | |
| 6,303.00 | 53.50 | 84.80 | 6,198.54 | 605.61 | -169.17 | -154.22 | 22.84 | 22.34 | -6.38 | |

| | | | |
|------------------|--------------------------|-------------------------------------|---|
| Company: | Bill Barrett Corp. | Local Co-ordinate Reference: | Well Fiducial 6-62-34-4956BH2 |
| Project: | Weld Co., CO | TVD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Site: | Sec.34-T6N-R62W | MD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Well: | Fiducial 6-62-34-4956BH2 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDMDBBW |

| 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) | |
| 6,351.00 | 56.90 | 83.50 | 6,225.93 | 609.64 | -129.97 | -114.93 | 7.42 | 7.08 | -2.71 | |
| 6,398.00 | 60.00 | 83.20 | 6,250.52 | 614.28 | -90.19 | -75.05 | 6.62 | 6.60 | -0.64 | |
| 6,446.00 | 65.80 | 84.90 | 6,272.38 | 618.69 | -47.71 | -32.47 | 12.49 | 12.08 | 3.54 | |
| 6,493.00 | 67.70 | 85.70 | 6,290.93 | 622.23 | -4.68 | 10.64 | 4.33 | 4.04 | 1.70 | |
| 6,541.00 | 75.10 | 88.50 | 6,306.23 | 624.50 | 40.72 | 56.08 | 16.38 | 15.42 | 5.83 | |
| 6,618.00 | 84.30 | 93.70 | 6,320.00 | 623.00 | 116.36 | 131.65 | 13.67 | 11.95 | 6.75 | |
| 6,695.00 | 89.20 | 96.80 | 6,324.36 | 615.96 | 192.88 | 207.98 | 7.53 | 6.36 | 4.03 | |
| 6,787.00 | 91.40 | 94.90 | 6,323.88 | 606.59 | 284.39 | 299.23 | 3.16 | 2.39 | -2.07 | |
| 6,878.00 | 93.10 | 93.30 | 6,320.31 | 600.08 | 375.08 | 389.73 | 2.56 | 1.87 | -1.76 | |
| 6,968.00 | 93.60 | 91.80 | 6,315.05 | 596.09 | 464.83 | 479.36 | 1.75 | 0.56 | -1.67 | |
| 7,060.00 | 93.80 | 91.50 | 6,309.11 | 593.44 | 556.60 | 571.04 | 0.39 | 0.22 | -0.33 | |
| 7,151.00 | 93.50 | 90.50 | 6,303.32 | 591.86 | 647.40 | 661.77 | 1.15 | -0.33 | -1.10 | |
| 7,243.00 | 92.00 | 89.80 | 6,298.90 | 591.62 | 739.29 | 753.63 | 1.80 | -1.63 | -0.76 | |
| 7,334.00 | 90.10 | 88.60 | 6,297.24 | 592.89 | 830.26 | 844.60 | 2.47 | -2.09 | -1.32 | |
| 7,425.00 | 90.30 | 88.30 | 6,296.92 | 595.35 | 921.23 | 935.60 | 0.40 | 0.22 | -0.33 | |
| 7,516.00 | 90.90 | 86.90 | 6,295.97 | 599.16 | 1,012.14 | 1,026.58 | 1.67 | 0.66 | -1.54 | |
| 7,607.00 | 88.90 | 85.40 | 6,296.12 | 605.27 | 1,102.93 | 1,117.49 | 2.75 | -2.20 | -1.65 | |
| 7,702.00 | 88.50 | 85.10 | 6,298.28 | 613.14 | 1,197.58 | 1,212.30 | 0.53 | -0.42 | -0.32 | |
| 7,796.00 | 89.90 | 84.80 | 6,299.59 | 621.41 | 1,291.20 | 1,306.10 | 1.52 | 1.49 | -0.32 | |
| 7,890.00 | 88.90 | 85.00 | 6,300.58 | 629.76 | 1,384.82 | 1,399.90 | 1.08 | -1.06 | 0.21 | |
| 7,985.00 | 88.30 | 85.20 | 6,302.90 | 637.88 | 1,479.45 | 1,494.70 | 0.67 | -0.63 | 0.21 | |
| 8,080.00 | 90.10 | 85.00 | 6,304.22 | 645.99 | 1,574.09 | 1,589.51 | 1.91 | 1.89 | -0.21 | |
| 8,175.00 | 90.10 | 85.40 | 6,304.06 | 653.94 | 1,668.75 | 1,684.34 | 0.42 | 0.00 | 0.42 | |
| 8,268.00 | 88.00 | 86.20 | 6,305.60 | 660.75 | 1,761.49 | 1,777.21 | 2.42 | -2.26 | 0.86 | |
| 8,363.00 | 87.80 | 87.20 | 6,309.08 | 666.21 | 1,856.26 | 1,872.10 | 1.07 | -0.21 | 1.05 | |
| 8,459.00 | 89.00 | 87.30 | 6,311.76 | 670.82 | 1,952.11 | 1,968.03 | 1.25 | 1.25 | 0.10 | |
| 8,553.00 | 90.80 | 87.30 | 6,311.93 | 675.25 | 2,046.01 | 2,062.00 | 1.91 | 1.91 | 0.00 | |
| 8,648.00 | 89.50 | 87.70 | 6,311.68 | 679.39 | 2,140.91 | 2,156.98 | 1.43 | -1.37 | 0.42 | |
| 8,742.00 | 90.60 | 88.10 | 6,311.59 | 682.83 | 2,234.85 | 2,250.97 | 1.25 | 1.17 | 0.43 | |
| 8,837.00 | 90.50 | 88.10 | 6,310.68 | 685.98 | 2,329.79 | 2,345.97 | 0.11 | -0.11 | 0.00 | |
| 8,932.00 | 92.40 | 87.60 | 6,308.28 | 689.55 | 2,424.69 | 2,440.92 | 2.07 | 2.00 | -0.53 | |
| 9,027.00 | 92.40 | 87.20 | 6,304.30 | 693.85 | 2,519.51 | 2,535.82 | 0.42 | 0.00 | -0.42 | |
| 9,121.00 | 90.30 | 87.70 | 6,302.09 | 698.03 | 2,613.38 | 2,629.77 | 2.30 | -2.23 | 0.53 | |
| 9,216.00 | 89.70 | 87.30 | 6,302.09 | 702.18 | 2,708.29 | 2,724.75 | 0.76 | -0.63 | -0.42 | |
| 9,312.00 | 91.40 | 87.20 | 6,301.16 | 706.78 | 2,804.17 | 2,820.72 | 1.77 | 1.77 | -0.10 | |
| 9,407.00 | 90.70 | 87.10 | 6,299.42 | 711.50 | 2,899.04 | 2,915.67 | 0.74 | -0.74 | -0.11 | |
| 9,502.00 | 89.60 | 87.70 | 6,299.17 | 715.81 | 2,993.94 | 3,010.65 | 1.32 | -1.16 | 0.63 | |
| 9,597.00 | 89.60 | 89.10 | 6,299.84 | 718.47 | 3,088.90 | 3,105.64 | 1.47 | 0.00 | 1.47 | |
| 9,692.00 | 91.30 | 89.60 | 6,299.09 | 719.54 | 3,183.89 | 3,200.63 | 1.87 | 1.79 | 0.53 | |
| 9,787.00 | 90.80 | 89.10 | 6,297.35 | 720.62 | 3,278.86 | 3,295.60 | 0.74 | -0.53 | -0.53 | |
| 9,882.00 | 89.90 | 89.80 | 6,296.77 | 721.53 | 3,373.85 | 3,390.59 | 1.20 | -0.95 | 0.74 | |
| 9,976.00 | 90.70 | 89.60 | 6,296.28 | 722.03 | 3,467.85 | 3,484.57 | 0.88 | 0.85 | -0.21 | |
| 10,072.00 | 90.00 | 89.80 | 6,295.69 | 722.53 | 3,563.85 | 3,580.55 | 0.76 | -0.73 | 0.21 | |
| 10,167.00 | 91.90 | 90.30 | 6,294.12 | 722.45 | 3,658.83 | 3,675.50 | 2.07 | 2.00 | 0.53 | |
| 10,261.00 | 91.40 | 89.30 | 6,291.41 | 722.77 | 3,752.79 | 3,769.44 | 1.19 | -0.53 | -1.06 | |
| 10,356.00 | 89.90 | 88.70 | 6,290.33 | 724.43 | 3,847.77 | 3,864.43 | 1.70 | -1.58 | -0.63 | |
| 10,451.00 | 91.40 | 88.60 | 6,289.26 | 726.67 | 3,942.73 | 3,959.42 | 1.58 | 1.58 | -0.11 | |
| 10,546.00 | 90.70 | 88.70 | 6,287.51 | 728.91 | 4,037.69 | 4,054.40 | 0.74 | -0.74 | 0.11 | |
| 10,640.00 | 89.90 | 88.10 | 6,287.02 | 731.53 | 4,131.65 | 4,148.40 | 1.06 | -0.85 | -0.64 | |
| 10,736.00 | 89.20 | 88.20 | 6,287.78 | 734.63 | 4,227.59 | 4,244.39 | 0.74 | -0.73 | 0.10 | |
| 10,830.00 | 90.70 | 88.10 | 6,287.86 | 737.67 | 4,321.54 | 4,338.39 | 1.60 | 1.60 | -0.11 | |
| 10,925.00 | 90.30 | 88.30 | 6,287.03 | 740.65 | 4,416.49 | 4,433.38 | 0.47 | -0.42 | 0.21 | |
| 11,020.00 | 88.20 | 88.00 | 6,288.27 | 743.72 | 4,511.43 | 4,528.36 | 2.23 | -2.21 | -0.32 | |
| 11,116.00 | 88.30 | 87.70 | 6,291.20 | 747.32 | 4,607.32 | 4,624.31 | 0.33 | 0.10 | -0.31 | |

| | | | |
|------------------|--------------------------|-------------------------------------|---|
| Company: | Bill Barrett Corp. | Local Co-ordinate Reference: | Well Fiducial 6-62-34-4956BH2 |
| Project: | Weld Co., CO | TVD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Site: | Sec.34-T6N-R62W | MD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Well: | Fiducial 6-62-34-4956BH2 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDMDBBW |

| 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) |
| 11,210.00 | 90.10 | 88.50 | 6,292.52 | 750.43 | 4,701.25 | 4,718.29 | 2.10 | 1.91 | 0.85 |
| 11,305.00 | 91.20 | 88.00 | 6,291.44 | 753.33 | 4,796.20 | 4,813.28 | 1.27 | 1.16 | -0.53 |
| 11,399.00 | 91.70 | 88.40 | 6,289.06 | 756.28 | 4,890.12 | 4,907.25 | 0.68 | 0.53 | 0.43 |
| 11,494.00 | 91.20 | 88.80 | 6,286.66 | 758.60 | 4,985.06 | 5,002.22 | 0.67 | -0.53 | 0.42 |
| 11,589.00 | 90.50 | 89.70 | 6,285.25 | 759.85 | 5,080.04 | 5,097.20 | 1.20 | -0.74 | 0.95 |
| 11,684.00 | 91.70 | 89.40 | 6,283.42 | 760.59 | 5,175.02 | 5,192.17 | 1.30 | 1.26 | -0.32 |
| 11,778.00 | 91.30 | 89.70 | 6,280.96 | 761.33 | 5,268.98 | 5,286.12 | 0.53 | -0.43 | 0.32 |
| 11,878.00 | 90.90 | 89.80 | 6,279.04 | 761.77 | 5,368.97 | 5,386.08 | 0.41 | -0.40 | 0.10 |
| 11,968.00 | 89.30 | 89.20 | 6,278.89 | 762.55 | 5,458.96 | 5,476.07 | 1.90 | -1.78 | -0.67 |
| 12,060.00 | 89.50 | 89.40 | 6,279.85 | 763.68 | 5,550.95 | 5,568.06 | 0.31 | 0.22 | 0.22 |
| 12,152.00 | 89.20 | 89.30 | 6,280.89 | 764.72 | 5,642.93 | 5,660.04 | 0.34 | -0.33 | -0.11 |
| 12,244.00 | 89.90 | 89.80 | 6,281.62 | 765.44 | 5,734.93 | 5,752.03 | 0.94 | 0.76 | 0.54 |
| 12,336.00 | 90.50 | 89.80 | 6,281.29 | 765.76 | 5,826.93 | 5,844.00 | 0.65 | 0.65 | 0.00 |
| 12,428.00 | 92.60 | 90.10 | 6,278.81 | 765.84 | 5,918.89 | 5,935.94 | 2.31 | 2.28 | 0.33 |
| 12,521.00 | 89.60 | 88.40 | 6,277.02 | 767.06 | 6,011.85 | 6,028.90 | 3.71 | -3.23 | -1.83 |
| 12,612.00 | 89.50 | 88.10 | 6,277.74 | 769.84 | 6,102.80 | 6,119.90 | 0.35 | -0.11 | -0.33 |
| 12,704.00 | 90.90 | 88.30 | 6,277.41 | 772.73 | 6,194.75 | 6,211.89 | 1.54 | 1.52 | 0.22 |
| 12,795.00 | 91.50 | 88.50 | 6,275.51 | 775.27 | 6,285.70 | 6,302.87 | 0.69 | 0.66 | 0.22 |
| 12,887.00 | 92.00 | 88.30 | 6,272.70 | 777.84 | 6,377.62 | 6,394.83 | 0.59 | 0.54 | -0.22 |
| 12,977.00 | 92.20 | 88.70 | 6,269.40 | 780.19 | 6,467.53 | 6,484.77 | 0.50 | 0.22 | 0.44 |
| 13,069.00 | 91.60 | 89.00 | 6,266.35 | 782.04 | 6,559.46 | 6,576.72 | 0.73 | -0.65 | 0.33 |
| 13,160.00 | 91.30 | 88.80 | 6,264.05 | 783.78 | 6,650.41 | 6,667.68 | 0.40 | -0.33 | -0.22 |
| 13,252.00 | 90.60 | 89.00 | 6,262.52 | 785.55 | 6,742.38 | 6,759.67 | 0.79 | -0.76 | 0.22 |
| 13,344.00 | 90.80 | 88.90 | 6,261.40 | 787.24 | 6,834.36 | 6,851.66 | 0.24 | 0.22 | -0.11 |
| 13,435.00 | 90.70 | 88.80 | 6,260.21 | 789.06 | 6,925.33 | 6,942.65 | 0.16 | -0.11 | -0.11 |
| 13,527.00 | 90.90 | 88.40 | 6,258.92 | 791.31 | 7,017.30 | 7,034.64 | 0.49 | 0.22 | -0.43 |
| 13,618.00 | 90.30 | 88.40 | 6,257.97 | 793.85 | 7,108.26 | 7,125.64 | 0.66 | -0.66 | 0.00 |
| 13,710.00 | 88.50 | 88.30 | 6,258.93 | 796.50 | 7,200.21 | 7,217.63 | 1.96 | -1.96 | -0.11 |
| 13,801.00 | 89.10 | 88.50 | 6,260.84 | 799.04 | 7,291.15 | 7,308.61 | 0.69 | 0.66 | 0.22 |
| 13,892.00 | 90.00 | 88.30 | 6,261.55 | 801.58 | 7,382.11 | 7,399.60 | 1.01 | 0.99 | -0.22 |
| 13,984.00 | 90.50 | 88.60 | 6,261.15 | 804.07 | 7,474.08 | 7,491.60 | 0.63 | 0.54 | 0.33 |
| 14,076.00 | 91.20 | 89.30 | 6,259.79 | 805.76 | 7,566.05 | 7,583.59 | 1.08 | 0.76 | 0.76 |
| 14,167.00 | 90.20 | 89.40 | 6,258.68 | 806.79 | 7,657.04 | 7,674.57 | 1.10 | -1.10 | 0.11 |
| 14,258.00 | 91.40 | 89.90 | 6,257.41 | 807.34 | 7,748.03 | 7,765.55 | 1.43 | 1.32 | 0.55 |
| 14,350.00 | 89.30 | 89.00 | 6,256.84 | 808.23 | 7,840.01 | 7,857.53 | 2.48 | -2.28 | -0.98 |
| 14,442.00 | 89.80 | 89.50 | 6,257.57 | 809.43 | 7,932.00 | 7,949.52 | 0.77 | 0.54 | 0.54 |
| 14,534.00 | 89.80 | 88.90 | 6,257.89 | 810.72 | 8,023.99 | 8,041.51 | 0.65 | 0.00 | -0.65 |
| 14,625.00 | 90.20 | 88.60 | 6,257.89 | 812.70 | 8,114.97 | 8,132.51 | 0.55 | 0.44 | -0.33 |
| 14,716.00 | 91.30 | 88.60 | 6,256.70 | 814.92 | 8,205.93 | 8,223.50 | 1.21 | 1.21 | 0.00 |
| 14,807.00 | 90.10 | 87.80 | 6,255.58 | 817.78 | 8,296.88 | 8,314.49 | 1.58 | -1.32 | -0.88 |
| 14,899.00 | 90.90 | 88.10 | 6,254.78 | 821.07 | 8,388.82 | 8,406.48 | 0.93 | 0.87 | 0.33 |
| 14,989.00 | 90.20 | 86.40 | 6,253.92 | 825.39 | 8,478.71 | 8,496.45 | 2.04 | -0.78 | -1.89 |
| 15,081.00 | 90.80 | 86.50 | 6,253.11 | 831.09 | 8,570.52 | 8,588.38 | 0.66 | 0.65 | 0.11 |
| 15,173.00 | 91.30 | 86.20 | 6,251.43 | 836.94 | 8,662.32 | 8,680.29 | 0.63 | 0.54 | -0.33 |
| 15,265.00 | 91.00 | 86.90 | 6,249.58 | 842.48 | 8,754.14 | 8,772.22 | 0.83 | -0.33 | 0.76 |
| 15,359.00 | 90.60 | 89.30 | 6,248.27 | 845.59 | 8,848.07 | 8,866.20 | 2.59 | -0.43 | 2.55 |
| 15,454.00 | 88.70 | 88.20 | 6,248.85 | 847.67 | 8,943.04 | 8,961.19 | 2.31 | -2.00 | -1.16 |
| 15,549.00 | 89.10 | 88.10 | 6,250.67 | 850.73 | 9,037.97 | 9,056.17 | 0.43 | 0.42 | -0.11 |
| 15,644.00 | 90.10 | 88.20 | 6,251.34 | 853.80 | 9,132.92 | 9,151.16 | 1.06 | 1.05 | 0.11 |
| 15,738.00 | 90.80 | 88.10 | 6,250.60 | 856.83 | 9,226.87 | 9,245.16 | 0.75 | 0.74 | -0.11 |
| 15,833.00 | 91.80 | 88.00 | 6,248.44 | 860.06 | 9,321.79 | 9,340.13 | 1.06 | 1.05 | -0.11 |
| 15,927.00 | 92.60 | 87.30 | 6,244.83 | 863.92 | 9,415.64 | 9,434.04 | 1.13 | 0.85 | -0.74 |
| 16,022.00 | 93.00 | 86.90 | 6,240.19 | 868.72 | 9,510.40 | 9,528.90 | 0.60 | 0.42 | -0.42 |
| 16,117.00 | 93.40 | 86.10 | 6,234.89 | 874.51 | 9,605.07 | 9,623.68 | 0.94 | 0.42 | -0.84 |

| | | | |
|------------------|--------------------------|-------------------------------------|---|
| Company: | Bill Barrett Corp. | Local Co-ordinate Reference: | Well Fiducial 6-62-34-4956BH2 |
| Project: | Weld Co., CO | TVD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Site: | Sec.34-T6N-R62W | MD Reference: | WELL @ 4699.00usft (Original Well Elev) |
| Well: | Fiducial 6-62-34-4956BH2 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDMDBBW |

| 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) |
| Last Archer Survey | | | | | | | | | |
| 16,138.00 | 93.50 | 86.10 | 6,233.63 | 875.93 | 9,625.99 | 9,644.63 | 0.48 | 0.48 | 0.00 |
| PTB - Fiducial 6-62-34-4956BH2 tgt | | | | | | | | | |
| 16,200.00 | 93.50 | 86.10 | 6,229.84 | 880.14 | 9,687.73 | 9,706.45 | 0.00 | 0.00 | 0.00 |

| Survey Annotations | | | | |
|-----------------------|-----------------------|-------------------|--------------|---------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 853.00 | 853.00 | -1.81 | 1.31 | First Archer Survey |
| 16,138.00 | 6,233.63 | 875.93 | 9,625.99 | Last Archer Survey |
| 16,200.00 | 6,229.84 | 880.14 | 9,687.73 | PTB |

Checked By: _____ Approved By: _____ Date: _____