

Sandridge Energy, INC.(mid-con.)

Gray County (KA27N)

Sec 21-T26S-R29W

Toews 2629 2-21H/ Lariat 20

Wellbore #1

Design: Wellbore #1

Standard Survey Report

26 December, 2012

Archer Survey Report

| | |
|--|--|
| Company: Sandridge Energy, INC.(mid-con.) | Local Co-ordinate Reference: Well Toews 2629 2-21H/ Lariat 20 |
| Project: Gray County (KA27N) | TVD Reference: WELL @ 2765.0usft (Original Well Elev) |
| Site: Sec 21-T26S-R29W | MD Reference: WELL @ 2765.0usft (Original Well Elev) |
| Well: Toews 2629 2-21H/ Lariat 20 | North Reference: Grid |
| Wellbore: Wellbore #1 | Survey Calculation Method: Minimum Curvature |
| Design: Wellbore #1 | Database: EDM 5000.1 Single User Db |

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|---|-------------------------------------|
| Project Gray County (KA27N) | |
| Map System: US State Plane 1927 (Exact solution) | System Datum: Mean Sea Level |
| Geo Datum: NAD 1927 (NADCON CONUS) | |
| Map Zone: Kansas South 1502 | |

| | | |
|---------------------------------------|-----------------------------------|-------------------------------------|
| Site Sec 21-T26S-R29W | | |
| Site Position: | Northing: 411,490.94 usft | Latitude: 37° 46' 47.751 N |
| From: Map | Easting: 1,424,957.60 usft | Longitude: 100° 29' 23.400 W |
| Position Uncertainty: 0.0 usft | Slot Radius: 13-3/16 " | Grid Convergence: -1.22 ° |

| | | |
|---|-----------------------------------|-------------------------------------|
| Well Toews 2629 2-21H/ Lariat 20 | | |
| Well Position +N-S 0.0 usft | Northing: 411,602.50 usft | Latitude: 37° 46' 47.949 N |
| +E-W 0.0 usft | Easting: 1,420,685.09 usft | Longitude: 100° 30' 16.637 W |
| Position Uncertainty 0.0 usft | Wellhead Elevation: usft | Ground Level: 2,747.0 usft |

| Wellbore Wellbore #1 | | | | | |
|-----------------------------|------------|-------------|-----------------|---------------|---------------------|
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 12/06/12 | 6.08 | 65.49 | 51,988 |

| Design Wellbore #1 | | | | |
|---------------------------|-------------------------|--------------------------|-------------|---------------|
| Audit Notes: | | | | |
| Version: 1.0 | Phase: ACTUAL | Tie On Depth: 0.0 | | |
| Vertical Section: | Depth From (TVD) (usft) | +N-S (usft) | +E-W (usft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 180.26 |

| Survey Program | | Date 12/26/12 | | |
|-----------------------|-----------|----------------------------------|-----------|----------------|
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 1,705.0 | 9,360.0 | Archer MWD Surveys (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) | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 1,705.0 | 0.60 | 318.10 | 1,705.0 | 6.6 | -6.0 | -6.6 | 0.04 | 0.04 | 0.00 | |
| First Archer MWD Survey | | | | | | | | | | |
| 1,891.0 | 0.60 | 317.70 | 1,891.0 | 8.1 | -7.3 | -8.1 | 0.00 | 0.00 | -0.22 | |
| 2,078.0 | 1.00 | 336.60 | 2,077.9 | 10.3 | -8.6 | -10.3 | 0.25 | 0.21 | 10.11 | |
| 2,266.0 | 0.80 | 326.70 | 2,265.9 | 12.9 | -9.9 | -12.9 | 0.13 | -0.11 | -5.27 | |
| 2,450.0 | 0.60 | 350.80 | 2,449.9 | 14.9 | -10.8 | -14.9 | 0.19 | -0.11 | 13.10 | |
| 2,637.0 | 0.50 | 338.10 | 2,636.9 | 16.7 | -11.3 | -16.6 | 0.08 | -0.05 | -6.79 | |
| 2,825.0 | 0.70 | 23.90 | 2,824.9 | 18.5 | -11.1 | -18.4 | 0.27 | 0.11 | 24.36 | |
| 3,013.0 | 0.70 | 40.90 | 3,012.9 | 20.4 | -9.9 | -20.3 | 0.11 | 0.00 | 9.04 | |
| 3,201.0 | 0.60 | 43.80 | 3,200.9 | 22.0 | -8.5 | -21.9 | 0.06 | -0.05 | 1.54 | |

Archer

Survey Report

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| Site: | Sec 21-T26S-R29W | MD Reference: | WELL @ 2765.0usft (Original Well Elev) |
| Well: | Toews 2629 2-21H/ Lariat 20 | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | EDM 5000.1 Single User Db |

| 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) | |
| 3,387.0 | 0.50 | 330.30 | 3,386.9 | 23.4 | -8.2 | -23.3 | 0.36 | -0.05 | -39.52 | |
| 3,573.0 | 0.50 | 313.80 | 3,572.8 | 24.6 | -9.2 | -24.6 | 0.08 | 0.00 | -8.87 | |
| 3,761.0 | 0.50 | 300.30 | 3,760.8 | 25.6 | -10.5 | -25.6 | 0.06 | 0.00 | -7.18 | |
| 3,948.0 | 0.60 | 335.90 | 3,947.8 | 26.9 | -11.6 | -26.9 | 0.19 | 0.05 | 19.04 | |
| 4,002.0 | 0.80 | 324.10 | 4,001.8 | 27.5 | -11.9 | -27.4 | 0.45 | 0.37 | -21.85 | |
| 4,041.0 | 0.50 | 318.70 | 4,040.8 | 27.8 | -12.2 | -27.8 | 0.78 | -0.77 | -13.85 | |
| 4,073.0 | 0.60 | 296.40 | 4,072.8 | 28.0 | -12.4 | -28.0 | 0.73 | 0.31 | -69.69 | |
| 4,104.0 | 0.70 | 319.00 | 4,103.8 | 28.2 | -12.7 | -28.2 | 0.88 | 0.32 | 72.90 | |
| 4,135.0 | 1.10 | 159.60 | 4,134.8 | 28.1 | -12.7 | -28.0 | 5.72 | 1.29 | -514.19 | |
| 4,167.0 | 3.70 | 159.70 | 4,166.8 | 26.8 | -12.3 | -26.8 | 8.13 | 8.13 | 0.31 | |
| 4,198.0 | 6.40 | 154.50 | 4,197.7 | 24.3 | -11.2 | -24.3 | 8.83 | 8.71 | -16.77 | |
| 4,229.0 | 8.90 | 155.70 | 4,228.4 | 20.6 | -9.4 | -20.6 | 8.08 | 8.06 | 3.87 | |
| 4,260.0 | 11.80 | 157.40 | 4,258.9 | 15.5 | -7.2 | -15.5 | 9.41 | 9.35 | 5.48 | |
| 4,292.0 | 13.90 | 162.80 | 4,290.1 | 8.8 | -4.8 | -8.8 | 7.55 | 6.56 | 16.88 | |
| 4,321.0 | 15.70 | 166.50 | 4,318.1 | 1.7 | -2.9 | -1.6 | 7.01 | 6.21 | 12.76 | |
| 4,353.0 | 18.60 | 167.40 | 4,348.7 | -7.5 | -0.8 | 7.5 | 9.10 | 9.06 | 2.81 | |
| 4,383.0 | 21.30 | 166.50 | 4,376.9 | -17.5 | 1.6 | 17.5 | 9.06 | 9.00 | -3.00 | |
| 4,414.0 | 24.00 | 165.70 | 4,405.5 | -29.1 | 4.4 | 29.1 | 8.77 | 8.71 | -2.58 | |
| 4,446.0 | 26.80 | 165.40 | 4,434.4 | -42.4 | 7.9 | 42.4 | 8.76 | 8.75 | -0.94 | |
| 4,477.0 | 30.00 | 168.00 | 4,461.7 | -56.7 | 11.2 | 56.7 | 11.06 | 10.32 | 8.39 | |
| 4,509.0 | 32.00 | 169.60 | 4,489.1 | -72.9 | 14.4 | 72.8 | 6.76 | 6.25 | 5.00 | |
| 4,540.0 | 33.00 | 172.80 | 4,515.2 | -89.4 | 17.0 | 89.3 | 6.42 | 3.23 | 10.32 | |
| 4,571.0 | 33.80 | 176.70 | 4,541.1 | -106.3 | 18.5 | 106.3 | 7.39 | 2.58 | 12.58 | |
| 4,601.0 | 34.60 | 179.70 | 4,565.9 | -123.2 | 19.0 | 123.1 | 6.22 | 2.67 | 10.00 | |
| 4,632.0 | 35.60 | 178.90 | 4,591.3 | -141.0 | 19.3 | 140.9 | 3.55 | 3.23 | -2.58 | |
| 4,664.0 | 37.30 | 179.70 | 4,617.0 | -160.0 | 19.5 | 159.9 | 5.52 | 5.31 | 2.50 | |
| 4,696.0 | 39.60 | 180.20 | 4,642.1 | -179.9 | 19.5 | 179.8 | 7.25 | 7.19 | 1.56 | |
| 4,727.0 | 41.80 | 178.80 | 4,665.6 | -200.1 | 19.7 | 200.0 | 7.68 | 7.10 | -4.52 | |
| 4,758.0 | 44.10 | 178.20 | 4,688.3 | -221.2 | 20.2 | 221.2 | 7.54 | 7.42 | -1.94 | |
| 4,790.0 | 46.70 | 177.40 | 4,710.8 | -244.0 | 21.1 | 243.9 | 8.32 | 8.13 | -2.50 | |
| 4,822.0 | 49.00 | 175.30 | 4,732.2 | -267.7 | 22.6 | 267.6 | 8.68 | 7.19 | -6.56 | |
| 4,853.0 | 50.80 | 174.50 | 4,752.2 | -291.3 | 24.7 | 291.2 | 6.13 | 5.81 | -2.58 | |
| 4,883.0 | 51.20 | 173.40 | 4,771.1 | -314.5 | 27.2 | 314.4 | 3.15 | 1.33 | -3.67 | |
| 4,914.0 | 51.10 | 173.00 | 4,790.5 | -338.5 | 30.1 | 338.3 | 1.06 | -0.32 | -1.29 | |
| 4,945.0 | 50.70 | 173.70 | 4,810.1 | -362.4 | 32.9 | 362.2 | 2.18 | -1.29 | 2.26 | |
| 4,976.0 | 50.10 | 173.20 | 4,829.8 | -386.1 | 35.6 | 385.9 | 2.30 | -1.94 | -1.61 | |
| 5,006.0 | 49.30 | 172.00 | 4,849.2 | -408.8 | 38.5 | 408.6 | 4.05 | -2.67 | -4.00 | |
| 5,037.0 | 49.20 | 172.30 | 4,869.5 | -432.0 | 41.7 | 431.8 | 0.80 | -0.32 | 0.97 | |
| 5,069.0 | 51.30 | 171.30 | 4,889.9 | -456.4 | 45.2 | 456.2 | 6.99 | 6.56 | -3.13 | |
| 5,100.0 | 55.10 | 171.80 | 4,908.5 | -480.9 | 48.9 | 480.7 | 12.33 | 12.26 | 1.61 | |
| 5,132.0 | 58.50 | 172.20 | 4,926.0 | -507.4 | 52.6 | 507.2 | 10.68 | 10.63 | 1.25 | |
| 5,163.0 | 61.10 | 173.20 | 4,941.6 | -534.0 | 56.0 | 533.8 | 8.84 | 8.39 | 3.23 | |
| 5,194.0 | 64.20 | 173.50 | 4,955.9 | -561.4 | 59.2 | 561.1 | 10.04 | 10.00 | 0.97 | |

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| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
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| 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) | |
| 5,226.0 | 67.70 | 174.80 | 4,968.9 | -590.4 | 62.2 | 590.1 | 11.55 | 10.94 | 4.06 | |
| 5,257.0 | 69.20 | 174.70 | 4,980.3 | -619.1 | 64.8 | 618.8 | 4.85 | 4.84 | -0.32 | |
| 5,288.0 | 71.50 | 176.10 | 4,990.7 | -648.2 | 67.1 | 647.9 | 8.55 | 7.42 | 4.52 | |
| 5,319.0 | 74.70 | 176.60 | 4,999.7 | -677.8 | 69.0 | 677.5 | 10.44 | 10.32 | 1.61 | |
| 5,351.0 | 77.10 | 176.70 | 5,007.5 | -708.8 | 70.8 | 708.5 | 7.51 | 7.50 | 0.31 | |
| 5,381.0 | 78.60 | 177.50 | 5,013.8 | -738.1 | 72.3 | 737.8 | 5.64 | 5.00 | 2.67 | |
| 5,413.0 | 80.40 | 177.30 | 5,019.7 | -769.5 | 73.8 | 769.2 | 5.66 | 5.63 | -0.63 | |
| 5,445.0 | 82.10 | 177.90 | 5,024.5 | -801.1 | 75.1 | 800.8 | 5.63 | 5.31 | 1.88 | |
| 5,459.2 | 82.83 | 178.54 | 5,026.4 | -815.2 | 75.5 | 814.9 | 6.84 | 5.16 | 4.52 | |
| Interp @ 5023.5 (Toews 2629 2-21H/ Lariat 20 Wellb) | | | | | | | | | | |
| 5,476.0 | 83.70 | 179.30 | 5,028.4 | -831.9 | 75.8 | 831.5 | 6.84 | 5.16 | 4.51 | |
| 5,507.0 | 85.70 | 181.00 | 5,031.2 | -862.8 | 75.8 | 862.4 | 8.45 | 6.45 | 5.48 | |
| 5,530.0 | 87.30 | 181.00 | 5,032.6 | -885.7 | 75.4 | 885.4 | 6.96 | 6.96 | 0.00 | |
| 5,634.0 | 89.90 | 181.40 | 5,035.2 | -989.6 | 73.2 | 989.3 | 2.53 | 2.50 | 0.38 | |
| 5,665.0 | 89.80 | 181.80 | 5,035.2 | -1,020.6 | 72.3 | 1,020.3 | 1.33 | -0.32 | 1.29 | |
| 5,695.0 | 89.50 | 181.20 | 5,035.4 | -1,050.6 | 71.5 | 1,050.3 | 2.24 | -1.00 | -2.00 | |
| 5,727.0 | 89.50 | 181.00 | 5,035.7 | -1,082.6 | 70.9 | 1,082.3 | 0.62 | 0.00 | -0.63 | |
| 5,758.0 | 89.50 | 181.20 | 5,036.0 | -1,113.6 | 70.3 | 1,113.3 | 0.65 | 0.00 | 0.65 | |
| 5,788.0 | 89.20 | 180.60 | 5,036.3 | -1,143.6 | 69.8 | 1,143.3 | 2.24 | -1.00 | -2.00 | |
| 5,819.0 | 89.20 | 180.70 | 5,036.7 | -1,174.6 | 69.5 | 1,174.3 | 0.32 | 0.00 | 0.32 | |
| 5,850.0 | 89.50 | 180.70 | 5,037.1 | -1,205.6 | 69.1 | 1,205.3 | 0.97 | 0.97 | 0.00 | |
| 5,880.0 | 90.00 | 181.20 | 5,037.2 | -1,235.6 | 68.6 | 1,235.3 | 2.36 | 1.67 | 1.67 | |
| 5,911.0 | 90.30 | 180.90 | 5,037.1 | -1,266.6 | 68.0 | 1,266.3 | 1.37 | 0.97 | -0.97 | |
| 5,942.0 | 90.40 | 180.60 | 5,037.0 | -1,297.6 | 67.6 | 1,297.3 | 1.02 | 0.32 | -0.97 | |
| 5,972.0 | 89.40 | 181.80 | 5,037.0 | -1,327.6 | 67.0 | 1,327.3 | 5.21 | -3.33 | 4.00 | |
| 6,003.0 | 89.50 | 182.20 | 5,037.3 | -1,358.5 | 65.9 | 1,358.2 | 1.33 | 0.32 | 1.29 | |
| 6,034.0 | 89.10 | 181.60 | 5,037.7 | -1,389.5 | 64.9 | 1,389.2 | 2.33 | -1.29 | -1.94 | |
| 6,064.0 | 89.20 | 182.10 | 5,038.1 | -1,419.5 | 63.9 | 1,419.2 | 1.70 | 0.33 | 1.67 | |
| 6,095.0 | 89.10 | 181.80 | 5,038.6 | -1,450.5 | 62.9 | 1,450.2 | 1.02 | -0.32 | -0.97 | |
| 6,125.0 | 89.10 | 181.90 | 5,039.1 | -1,480.5 | 61.9 | 1,480.2 | 0.33 | 0.00 | 0.33 | |
| 6,156.0 | 89.10 | 182.00 | 5,039.6 | -1,511.4 | 60.9 | 1,511.2 | 0.32 | 0.00 | 0.32 | |
| 6,187.0 | 88.80 | 181.60 | 5,040.1 | -1,542.4 | 59.9 | 1,542.1 | 1.61 | -0.97 | -1.29 | |
| 6,217.0 | 90.00 | 181.90 | 5,040.4 | -1,572.4 | 59.0 | 1,572.1 | 4.12 | 4.00 | 1.00 | |
| 6,248.0 | 90.00 | 181.90 | 5,040.4 | -1,603.4 | 57.9 | 1,603.1 | 0.00 | 0.00 | 0.00 | |
| 6,279.0 | 90.60 | 182.40 | 5,040.3 | -1,634.4 | 56.8 | 1,634.1 | 2.52 | 1.94 | 1.61 | |
| 6,309.0 | 91.10 | 182.20 | 5,039.8 | -1,664.3 | 55.6 | 1,664.1 | 1.80 | 1.67 | -0.67 | |
| 6,340.0 | 91.00 | 182.30 | 5,039.3 | -1,695.3 | 54.4 | 1,695.1 | 0.46 | -0.32 | 0.32 | |
| 6,370.0 | 91.00 | 182.20 | 5,038.7 | -1,725.3 | 53.2 | 1,725.0 | 0.33 | 0.00 | -0.33 | |
| 6,401.0 | 91.80 | 181.90 | 5,038.0 | -1,756.3 | 52.1 | 1,756.0 | 2.76 | 2.58 | -0.97 | |
| 6,432.0 | 92.70 | 181.40 | 5,036.8 | -1,787.2 | 51.2 | 1,787.0 | 3.32 | 2.90 | -1.61 | |
| 6,463.0 | 93.20 | 181.20 | 5,035.2 | -1,818.2 | 50.5 | 1,817.9 | 1.74 | 1.61 | -0.65 | |
| 6,493.0 | 93.70 | 181.20 | 5,033.4 | -1,848.1 | 49.8 | 1,847.9 | 1.67 | 1.67 | 0.00 | |
| 6,524.0 | 92.50 | 180.60 | 5,031.7 | -1,879.1 | 49.4 | 1,878.8 | 4.33 | -3.87 | -1.94 | |

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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) |
|-----------------------|-----------------|-------------|-----------------------|-------------|-------------|-------------------------|-------------------------|------------------------|-----------------------|
| 6,554.0 | 92.40 | 180.60 | 5,030.4 | -1,909.0 | 49.0 | 1,908.8 | 0.33 | -0.33 | 0.00 |
| 6,585.0 | 92.70 | 181.00 | 5,029.0 | -1,940.0 | 48.6 | 1,939.8 | 1.61 | 0.97 | 1.29 |
| 6,616.0 | 92.70 | 180.50 | 5,027.6 | -1,971.0 | 48.2 | 1,970.7 | 1.61 | 0.00 | -1.61 |
| 6,646.0 | 92.00 | 180.50 | 5,026.3 | -2,000.9 | 47.9 | 2,000.7 | 2.33 | -2.33 | 0.00 |
| 6,677.0 | 91.60 | 180.50 | 5,025.4 | -2,031.9 | 47.7 | 2,031.7 | 1.29 | -1.29 | 0.00 |
| 6,708.0 | 90.70 | 181.00 | 5,024.7 | -2,062.9 | 47.3 | 2,062.7 | 3.32 | -2.90 | 1.61 |
| 6,738.0 | 90.60 | 180.80 | 5,024.4 | -2,092.9 | 46.8 | 2,092.7 | 0.75 | -0.33 | -0.67 |
| 6,770.0 | 90.40 | 180.50 | 5,024.1 | -2,124.9 | 46.4 | 2,124.7 | 1.13 | -0.63 | -0.94 |
| 6,801.0 | 89.40 | 180.60 | 5,024.2 | -2,155.9 | 46.1 | 2,155.7 | 3.24 | -3.23 | 0.32 |
| 6,833.0 | 89.30 | 181.20 | 5,024.5 | -2,187.9 | 45.6 | 2,187.7 | 1.90 | -0.31 | 1.88 |
| 6,865.0 | 89.30 | 180.50 | 5,024.9 | -2,219.9 | 45.2 | 2,219.7 | 2.19 | 0.00 | -2.19 |
| 6,896.0 | 89.50 | 180.60 | 5,025.2 | -2,250.9 | 44.9 | 2,250.7 | 0.72 | 0.65 | 0.32 |
| 6,928.0 | 89.60 | 180.50 | 5,025.5 | -2,282.9 | 44.6 | 2,282.7 | 0.44 | 0.31 | -0.31 |
| 6,960.0 | 90.00 | 180.00 | 5,025.6 | -2,314.9 | 44.4 | 2,314.7 | 2.00 | 1.25 | -1.56 |
| 6,991.0 | 90.50 | 179.00 | 5,025.5 | -2,345.9 | 44.7 | 2,345.7 | 3.61 | 1.61 | -3.23 |
| 7,023.0 | 92.00 | 179.40 | 5,024.8 | -2,377.9 | 45.1 | 2,377.6 | 4.85 | 4.69 | 1.25 |
| 7,055.0 | 91.50 | 178.80 | 5,023.8 | -2,409.8 | 45.6 | 2,409.6 | 2.44 | -1.56 | -1.88 |
| 7,087.0 | 91.60 | 178.80 | 5,022.9 | -2,441.8 | 46.3 | 2,441.6 | 0.31 | 0.31 | 0.00 |
| 7,118.0 | 91.70 | 178.90 | 5,022.0 | -2,472.8 | 46.9 | 2,472.6 | 0.46 | 0.32 | 0.32 |
| 7,167.0 | 91.50 | 180.40 | 5,020.7 | -2,521.8 | 47.2 | 2,521.5 | 3.09 | -0.41 | 3.06 |
| 7,214.0 | 91.60 | 180.10 | 5,019.4 | -2,568.8 | 47.0 | 2,568.5 | 0.67 | 0.21 | -0.64 |
| 7,262.0 | 90.10 | 180.50 | 5,018.7 | -2,616.8 | 46.8 | 2,616.5 | 3.23 | -3.13 | 0.83 |
| 7,309.0 | 91.00 | 180.60 | 5,018.2 | -2,663.8 | 46.3 | 2,663.5 | 1.93 | 1.91 | 0.21 |
| 7,357.0 | 91.50 | 181.70 | 5,017.2 | -2,711.7 | 45.4 | 2,711.5 | 2.52 | 1.04 | 2.29 |
| 7,404.0 | 91.80 | 182.10 | 5,015.8 | -2,758.7 | 43.8 | 2,758.5 | 1.06 | 0.64 | 0.85 |
| 7,452.0 | 89.70 | 182.00 | 5,015.2 | -2,806.7 | 42.1 | 2,806.4 | 4.38 | -4.38 | -0.21 |
| 7,500.0 | 88.30 | 182.00 | 5,016.0 | -2,854.6 | 40.4 | 2,854.4 | 2.92 | -2.92 | 0.00 |
| 7,548.0 | 88.40 | 181.60 | 5,017.4 | -2,902.6 | 38.9 | 2,902.4 | 0.86 | 0.21 | -0.83 |
| 7,595.0 | 88.60 | 181.80 | 5,018.7 | -2,949.5 | 37.5 | 2,949.3 | 0.60 | 0.43 | 0.43 |
| 7,643.0 | 88.80 | 182.40 | 5,019.8 | -2,997.5 | 35.8 | 2,997.3 | 1.32 | 0.42 | 1.25 |
| 7,691.0 | 88.90 | 182.20 | 5,020.7 | -3,045.4 | 33.8 | 3,045.3 | 0.47 | 0.21 | -0.42 |
| 7,739.0 | 89.00 | 182.20 | 5,021.6 | -3,093.4 | 32.0 | 3,093.2 | 0.21 | 0.21 | 0.00 |
| 7,786.0 | 89.30 | 182.30 | 5,022.3 | -3,140.4 | 30.1 | 3,140.2 | 0.67 | 0.64 | 0.21 |
| 7,833.0 | 88.10 | 181.60 | 5,023.4 | -3,187.3 | 28.5 | 3,187.2 | 2.96 | -2.55 | -1.49 |
| 7,880.0 | 88.40 | 181.80 | 5,024.8 | -3,234.3 | 27.1 | 3,234.1 | 0.77 | 0.64 | 0.43 |
| 7,929.0 | 88.90 | 182.30 | 5,025.9 | -3,283.2 | 25.4 | 3,283.1 | 1.44 | 1.02 | 1.02 |
| 7,975.0 | 89.20 | 182.20 | 5,026.7 | -3,329.2 | 23.6 | 3,329.0 | 0.69 | 0.65 | -0.22 |
| 8,024.0 | 90.60 | 182.40 | 5,026.8 | -3,378.1 | 21.6 | 3,378.0 | 2.89 | 2.86 | 0.41 |
| 8,070.0 | 91.20 | 182.10 | 5,026.1 | -3,424.1 | 19.8 | 3,424.0 | 1.46 | 1.30 | -0.65 |
| 8,119.0 | 91.30 | 181.90 | 5,025.0 | -3,473.1 | 18.1 | 3,472.9 | 0.46 | 0.20 | -0.41 |
| 8,165.0 | 91.10 | 182.70 | 5,024.0 | -3,519.0 | 16.3 | 3,518.9 | 1.79 | -0.43 | 1.74 |
| 8,214.0 | 91.90 | 182.70 | 5,022.8 | -3,567.9 | 14.0 | 3,567.8 | 1.63 | 1.63 | 0.00 |
| 8,260.0 | 90.10 | 182.80 | 5,022.0 | -3,613.9 | 11.7 | 3,613.8 | 3.92 | -3.91 | 0.22 |
| 8,309.0 | 89.00 | 183.00 | 5,022.3 | -3,662.8 | 9.3 | 3,662.7 | 2.28 | -2.24 | 0.41 |

Archer Survey Report

| | |
|--|--|
| Company: Sandridge Energy, INC.(mid-con.) | Local Co-ordinate Reference: Well Toews 2629 2-21H/ Lariat 20 |
| Project: Gray County (KA27N) | TVD Reference: WELL @ 2765.0usft (Original Well Elev) |
| Site: Sec 21-T26S-R29W | MD Reference: WELL @ 2765.0usft (Original Well Elev) |
| Well: Toews 2629 2-21H/ Lariat 20 | North Reference: Grid |
| Wellbore: Wellbore #1 | Survey Calculation Method: Minimum Curvature |
| Design: Wellbore #1 | Database: EDM 5000.1 Single User Db |

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) |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 8,355.0 | 92.10 | 183.40 | 5,021.9 | -3,708.7 | 6.7 | 3,708.7 | 6.79 | 6.74 | 0.87 |
| 8,404.0 | 93.40 | 183.90 | 5,019.5 | -3,757.6 | 3.6 | 3,757.5 | 2.84 | 2.65 | 1.02 |
| 8,450.0 | 93.30 | 183.70 | 5,016.9 | -3,803.4 | 0.5 | 3,803.4 | 0.49 | -0.22 | -0.43 |
| 8,499.0 | 92.00 | 182.70 | 5,014.6 | -3,852.3 | -2.2 | 3,852.2 | 3.35 | -2.65 | -2.04 |
| 8,545.0 | 88.70 | 182.60 | 5,014.3 | -3,898.2 | -4.3 | 3,898.2 | 7.18 | -7.17 | -0.22 |
| 8,594.0 | 87.60 | 180.70 | 5,015.9 | -3,947.2 | -5.7 | 3,947.1 | 4.48 | -2.24 | -3.88 |
| 8,640.0 | 88.40 | 180.50 | 5,017.5 | -3,993.1 | -6.2 | 3,993.1 | 1.79 | 1.74 | -0.43 |
| 8,688.0 | 89.10 | 180.80 | 5,018.5 | -4,041.1 | -6.8 | 4,041.1 | 1.59 | 1.46 | 0.63 |
| 8,735.0 | 89.00 | 180.50 | 5,019.3 | -4,088.1 | -7.3 | 4,088.1 | 0.67 | -0.21 | -0.64 |
| 8,784.0 | 89.10 | 180.40 | 5,020.1 | -4,137.1 | -7.7 | 4,137.1 | 0.29 | 0.20 | -0.20 |
| 8,830.0 | 89.00 | 180.40 | 5,020.9 | -4,183.1 | -8.0 | 4,183.1 | 0.22 | -0.22 | 0.00 |
| 8,879.0 | 89.10 | 180.70 | 5,021.7 | -4,232.1 | -8.5 | 4,232.1 | 0.65 | 0.20 | 0.61 |
| 8,925.0 | 89.40 | 180.70 | 5,022.3 | -4,278.1 | -9.0 | 4,278.1 | 0.65 | 0.65 | 0.00 |
| 8,973.0 | 89.10 | 180.20 | 5,022.9 | -4,326.1 | -9.4 | 4,326.1 | 1.21 | -0.63 | -1.04 |
| 9,020.0 | 89.20 | 180.00 | 5,023.6 | -4,373.1 | -9.5 | 4,373.1 | 0.48 | 0.21 | -0.43 |
| 9,068.0 | 90.20 | 180.50 | 5,023.9 | -4,421.1 | -9.7 | 4,421.1 | 2.33 | 2.08 | 1.04 |
| 9,115.0 | 90.70 | 181.20 | 5,023.5 | -4,468.1 | -10.4 | 4,468.1 | 1.83 | 1.06 | 1.49 |
| 9,163.0 | 90.60 | 181.20 | 5,023.0 | -4,516.0 | -11.4 | 4,516.0 | 0.21 | -0.21 | 0.00 |
| 9,210.0 | 91.50 | 181.00 | 5,022.1 | -4,563.0 | -12.3 | 4,563.0 | 1.96 | 1.91 | -0.43 |
| 9,258.0 | 91.30 | 180.70 | 5,020.9 | -4,611.0 | -13.0 | 4,611.0 | 0.75 | -0.42 | -0.63 |
| 9,306.0 | 90.90 | 181.10 | 5,020.0 | -4,659.0 | -13.8 | 4,659.0 | 1.18 | -0.83 | 0.83 |
| Last Archer MWD Survey | | | | | | | | | |
| 9,360.0 | 90.90 | 181.10 | 5,019.2 | -4,713.0 | -14.8 | 4,713.0 | 0.00 | 0.00 | 0.00 |
| Projection to TD - PBHL Toews 2-21H | | | | | | | | | |

Design Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|-------------------------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 1,705.0 | 1,705.0 | 6.6 | -6.0 | First Archer MWD Survey |
| 9,306.0 | 5,020.0 | -4,659.0 | -13.8 | Last Archer MWD Survey |
| 9,360.0 | 5,019.2 | -4,713.0 | -14.8 | Projection to TD |

Checked By: _____ Approved By: _____ Date: _____