



SDI
Survey Report



| | | | |
|------------------|---------------------------|-------------------------------------|---|
| Company: | Stone Energy | Local Co-ordinate Reference: | Well Mills Wetzel #9H - Slot MW#9H |
| Project: | Heather Prospect (NAD 27) | TVD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Site: | Mills Wetzel Pad 2 | MD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Well: | Mills Wetzel #9H | North Reference: | Grid |
| Wellbore: | Original Well | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | EDM-Chris Testa |

| | | | |
|--------------------|---|----------------------|----------------|
| Project | Heather Prospect (NAD 27), Wetzel County, West Virginia | | |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | West Virginia North 4701 | | |

| | | | | | |
|------------------------------|--------------------|---------------------|-------------------|--------------------------|------------------|
| Site | Mills Wetzel Pad 2 | | | | |
| Site Position: | | Northing: | 374,564.00 usft | Latitude: | 39° 31' 21.507 N |
| From: | Map | Easting: | 1,674,001.00 usft | Longitude: | 80° 39' 20.400 W |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | -0.74 ° |

| | | | | | | |
|-----------------------------|-------------------------------|----------|----------------------------|-------------------|----------------------|------------------|
| Well | Mills Wetzel #9H - Slot MW#9H | | | | | |
| Well Position | +N/-S | 0.0 usft | Northing: | 373,973.60 usft | Latitude: | 39° 31' 15.618 N |
| | +E/-W | 0.0 usft | Easting: | 1,673,577.40 usft | Longitude: | 80° 39' 25.708 W |
| Position Uncertainty | 0.0 usft | | Wellhead Elevation: | usft | Ground Level: | 1,352.0 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Original Well | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 06/25/12 | -8.54 | 67.16 | 52,637 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|-----|
| Design | As Drilled | | | | |
| 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 | 290.91 | |

| | | | | | |
|-----------------------|------------------|---------------------------------|-------------------------|--|--|
| Survey Program | Date | 07/19/12 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 100.0 | 2,800.0 | SDI Keeper Gyro (Original Well) | SDI Standard Keeper 103 | SDI Standard Wireline Keeper ver 1.0.3 | |
| 2,900.0 | 6,559.0 | Vaughn Surveys (Original Well) | NS-GYRO-MS | North sensing gyrocompassing m/s | |
| 6,623.0 | 12,194.0 | SDI MWD (Original Well) | MWD SDI | MWD - Standard ver 1.0.1 | |

| 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 |
| 100.0 | 0.11 | 328.30 | 100.0 | 0.1 | -0.1 | 0.1 | 0.11 | 0.11 | 0.00 |
| 200.0 | 0.23 | 290.81 | 200.0 | 0.2 | -0.3 | 0.4 | 0.16 | 0.12 | -37.49 |
| 300.0 | 0.17 | 91.77 | 300.0 | 0.3 | -0.3 | 0.4 | 0.39 | -0.06 | 160.96 |
| 400.0 | 0.07 | 335.50 | 400.0 | 0.4 | -0.2 | 0.3 | 0.21 | -0.10 | -116.27 |
| 500.0 | 0.08 | 296.99 | 500.0 | 0.4 | -0.3 | 0.4 | 0.05 | 0.01 | -38.51 |
| 600.0 | 0.02 | 3.92 | 600.0 | 0.5 | -0.4 | 0.5 | 0.07 | -0.06 | 66.93 |
| 700.0 | 0.03 | 350.03 | 700.0 | 0.5 | -0.4 | 0.5 | 0.01 | 0.01 | -13.89 |
| 800.0 | 0.14 | 122.65 | 800.0 | 0.5 | -0.3 | 0.4 | 0.16 | 0.11 | 132.62 |



SDI
Survey Report



| | | | |
|------------------|---------------------------|-------------------------------------|---|
| Company: | Stone Energy | Local Co-ordinate Reference: | Well Mills Wetzel #9H - Slot MW#9H |
| Project: | Heather Prospect (NAD 27) | TVD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Site: | Mills Wetzel Pad 2 | MD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Well: | Mills Wetzel #9H | North Reference: | Grid |
| Wellbore: | Original Well | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | EDM-Chris Testa |

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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 900.0 | 0.05 | 230.47 | 900.0 | 0.4 | -0.2 | 0.3 | 0.16 | -0.09 | 107.82 |
| 1,000.0 | 0.14 | 202.51 | 1,000.0 | 0.3 | -0.3 | 0.3 | 0.10 | 0.09 | -27.96 |
| 1,100.0 | 0.14 | 198.64 | 1,100.0 | 0.0 | -0.4 | 0.3 | 0.01 | 0.00 | -3.87 |
| 1,200.0 | 0.27 | 196.94 | 1,200.0 | -0.3 | -0.5 | 0.3 | 0.13 | 0.13 | -1.70 |
| 1,300.0 | 0.48 | 228.45 | 1,300.0 | -0.8 | -0.8 | 0.5 | 0.29 | 0.21 | 31.51 |
| 1,400.0 | 0.55 | 237.32 | 1,400.0 | -1.4 | -1.6 | 1.0 | 0.11 | 0.07 | 8.87 |
| 1,500.0 | 0.58 | 259.63 | 1,500.0 | -1.7 | -2.5 | 1.7 | 0.22 | 0.03 | 22.31 |
| 1,600.0 | 1.00 | 280.24 | 1,600.0 | -1.6 | -3.8 | 3.0 | 0.50 | 0.42 | 20.61 |
| 1,700.0 | 1.13 | 284.79 | 1,700.0 | -1.2 | -5.6 | 4.8 | 0.15 | 0.13 | 4.55 |
| 1,800.0 | 0.57 | 287.27 | 1,799.9 | -0.8 | -7.1 | 6.3 | 0.56 | -0.56 | 2.48 |
| 1,900.0 | 0.47 | 272.29 | 1,899.9 | -0.7 | -7.9 | 7.2 | 0.17 | -0.10 | -14.98 |
| 2,000.0 | 0.44 | 266.96 | 1,999.9 | -0.7 | -8.7 | 7.9 | 0.05 | -0.03 | -5.33 |
| 2,100.0 | 0.19 | 349.28 | 2,099.9 | -0.5 | -9.2 | 8.4 | 0.46 | -0.25 | 82.32 |
| 2,200.0 | 0.18 | 17.05 | 2,199.9 | -0.2 | -9.1 | 8.5 | 0.09 | -0.01 | 27.77 |
| 2,300.0 | 0.39 | 329.33 | 2,299.9 | 0.2 | -9.3 | 8.7 | 0.30 | 0.21 | -47.72 |
| 2,400.0 | 0.73 | 314.42 | 2,399.9 | 1.0 | -9.9 | 9.6 | 0.37 | 0.34 | -14.91 |
| 2,500.0 | 0.81 | 327.97 | 2,499.9 | 2.0 | -10.7 | 10.7 | 0.20 | 0.08 | 13.55 |
| 2,600.0 | 0.92 | 317.04 | 2,599.9 | 3.2 | -11.6 | 12.0 | 0.20 | 0.11 | -10.93 |
| 2,700.0 | 0.99 | 311.91 | 2,699.9 | 4.4 | -12.8 | 13.5 | 0.11 | 0.07 | -5.13 |
| 2,800.0 | 0.96 | 299.68 | 2,799.9 | 5.4 | -14.2 | 15.2 | 0.21 | -0.03 | -12.23 |
| 2,900.0 | 1.09 | 281.93 | 2,899.9 | 6.0 | -15.9 | 16.9 | 0.34 | 0.13 | -17.75 |
| 3,000.0 | 2.22 | 279.29 | 2,999.8 | 6.5 | -18.7 | 19.8 | 1.13 | 1.13 | -2.64 |
| 3,100.0 | 3.18 | 282.36 | 3,099.7 | 7.4 | -23.3 | 24.4 | 0.97 | 0.96 | 3.07 |
| 3,200.0 | 4.18 | 282.62 | 3,199.5 | 8.8 | -29.6 | 30.8 | 1.00 | 1.00 | 0.26 |
| 3,300.0 | 4.64 | 269.76 | 3,299.2 | 9.5 | -37.2 | 38.2 | 1.09 | 0.46 | -12.86 |
| 3,400.0 | 5.25 | 262.32 | 3,398.8 | 8.9 | -45.8 | 45.9 | 0.88 | 0.61 | -7.44 |
| 3,500.0 | 5.65 | 265.52 | 3,498.4 | 7.9 | -55.2 | 54.4 | 0.50 | 0.40 | 3.20 |
| 3,600.0 | 6.01 | 264.57 | 3,597.9 | 7.0 | -65.3 | 63.5 | 0.37 | 0.36 | -0.95 |
| 3,700.0 | 6.96 | 263.28 | 3,697.2 | 5.8 | -76.6 | 73.6 | 0.96 | 0.95 | -1.29 |
| 3,800.0 | 7.28 | 261.15 | 3,796.5 | 4.2 | -88.8 | 84.5 | 0.41 | 0.32 | -2.13 |
| 3,900.0 | 8.95 | 261.75 | 3,895.5 | 2.1 | -102.8 | 96.8 | 1.67 | 1.67 | 0.60 |
| 4,000.0 | 10.14 | 263.04 | 3,994.1 | -0.1 | -119.2 | 111.3 | 1.21 | 1.19 | 1.29 |
| 4,100.0 | 11.21 | 265.93 | 4,092.3 | -1.9 | -137.7 | 127.9 | 1.20 | 1.07 | 2.89 |
| 4,200.0 | 12.08 | 266.74 | 4,190.3 | -3.2 | -157.8 | 146.3 | 0.89 | 0.87 | 0.81 |
| 4,300.0 | 12.38 | 267.47 | 4,288.0 | -4.2 | -179.0 | 165.7 | 0.34 | 0.30 | 0.73 |
| 4,400.0 | 12.41 | 265.81 | 4,385.7 | -5.5 | -200.4 | 185.2 | 0.36 | 0.03 | -1.66 |
| 4,500.0 | 11.71 | 263.47 | 4,483.5 | -7.4 | -221.2 | 204.0 | 0.85 | -0.70 | -2.34 |
| 4,600.0 | 11.54 | 261.89 | 4,581.4 | -10.0 | -241.2 | 221.7 | 0.36 | -0.17 | -1.58 |
| 4,700.0 | 10.75 | 263.17 | 4,679.5 | -12.5 | -260.3 | 238.7 | 0.83 | -0.79 | 1.28 |
| 4,800.0 | 11.03 | 263.75 | 4,777.7 | -14.7 | -279.1 | 255.5 | 0.30 | 0.28 | 0.58 |
| 4,900.0 | 11.25 | 264.96 | 4,875.8 | -16.6 | -298.3 | 272.8 | 0.32 | 0.22 | 1.21 |
| 5,000.0 | 12.06 | 262.82 | 4,973.8 | -18.7 | -318.4 | 290.8 | 0.92 | 0.81 | -2.14 |
| 5,100.0 | 14.06 | 259.57 | 5,071.2 | -22.2 | -340.7 | 310.4 | 2.13 | 2.00 | -3.25 |



| | | | |
|------------------|---------------------------|-------------------------------------|---|
| Company: | Stone Energy | Local Co-ordinate Reference: | Well Mills Wetzel #9H - Slot MW#9H |
| Project: | Heather Prospect (NAD 27) | TVD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Site: | Mills Wetzel Pad 2 | MD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Well: | Mills Wetzel #9H | North Reference: | Grid |
| Wellbore: | Original Well | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | EDM-Chris Testa |

| 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) | |
| 5,200.0 | 15.23 | 263.10 | 5,167.9 | -26.0 | -365.7 | 332.4 | 1.47 | 1.17 | 3.53 | |
| 5,300.0 | 14.32 | 261.30 | 5,264.6 | -29.5 | -391.0 | 354.7 | 1.02 | -0.91 | -1.80 | |
| 5,400.0 | 13.62 | 263.36 | 5,361.7 | -32.7 | -414.9 | 375.9 | 0.86 | -0.70 | 2.06 | |
| 5,500.0 | 14.08 | 262.20 | 5,458.8 | -35.7 | -438.7 | 397.0 | 0.54 | 0.46 | -1.16 | |
| 5,600.0 | 14.87 | 263.80 | 5,555.6 | -38.7 | -463.5 | 419.1 | 0.89 | 0.79 | 1.60 | |
| 5,700.0 | 15.02 | 268.71 | 5,652.2 | -40.4 | -489.2 | 442.5 | 1.27 | 0.15 | 4.91 | |
| 5,800.0 | 14.23 | 269.25 | 5,749.0 | -40.9 | -514.4 | 465.9 | 0.80 | -0.79 | 0.54 | |
| 5,900.0 | 14.99 | 270.80 | 5,845.7 | -40.8 | -539.6 | 489.5 | 0.85 | 0.76 | 1.55 | |
| 6,000.0 | 14.22 | 269.23 | 5,942.5 | -40.8 | -564.9 | 513.1 | 0.87 | -0.77 | -1.57 | |
| 6,100.0 | 12.53 | 269.35 | 6,039.8 | -41.1 | -588.0 | 534.6 | 1.69 | -1.69 | 0.12 | |
| 6,200.0 | 12.74 | 270.71 | 6,137.4 | -41.1 | -609.9 | 555.0 | 0.36 | 0.21 | 1.36 | |
| 6,300.0 | 12.44 | 268.38 | 6,235.0 | -41.3 | -631.6 | 575.3 | 0.59 | -0.30 | -2.33 | |
| 6,400.0 | 11.90 | 268.64 | 6,332.7 | -41.8 | -652.7 | 594.8 | 0.54 | -0.54 | 0.26 | |
| 6,500.0 | 12.27 | 267.96 | 6,430.5 | -42.4 | -673.6 | 614.1 | 0.40 | 0.37 | -0.68 | |
| 6,559.0 | 12.39 | 270.06 | 6,488.1 | -42.7 | -686.2 | 625.8 | 0.79 | 0.20 | 3.56 | |
| 6,623.0 | 12.66 | 266.64 | 6,550.6 | -43.1 | -700.1 | 638.6 | 1.23 | 0.42 | -5.34 | |
| 6,666.0 | 12.47 | 265.41 | 6,592.6 | -43.7 | -709.4 | 647.1 | 0.76 | -0.44 | -2.86 | |
| 6,698.0 | 13.17 | 268.03 | 6,623.8 | -44.1 | -716.5 | 653.6 | 2.84 | 2.19 | 8.19 | |
| 6,729.0 | 14.45 | 271.88 | 6,653.9 | -44.1 | -723.9 | 660.5 | 5.08 | 4.13 | 12.42 | |
| 6,761.0 | 15.86 | 276.38 | 6,684.8 | -43.5 | -732.3 | 668.5 | 5.74 | 4.41 | 14.06 | |
| 6,793.0 | 17.81 | 279.73 | 6,715.4 | -42.2 | -741.4 | 677.5 | 6.80 | 6.09 | 10.47 | |
| 6,824.0 | 20.23 | 281.34 | 6,744.7 | -40.3 | -751.4 | 687.5 | 7.99 | 7.81 | 5.19 | |
| 6,856.0 | 22.96 | 283.07 | 6,774.5 | -37.8 | -762.9 | 699.1 | 8.76 | 8.53 | 5.41 | |
| 6,888.0 | 25.71 | 284.79 | 6,803.6 | -34.6 | -775.7 | 712.2 | 8.87 | 8.59 | 5.38 | |
| 6,920.0 | 28.57 | 287.21 | 6,832.1 | -30.6 | -789.7 | 726.7 | 9.58 | 8.94 | 7.56 | |
| 6,952.0 | 30.75 | 289.57 | 6,859.9 | -25.6 | -804.7 | 742.6 | 7.73 | 6.81 | 7.38 | |
| 6,984.0 | 31.52 | 296.08 | 6,887.3 | -19.2 | -819.9 | 759.1 | 10.79 | 2.41 | 20.34 | |
| 7,016.0 | 33.01 | 299.48 | 6,914.4 | -11.2 | -835.0 | 776.0 | 7.34 | 4.66 | 10.63 | |
| 7,048.0 | 34.54 | 304.51 | 6,941.0 | -1.8 | -850.1 | 793.5 | 9.96 | 4.78 | 15.72 | |
| 7,080.0 | 35.67 | 307.28 | 6,967.2 | 9.0 | -865.0 | 811.2 | 6.10 | 3.53 | 8.66 | |
| 7,111.0 | 37.84 | 309.35 | 6,992.0 | 20.5 | -879.5 | 828.9 | 8.06 | 7.00 | 6.68 | |
| 7,143.0 | 39.65 | 311.53 | 7,016.9 | 33.5 | -894.8 | 847.8 | 7.08 | 5.66 | 6.81 | |
| 7,175.0 | 40.26 | 314.38 | 7,041.5 | 47.5 | -909.8 | 866.8 | 6.03 | 1.91 | 8.91 | |
| 7,206.0 | 42.76 | 314.92 | 7,064.7 | 62.0 | -924.4 | 885.7 | 8.15 | 8.06 | 1.74 | |
| 7,238.0 | 46.09 | 315.52 | 7,087.5 | 77.9 | -940.2 | 906.1 | 10.49 | 10.41 | 1.88 | |
| 7,270.0 | 49.62 | 316.50 | 7,109.0 | 94.9 | -956.7 | 927.5 | 11.26 | 11.03 | 3.06 | |
| 7,302.0 | 53.14 | 317.58 | 7,129.0 | 113.2 | -973.7 | 950.0 | 11.31 | 11.00 | 3.38 | |
| 7,333.0 | 55.79 | 318.66 | 7,147.0 | 132.0 | -990.5 | 972.4 | 9.01 | 8.55 | 3.48 | |
| 7,365.0 | 56.33 | 318.75 | 7,164.9 | 152.0 | -1,008.1 | 995.9 | 1.70 | 1.69 | 0.28 | |
| 7,397.0 | 57.36 | 319.46 | 7,182.4 | 172.2 | -1,025.6 | 1,019.5 | 3.72 | 3.22 | 2.22 | |
| 7,429.0 | 59.80 | 320.35 | 7,199.0 | 193.1 | -1,043.2 | 1,043.4 | 7.99 | 7.63 | 2.78 | |
| 7,460.0 | 62.76 | 321.14 | 7,213.9 | 214.1 | -1,060.4 | 1,067.0 | 9.81 | 9.55 | 2.55 | |
| 7,491.0 | 65.84 | 321.36 | 7,227.4 | 235.9 | -1,077.9 | 1,091.1 | 9.96 | 9.94 | 0.71 | |



| | | | |
|------------------|---------------------------|-------------------------------------|---|
| Company: | Stone Energy | Local Co-ordinate Reference: | Well Mills Wetzel #9H - Slot MW#9H |
| Project: | Heather Prospect (NAD 27) | TVD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Site: | Mills Wetzel Pad 2 | MD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Well: | Mills Wetzel #9H | North Reference: | Grid |
| Wellbore: | Original Well | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | EDM-Chris Testa |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 7,523.0 | 68.47 | 320.62 | 7,239.8 | 258.8 | -1,096.4 | 1,116.6 | 8.49 | 8.22 | -2.31 |
| 7,555.0 | 70.86 | 321.03 | 7,250.9 | 282.1 | -1,115.4 | 1,142.6 | 7.56 | 7.47 | 1.28 |
| 7,587.0 | 72.07 | 321.30 | 7,261.1 | 305.7 | -1,134.4 | 1,168.8 | 3.86 | 3.78 | 0.84 |
| 7,619.0 | 73.74 | 322.04 | 7,270.5 | 329.7 | -1,153.4 | 1,195.1 | 5.67 | 5.22 | 2.31 |
| 7,651.0 | 75.80 | 322.37 | 7,278.9 | 354.1 | -1,172.3 | 1,221.5 | 6.51 | 6.44 | 1.03 |
| 7,683.0 | 78.43 | 324.54 | 7,286.0 | 379.2 | -1,190.9 | 1,247.8 | 10.55 | 8.22 | 6.78 |
| 7,714.0 | 80.49 | 324.33 | 7,291.7 | 404.0 | -1,208.6 | 1,273.2 | 6.68 | 6.65 | -0.68 |
| 7,746.0 | 82.90 | 325.37 | 7,296.3 | 429.9 | -1,226.8 | 1,299.4 | 8.19 | 7.53 | 3.25 |
| 7,778.0 | 84.40 | 326.24 | 7,299.9 | 456.2 | -1,244.7 | 1,325.5 | 5.41 | 4.69 | 2.72 |
| 7,809.0 | 85.43 | 326.23 | 7,302.6 | 481.8 | -1,261.8 | 1,350.7 | 3.32 | 3.32 | -0.03 |
| 7,841.0 | 86.34 | 327.19 | 7,304.9 | 508.5 | -1,279.4 | 1,376.6 | 4.13 | 2.84 | 3.00 |
| 7,873.0 | 88.99 | 328.52 | 7,306.2 | 535.6 | -1,296.4 | 1,402.2 | 9.26 | 8.28 | 4.16 |
| 7,904.0 | 90.00 | 329.12 | 7,306.5 | 562.1 | -1,312.4 | 1,426.6 | 3.79 | 3.26 | 1.94 |
| 7,967.0 | 91.11 | 328.69 | 7,305.9 | 616.0 | -1,345.0 | 1,476.3 | 1.89 | 1.76 | -0.68 |
| 8,031.0 | 91.61 | 329.06 | 7,304.4 | 670.8 | -1,378.0 | 1,526.7 | 0.97 | 0.78 | 0.58 |
| 8,095.0 | 91.11 | 329.33 | 7,302.8 | 725.8 | -1,410.8 | 1,576.9 | 0.89 | -0.78 | 0.42 |
| 8,158.0 | 91.78 | 329.70 | 7,301.3 | 780.0 | -1,442.7 | 1,626.1 | 1.21 | 1.06 | 0.59 |
| 8,222.0 | 90.30 | 328.41 | 7,300.1 | 834.9 | -1,475.7 | 1,676.5 | 3.07 | -2.31 | -2.02 |
| 8,286.0 | 89.46 | 327.16 | 7,300.2 | 889.1 | -1,509.8 | 1,727.7 | 2.35 | -1.31 | -1.95 |
| 8,349.0 | 90.37 | 327.81 | 7,300.3 | 942.2 | -1,543.6 | 1,778.3 | 1.78 | 1.44 | 1.03 |
| 8,413.0 | 90.97 | 328.29 | 7,299.6 | 996.5 | -1,577.5 | 1,829.3 | 1.20 | 0.94 | 0.75 |
| 8,477.0 | 89.77 | 326.72 | 7,299.2 | 1,050.5 | -1,611.9 | 1,880.7 | 3.09 | -1.88 | -2.45 |
| 8,540.0 | 90.30 | 327.03 | 7,299.1 | 1,103.2 | -1,646.3 | 1,931.6 | 0.97 | 0.84 | 0.49 |
| 8,604.0 | 91.04 | 327.28 | 7,298.4 | 1,157.0 | -1,681.0 | 1,983.3 | 1.22 | 1.16 | 0.39 |
| 8,668.0 | 91.54 | 327.11 | 7,296.9 | 1,210.8 | -1,715.7 | 2,034.8 | 0.83 | 0.78 | -0.27 |
| 8,730.0 | 92.18 | 326.77 | 7,294.9 | 1,262.7 | -1,749.5 | 2,084.9 | 1.17 | 1.03 | -0.55 |
| 8,794.0 | 92.62 | 326.26 | 7,292.2 | 1,316.0 | -1,784.8 | 2,136.9 | 1.05 | 0.69 | -0.80 |
| 8,858.0 | 91.18 | 326.04 | 7,290.1 | 1,369.2 | -1,820.4 | 2,189.2 | 2.28 | -2.25 | -0.34 |
| 8,921.0 | 90.23 | 325.58 | 7,289.3 | 1,421.3 | -1,855.8 | 2,240.8 | 1.68 | -1.51 | -0.73 |
| 8,985.0 | 91.34 | 326.22 | 7,288.5 | 1,474.3 | -1,891.7 | 2,293.3 | 2.00 | 1.73 | 1.00 |
| 9,048.0 | 91.75 | 325.09 | 7,286.8 | 1,526.3 | -1,927.2 | 2,345.0 | 1.91 | 0.65 | -1.79 |
| 9,111.0 | 90.67 | 324.65 | 7,285.4 | 1,577.8 | -1,963.4 | 2,397.3 | 1.85 | -1.71 | -0.70 |
| 9,175.0 | 89.56 | 324.71 | 7,285.3 | 1,630.0 | -2,000.4 | 2,450.5 | 1.74 | -1.73 | 0.09 |
| 9,238.0 | 89.77 | 323.60 | 7,285.7 | 1,681.1 | -2,037.3 | 2,503.2 | 1.79 | 0.33 | -1.76 |
| 9,302.0 | 90.34 | 323.27 | 7,285.6 | 1,732.5 | -2,075.5 | 2,557.1 | 1.03 | 0.89 | -0.52 |
| 9,366.0 | 90.81 | 323.11 | 7,285.0 | 1,783.7 | -2,113.8 | 2,611.2 | 0.78 | 0.73 | -0.25 |
| 9,429.0 | 91.31 | 323.32 | 7,283.8 | 1,834.1 | -2,151.5 | 2,664.5 | 0.86 | 0.79 | 0.33 |
| 9,492.0 | 90.34 | 323.69 | 7,282.9 | 1,884.8 | -2,189.0 | 2,717.5 | 1.65 | -1.54 | 0.59 |
| 9,556.0 | 90.23 | 323.71 | 7,282.6 | 1,936.4 | -2,226.9 | 2,771.3 | 0.17 | -0.17 | 0.03 |
| 9,620.0 | 90.84 | 324.19 | 7,282.0 | 1,988.1 | -2,264.5 | 2,825.0 | 1.21 | 0.95 | 0.75 |
| 9,684.0 | 89.33 | 324.22 | 7,281.9 | 2,040.0 | -2,302.0 | 2,878.5 | 2.36 | -2.36 | 0.05 |
| 9,747.0 | 88.29 | 324.52 | 7,283.2 | 2,091.2 | -2,338.7 | 2,931.0 | 1.72 | -1.65 | 0.48 |
| 9,811.0 | 89.26 | 324.37 | 7,284.6 | 2,143.3 | -2,375.9 | 2,984.4 | 1.53 | 1.52 | -0.23 |
| 9,875.0 | 89.93 | 324.33 | 7,285.0 | 2,195.3 | -2,413.2 | 3,037.8 | 1.05 | 1.05 | -0.06 |



| | | | |
|------------------|---------------------------|-------------------------------------|---|
| Company: | Stone Energy | Local Co-ordinate Reference: | Well Mills Wetzel #9H - Slot MW#9H |
| Project: | Heather Prospect (NAD 27) | TVD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Site: | Mills Wetzel Pad 2 | MD Reference: | Saxon 141 @ 1370.0usft (18' RKB - 1352' GL) |
| Well: | Mills Wetzel #9H | North Reference: | Grid |
| Wellbore: | Original Well | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | EDM-Chris Testa |

| 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) | |
| 9,938.0 | 91.04 | 325.83 | 7,284.5 | 2,246.9 | -2,449.2 | 3,089.9 | 2.96 | 1.76 | 2.38 | |
| 10,001.0 | 91.61 | 325.38 | 7,283.0 | 2,298.9 | -2,484.8 | 3,141.7 | 1.15 | 0.90 | -0.71 | |
| 10,065.0 | 90.64 | 327.05 | 7,281.8 | 2,352.1 | -2,520.4 | 3,193.9 | 3.02 | -1.52 | 2.61 | |
| 10,128.0 | 89.97 | 326.74 | 7,281.4 | 2,404.8 | -2,554.8 | 3,244.9 | 1.17 | -1.06 | -0.49 | |
| 10,191.0 | 91.11 | 326.52 | 7,280.8 | 2,457.5 | -2,589.4 | 3,296.0 | 1.84 | 1.81 | -0.35 | |
| 10,255.0 | 91.65 | 324.59 | 7,279.3 | 2,510.2 | -2,625.6 | 3,348.7 | 3.13 | 0.84 | -3.02 | |
| 10,319.0 | 90.60 | 323.56 | 7,278.0 | 2,562.0 | -2,663.2 | 3,402.2 | 2.30 | -1.64 | -1.61 | |
| 10,382.0 | 90.13 | 323.33 | 7,277.6 | 2,612.6 | -2,700.7 | 3,455.3 | 0.83 | -0.75 | -0.37 | |
| 10,445.0 | 90.97 | 323.53 | 7,277.0 | 2,663.2 | -2,738.2 | 3,508.5 | 1.37 | 1.33 | 0.32 | |
| 10,509.0 | 90.20 | 324.28 | 7,276.4 | 2,714.9 | -2,775.9 | 3,562.1 | 1.68 | -1.20 | 1.17 | |
| 10,572.0 | 88.89 | 324.38 | 7,276.9 | 2,766.1 | -2,812.7 | 3,614.7 | 2.09 | -2.08 | 0.16 | |
| 10,636.0 | 90.10 | 324.97 | 7,277.5 | 2,818.3 | -2,849.7 | 3,667.9 | 2.10 | 1.89 | 0.92 | |
| 10,700.0 | 91.41 | 324.70 | 7,276.6 | 2,870.6 | -2,886.5 | 3,721.0 | 2.09 | 2.05 | -0.42 | |
| 10,763.0 | 92.25 | 324.94 | 7,274.6 | 2,922.1 | -2,922.8 | 3,773.3 | 1.39 | 1.33 | 0.38 | |
| 10,827.0 | 90.37 | 324.68 | 7,273.1 | 2,974.4 | -2,959.7 | 3,826.4 | 2.97 | -2.94 | -0.41 | |
| 10,890.0 | 88.79 | 324.69 | 7,273.6 | 3,025.8 | -2,996.1 | 3,878.7 | 2.51 | -2.51 | 0.02 | |
| 10,954.0 | 89.83 | 324.91 | 7,274.4 | 3,078.1 | -3,033.0 | 3,931.9 | 1.66 | 1.63 | 0.34 | |
| 11,017.0 | 91.11 | 325.07 | 7,273.9 | 3,129.7 | -3,069.1 | 3,984.0 | 2.05 | 2.03 | 0.25 | |
| 11,081.0 | 92.05 | 324.71 | 7,272.1 | 3,182.0 | -3,105.9 | 4,037.1 | 1.57 | 1.47 | -0.56 | |
| 11,145.0 | 90.87 | 323.96 | 7,270.5 | 3,234.0 | -3,143.2 | 4,090.5 | 2.18 | -1.84 | -1.17 | |
| 11,208.0 | 89.70 | 323.46 | 7,270.1 | 3,284.8 | -3,180.5 | 4,143.4 | 2.02 | -1.86 | -0.79 | |
| 11,271.0 | 90.57 | 321.84 | 7,270.0 | 3,334.9 | -3,218.7 | 4,197.0 | 2.92 | 1.38 | -2.57 | |
| 11,334.0 | 91.21 | 321.65 | 7,269.0 | 3,384.3 | -3,257.7 | 4,251.1 | 1.06 | 1.02 | -0.30 | |
| 11,398.0 | 89.50 | 322.98 | 7,268.6 | 3,435.0 | -3,296.8 | 4,305.7 | 3.38 | -2.67 | 2.08 | |
| 11,461.0 | 88.66 | 323.83 | 7,269.6 | 3,485.5 | -3,334.4 | 4,358.9 | 1.90 | -1.33 | 1.35 | |
| 11,525.0 | 89.73 | 323.55 | 7,270.5 | 3,537.1 | -3,372.3 | 4,412.7 | 1.73 | 1.67 | -0.44 | |
| 11,589.0 | 90.54 | 324.35 | 7,270.4 | 3,588.9 | -3,410.0 | 4,466.3 | 1.78 | 1.27 | 1.25 | |
| 11,652.0 | 89.77 | 325.94 | 7,270.2 | 3,640.6 | -3,446.0 | 4,518.4 | 2.80 | -1.22 | 2.52 | |
| 11,716.0 | 90.57 | 325.82 | 7,270.0 | 3,693.5 | -3,481.9 | 4,570.8 | 1.26 | 1.25 | -0.19 | |
| 11,780.0 | 91.24 | 326.00 | 7,269.0 | 3,746.5 | -3,517.7 | 4,623.3 | 1.08 | 1.05 | 0.28 | |
| 11,844.0 | 92.32 | 326.28 | 7,267.0 | 3,799.6 | -3,553.4 | 4,675.5 | 1.74 | 1.69 | 0.44 | |
| 11,907.0 | 90.17 | 327.92 | 7,265.7 | 3,852.5 | -3,587.6 | 4,726.3 | 4.29 | -3.41 | 2.60 | |
| 11,971.0 | 88.86 | 329.56 | 7,266.2 | 3,907.2 | -3,620.8 | 4,776.9 | 3.28 | -2.05 | 2.56 | |
| 12,033.0 | 89.87 | 329.04 | 7,266.9 | 3,960.5 | -3,652.4 | 4,825.5 | 1.83 | 1.63 | -0.84 | |
| 12,096.0 | 90.74 | 328.49 | 7,266.5 | 4,014.4 | -3,685.1 | 4,875.2 | 1.63 | 1.38 | -0.87 | |
| 12,128.0 | 91.01 | 328.31 | 7,266.1 | 4,041.7 | -3,701.9 | 4,900.6 | 1.01 | 0.84 | -0.56 | |
| 12,194.0 | 91.01 | 328.31 | 7,264.9 | 4,097.8 | -3,736.5 | 4,953.0 | 0.00 | 0.00 | 0.00 | |