



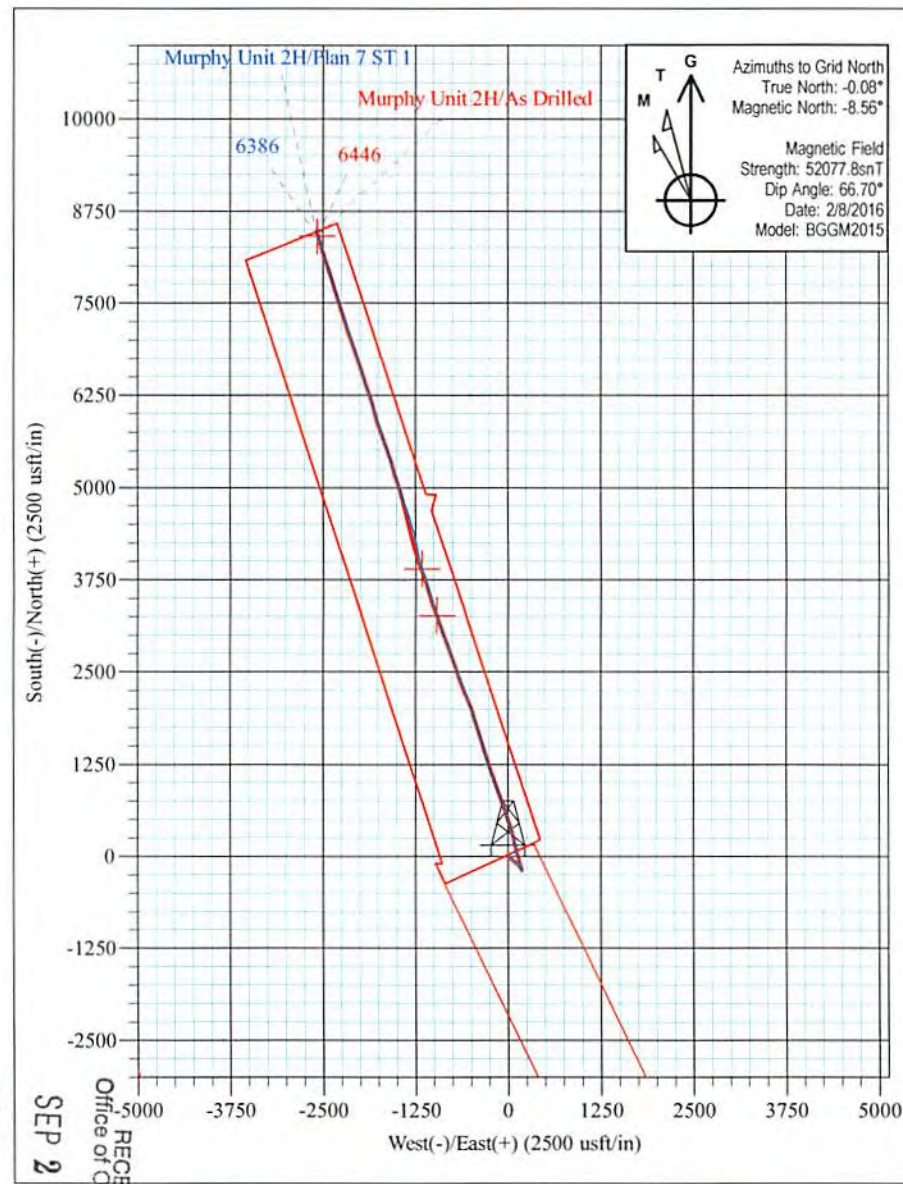
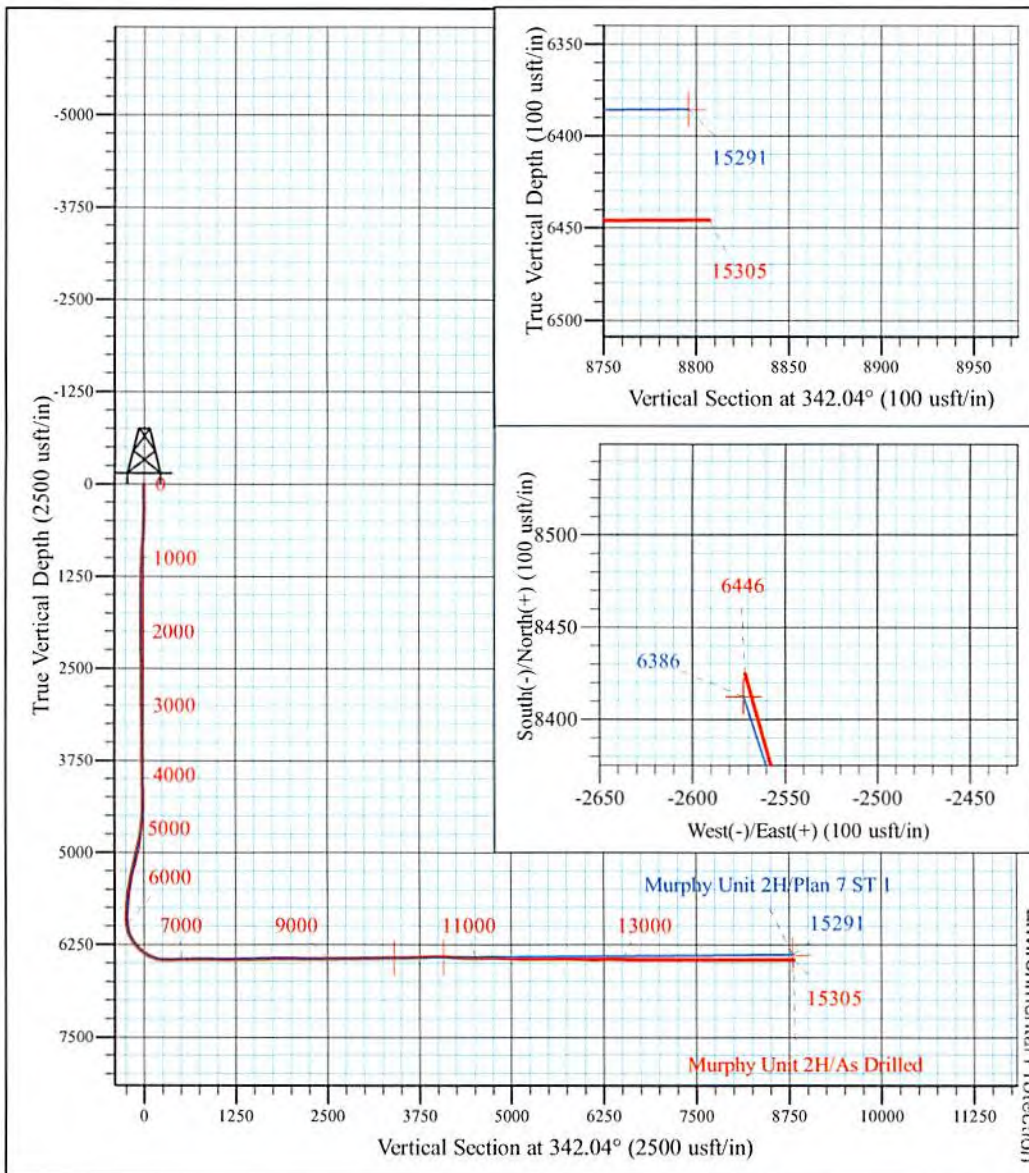
Dotson Holland Pad: Alder/Amanda/Murphy/Zellerback  
 Murphy Unit 2H  
 Plan 7 ST 1  
 Precision 523: 989' GL + 19' KB @ 1008.0usft  
 Doddridge County WV

PROJECT DETAILS:  
 Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Zone 17N (84 W to 78 W)  
 System Datum: Mean Sea Level



WELL DETAILS: **Murphy Unit 2H SHL**

| +N/-S | +E/-W | Northing    | Easting    | Latitude         | Longitude        |
|-------|-------|-------------|------------|------------------|------------------|
| 0.0   | 0.0   | 14261451.67 | 1676368.02 | 39° 16' 23.696 N | 80° 52' 22.676 W |



Azimuths to Grid North  
 True North: -0.08°  
 Magnetic North: -8.56°

Magnetic Field  
 Strength: 52077.8snT  
 Dip Angle: 66.70°  
 Date: 2/8/2016  
 Model: BGGM2015

**Murphy Unit 2H**  
**Approx. BHL**  
**39° 17' 47.032 N 80° 52' 55.249 W**

Shane Rhodes  
 13:15, February 24 2016  
 Scientific Drilling International  
 124 Vista Drive  
 Charleroi, PA 15022

WV Department of Environmental Protection





Scientific Drilling International  
Survey Report



|                  |   |                                     |  |
|------------------|---|-------------------------------------|--|
| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | Doddridge County WV, McClellan District        |                      |                |
| <b>Map System:</b> | Universal Transverse Mercator (US Survey Feet) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)                        |                      |                |
| <b>Map Zone:</b>   | Zone 17N (84 W to 78 W)                        |                      |                |

|                              |   |                     |                    |                          |                  |
|------------------------------|---|---------------------|--------------------|--------------------------|------------------|
| <b>Site</b>                  | Dotson Holland Pad: Alder/Amanda/Murphy/Zellerback, Site Center: Murphy Unit 1H |                     |                    |                          |                  |
| <b>Site Position:</b>        |   | <b>Northing:</b>    | 14,261,441.71 usft | <b>Latitude:</b>         | 39° 16' 23.598 N |
| <b>From:</b>                 | Map   | <b>Easting:</b>     | 1,676,370.19 usft  | <b>Longitude:</b>        | 80° 52' 22.648 W |
| <b>Position Uncertainty:</b> | 0.0 usft  | <b>Slot Radius:</b> | 13-3/16 "          | <b>Grid Convergence:</b> | 0.08 "           |

|                             |                           |          |                            |                    |                      |                  |
|-----------------------------|---------------------------|----------|----------------------------|--------------------|----------------------|------------------|
| <b>Well</b>                 | Murphy Unit 2H, Marcellus |          |                            |                    |                      |                  |
| <b>Well Position</b>        | <b>+N/-S</b>              | 0.0 usft | <b>Northing:</b>           | 14,261,451.67 usft | <b>Latitude:</b>     | 39° 16' 23.696 N |
|                             | <b>+E/-W</b>              | 0.0 usft | <b>Easting:</b>            | 1,676,368.02 usft  | <b>Longitude:</b>    | 80° 52' 22.676 W |
| <b>Position Uncertainty</b> |                           | 2.0 usft | <b>Wellhead Elevation:</b> | 1,008.0 usft       | <b>Ground Level:</b> | 989.0 usft       |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | ST1               |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | BGGM2015          | 2/8/2016           | -8.48                  | 66.70                | 52,078                     |

|                          |                                |                     |                     |                      |         |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|---------|
| <b>Design</b>            | As Drilled                     |                     |                     |                      |         |
| <b>Audit Notes:</b>      |                                |                     |                     |                      |         |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>       | ACTUAL              | <b>Tie On Depth:</b> | 8,520.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |         |
|                          | 0.0                            | 0.0                 | 0.0                 | 342.04               |         |

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|                       |                  |  |                     |  |  |
|-----------------------|------------------|--|---------------------|--|--|
| <b>Survey Program</b> | <b>Date</b>      | 2/24/2016                                |                     |  |  |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>                 | <b>Tool Name</b>    | <b>Description</b>                                 |  |
| 100.0                 | 5,692.9          | Survey #8 - KOP Gyro (Original Wellpath) | Standard Keeper 104 | Standard Wireline Keeper ver 1.0.4                 |  |
| 5,744.0               | 8,520.0          | Survey #9 - SDI MWD (Original Wellpath)  | SDI MWD             | Scientific Drilling Intl. MWD - Standard ver 1.0.1 |  |
| 8,607.0               | 15,305.0         | Survey #10 - SDI ST MWD (ST1)            | SDI MWD             | Scientific Drilling Intl. MWD - Standard ver 1.0.1 |  |

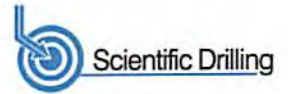
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| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 100.0                 | 0.09            | 75.25       | 100.0                 | 0.0          | 0.1          | 0.0                     | 0.09                    | 0.09                   | 0.00                  |
| 125.0                 | 0.15            | 302.54      | 125.0                 | 0.0          | 0.1          | 0.0                     | 0.88                    | 0.24                   | -530.84               |
| 150.0                 | 0.11            | 329.88      | 150.0                 | 0.1          | 0.0          | 0.1                     | 0.29                    | -0.16                  | 109.36                |
| 175.0                 | 0.01            | 122.94      | 175.0                 | 0.1          | 0.0          | 0.1                     | 0.48                    | -0.40                  | 612.24                |
| 200.0                 | 0.05            | 253.10      | 200.0                 | 0.1          | 0.0          | 0.1                     | 0.23                    | 0.16                   | 520.64                |
| 225.0                 | 0.06            | 313.37      | 225.0                 | 0.1          | 0.0          | 0.1                     | 0.22                    | 0.04                   | 241.08                |
| 250.0                 | 0.02            | 313.05      | 250.0                 | 0.1          | 0.0          | 0.1                     | 0.16                    | -0.16                  | -1.28                 |





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Survey Report



|                  |   |                                     |  |
|------------------|---|-------------------------------------|--|
| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |  |
| 275.0                 | 0.09            | 338.20      | 275.0                 | 0.1          | 0.0          | 0.1                     | 0.29                    | 0.28                   | 100.60                |  |
| 300.0                 | 0.15            | 321.92      | 300.0                 | 0.2          | -0.1         | 0.2                     | 0.27                    | 0.24                   | -65.12                |  |
| 325.0                 | 0.16            | 282.70      | 325.0                 | 0.2          | -0.1         | 0.2                     | 0.42                    | 0.04                   | -156.88               |  |
| 350.0                 | 0.33            | 277.82      | 350.0                 | 0.2          | -0.2         | 0.3                     | 0.68                    | 0.68                   | -19.52                |  |
| 375.0                 | 0.18            | 289.52      | 375.0                 | 0.3          | -0.3         | 0.3                     | 0.63                    | -0.60                  | 46.80                 |  |
| 400.0                 | 0.04            | 158.70      | 400.0                 | 0.3          | -0.4         | 0.4                     | 0.83                    | -0.56                  | -523.28               |  |
| 425.0                 | 0.30            | 136.08      | 425.0                 | 0.2          | -0.3         | 0.3                     | 1.05                    | 1.04                   | -90.48                |  |
| 450.0                 | 0.98            | 132.06      | 450.0                 | 0.0          | -0.1         | 0.0                     | 2.72                    | 2.72                   | -16.08                |  |
| 475.0                 | 1.53            | 129.58      | 475.0                 | -0.3         | 0.3          | -0.4                    | 2.21                    | 2.20                   | -9.92                 |  |
| 500.0                 | 2.02            | 130.21      | 500.0                 | -0.8         | 0.9          | -1.1                    | 1.96                    | 1.96                   | 2.52                  |  |
| 525.0                 | 2.41            | 130.82      | 525.0                 | -1.5         | 1.6          | -1.9                    | 1.56                    | 1.56                   | 2.44                  |  |
| 550.0                 | 2.91            | 130.08      | 549.9                 | -2.2         | 2.5          | -2.9                    | 2.00                    | 2.00                   | -2.96                 |  |
| 575.0                 | 3.22            | 131.16      | 574.9                 | -3.1         | 3.5          | -4.0                    | 1.26                    | 1.24                   | 4.32                  |  |
| 600.0                 | 3.59            | 131.29      | 599.9                 | -4.1         | 4.6          | -5.3                    | 1.48                    | 1.48                   | 0.52                  |  |
| 625.0                 | 3.97            | 130.47      | 624.8                 | -5.1         | 5.9          | -6.7                    | 1.54                    | 1.52                   | -3.28                 |  |
| 650.0                 | 4.35            | 132.08      | 649.7                 | -6.3         | 7.3          | -8.3                    | 1.59                    | 1.52                   | 6.44                  |  |
| 675.0                 | 4.59            | 132.86      | 674.7                 | -7.7         | 8.7          | -10.0                   | 0.99                    | 0.96                   | 3.12                  |  |
| 700.0                 | 4.72            | 132.82      | 699.6                 | -9.0         | 10.2         | -11.7                   | 0.52                    | 0.52                   | -0.16                 |  |
| 725.0                 | 4.66            | 133.69      | 724.5                 | -10.4        | 11.7         | -13.5                   | 0.37                    | -0.24                  | 3.48                  |  |
| 750.0                 | 4.89            | 132.91      | 749.4                 | -11.9        | 13.2         | -15.4                   | 0.96                    | 0.92                   | -3.12                 |  |
| 775.0                 | 4.87            | 132.72      | 774.3                 | -13.3        | 14.7         | -17.2                   | 0.10                    | -0.08                  | -0.76                 |  |
| 800.0                 | 4.92            | 132.19      | 799.2                 | -14.8        | 16.3         | -19.1                   | 0.27                    | 0.20                   | -2.12                 |  |
| 825.0                 | 4.85            | 132.73      | 824.1                 | -16.2        | 17.9         | -20.9                   | 0.34                    | -0.28                  | 2.16                  |  |
| 850.0                 | 4.72            | 133.10      | 849.0                 | -17.6        | 19.4         | -22.7                   | 0.53                    | -0.52                  | 1.48                  |  |
| 875.0                 | 4.37            | 133.36      | 874.0                 | -19.0        | 20.9         | -24.5                   | 1.40                    | -1.40                  | 1.04                  |  |
| 900.0                 | 3.74            | 129.91      | 898.9                 | -20.1        | 22.2         | -26.0                   | 2.70                    | -2.52                  | -13.80                |  |
| 925.0                 | 3.42            | 129.48      | 923.9                 | -21.1        | 23.4         | -27.3                   | 1.28                    | -1.28                  | -1.72                 |  |
| 950.0                 | 3.19            | 129.64      | 948.8                 | -22.1        | 24.5         | -28.5                   | 0.92                    | -0.92                  | 0.64                  |  |
| 975.0                 | 3.06            | 129.88      | 973.8                 | -22.9        | 25.5         | -29.7                   | 0.52                    | -0.52                  | 0.96                  |  |
| 1,000.0               | 2.72            | 129.72      | 998.7                 | -23.7        | 26.5         | -30.8                   | 1.36                    | -1.36                  | -0.64                 |  |
| 1,025.0               | 2.49            | 130.02      | 1,023.7               | -24.5        | 27.4         | -31.7                   | 0.92                    | -0.92                  | 1.20                  |  |
| 1,050.0               | 2.26            | 131.38      | 1,048.7               | -25.1        | 28.2         | -32.6                   | 0.95                    | -0.92                  | 5.44                  |  |
| 1,075.0               | 2.14            | 132.23      | 1,073.7               | -25.8        | 28.9         | -33.4                   | 0.50                    | -0.48                  | 3.40                  |  |
| 1,100.0               | 1.90            | 132.66      | 1,098.7               | -26.4        | 29.5         | -34.2                   | 0.96                    | -0.96                  | 1.72                  |  |
| 1,125.0               | 1.69            | 131.69      | 1,123.6               | -26.9        | 30.1         | -34.9                   | 0.85                    | -0.84                  | -3.88                 |  |
| 1,150.0               | 1.51            | 133.26      | 1,148.6               | -27.4        | 30.6         | -35.5                   | 0.74                    | -0.72                  | 6.28                  |  |
| 1,175.0               | 1.29            | 134.64      | 1,173.6               | -27.8        | 31.1         | -36.0                   | 0.89                    | -0.88                  | 5.52                  |  |
| 1,200.0               | 1.25            | 132.08      | 1,198.6               | -28.2        | 31.5         | -36.5                   | 0.28                    | -0.16                  | -10.24                |  |
| 1,225.0               | 1.11            | 134.80      | 1,223.6               | -28.5        | 31.8         | -37.0                   | 0.60                    | -0.56                  | 10.88                 |  |
| 1,250.0               | 1.08            | 135.97      | 1,248.6               | -28.9        | 32.2         | -37.4                   | 0.15                    | -0.12                  | 4.68                  |  |
| 1,275.0               | 1.02            | 137.61      | 1,273.6               | -29.2        | 32.5         | -37.8                   | 0.27                    | -0.24                  | 6.56                  |  |
| 1,300.0               | 0.85            | 134.10      | 1,298.6               | -29.5        | 32.8         | -38.2                   | 0.72                    | -0.68                  | -14.04                |  |

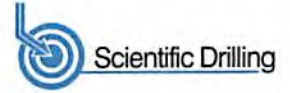
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|------------------|---|-------------------------------------|--|
| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WW                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 1,325.0               | 0.75            | 136.26      | 1,323.6               | -29.7        | 33.0         | -38.5                   | 0.42                    | -0.40                  | 8.64                  |
| 1,350.0               | 0.72            | 135.68      | 1,348.6               | -30.0        | 33.2         | -38.8                   | 0.12                    | -0.12                  | -2.32                 |
| 1,375.0               | 0.76            | 133.71      | 1,373.6               | -30.2        | 33.5         | -39.1                   | 0.19                    | 0.16                   | -7.88                 |
| 1,400.0               | 0.58            | 131.72      | 1,398.6               | -30.4        | 33.7         | -39.3                   | 0.73                    | -0.72                  | -7.96                 |
| 1,425.0               | 0.53            | 128.78      | 1,423.6               | -30.6        | 33.9         | -39.5                   | 0.23                    | -0.20                  | -11.76                |
| 1,450.0               | 0.53            | 125.00      | 1,448.6               | -30.7        | 34.1         | -39.7                   | 0.14                    | 0.00                   | -15.12                |
| 1,475.0               | 0.50            | 129.89      | 1,473.6               | -30.8        | 34.2         | -39.9                   | 0.21                    | -0.12                  | 19.56                 |
| 1,500.0               | 0.41            | 129.39      | 1,498.6               | -31.0        | 34.4         | -40.1                   | 0.36                    | -0.36                  | -2.00                 |
| 1,525.0               | 0.30            | 132.31      | 1,523.6               | -31.1        | 34.5         | -40.2                   | 0.45                    | -0.44                  | 11.68                 |
| 1,550.0               | 0.20            | 111.20      | 1,548.6               | -31.1        | 34.6         | -40.3                   | 0.54                    | -0.40                  | -84.44                |
| 1,575.0               | 0.22            | 138.66      | 1,573.6               | -31.2        | 34.7         | -40.3                   | 0.41                    | 0.08                   | 109.84                |
| 1,600.0               | 0.13            | 137.17      | 1,598.6               | -31.2        | 34.7         | -40.4                   | 0.36                    | -0.36                  | -5.96                 |
| 1,625.0               | 0.20            | 122.10      | 1,623.6               | -31.3        | 34.8         | -40.5                   | 0.33                    | 0.28                   | -60.28                |
| 1,650.0               | 0.18            | 109.66      | 1,648.6               | -31.3        | 34.8         | -40.5                   | 0.18                    | -0.08                  | -49.76                |
| 1,675.0               | 0.15            | 107.22      | 1,673.6               | -31.3        | 34.9         | -40.6                   | 0.12                    | -0.12                  | -9.76                 |
| 1,700.0               | 0.12            | 150.26      | 1,698.6               | -31.4        | 35.0         | -40.6                   | 0.41                    | -0.12                  | 172.16                |
| 1,725.0               | 0.11            | 93.33       | 1,723.6               | -31.4        | 35.0         | -40.7                   | 0.44                    | -0.04                  | -227.72               |
| 1,750.0               | 0.11            | 120.22      | 1,748.6               | -31.4        | 35.0         | -40.7                   | 0.20                    | 0.00                   | 107.56                |
| 1,775.0               | 0.18            | 100.70      | 1,773.6               | -31.4        | 35.1         | -40.7                   | 0.34                    | 0.28                   | -78.08                |
| 1,800.0               | 0.20            | 78.30       | 1,798.6               | -31.4        | 35.2         | -40.7                   | 0.31                    | 0.08                   | -89.60                |
| 1,825.0               | 0.27            | 82.91       | 1,823.6               | -31.4        | 35.3         | -40.8                   | 0.29                    | 0.28                   | 18.44                 |
| 1,850.0               | 0.26            | 70.75       | 1,848.6               | -31.4        | 35.4         | -40.8                   | 0.23                    | -0.04                  | -48.64                |
| 1,875.0               | 0.23            | 91.72       | 1,873.6               | -31.4        | 35.5         | -40.8                   | 0.38                    | -0.12                  | 83.88                 |
| 1,900.0               | 0.17            | 75.00       | 1,898.6               | -31.4        | 35.6         | -40.8                   | 0.33                    | -0.24                  | -66.88                |
| 1,925.0               | 0.18            | 71.90       | 1,923.6               | -31.3        | 35.7         | -40.8                   | 0.06                    | 0.04                   | -12.40                |
| 1,950.0               | 0.21            | 84.90       | 1,948.6               | -31.3        | 35.7         | -40.8                   | 0.21                    | 0.12                   | 52.00                 |
| 1,975.0               | 0.16            | 54.25       | 1,973.6               | -31.3        | 35.8         | -40.8                   | 0.44                    | -0.20                  | -122.60               |
| 2,000.0               | 0.13            | 22.79       | 1,998.6               | -31.2        | 35.9         | -40.8                   | 0.34                    | -0.12                  | -125.84               |
| 2,025.0               | 0.12            | 38.96       | 2,023.6               | -31.2        | 35.9         | -40.7                   | 0.15                    | -0.04                  | 64.68                 |
| 2,050.0               | 0.13            | 357.65      | 2,048.6               | -31.1        | 35.9         | -40.7                   | 0.35                    | 0.04                   | -165.24               |
| 2,075.0               | 0.13            | 357.75      | 2,073.6               | -31.1        | 35.9         | -40.6                   | 0.00                    | 0.00                   | 0.40                  |
| 2,100.0               | 0.24            | 315.18      | 2,098.6               | -31.0        | 35.9         | -40.6                   | 0.68                    | 0.44                   | -170.28               |
| 2,125.0               | 0.23            | 327.75      | 2,123.6               | -30.9        | 35.8         | -40.5                   | 0.21                    | -0.04                  | 50.28                 |
| 2,150.0               | 0.19            | 311.99      | 2,148.6               | -30.9        | 35.7         | -40.4                   | 0.28                    | -0.16                  | -63.04                |
| 2,175.0               | 0.14            | 343.90      | 2,173.6               | -30.8        | 35.7         | -40.3                   | 0.41                    | -0.20                  | 127.64                |
| 2,200.0               | 0.11            | 308.02      | 2,198.6               | -30.8        | 35.7         | -40.3                   | 0.33                    | -0.12                  | -143.52               |
| 2,225.0               | 0.11            | 314.95      | 2,223.6               | -30.7        | 35.6         | -40.2                   | 0.05                    | 0.00                   | 27.72                 |
| 2,250.0               | 0.22            | 331.33      | 2,248.6               | -30.7        | 35.6         | -40.2                   | 0.47                    | 0.44                   | 65.52                 |
| 2,275.0               | 0.12            | 12.82       | 2,273.6               | -30.6        | 35.6         | -40.1                   | 0.61                    | -0.40                  | 165.96                |
| 2,300.0               | 0.20            | 297.48      | 2,298.6               | -30.6        | 35.5         | -40.0                   | 0.82                    | 0.32                   | -301.36               |
| 2,325.0               | 0.11            | 306.77      | 2,323.6               | -30.5        | 35.5         | -40.0                   | 0.37                    | -0.36                  | 37.16                 |
| 2,350.0               | 0.20            | 325.94      | 2,348.6               | -30.5        | 35.4         | -39.9                   | 0.24                    | 0.36                   | 76.68                 |
| 2,375.0               | 0.26            | 327.37      | 2,373.6               | -30.4        | 35.4         | -39.8                   | 0.24                    | 0.24                   | 5.72                  |

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|                  |   |                                     |  |
|------------------|---|-------------------------------------|--|
| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WW                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 2,400.0               | 0.27            | 348.66      | 2,398.6               | -30.3        | 35.3         | -39.7                   | 0.39                    | 0.04                   | 85.16                 |
| 2,425.0               | 0.33            | 306.51      | 2,423.6               | -30.2        | 35.3         | -39.6                   | 0.89                    | 0.24                   | -168.60               |
| 2,450.0               | 0.35            | 321.99      | 2,448.6               | -30.1        | 35.2         | -39.5                   | 0.37                    | 0.08                   | 61.92                 |
| 2,475.0               | 0.19            | 336.76      | 2,473.6               | -30.0        | 35.1         | -39.4                   | 0.69                    | -0.64                  | 59.08                 |
| 2,500.0               | 0.39            | 327.80      | 2,498.6               | -29.9        | 35.0         | -39.2                   | 0.82                    | 0.80                   | -35.84                |
| 2,525.0               | 0.39            | 331.72      | 2,523.6               | -29.7        | 35.0         | -39.1                   | 0.11                    | 0.00                   | 15.68                 |
| 2,550.0               | 0.44            | 320.25      | 2,548.6               | -29.6        | 34.9         | -38.9                   | 0.39                    | 0.20                   | -45.88                |
| 2,575.0               | 0.51            | 320.57      | 2,573.6               | -29.4        | 34.7         | -38.7                   | 0.28                    | 0.28                   | 1.28                  |
| 2,600.0               | 0.54            | 328.55      | 2,598.6               | -29.2        | 34.6         | -38.5                   | 0.32                    | 0.12                   | 31.92                 |
| 2,625.0               | 0.47            | 323.42      | 2,623.6               | -29.1        | 34.5         | -38.3                   | 0.33                    | -0.28                  | -20.52                |
| 2,650.0               | 0.60            | 324.54      | 2,648.6               | -28.9        | 34.3         | -38.1                   | 0.52                    | 0.52                   | 4.48                  |
| 2,675.0               | 0.57            | 320.11      | 2,673.6               | -28.7        | 34.2         | -37.8                   | 0.22                    | -0.12                  | -17.72                |
| 2,700.0               | 0.63            | 327.76      | 2,698.6               | -28.5        | 34.0         | -37.6                   | 0.40                    | 0.24                   | 30.60                 |
| 2,725.0               | 0.55            | 327.22      | 2,723.6               | -28.2        | 33.9         | -37.3                   | 0.32                    | -0.32                  | -2.16                 |
| 2,750.0               | 0.66            | 322.87      | 2,748.6               | -28.0        | 33.7         | -37.1                   | 0.48                    | 0.44                   | -17.40                |
| 2,775.0               | 0.67            | 321.17      | 2,773.6               | -27.8        | 33.6         | -36.8                   | 0.09                    | 0.04                   | -6.80                 |
| 2,800.0               | 0.66            | 319.96      | 2,798.6               | -27.6        | 33.4         | -36.5                   | 0.07                    | -0.04                  | -4.84                 |
| 2,825.0               | 0.64            | 315.85      | 2,823.6               | -27.4        | 33.2         | -36.3                   | 0.20                    | -0.08                  | -16.44                |
| 2,850.0               | 0.62            | 311.59      | 2,848.6               | -27.2        | 33.0         | -36.0                   | 0.20                    | -0.08                  | -17.04                |
| 2,875.0               | 0.73            | 314.25      | 2,873.6               | -27.0        | 32.8         | -35.8                   | 0.46                    | 0.44                   | 10.64                 |
| 2,900.0               | 0.72            | 318.13      | 2,898.6               | -26.7        | 32.6         | -35.5                   | 0.20                    | -0.04                  | 15.52                 |
| 2,925.0               | 0.67            | 315.90      | 2,923.6               | -26.5        | 32.3         | -35.2                   | 0.23                    | -0.20                  | -8.92                 |
| 2,950.0               | 0.63            | 309.72      | 2,948.6               | -26.3        | 32.1         | -35.0                   | 0.32                    | -0.16                  | -24.72                |
| 2,975.0               | 0.64            | 314.23      | 2,973.6               | -26.1        | 31.9         | -34.7                   | 0.20                    | 0.04                   | 18.04                 |
| 3,000.0               | 0.58            | 312.22      | 2,998.6               | -26.0        | 31.7         | -34.5                   | 0.25                    | -0.24                  | -8.04                 |
| 3,025.0               | 0.63            | 315.64      | 3,023.6               | -25.8        | 31.5         | -34.2                   | 0.25                    | 0.20                   | 13.68                 |
| 3,050.0               | 0.68            | 322.02      | 3,048.6               | -25.6        | 31.4         | -34.0                   | 0.35                    | 0.20                   | 25.52                 |
| 3,075.0               | 0.65            | 320.04      | 3,073.6               | -25.3        | 31.2         | -33.7                   | 0.15                    | -0.12                  | -7.92                 |
| 3,100.0               | 0.61            | 308.52      | 3,098.6               | -25.1        | 31.0         | -33.5                   | 0.53                    | -0.16                  | -46.08                |
| 3,125.0               | 0.63            | 315.54      | 3,123.6               | -25.0        | 30.8         | -33.2                   | 0.31                    | 0.08                   | 28.08                 |
| 3,150.0               | 0.64            | 310.62      | 3,148.6               | -24.8        | 30.6         | -33.0                   | 0.22                    | 0.04                   | -19.68                |
| 3,175.0               | 0.73            | 313.86      | 3,173.6               | -24.6        | 30.4         | -32.7                   | 0.39                    | 0.36                   | 12.96                 |
| 3,200.0               | 0.63            | 312.56      | 3,198.6               | -24.4        | 30.1         | -32.5                   | 0.40                    | -0.40                  | -5.20                 |
| 3,225.0               | 0.64            | 315.50      | 3,223.6               | -24.2        | 29.9         | -32.2                   | 0.14                    | 0.04                   | 11.76                 |
| 3,250.0               | 0.61            | 320.05      | 3,248.6               | -24.0        | 29.8         | -32.0                   | 0.23                    | -0.12                  | 18.20                 |
| 3,275.0               | 0.64            | 311.59      | 3,273.6               | -23.8        | 29.6         | -31.7                   | 0.39                    | 0.12                   | -33.84                |
| 3,300.0               | 0.62            | 319.45      | 3,298.6               | -23.6        | 29.4         | -31.5                   | 0.35                    | -0.08                  | 31.44                 |
| 3,325.0               | 0.74            | 313.61      | 3,323.6               | -23.4        | 29.2         | -31.2                   | 0.55                    | 0.48                   | -23.36                |
| 3,350.0               | 0.63            | 311.46      | 3,348.6               | -23.2        | 29.0         | -31.0                   | 0.45                    | -0.44                  | -8.60                 |
| 3,375.0               | 0.64            | 319.64      | 3,373.6               | -23.0        | 28.8         | -30.7                   | 0.36                    | 0.04                   | 32.72                 |
| 3,400.0               | 0.80            | 311.34      | 3,398.6               | -22.7        | 28.5         | -30.4                   | 0.76                    | 0.64                   | -33.20                |
| 3,425.0               | 0.62            | 309.77      | 3,423.6               | -22.5        | 28.3         | -30.2                   | 0.72                    | -0.72                  | -6.28                 |

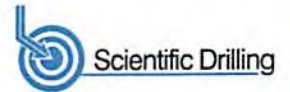
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| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 3,450.0               | 0.75            | 304.45      | 3,448.5               | -22.4        | 28.1         | -29.9                   | 0.58                    | 0.52                   | -21.28                |
| 3,475.0               | 0.57            | 309.08      | 3,473.5               | -22.2        | 27.8         | -29.7                   | 0.75                    | -0.72                  | 18.52                 |
| 3,500.0               | 0.62            | 306.35      | 3,498.5               | -22.0        | 27.6         | -29.5                   | 0.23                    | 0.20                   | -10.92                |
| 3,525.0               | 0.62            | 316.09      | 3,523.5               | -21.9        | 27.4         | -29.3                   | 0.42                    | 0.00                   | 38.96                 |
| 3,550.0               | 0.71            | 306.20      | 3,548.5               | -21.7        | 27.2         | -29.0                   | 0.58                    | 0.36                   | -39.56                |
| 3,575.0               | 0.60            | 315.93      | 3,573.5               | -21.5        | 27.0         | -28.8                   | 0.62                    | -0.44                  | 38.92                 |
| 3,600.0               | 0.61            | 308.13      | 3,598.5               | -21.3        | 26.8         | -28.5                   | 0.33                    | 0.04                   | -31.20                |
| 3,625.0               | 0.66            | 314.15      | 3,623.5               | -21.1        | 26.6         | -28.3                   | 0.33                    | 0.20                   | 24.08                 |
| 3,650.0               | 0.67            | 310.50      | 3,648.5               | -20.9        | 26.4         | -28.0                   | 0.17                    | 0.04                   | -14.60                |
| 3,675.0               | 0.69            | 308.24      | 3,673.5               | -20.7        | 26.1         | -27.8                   | 0.13                    | 0.08                   | -9.04                 |
| 3,700.0               | 0.63            | 310.22      | 3,698.5               | -20.6        | 25.9         | -27.6                   | 0.26                    | -0.24                  | 7.92                  |
| 3,725.0               | 0.61            | 308.69      | 3,723.5               | -20.4        | 25.7         | -27.3                   | 0.10                    | -0.08                  | -6.12                 |
| 3,750.0               | 0.59            | 307.59      | 3,748.5               | -20.2        | 25.5         | -27.1                   | 0.09                    | -0.08                  | -4.40                 |
| 3,775.0               | 0.67            | 310.07      | 3,773.5               | -20.1        | 25.3         | -26.9                   | 0.34                    | 0.32                   | 9.92                  |
| 3,800.0               | 0.66            | 312.44      | 3,798.5               | -19.9        | 25.1         | -26.6                   | 0.12                    | -0.04                  | 9.48                  |
| 3,825.0               | 0.67            | 308.50      | 3,823.5               | -19.7        | 24.9         | -26.4                   | 0.19                    | 0.04                   | -15.76                |
| 3,850.0               | 0.65            | 309.90      | 3,848.5               | -19.5        | 24.6         | -26.1                   | 0.10                    | -0.08                  | 5.60                  |
| 3,875.0               | 0.73            | 306.56      | 3,873.5               | -19.3        | 24.4         | -25.9                   | 0.36                    | 0.32                   | -13.36                |
| 3,900.0               | 0.83            | 307.90      | 3,898.5               | -19.1        | 24.1         | -25.6                   | 0.41                    | 0.40                   | 5.36                  |
| 3,925.0               | 0.91            | 312.07      | 3,923.5               | -18.9        | 23.8         | -25.3                   | 0.41                    | 0.32                   | 16.68                 |
| 3,950.0               | 0.87            | 312.47      | 3,948.5               | -18.6        | 23.5         | -25.0                   | 0.16                    | -0.16                  | 1.60                  |
| 3,975.0               | 0.91            | 310.74      | 3,973.5               | -18.3        | 23.3         | -24.6                   | 0.19                    | 0.16                   | -6.92                 |
| 4,000.0               | 0.96            | 313.22      | 3,998.5               | -18.1        | 22.9         | -24.3                   | 0.26                    | 0.20                   | 9.92                  |
| 4,025.0               | 0.94            | 310.90      | 4,023.5               | -17.8        | 22.6         | -23.9                   | 0.17                    | -0.08                  | -9.28                 |
| 4,050.0               | 0.94            | 317.98      | 4,048.5               | -17.5        | 22.4         | -23.5                   | 0.46                    | 0.00                   | 28.32                 |
| 4,075.0               | 0.90            | 316.90      | 4,073.5               | -17.2        | 22.1         | -23.2                   | 0.17                    | -0.16                  | -4.32                 |
| 4,100.0               | 0.95            | 313.49      | 4,098.5               | -16.9        | 21.8         | -22.8                   | 0.30                    | 0.20                   | -13.64                |
| 4,125.0               | 0.88            | 320.13      | 4,123.5               | -16.6        | 21.5         | -22.5                   | 0.51                    | -0.28                  | 26.56                 |
| 4,150.0               | 0.93            | 316.58      | 4,148.5               | -16.3        | 21.3         | -22.1                   | 0.30                    | 0.20                   | -14.20                |
| 4,175.0               | 0.90            | 322.05      | 4,173.5               | -16.0        | 21.0         | -21.7                   | 0.37                    | -0.12                  | 21.88                 |
| 4,200.0               | 0.93            | 322.30      | 4,198.5               | -15.7        | 20.8         | -21.4                   | 0.12                    | 0.12                   | 1.00                  |
| 4,225.0               | 0.94            | 316.48      | 4,223.5               | -15.4        | 20.5         | -21.0                   | 0.38                    | 0.04                   | -23.28                |
| 4,250.0               | 0.97            | 323.73      | 4,248.5               | -15.1        | 20.2         | -20.6                   | 0.50                    | 0.12                   | 29.00                 |
| 4,275.0               | 0.98            | 338.67      | 4,273.5               | -14.7        | 20.0         | -20.2                   | 1.01                    | 0.04                   | 59.76                 |
| 4,300.0               | 1.07            | 323.24      | 4,298.5               | -14.3        | 19.8         | -19.7                   | 1.16                    | 0.36                   | -61.72                |
| 4,325.0               | 0.87            | 328.68      | 4,323.4               | -14.0        | 19.6         | -19.3                   | 0.88                    | -0.80                  | 21.76                 |
| 4,350.0               | 0.69            | 339.60      | 4,348.4               | -13.7        | 19.4         | -19.0                   | 0.93                    | -0.72                  | 43.68                 |
| 4,375.0               | 0.51            | 92.93       | 4,373.4               | -13.5        | 19.5         | -18.9                   | 4.03                    | -0.72                  | 453.32                |
| 4,400.0               | 1.68            | 113.42      | 4,398.4               | -13.7        | 19.9         | -19.2                   | 4.86                    | 4.68                   | 81.96                 |
| 4,425.0               | 3.03            | 119.91      | 4,423.4               | -14.2        | 20.8         | -19.9                   | 5.50                    | 5.40                   | 25.96                 |
| 4,450.0               | 3.96            | 125.52      | 4,448.4               | -15.0        | 22.1         | -21.1                   | 3.96                    | 3.72                   | 22.44                 |
| 4,475.0               | 5.08            | 127.10      | 4,473.3               | -16.2        | 23.7         | -22.7                   | 3.57                    | 4.48                   | 6.32                  |
| 4,500.0               | 5.95            | 126.31      | 4,498.2               | -17.6        | 25.6         | -24.6                   | 3.49                    | 3.48                   | -3.16                 |

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| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 4,525.0               | 6.49            | 129.32      | 4,523.0               | -19.3        | 27.8         | -26.9                   | 2.52                    | 2.16                   | 12.04                 |
| 4,550.0               | 6.91            | 128.35      | 4,547.9               | -21.1        | 30.0         | -29.3                   | 1.74                    | 1.68                   | -3.88                 |
| 4,575.0               | 7.64            | 132.29      | 4,572.7               | -23.2        | 32.4         | -32.0                   | 3.54                    | 2.92                   | 15.76                 |
| 4,600.0               | 7.81            | 132.25      | 4,597.4               | -25.4        | 34.9         | -34.9                   | 0.68                    | 0.68                   | -0.16                 |
| 4,625.0               | 7.81            | 131.59      | 4,622.2               | -27.7        | 37.4         | -37.9                   | 0.36                    | 0.00                   | -2.64                 |
| 4,650.0               | 7.94            | 130.27      | 4,647.0               | -29.9        | 40.0         | -40.8                   | 0.89                    | 0.52                   | -5.28                 |
| 4,675.0               | 8.14            | 131.27      | 4,671.7               | -32.2        | 42.7         | -43.8                   | 0.98                    | 0.80                   | 4.00                  |
| 4,700.0               | 8.61            | 131.09      | 4,696.5               | -34.6        | 45.4         | -46.9                   | 1.88                    | 1.88                   | -0.72                 |
| 4,725.0               | 9.26            | 129.93      | 4,721.1               | -37.1        | 48.4         | -50.2                   | 2.70                    | 2.60                   | -4.64                 |
| 4,750.0               | 9.86            | 130.44      | 4,745.8               | -39.8        | 51.5         | -53.8                   | 2.42                    | 2.40                   | 2.04                  |
| 4,775.0               | 10.35           | 129.53      | 4,770.4               | -42.6        | 54.9         | -57.5                   | 2.06                    | 1.96                   | -3.64                 |
| 4,800.0               | 10.76           | 130.03      | 4,795.0               | -45.6        | 58.4         | -61.4                   | 1.68                    | 1.64                   | 2.00                  |
| 4,825.0               | 11.10           | 131.78      | 4,819.5               | -48.7        | 62.0         | -65.4                   | 1.90                    | 1.36                   | 7.00                  |
| 4,850.0               | 11.59           | 131.45      | 4,844.0               | -51.9        | 65.7         | -69.6                   | 1.98                    | 1.96                   | -1.32                 |
| 4,875.0               | 12.23           | 132.04      | 4,868.5               | -55.4        | 69.5         | -74.1                   | 2.61                    | 2.56                   | 2.36                  |
| 4,900.0               | 12.67           | 133.18      | 4,892.9               | -59.0        | 73.5         | -78.8                   | 2.02                    | 1.76                   | 4.56                  |
| 4,925.0               | 13.58           | 132.55      | 4,917.3               | -62.9        | 77.7         | -83.8                   | 3.68                    | 3.64                   | -2.52                 |
| 4,950.0               | 14.18           | 132.75      | 4,941.5               | -66.9        | 82.1         | -89.0                   | 2.41                    | 2.40                   | 0.80                  |
| 4,975.0               | 14.97           | 132.79      | 4,965.7               | -71.2        | 86.7         | -94.5                   | 3.16                    | 3.16                   | 0.16                  |
| 5,000.0               | 15.15           | 131.94      | 4,989.9               | -75.6        | 91.5         | -100.1                  | 1.14                    | 0.72                   | -3.40                 |
| 5,025.0               | 14.87           | 131.40      | 5,014.0               | -79.9        | 96.3         | -105.7                  | 1.25                    | -1.12                  | -2.16                 |
| 5,050.0               | 14.48           | 130.69      | 5,038.2               | -84.0        | 101.1        | -111.1                  | 1.72                    | -1.56                  | -2.84                 |
| 5,075.0               | 14.30           | 130.00      | 5,062.4               | -88.1        | 105.8        | -116.4                  | 0.99                    | -0.72                  | -2.76                 |
| 5,100.0               | 14.24           | 129.97      | 5,086.7               | -92.0        | 110.6        | -121.6                  | 0.24                    | -0.24                  | -0.12                 |
| 5,125.0               | 14.40           | 130.97      | 5,110.9               | -96.0        | 115.3        | -126.9                  | 1.18                    | 0.64                   | 4.00                  |
| 5,150.0               | 14.94           | 134.45      | 5,135.1               | -100.3       | 119.9        | -132.4                  | 4.13                    | 2.16                   | 13.92                 |
| 5,175.0               | 15.15           | 135.85      | 5,159.2               | -104.9       | 124.5        | -138.2                  | 1.68                    | 0.84                   | 5.60                  |
| 5,200.0               | 14.61           | 135.95      | 5,183.4               | -109.5       | 129.0        | -144.0                  | 2.16                    | -2.16                  | 0.40                  |
| 5,225.0               | 14.45           | 135.39      | 5,207.6               | -114.0       | 133.3        | -149.6                  | 0.85                    | -0.64                  | -2.24                 |
| 5,250.0               | 14.36           | 135.14      | 5,231.8               | -118.5       | 137.7        | -155.1                  | 0.44                    | -0.36                  | -1.00                 |
| 5,275.0               | 14.04           | 134.82      | 5,256.0               | -122.8       | 142.1        | -160.6                  | 1.32                    | -1.28                  | -1.28                 |
| 5,300.0               | 13.81           | 134.73      | 5,280.3               | -127.0       | 146.3        | -166.0                  | 0.92                    | -0.92                  | -0.36                 |
| 5,325.0               | 13.86           | 134.27      | 5,304.6               | -131.2       | 150.6        | -171.3                  | 0.48                    | 0.20                   | -1.84                 |
| 5,350.0               | 13.46           | 134.37      | 5,328.8               | -135.3       | 154.8        | -176.5                  | 1.60                    | -1.60                  | 0.40                  |
| 5,375.0               | 13.07           | 134.64      | 5,353.2               | -139.4       | 158.9        | -181.6                  | 1.58                    | -1.56                  | 1.08                  |
| 5,400.0               | 12.27           | 135.75      | 5,377.6               | -143.3       | 162.8        | -186.5                  | 3.34                    | -3.20                  | 4.44                  |
| 5,425.0               | 11.64           | 137.42      | 5,402.0               | -147.0       | 166.3        | -191.1                  | 2.87                    | -2.52                  | 6.68                  |
| 5,450.0               | 10.49           | 139.92      | 5,426.6               | -150.6       | 169.5        | -195.5                  | 4.98                    | -4.60                  | 10.00                 |
| 5,475.0               | 9.91            | 141.40      | 5,451.2               | -154.0       | 172.3        | -199.7                  | 2.55                    | -2.32                  | 5.92                  |
| 5,500.0               | 9.39            | 144.29      | 5,475.8               | -157.4       | 174.8        | -203.6                  | 2.84                    | -2.08                  | 11.56                 |
| 5,525.0               | 9.11            | 145.43      | 5,500.5               | -160.7       | 177.2        | -207.5                  | 1.34                    | -1.12                  | 4.56                  |
| 5,550.0               | 8.42            | 148.65      | 5,525.2               | -163.8       | 179.2        | -211.1                  | 1.34                    | -2.76                  | 12.88                 |

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|                  |   |                                     |  |
|------------------|---|-------------------------------------|--|
| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

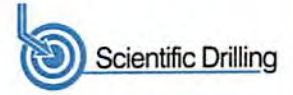
| Measured Depth (usft)   | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 5,575.0                 | 8.03            | 151.74      | 5,549.9               | -166.9       | 181.0        | -214.6                  | 2.36                    | -1.56                  | 12.36                 |
| 5,600.0                 | 7.29            | 156.51      | 5,574.7               | -169.9       | 182.5        | -217.9                  | 3.90                    | -2.96                  | 19.08                 |
| 5,625.0                 | 6.89            | 160.86      | 5,599.5               | -172.8       | 183.6        | -221.0                  | 2.68                    | -1.60                  | 17.40                 |
| 5,650.0                 | 6.05            | 168.43      | 5,624.4               | -175.5       | 184.3        | -223.8                  | 4.78                    | -3.36                  | 30.28                 |
| 5,675.0                 | 5.83            | 173.09      | 5,649.2               | -178.1       | 184.8        | -226.4                  | 2.12                    | -0.88                  | 18.64                 |
| 5,692.9                 | 5.53            | 177.20      | 5,667.1               | -179.8       | 184.9        | -228.1                  | 2.82                    | -1.68                  | 22.95                 |
| 5,744.0                 | 4.31            | 189.49      | 5,718.0               | -184.2       | 184.7        | -232.2                  | 3.14                    | -2.39                  | 24.06                 |
| 5,788.0                 | 2.77            | 180.31      | 5,761.9               | -186.9       | 184.4        | -234.6                  | 3.72                    | -3.50                  | -20.86                |
| 5,833.0                 | 2.14            | 151.66      | 5,806.8               | -188.7       | 184.8        | -236.5                  | 3.02                    | -1.40                  | -63.67                |
| 5,863.0                 | 1.94            | 126.62      | 5,836.8               | -189.5       | 185.5        | -237.5                  | 3.02                    | -0.67                  | -83.47                |
| 5,893.0                 | 2.16            | 121.66      | 5,866.8               | -190.1       | 186.4        | -238.3                  | 0.94                    | 0.73                   | -16.53                |
| 5,923.0                 | 1.86            | 108.95      | 5,896.8               | -190.6       | 187.3        | -239.0                  | 1.79                    | -1.00                  | -42.37                |
| 5,953.0                 | 1.90            | 23.51       | 5,926.8               | -190.3       | 188.0        | -239.0                  | 8.50                    | 0.13                   | -284.80               |
| 5,983.0                 | 4.60            | 355.55      | 5,956.7               | -188.6       | 188.1        | -237.4                  | 10.18                   | 9.00                   | -93.20                |
| 6,012.0                 | 7.32            | 348.07      | 5,985.6               | -185.6       | 187.6        | -234.4                  | 9.73                    | 9.38                   | -25.79                |
| 6,042.0                 | 10.85           | 345.47      | 6,015.2               | -181.0       | 186.5        | -229.7                  | 11.84                   | 11.77                  | -8.67                 |
| 6,072.0                 | 14.19           | 344.06      | 6,044.5               | -174.8       | 184.8        | -223.2                  | 11.18                   | 11.13                  | -4.70                 |
| 6,101.0                 | 17.23           | 343.78      | 6,072.4               | -167.2       | 182.6        | -215.4                  | 10.49                   | 10.48                  | -0.97                 |
| 6,131.0                 | 20.07           | 343.90      | 6,100.8               | -158.0       | 180.0        | -205.8                  | 9.47                    | 9.47                   | 0.40                  |
| 6,161.0                 | 22.72           | 344.48      | 6,128.7               | -147.5       | 177.0        | -194.9                  | 8.86                    | 8.83                   | 1.93                  |
| 6,191.0                 | 25.36           | 345.36      | 6,156.1               | -135.7       | 173.8        | -182.7                  | 8.88                    | 8.80                   | 2.93                  |
| 6,221.0                 | 28.64           | 345.03      | 6,182.8               | -122.5       | 170.3        | -169.1                  | 10.94                   | 10.93                  | -1.10                 |
| 6,251.0                 | 31.93           | 343.96      | 6,208.7               | -107.9       | 166.3        | -153.9                  | 11.11                   | 10.97                  | -3.57                 |
| 6,280.0                 | 35.15           | 343.32      | 6,232.9               | -92.6        | 161.8        | -137.9                  | 11.17                   | 11.10                  | -2.21                 |
| 6,293.0                 | 36.71           | 343.27      | 6,243.4               | -85.3        | 159.6        | -130.3                  | 12.04                   | 12.03                  | -0.42                 |
| <b>Middlesex @ 6293</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,310.0                 | 38.76           | 343.20      | 6,256.9               | -75.3        | 156.6        | -119.9                  | 12.04                   | 12.03                  | -0.39                 |
| 6,340.0                 | 42.65           | 342.88      | 6,279.6               | -56.6        | 150.9        | -100.3                  | 12.99                   | 12.97                  | -1.07                 |
| 6,370.0                 | 46.21           | 343.23      | 6,301.0               | -36.5        | 144.7        | -79.4                   | 11.89                   | 11.87                  | 1.17                  |
| 6,400.0                 | 49.18           | 342.68      | 6,321.2               | -15.3        | 138.2        | -57.2                   | 9.99                    | 9.90                   | -1.83                 |
| 6,430.0                 | 52.18           | 344.78      | 6,340.2               | 7.0          | 131.7        | -34.0                   | 11.37                   | 10.00                  | 7.00                  |
| 6,453.0                 | 55.20           | 345.00      | 6,353.9               | 24.9         | 126.9        | -15.5                   | 13.16                   | 13.14                  | 0.97                  |
| <b>Burket @ 6453</b>    |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,459.0                 | 55.99           | 345.06      | 6,357.3               | 29.7         | 125.6        | -10.5                   | 13.16                   | 13.14                  | 0.93                  |
| 6,489.0                 | 58.71           | 346.30      | 6,373.4               | 54.1         | 119.4        | 14.7                    | 9.71                    | 9.07                   | 4.13                  |
| 6,518.0                 | 61.07           | 346.00      | 6,388.0               | 78.5         | 113.4        | 39.7                    | 8.18                    | 8.13                   | -1.03                 |
| <b>Tully @ 6518</b>     |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,519.0                 | 61.15           | 345.99      | 6,388.5               | 79.3         | 113.2        | 40.6                    | 8.18                    | 8.13                   | -1.01                 |
| 6,549.0                 | 64.12           | 346.26      | 6,402.3               | 105.2        | 106.8        | 67.1                    | 9.93                    | 9.90                   | 0.90                  |
| 6,579.0                 | 66.93           | 346.07      | 6,414.7               | 131.7        | 100.3        | 94.4                    | 9.38                    | 9.37                   | -0.63                 |
| <b>Marcellus @ 6579</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,609.0                 | 68.99           | 345.94      | 6,425.9               | 158.7        | 93.5         | 122.1                   | 6.88                    | 6.87                   | -0.43                 |
| 6,639.0                 | 72.52           | 345.39      | 6,435.8               | 186.1        | 86.5         | 150.4                   | 6.88                    | 11.77                  | -1.83                 |
| 6,669.0                 | 77.14           | 346.70      | 6,443.7               | 214.2        | 79.5         | 179.3                   | 6.88                    | 15.40                  | 4.37                  |

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|------------------|---|-------------------------------------|--|
| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 6,699.0               | 81.18           | 346.47      | 6,449.3               | 242.9        | 72.7         | 208.6                   | 13.49                   | 13.47                  | -0.77                 |
| 6,728.0               | 85.54           | 346.44      | 6,452.7               | 270.9        | 66.0         | 237.3                   | 15.03                   | 15.03                  | -0.10                 |
| 6,758.0               | 89.03           | 344.41      | 6,454.1               | 299.9        | 58.4         | 267.2                   | 13.45                   | 11.63                  | -6.77                 |
| 6,780.0               | 90.64           | 343.96      | 6,454.2               | 321.0        | 52.4         | 289.2                   | 7.60                    | 7.32                   | -2.05                 |
| 6,820.0               | 90.91           | 343.58      | 6,453.6               | 359.4        | 41.2         | 329.2                   | 1.17                    | 0.68                   | -0.95                 |
| 6,909.0               | 90.81           | 340.55      | 6,452.3               | 444.1        | 13.8         | 418.2                   | 3.41                    | -0.11                  | -3.40                 |
| 6,999.0               | 90.31           | 340.72      | 6,451.4               | 529.0        | -16.0        | 508.1                   | 0.59                    | -0.56                  | 0.19                  |
| 7,088.0               | 90.40           | 340.77      | 6,450.8               | 613.0        | -45.3        | 597.1                   | 0.12                    | 0.10                   | 0.06                  |
| 7,177.0               | 91.88           | 341.78      | 6,449.1               | 697.3        | -73.9        | 686.1                   | 2.01                    | 1.66                   | 1.13                  |
| 7,267.0               | 91.15           | 341.68      | 6,446.7               | 782.7        | -102.1       | 776.1                   | 0.82                    | -0.81                  | -0.11                 |
| 7,356.0               | 88.96           | 340.86      | 6,446.6               | 867.0        | -130.7       | 865.0                   | 2.63                    | -2.46                  | -0.92                 |
| 7,446.0               | 90.27           | 340.73      | 6,447.2               | 952.0        | -160.3       | 955.0                   | 1.46                    | 1.46                   | -0.14                 |
| 7,535.0               | 91.18           | 340.48      | 6,446.1               | 1,035.9      | -189.8       | 1,044.0                 | 1.06                    | 1.02                   | -0.28                 |
| 7,625.0               | 89.50           | 339.99      | 6,445.6               | 1,120.6      | -220.3       | 1,133.9                 | 1.94                    | -1.87                  | -0.54                 |
| 7,714.0               | 90.11           | 341.47      | 6,445.9               | 1,204.6      | -249.6       | 1,222.9                 | 1.80                    | 0.69                   | 1.66                  |
| 7,804.0               | 90.00           | 343.01      | 6,445.8               | 1,290.3      | -277.1       | 1,312.9                 | 1.72                    | -0.12                  | 1.71                  |
| 7,893.0               | 90.57           | 342.78      | 6,445.3               | 1,375.4      | -303.3       | 1,401.9                 | 0.69                    | 0.64                   | -0.26                 |
| 7,983.0               | 91.15           | 341.41      | 6,444.0               | 1,461.0      | -330.9       | 1,491.9                 | 1.65                    | 0.64                   | -1.52                 |
| 8,072.0               | 91.68           | 343.09      | 6,441.8               | 1,545.8      | -358.1       | 1,580.9                 | 1.98                    | 0.60                   | 1.89                  |
| 8,162.0               | 91.86           | 344.79      | 6,439.0               | 1,632.2      | -382.9       | 1,670.8                 | 1.90                    | 0.20                   | 1.89                  |
| 8,251.0               | 91.05           | 343.29      | 6,436.7               | 1,717.7      | -407.4       | 1,759.7                 | 1.91                    | -0.91                  | -1.69                 |
| 8,341.0               | 89.81           | 341.56      | 6,436.1               | 1,803.5      | -434.6       | 1,849.7                 | 2.36                    | -1.38                  | -1.92                 |
| 8,431.0               | 91.38           | 344.22      | 6,435.1               | 1,889.5      | -461.1       | 1,939.6                 | 3.43                    | 1.74                   | 2.96                  |
| 8,520.0               | 88.76           | 342.15      | 6,435.0               | 1,974.7      | -486.8       | 2,028.6                 | 3.75                    | -2.94                  | -2.33                 |
| 8,607.0               | 87.11           | 338.40      | 6,438.2               | 2,056.5      | -516.1       | 2,115.5                 | 4.71                    | -1.90                  | -4.31                 |
| 8,650.0               | 88.86           | 336.67      | 6,439.7               | 2,096.3      | -532.6       | 2,158.3                 | 5.72                    | 4.07                   | -4.02                 |
| 8,696.0               | 89.80           | 335.94      | 6,440.2               | 2,138.4      | -551.0       | 2,204.1                 | 2.59                    | 2.04                   | -1.59                 |
| 8,741.0               | 89.80           | 338.03      | 6,440.4               | 2,179.8      | -568.6       | 2,248.9                 | 4.64                    | 0.00                   | 4.64                  |
| 8,786.0               | 90.50           | 338.02      | 6,440.2               | 2,221.5      | -585.5       | 2,293.8                 | 1.56                    | 1.56                   | -0.02                 |
| 8,876.0               | 91.10           | 337.82      | 6,439.0               | 2,304.9      | -619.3       | 2,383.6                 | 0.70                    | 0.67                   | -0.22                 |
| 8,965.0               | 90.77           | 340.92      | 6,437.5               | 2,388.2      | -650.7       | 2,472.4                 | 3.50                    | -0.37                  | 3.48                  |
| 9,055.0               | 90.63           | 341.61      | 6,436.4               | 2,473.4      | -679.6       | 2,562.4                 | 0.78                    | -0.16                  | 0.77                  |
| 9,144.0               | 90.58           | 340.42      | 6,435.5               | 2,557.6      | -708.5       | 2,651.4                 | 1.34                    | -0.06                  | -1.34                 |
| 9,234.0               | 89.91           | 341.03      | 6,435.1               | 2,642.5      | -738.2       | 2,741.4                 | 1.01                    | -0.74                  | 0.68                  |
| 9,323.0               | 91.32           | 341.30      | 6,434.2               | 2,726.7      | -766.9       | 2,830.4                 | 1.61                    | 1.58                   | 0.30                  |
| 9,413.0               | 90.45           | 339.66      | 6,432.8               | 2,811.6      | -797.0       | 2,920.3                 | 2.06                    | -0.97                  | -1.82                 |
| 9,503.0               | 90.21           | 340.12      | 6,432.2               | 2,896.1      | -828.0       | 3,010.2                 | 0.58                    | -0.27                  | 0.51                  |
| 9,592.0               | 89.75           | 339.51      | 6,432.3               | 2,979.6      | -858.7       | 3,099.2                 | 0.86                    | -0.52                  | -0.69                 |
| 9,682.0               | 92.03           | 340.15      | 6,430.9               | 3,064.1      | -889.7       | 3,189.1                 | 2.63                    | 2.53                   | 0.71                  |
| 9,771.0               | 90.32           | 339.55      | 6,429.1               | 3,147.6      | -920.3       | 3,278.0                 | 2.04                    | -1.92                  | -0.67                 |
| 9,861.0               | 91.03           | 339.62      | 6,428.0               | 3,231.9      | -951.7       | 3,367.9                 | 0.79                    | 0.79                   | 0.08                  |
| 9,950.0               | 91.23           | 338.52      | 6,426.2               | 3,315.0      | -983.5       | 3,456.8                 | 0.22                    | 0.22                   | -1.24                 |

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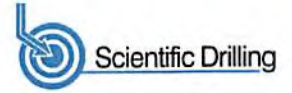


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|------------------|---|-------------------------------------|--|
| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 10,040.0              | 90.25           | 339.12      | 6,425.1               | 3,399.0      | -1,016.0     | 3,546.6                 | 1.28                    | -1.09                  | 0.67                  |
| 10,129.0              | 90.76           | 343.62      | 6,424.3               | 3,483.3      | -1,044.5     | 3,635.6                 | 5.09                    | 0.57                   | 5.06                  |
| 10,219.0              | 91.63           | 344.05      | 6,422.4               | 3,569.7      | -1,069.5     | 3,725.5                 | 1.08                    | 0.97                   | 0.48                  |
| 10,309.0              | 91.23           | 342.99      | 6,420.2               | 3,656.0      | -1,095.0     | 3,815.5                 | 1.26                    | -0.44                  | -1.18                 |
| 10,398.0              | 91.13           | 341.93      | 6,418.3               | 3,740.8      | -1,121.9     | 3,904.5                 | 1.20                    | -0.11                  | -1.19                 |
| 10,488.0              | 91.63           | 342.75      | 6,416.2               | 3,826.5      | -1,149.1     | 3,994.4                 | 1.07                    | 0.56                   | 0.91                  |
| 10,577.0              | 87.80           | 338.89      | 6,416.6               | 3,910.6      | -1,178.4     | 4,083.4                 | 6.11                    | -4.30                  | -4.34                 |
| 10,667.0              | 88.24           | 340.22      | 6,419.7               | 3,994.8      | -1,209.8     | 4,173.2                 | 1.56                    | 0.49                   | 1.48                  |
| 10,756.0              | 87.87           | 343.06      | 6,422.7               | 4,079.3      | -1,237.8     | 4,262.2                 | 3.22                    | -0.42                  | 3.19                  |
| 10,846.0              | 89.01           | 344.74      | 6,425.2               | 4,165.7      | -1,262.8     | 4,352.1                 | 2.26                    | 1.27                   | 1.87                  |
| 10,936.0              | 89.32           | 345.64      | 6,426.5               | 4,252.7      | -1,285.8     | 4,441.9                 | 1.06                    | 0.34                   | 1.00                  |
| 11,025.0              | 89.82           | 346.64      | 6,427.2               | 4,339.1      | -1,307.1     | 4,530.7                 | 1.26                    | 0.56                   | 1.12                  |
| 11,115.0              | 90.22           | 348.14      | 6,427.1               | 4,426.9      | -1,326.7     | 4,620.3                 | 1.72                    | 0.44                   | 1.67                  |
| 11,204.0              | 90.05           | 347.92      | 6,426.9               | 4,514.0      | -1,345.2     | 4,708.8                 | 0.31                    | -0.19                  | -0.25                 |
| 11,294.0              | 90.22           | 347.29      | 6,426.7               | 4,601.9      | -1,364.5     | 4,798.4                 | 0.73                    | 0.19                   | -0.70                 |
| 11,383.0              | 89.15           | 346.21      | 6,427.2               | 4,688.5      | -1,384.9     | 4,887.1                 | 1.71                    | -1.20                  | -1.21                 |
| 11,473.0              | 87.87           | 345.32      | 6,429.5               | 4,775.7      | -1,407.0     | 4,976.9                 | 1.73                    | -1.42                  | -0.99                 |
| 11,562.0              | 88.81           | 343.76      | 6,432.1               | 4,861.5      | -1,430.7     | 5,065.7                 | 2.05                    | 1.06                   | -1.75                 |
| 11,652.0              | 89.32           | 343.30      | 6,433.6               | 4,947.8      | -1,456.2     | 5,155.7                 | 0.76                    | 0.57                   | -0.51                 |
| 11,741.0              | 89.86           | 342.45      | 6,434.2               | 5,032.8      | -1,482.5     | 5,244.7                 | 1.13                    | 0.61                   | -0.96                 |
| 11,831.0              | 90.29           | 341.73      | 6,434.1               | 5,118.4      | -1,510.1     | 5,334.7                 | 0.93                    | 0.48                   | -0.80                 |
| 11,920.0              | 89.12           | 343.37      | 6,434.6               | 5,203.3      | -1,536.8     | 5,423.7                 | 2.26                    | -1.31                  | 1.84                  |
| 12,010.0              | 89.99           | 344.88      | 6,435.3               | 5,289.9      | -1,561.4     | 5,513.6                 | 1.94                    | 0.97                   | 1.68                  |
| 12,099.0              | 88.51           | 341.30      | 6,436.4               | 5,375.0      | -1,587.3     | 5,602.6                 | 4.35                    | -1.66                  | -4.02                 |
| 12,189.0              | 88.88           | 342.05      | 6,438.5               | 5,460.4      | -1,615.6     | 5,692.5                 | 0.93                    | 0.41                   | 0.83                  |
| 12,278.0              | 89.26           | 341.20      | 6,439.9               | 5,544.9      | -1,643.7     | 5,781.5                 | 1.05                    | 0.43                   | -0.96                 |
| 12,368.0              | 89.19           | 338.81      | 6,441.1               | 5,629.5      | -1,674.4     | 5,871.5                 | 2.66                    | -0.08                  | -2.66                 |
| 12,457.0              | 88.62           | 340.05      | 6,442.9               | 5,712.8      | -1,705.7     | 5,960.3                 | 1.53                    | -0.64                  | 1.39                  |
| 12,547.0              | 88.89           | 340.26      | 6,444.8               | 5,797.4      | -1,736.2     | 6,050.3                 | 0.38                    | 0.30                   | 0.23                  |
| 12,636.0              | 90.63           | 341.53      | 6,445.2               | 5,881.5      | -1,765.4     | 6,139.3                 | 2.42                    | 1.96                   | 1.43                  |
| 12,726.0              | 90.13           | 344.53      | 6,444.6               | 5,967.6      | -1,791.6     | 6,229.2                 | 3.38                    | -0.56                  | 3.33                  |
| 12,815.0              | 89.89           | 346.18      | 6,444.6               | 6,053.7      | -1,814.1     | 6,318.1                 | 1.87                    | -0.27                  | 1.85                  |
| 12,905.0              | 90.03           | 343.31      | 6,444.6               | 6,140.5      | -1,837.8     | 6,408.0                 | 3.19                    | 0.16                   | -3.19                 |
| 12,994.0              | 89.63           | 341.58      | 6,444.9               | 6,225.3      | -1,864.6     | 6,497.0                 | 2.00                    | -0.45                  | -1.94                 |
| 13,084.0              | 88.38           | 341.57      | 6,446.5               | 6,310.7      | -1,893.1     | 6,586.9                 | 1.39                    | -1.39                  | -0.01                 |
| 13,174.0              | 89.89           | 342.20      | 6,447.8               | 6,396.2      | -1,921.1     | 6,676.9                 | 1.82                    | 1.68                   | 0.70                  |
| 13,263.0              | 90.80           | 343.76      | 6,447.3               | 6,481.3      | -1,947.1     | 6,765.9                 | 2.03                    | 1.02                   | 1.75                  |
| 13,353.0              | 90.03           | 342.21      | 6,446.6               | 6,567.4      | -1,973.5     | 6,855.9                 | 1.92                    | -0.86                  | -1.72                 |
| 13,442.0              | 89.69           | 339.35      | 6,446.8               | 6,651.4      | -2,002.7     | 6,944.9                 | 3.24                    | -0.38                  | -3.21                 |
| 13,532.0              | 90.03           | 341.49      | 6,447.1               | 6,736.2      | -2,032.9     | 7,034.8                 | 2.41                    | 0.38                   | 2.38                  |
| 13,621.0              | 90.56           | 344.28      | 6,446.6               | 6,821.3      | -2,059.1     | 7,123.8                 | 3.19                    | 0.60                   | 3.13                  |
| 13,711.0              | 90.67           | 341.98      | 6,445.6               | 6,907.4      | -2,085.2     | 7,213.8                 | 2.56                    | 0.12                   | -2.56                 |
| 13,801.0              | 88.89           | 337.46      | 6,446.0               | 6,991.8      | -2,116.4     | 7,303.7                 | 3.90                    | -1.98                  | -5.02                 |

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| <b>Company:</b>  | Antero Resources                                      | <b>Local Co-ordinate Reference:</b> | Well Murphy Unit 2H                          |
| <b>Project:</b>  | Doddridge County WV                                   | <b>TVD Reference:</b>               | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Site:</b>     | Dotson Holland Pad:<br>Alder/Amanda/Murphy/Zellerback | <b>MD Reference:</b>                | Precision 523: 989' GL + 19' KB @ 1008.0usft |
| <b>Well:</b>     | Murphy Unit 2H  | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | ST1   | <b>Survey Calculation Method:</b>   | Minimum Curvature                            |
| <b>Design:</b>   | As Drilled  | <b>Database:</b>                    | Antero NE                                    |

| 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) |  |
| 13,890.0              | 89.63           | 340.80      | 6,447.1               | 7,074.9      | -2,148.1     | 7,392.5                 | 3.84                    | 0.83                   | 3.75                  |  |
| 13,980.0              | 90.03           | 342.04      | 6,447.4               | 7,160.2      | -2,176.8     | 7,482.5                 | 1.45                    | 0.44                   | 1.38                  |  |
| 14,069.0              | 89.49           | 343.45      | 6,447.8               | 7,245.2      | -2,203.2     | 7,571.5                 | 1.70                    | -0.61                  | 1.58                  |  |
| 14,159.0              | 89.89           | 342.17      | 6,448.3               | 7,331.2      | -2,229.8     | 7,661.5                 | 1.49                    | 0.44                   | -1.42                 |  |
| 14,248.0              | 91.14           | 340.90      | 6,447.5               | 7,415.6      | -2,258.0     | 7,750.5                 | 2.00                    | 1.40                   | -1.43                 |  |
| 14,338.0              | 89.76           | 341.77      | 6,446.8               | 7,500.9      | -2,286.8     | 7,840.5                 | 1.81                    | -1.53                  | 0.97                  |  |
| 14,427.0              | 89.36           | 343.35      | 6,447.4               | 7,585.8      | -2,313.4     | 7,929.5                 | 1.83                    | -0.45                  | 1.78                  |  |
| 14,517.0              | 90.03           | 343.86      | 6,447.9               | 7,672.1      | -2,338.8     | 8,019.4                 | 0.94                    | 0.74                   | 0.57                  |  |
| 14,607.0              | 91.00           | 343.86      | 6,447.1               | 7,758.5      | -2,363.8     | 8,109.4                 | 1.08                    | 1.08                   | 0.00                  |  |
| 14,696.0              | 89.62           | 342.62      | 6,446.6               | 7,843.8      | -2,389.5     | 8,198.4                 | 2.08                    | -1.55                  | -1.39                 |  |
| 14,786.0              | 90.63           | 341.42      | 6,446.4               | 7,929.4      | -2,417.3     | 8,288.4                 | 1.74                    | 1.12                   | -1.33                 |  |
| 14,875.0              | 89.86           | 342.45      | 6,446.1               | 8,013.9      | -2,444.9     | 8,377.3                 | 1.45                    | -0.87                  | 1.16                  |  |
| 14,964.0              | 90.33           | 341.03      | 6,445.9               | 8,098.5      | -2,472.8     | 8,466.3                 | 1.68                    | 0.53                   | -1.60                 |  |
| 15,054.0              | 90.43           | 341.93      | 6,445.3               | 8,183.8      | -2,501.3     | 8,556.3                 | 1.01                    | 0.11                   | 1.00                  |  |
| 15,144.0              | 89.29           | 343.92      | 6,445.5               | 8,269.8      | -2,527.8     | 8,646.3                 | 2.55                    | -1.27                  | 2.21                  |  |
| 15,233.0              | 90.16           | 344.14      | 6,446.0               | 8,355.4      | -2,552.3     | 8,735.2                 | 1.01                    | 0.98                   | 0.25                  |  |
| 15,240.0              | 90.33           | 344.38      | 6,445.9               | 8,362.1      | -2,554.2     | 8,742.2                 | 4.20                    | 2.43                   | 3.43                  |  |
| 15,305.0              | 90.33           | 344.38      | 6,445.5               | 8,424.7      | -2,571.7     | 8,807.2                 | 0.00                    | 0.00                   | 0.00                  |  |

| Formations            |                       |                  |           |         |                   |  |  |
|-----------------------|-----------------------|------------------|-----------|---------|-------------------|--|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name             | Lithology | Dip (°) | Dip Direction (°) |  |  |
| 6,293.0               | 6,243.4               | Middlesex @ 6293 |           | 0.00    |                   |  |  |
| 6,453.0               | 6,353.9               | Burket @ 6453    |           | 0.00    |                   |  |  |
| 6,518.0               | 6,388.0               | Tully @ 6518     |           | 0.00    |                   |  |  |
| 6,579.0               | 6,414.7               | Marcellus @ 6579 |           | 0.00    |                   |  |  |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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