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JUL 20 2015

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV



Antero Resources  
Tyler County WV  
Northing: 14306183.19  
Easting: 1713815.59  
As Drilled

WELL DETAILS: Silas Unit 2H  
Ground Level: 749.0  
Easting: 1713815.59  
Northing: 14306183.19  
Longitude: 80° 44' 24.898 W  
Slut

REFERENCE INFORMATION  
Coalition (V0) Reference: West State 3147 (CL-29) (R04) @ 774.000  
Coalition (V0) Reference: West State 3147 (CL-29) (R04) @ 774.000  
Coalition (V0) Reference: West State 3147 (CL-29) (R04) @ 774.000  
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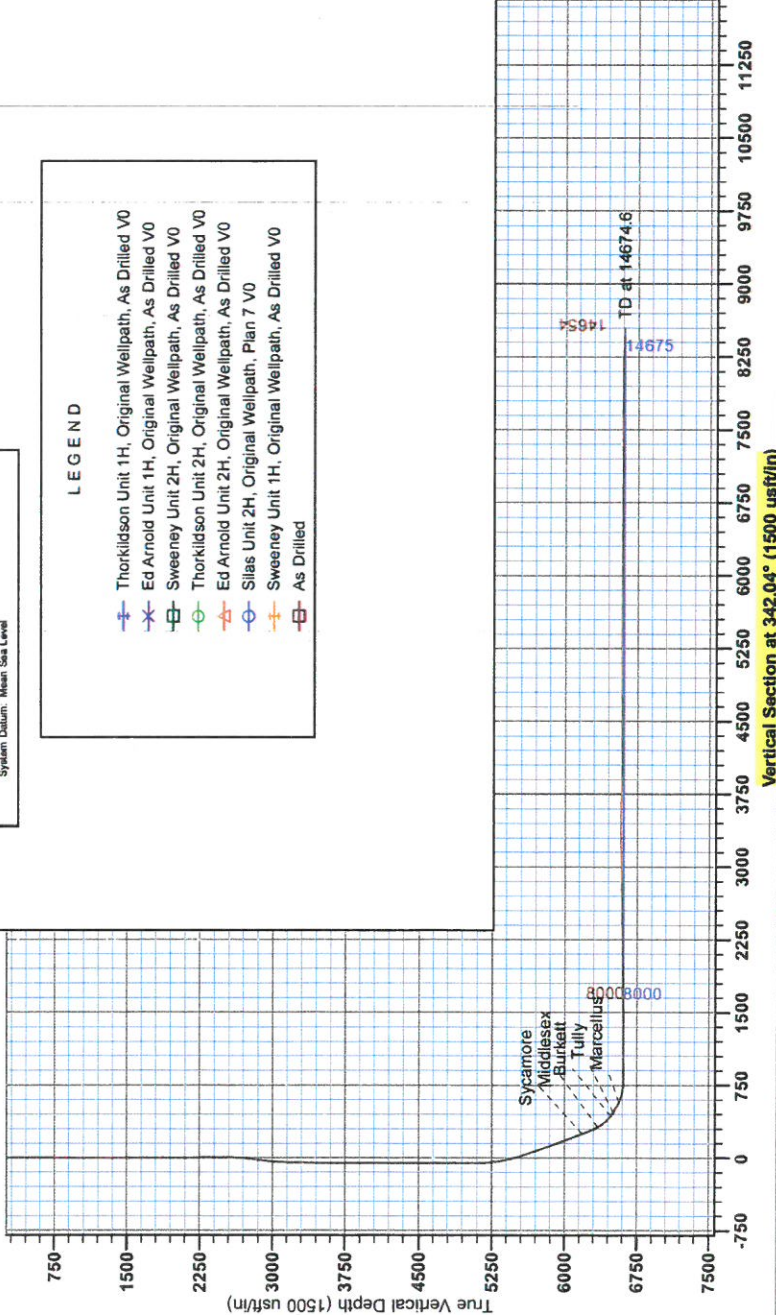
Scientific Drilling

Genie Lightfoot  
13:25, October 08 2014  
Scientific Drilling  
421 South Eagle Lane  
Oklahoma City, OK

PROJECT DETAILS: Tyler County WV  
Geoidals System: Universal Transverse Mercator (US Survey Feet)  
Datum: NAD 83 (NAD83 CONUS)  
Ellipsoid: Clarke 1866  
Zone: Zone 17N (84 W to 78 W)  
System Datum: Mean Sea Level

LEGEND

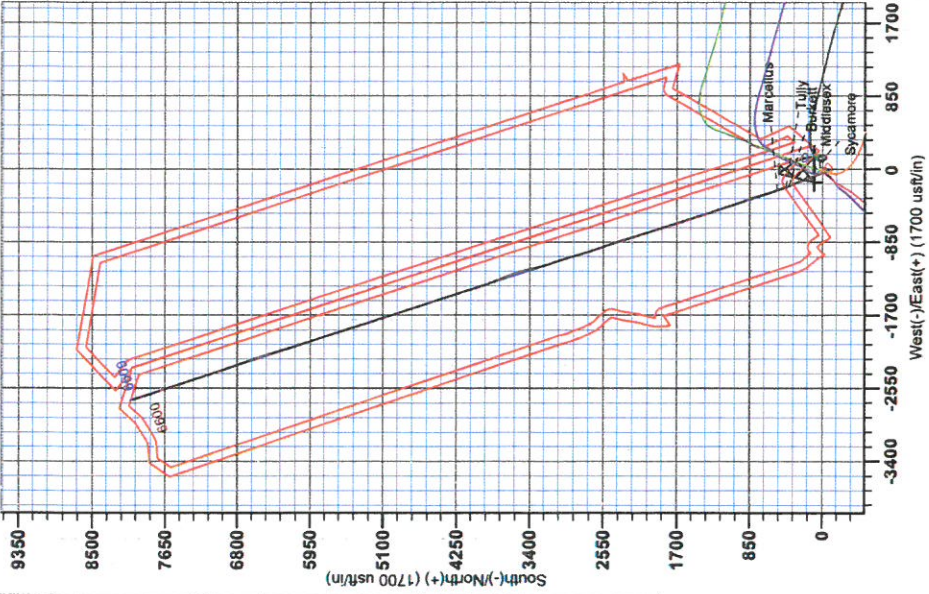
- Thorkildson Unit 1H, Original Wellpath, As Drilled V0
- Ed Arnold Unit 1H, Original Wellpath, As Drilled V0
- Sweeney Unit 2H, Original Wellpath, As Drilled V0
- Thorkildson Unit 2H, Original Wellpath, As Drilled V0
- Ed Arnold Unit 2H, Original Wellpath, As Drilled V0
- Silas Unit 2H, Original Wellpath, Plan 7 V0
- Sweeney Unit 1H, Original Wellpath, As Drilled V0
- As Drilled



To convert Magnetic North to Grid, Subtract 2.73°  
To convert True North to Grid, Subtract 0.16°

Alignments to Grid North  
True North: -0.17°  
Magnetic North: -8.73°

Magnetic Field  
Strength: 52322.7 nT  
Dip Angle: 95.93°  
Annual Change: 0.00 nT/yr  
Model: BGGM2013





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MORGANTOWN, WV

## **Antero Resources**

**Tyler County WV  
Ed Arnold/Sweeney/Thorkildsen/Glover/Silas Pad  
Silas Unit 2H  
Original Wellpath**

**Design: As Drilled**

## **EOW Completion Report**

**08 October, 2014**



JUL 20 2015



West Virginia GEOLOGICAL SURVEY  
MORGANTOWN, WV

## EOW Completion Report



|   |  |  |
|---|--|--|
| <b>Company:</b> Antero Resources                            | <b>Local Co-ordinate Reference:</b> Well Silas Unit 2H           |  |
| <b>Project:</b> Tyler County WV                             | <b>TVD Reference:</b> Silas Unit 2H 749' GL + 25 RKB @ 774.0usft |  |
| <b>Site:</b> Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pac | <b>MD Reference:</b> Silas Unit 2H 749' GL + 25 RKB @ 774.0usft  |  |
| <b>Well:</b> Silas Unit 2H                                  | <b>North Reference:</b> Grid                                     |  |
| <b>Wellbore:</b> Original Wellpath                          | <b>Survey Calculation Method:</b> Minimum Curvature              |  |
| <b>Design:</b> As Drilled                                   | <b>Database:</b> Oklahoma District                               |  |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | Tyler County WV, Tyler Co West Virginia        |                      |                |
| <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>                  | Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pad |                     |                   |                          |                  |
| <b>Site Position:</b>        |  | <b>Northing:</b>    | 14,306,188.32usft | <b>Latitude:</b>         | 39° 23' 45.240 N |
| <b>From:</b>                 | Map  | <b>Easting:</b>     | 1,713,823.50usft  | <b>Longitude:</b>        | 80° 44' 24.585 W |
| <b>Position Uncertainty:</b> | 2.0 usft                                       | <b>Slot Radius:</b> | 13-3/16"          | <b>Grid Convergence:</b> | 0.16 °           |

|                             |               |          |                            |                    |                      |                  |
|-----------------------------|---------------|----------|----------------------------|--------------------|----------------------|------------------|
| <b>Well</b>                 | Silas Unit 2H |          |                            |                    |                      |                  |
| <b>Well Position</b>        | <b>+N/-S</b>  | 0.0 usft | <b>Northing:</b>           | 14,306,183.19 usft | <b>Latitude:</b>     | 39° 23' 45.190 N |
|                             | <b>+E/-W</b>  | 0.0 usft | <b>Easting:</b>            | 1,713,815.59 usft  | <b>Longitude:</b>    | 80° 44' 24.686 W |
| <b>Position Uncertainty</b> |               | 2.0 usft | <b>Wellhead Elevation:</b> | 760.0 usft         | <b>Ground Level:</b> | 749.0 usft       |

**Wellbore** Original Wellpath

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
|           | BGGM2013   | 4/17/2014   | -8.57           | 66.93         | 52,323              |

**Design** As Drilled

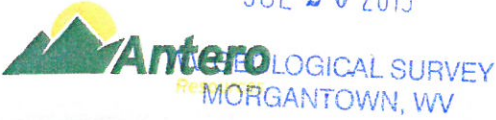
**Audit Notes:**

|                          |                                |                     |                     |                      |     |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|-----|
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>       | ACTUAL              | <b>Tie On Depth:</b> | 0.0 |
| <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               |     |

| Survey Program |           | Date                                     |                     |  |  |
|----------------|-----------|--|---------------------|--|--|
| From (usft)    | To (usft) | Survey (Wellbore)                        | Tool Name           | Description  |  |
| 114.0          | 6,210.2   | Survey #5 Final Gyro (Original Wellpath) | SDI Standard Keeper | Scientific Drilling Intl. Standard Wireline Keeper |  |
| 6,293.0        | 14,654.0  | Survey #6 MWD (Original Wellpath)        | MWD SDI             | MWD - Standard ver 1.0.1                           |  |

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 0.0       |         | 0.00              | 0.00       | 0.0        | 0.0        | 0.0           | 0.00             |
| 114.0     | 0.42    | 219.40            | 114.0      | -0.3       | -0.3       | -0.2          | 0.37             |
| 214.0     | 0.60    | 232.33            | 214.0      | -0.9       | -0.9       | -0.6          | 0.21             |
| 314.0     | 0.43    | 226.28            | 314.0      | -1.5       | -1.6       | -0.9          | 0.18             |
| 414.0     | 0.38    | 225.63            | 414.0      | -2.0       | -2.1       | -1.2          | 0.05             |
| 514.0     | 0.27    | 220.69            | 514.0      | -2.4       | -2.5       | -1.5          | 0.11             |
| 614.0     | 0.13    | 232.48            | 614.0      | -2.7       | -2.7       | -1.7          | 0.15             |
| 714.0     | 0.24    | 223.09            | 714.0      | -2.9       | -3.0       | -1.8          | 0.11             |
| 814.0     | 0.12    | 212.31            | 814.0      | -3.1       | -3.2       | -2.0          | 0.12             |
| 914.0     | 0.12    | 208.20            | 914.0      | -3.3       | -3.3       | -2.1          | 0.01             |
| 1,014.0   | 0.04    | 209.41            | 1,014.0    | -3.4       | -3.3       | -2.2          | 0.08             |

JUL 20 2015



EOW Completion Report



Company: Antero Resources  
 Project: Tyler County WV  
 Site: Ed Arnold/Sweeney/Thorkildson/Glover/Silas Pac  
 Well: Silas Unit 2H  
 Wellbore: Original Wellpath  
 Design: As Drilled

Local Co-ordinate Reference: Well Silas Unit 2H  
 TVD Reference: Silas Unit 2H 749' GL + 25 RKB @ 774.0usft  
 MD Reference: Silas Unit 2H 749' GL + 25 RKB @ 774.0usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: Oklahoma District

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 1,114.0   | 0.06    | 349.28            | 1,114.0    | -3.4       | -3.4       | -2.2          | 0.09             |
| 1,214.0   | 0.05    | 299.01            | 1,214.0    | -3.3       | -3.4       | -2.1          | 0.05             |
| 1,314.0   | 0.13    | 274.31            | 1,314.0    | -3.3       | -3.6       | -2.0          | 0.09             |
| 1,414.0   | 0.18    | 277.02            | 1,414.0    | -3.3       | -3.8       | -1.9          | 0.05             |
| 1,514.0   | 0.12    | 339.09            | 1,514.0    | -3.2       | -4.0       | -1.8          | 0.16             |
| 1,614.0   | 0.14    | 303.34            | 1,614.0    | -3.0       | -4.2       | -1.6          | 0.08             |
| 1,714.0   | 0.26    | 315.07            | 1,714.0    | -2.8       | -4.4       | -1.3          | 0.13             |
| 1,814.0   | 0.28    | 312.51            | 1,814.0    | -2.4       | -4.8       | -0.8          | 0.02             |
| 1,914.0   | 0.19    | 305.32            | 1,914.0    | -2.2       | -5.1       | -0.5          | 0.09             |
| 2,014.0   | 0.29    | 308.40            | 2,014.0    | -1.9       | -5.4       | -0.2          | 0.10             |
| 2,114.0   | 0.29    | 280.82            | 2,114.0    | -1.7       | -5.9       | 0.2           | 0.14             |
| 2,214.0   | 0.35    | 300.23            | 2,214.0    | -1.5       | -6.4       | 0.5           | 0.12             |
| 2,314.0   | 0.30    | 276.60            | 2,314.0    | -1.3       | -6.9       | 0.9           | 0.14             |
| 2,414.0   | 0.30    | 274.46            | 2,414.0    | -1.3       | -7.4       | 1.1           | 0.01             |
| 2,514.0   | 0.33    | 284.23            | 2,514.0    | -1.2       | -8.0       | 1.3           | 0.06             |
| 2,614.0   | 2.97    | 117.55            | 2,613.9    | -2.3       | -6.0       | -0.4          | 3.29             |
| 2,714.0   | 5.94    | 133.04            | 2,713.6    | -7.0       | 0.1        | -6.7          | 3.18             |
| 2,814.0   | 7.43    | 162.91            | 2,813.0    | -16.8      | 5.8        | -17.7         | 3.73             |
| 2,914.0   | 7.48    | 182.97            | 2,912.1    | -29.4      | 7.4        | -30.3         | 2.59             |
| 3,014.0   | 6.41    | 214.39            | 3,011.4    | -40.6      | 3.9        | -39.8         | 3.89             |
| 3,114.0   | 4.75    | 216.58            | 3,111.0    | -48.5      | -1.7       | -45.6         | 1.67             |
| 3,214.0   | 3.49    | 217.86            | 3,210.7    | -54.2      | -6.1       | -49.7         | 1.26             |
| 3,314.0   | 2.47    | 220.78            | 3,310.6    | -58.3      | -9.3       | -52.5         | 1.03             |
| 3,414.0   | 1.80    | 225.04            | 3,410.5    | -61.0      | -11.9      | -54.4         | 0.69             |
| 3,514.0   | 1.40    | 225.83            | 3,510.5    | -63.0      | -13.9      | -55.6         | 0.40             |
| 3,614.0   | 0.93    | 237.96            | 3,610.4    | -64.2      | -15.4      | -56.4         | 0.53             |
| 3,714.0   | 0.67    | 242.29            | 3,710.4    | -64.9      | -16.6      | -56.6         | 0.27             |
| 3,814.0   | 0.67    | 255.85            | 3,810.4    | -65.4      | -17.7      | -56.7         | 0.16             |
| 3,914.0   | 0.45    | 263.01            | 3,910.4    | -65.5      | -18.7      | -56.6         | 0.23             |
| 4,014.0   | 0.44    | 261.29            | 4,010.4    | -65.7      | -19.4      | -56.5         | 0.02             |
| 4,114.0   | 0.20    | 282.63            | 4,110.4    | -65.7      | -20.0      | -56.3         | 0.26             |
| 4,214.0   | 0.16    | 226.46            | 4,210.4    | -65.7      | -20.3      | -56.3         | 0.17             |
| 4,314.0   | 0.11    | 255.04            | 4,310.4    | -65.8      | -20.4      | -56.3         | 0.08             |
| 4,414.0   | 0.15    | 211.38            | 4,410.4    | -66.0      | -20.6      | -56.4         | 0.10             |
| 4,514.0   | 0.12    | 245.89            | 4,510.4    | -66.1      | -20.8      | -56.5         | 0.09             |
| 4,614.0   | 0.11    | 138.00            | 4,610.4    | -66.3      | -20.8      | -56.6         | 0.19             |
| 4,714.0   | 0.19    | 140.79            | 4,710.4    | -66.5      | -20.6      | -56.9         | 0.08             |
| 4,814.0   | 0.24    | 170.72            | 4,810.4    | -66.8      | -20.5      | -57.2         | 0.12             |
| 4,914.0   | 0.29    | 151.63            | 4,910.4    | -67.2      | -20.3      | -57.7         | 0.10             |
| 5,014.0   | 0.25    | 174.55            | 5,010.4    | -67.7      | -20.2      | -58.1         | 0.11             |
| 5,114.0   | 0.43    | 302.39            | 5,110.4    | -67.7      | -20.5      | -58.1         | 0.62             |
| 5,214.0   | 5.76    | 325.66            | 5,210.2    | -63.3      | -23.6      | -52.9         | 5.37             |
| 5,314.0   | 9.96    | 340.25            | 5,309.3    | -51.0      | -29.4      | -39.5         | 4.62             |
| 5,414.0   | 13.23   | 343.69            | 5,407.2    | -31.9      | -35.5      | -19.4         | 3.34             |

JUL 20 2015



WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

EOW Completion Report



**Company:** Antero Resources  
**Project:** Tyler County WV  
**Site:** Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pac  
**Well:** Silas Unit 2H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Silas Unit 2H  
**TVD Reference:** Silas Unit 2H 749' GL + 25 RKB @ 774.0usft  
**MD Reference:** Silas Unit 2H 749' GL + 25 RKB @ 774.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

Survey

| MD (usft)        | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|------------------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 5,514.0          | 16.91   | 342.92            | 5,503.8    | -7.0       | -43.0      | 6.6           | 3.69             |
| 5,614.0          | 17.79   | 343.00            | 5,599.2    | 21.5       | -51.8      | 36.4          | 0.88             |
| 5,714.0          | 18.22   | 340.52            | 5,694.3    | 50.8       | -61.4      | 67.3          | 0.88             |
| 5,814.0          | 20.13   | 340.49            | 5,788.8    | 81.8       | -72.4      | 100.1         | 1.91             |
| 5,914.0          | 19.83   | 339.31            | 5,882.7    | 113.9      | -84.1      | 134.3         | 0.50             |
| 6,014.0          | 19.95   | 337.46            | 5,976.8    | 145.5      | -96.7      | 168.2         | 0.64             |
| 6,114.0          | 21.24   | 336.82            | 6,070.4    | 177.9      | -110.4     | 203.3         | 1.31             |
| 6,210.2          | 21.36   | 336.82            | 6,160.0    | 210.1      | -124.1     | 238.1         | 0.12             |
| 6,237.0          | 21.41   | 336.68            | 6,185.0    | 219.0      | -128.0     | 247.8         | 0.27             |
| <b>Sycamore</b>  |         |                   |            |            |            |               |                  |
| 6,293.0          | 21.52   | 336.40            | 6,237.1    | 237.8      | -136.1     | 268.2         | 0.27             |
| 6,325.0          | 22.16   | 336.43            | 6,266.8    | 248.7      | -140.9     | 280.1         | 2.00             |
| 6,357.0          | 24.74   | 337.52            | 6,296.1    | 260.5      | -145.9     | 292.7         | 8.18             |
| 6,389.0          | 27.43   | 338.79            | 6,324.9    | 273.5      | -151.1     | 306.8         | 8.59             |
| 6,413.0          | 29.73   | 339.16            | 6,346.0    | 284.2      | -155.2     | 318.2         | 9.60             |
| <b>Middlesex</b> |         |                   |            |            |            |               |                  |
| 6,422.0          | 30.59   | 339.29            | 6,353.7    | 288.5      | -156.8     | 322.8         | 9.60             |
| 6,454.0          | 34.03   | 338.79            | 6,380.8    | 304.4      | -162.9     | 339.8         | 10.78            |
| 6,486.0          | 38.02   | 339.49            | 6,406.7    | 322.0      | -169.6     | 358.6         | 12.53            |
| 6,518.0          | 41.94   | 339.93            | 6,431.2    | 341.3      | -176.7     | 379.2         | 12.28            |
| 6,550.0          | 45.64   | 340.32            | 6,454.3    | 362.1      | -184.3     | 401.3         | 11.59            |
| 6,582.0          | 49.98   | 340.82            | 6,475.8    | 384.5      | -192.2     | 425.0         | 13.61            |
| 6,588.0          | 50.80   | 340.81            | 6,479.6    | 388.8      | -193.7     | 429.6         | 13.63            |
| <b>Burkett</b>   |         |                   |            |            |            |               |                  |
| 6,614.0          | 54.34   | 340.78            | 6,495.4    | 408.3      | -200.5     | 450.3         | 13.63            |
| 6,635.0          | 56.50   | 340.63            | 6,507.3    | 424.7      | -206.2     | 467.5         | 10.30            |
| <b>Tully</b>     |         |                   |            |            |            |               |                  |
| 6,646.0          | 57.63   | 340.56            | 6,513.3    | 433.4      | -209.2     | 476.8         | 10.30            |
| 6,678.0          | 60.91   | 340.68            | 6,529.6    | 459.3      | -218.4     | 504.3         | 10.26            |
| 6,711.0          | 62.77   | 340.36            | 6,545.2    | 486.7      | -228.1     | 533.3         | 5.70             |
| 6,743.0          | 64.10   | 340.05            | 6,559.5    | 513.7      | -237.8     | 561.9         | 4.25             |
| 6,759.0          | 66.10   | 340.02            | 6,566.2    | 527.3      | -242.7     | 576.5         | 12.50            |
| <b>Marcellus</b> |         |                   |            |            |            |               |                  |
| 6,775.0          | 68.10   | 339.99            | 6,572.5    | 541.2      | -247.8     | 591.2         | 12.50            |
| 6,807.0          | 71.59   | 340.97            | 6,583.5    | 569.5      | -257.8     | 621.2         | 11.28            |
| 6,839.0          | 74.43   | 341.59            | 6,592.8    | 598.4      | -267.6     | 651.8         | 9.07             |
| 6,871.0          | 78.15   | 342.30            | 6,600.4    | 628.0      | -277.2     | 682.9         | 11.82            |
| 6,898.0          | 82.01   | 342.86            | 6,605.1    | 653.4      | -285.2     | 709.5         | 14.44            |
| 6,960.0          | 89.20   | 343.54            | 6,609.8    | 712.5      | -303.1     | 771.2         | 11.65            |
| 7,003.0          | 90.37   | 343.51            | 6,610.0    | 753.7      | -315.3     | 814.2         | 2.72             |
| 7,100.0          | 90.47   | 340.93            | 6,609.3    | 846.1      | -344.9     | 911.2         | 2.66             |
| 7,196.0          | 90.94   | 338.88            | 6,608.1    | 936.2      | -377.8     | 1,007.1       | 2.19             |
| 7,292.0          | 89.26   | 340.22            | 6,607.9    | 1,026.2    | -411.4     | 1,103.0       | 2.24             |
| 7,388.0          | 89.56   | 341.41            | 6,608.9    | 1,116.8    | -442.9     | 1,199.0       | 1.28             |
| 7,485.0          | 91.44   | 342.39            | 6,608.1    | 1,209.0    | -473.1     | 1,296.0       | 2.19             |

JUL 20 2015



EOW Completion Report



|   |  |
|---|--|
| <b>Company:</b> Antero Resources                            | <b>Local Co-ordinate Reference:</b> Well Silas Unit 2H           |
| <b>Project:</b> Tyler County WV                             | <b>TVD Reference:</b> Silas Unit 2H 749' GL + 25 RKB @ 774.0usft |
| <b>Site:</b> Ed Arnold/Sweeney/Thorkildson/Glover/Silas Pac | <b>MD Reference:</b> Silas Unit 2H 749' GL + 25 RKB @ 774.0usft  |
| <b>Well:</b> Silas Unit 2H                                  | <b>North Reference:</b> Grid                                     |
| <b>Wellbore:</b> Original Wellpath                          | <b>Survey Calculation Method:</b> Minimum Curvature              |
| <b>Design:</b> As Drilled                                   | <b>Database:</b> Oklahoma District                               |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 7,581.0   | 90.07   | 339.73            | 6,606.8    | 1,299.8    | -504.2     | 1,392.0       | 3.12             |
| 7,677.0   | 90.13   | 342.68            | 6,606.6    | 1,390.7    | -535.1     | 1,487.9       | 3.07             |
| 7,774.0   | 91.28   | 343.64            | 6,605.4    | 1,483.5    | -563.2     | 1,584.9       | 1.54             |
| 7,870.0   | 90.07   | 340.21            | 6,604.3    | 1,574.8    | -593.0     | 1,680.9       | 3.79             |
| 7,966.0   | 91.11   | 342.50            | 6,603.3    | 1,665.7    | -623.7     | 1,776.9       | 2.62             |
| 8,062.0   | 90.81   | 340.92            | 6,601.7    | 1,756.9    | -653.8     | 1,872.9       | 1.68             |
| 8,158.0   | 90.34   | 342.16            | 6,600.8    | 1,847.9    | -684.2     | 1,968.8       | 1.38             |
| 8,254.0   | 91.61   | 344.69            | 6,599.1    | 1,939.9    | -711.6     | 2,064.8       | 2.95             |
| 8,351.0   | 90.00   | 339.98            | 6,597.8    | 2,032.3    | -741.0     | 2,161.8       | 5.13             |
| 8,447.0   | 91.17   | 342.79            | 6,596.8    | 2,123.2    | -771.7     | 2,257.7       | 3.17             |
| 8,537.0   | 90.23   | 346.58            | 6,595.7    | 2,210.0    | -795.4     | 2,347.6       | 4.34             |
| 8,629.0   | 91.37   | 344.21            | 6,594.4    | 2,299.0    | -818.6     | 2,439.4       | 2.86             |
| 8,719.0   | 91.01   | 341.92            | 6,592.5    | 2,385.1    | -844.8     | 2,529.4       | 2.58             |
| 8,810.0   | 89.73   | 339.14            | 6,591.9    | 2,470.9    | -875.2     | 2,620.3       | 3.36             |
| 8,901.0   | 90.91   | 340.56            | 6,591.4    | 2,556.3    | -906.5     | 2,711.3       | 2.03             |
| 8,991.0   | 90.94   | 341.78            | 6,590.0    | 2,641.5    | -935.6     | 2,801.3       | 1.36             |
| 9,082.0   | 90.84   | 342.45            | 6,588.6    | 2,728.1    | -963.5     | 2,892.2       | 0.74             |
| 9,172.0   | 92.22   | 343.71            | 6,586.2    | 2,814.1    | -989.7     | 2,982.2       | 2.08             |
| 9,262.0   | 92.55   | 342.59            | 6,582.4    | 2,900.2    | -1,015.7   | 3,072.1       | 1.30             |
| 9,353.0   | 90.17   | 342.81            | 6,580.3    | 2,987.1    | -1,042.8   | 3,163.1       | 2.63             |
| 9,445.0   | 89.40   | 340.19            | 6,580.6    | 3,074.3    | -1,072.0   | 3,255.0       | 2.97             |
| 9,536.0   | 90.13   | 343.86            | 6,581.0    | 3,160.8    | -1,100.1   | 3,346.0       | 4.11             |
| 9,632.0   | 90.50   | 344.30            | 6,580.4    | 3,253.2    | -1,126.4   | 3,442.0       | 0.60             |
| 9,728.0   | 89.63   | 344.98            | 6,580.3    | 3,345.7    | -1,151.8   | 3,537.9       | 1.15             |
| 9,825.0   | 89.56   | 346.82            | 6,581.0    | 3,439.8    | -1,175.5   | 3,634.6       | 1.90             |
| 9,921.0   | 87.62   | 342.90            | 6,583.4    | 3,532.4    | -1,200.5   | 3,730.5       | 4.55             |
| 10,017.0  | 88.82   | 339.22            | 6,586.4    | 3,623.2    | -1,231.6   | 3,826.4       | 4.03             |
| 10,114.0  | 88.24   | 338.44            | 6,588.9    | 3,713.6    | -1,266.7   | 3,923.2       | 1.00             |
| 10,210.0  | 89.66   | 338.02            | 6,590.6    | 3,802.7    | -1,302.3   | 4,019.0       | 1.54             |
| 10,306.0  | 90.54   | 340.54            | 6,590.4    | 3,892.5    | -1,336.2   | 4,114.9       | 2.78             |
| 10,403.0  | 90.74   | 339.90            | 6,589.4    | 3,983.8    | -1,369.1   | 4,211.8       | 0.69             |
| 10,499.0  | 90.54   | 343.13            | 6,588.3    | 4,074.8    | -1,399.5   | 4,307.8       | 3.37             |
| 10,595.0  | 90.10   | 344.73            | 6,587.8    | 4,167.0    | -1,426.1   | 4,403.7       | 1.73             |
| 10,691.0  | 89.60   | 340.40            | 6,588.0    | 4,258.6    | -1,454.8   | 4,499.7       | 4.54             |
| 10,787.0  | 90.17   | 341.15            | 6,588.2    | 4,349.3    | -1,486.4   | 4,595.7       | 0.98             |
| 10,883.0  | 90.97   | 341.69            | 6,587.2    | 4,440.2    | -1,517.0   | 4,691.7       | 1.01             |
| 10,978.0  | 89.29   | 340.54            | 6,587.0    | 4,530.1    | -1,547.8   | 4,786.6       | 2.14             |
| 11,074.0  | 90.37   | 341.60            | 6,587.3    | 4,620.9    | -1,578.9   | 4,882.6       | 1.58             |
| 11,170.0  | 90.13   | 341.36            | 6,586.9    | 4,712.0    | -1,609.4   | 4,978.6       | 0.35             |
| 11,266.0  | 91.08   | 340.92            | 6,585.9    | 4,802.8    | -1,640.4   | 5,074.6       | 1.09             |
| 11,362.0  | 90.67   | 344.07            | 6,584.4    | 4,894.3    | -1,669.3   | 5,170.6       | 3.31             |
| 11,458.0  | 89.60   | 342.02            | 6,584.2    | 4,986.1    | -1,697.3   | 5,266.5       | 2.41             |
| 11,555.0  | 89.80   | 342.27            | 6,584.7    | 5,078.5    | -1,727.0   | 5,363.5       | 0.33             |
| 11,651.0  | 88.79   | 341.09            | 6,585.9    | 5,169.6    | -1,757.2   | 5,459.5       | 1.62             |
| 11,747.0  | 90.74   | 343.86            | 6,586.3    | 5,261.1    | -1,786.1   | 5,555.5       | 3.53             |

JUL 20 2015



EOW Completion Report



|   |  |
|---|--|
| <b>Company:</b> Antero Resources                            | <b>Local Co-ordinate Reference:</b> Well Silas Unit 2H           |
| <b>Project:</b> Tyler County WV                             | <b>TVD Reference:</b> Silas Unit 2H 749' GL + 25 RKB @ 774.0usft |
| <b>Site:</b> Ed Arnold/Sweeney/Thorkildson/Glover/Silas Pac | <b>MD Reference:</b> Silas Unit 2H 749' GL + 25 RKB @ 774.0usft  |
| <b>Well:</b> Silas Unit 2H                                  | <b>North Reference:</b> Grid                                     |
| <b>Wellbore:</b> Original Wellpath                          | <b>Survey Calculation Method:</b> Minimum Curvature              |
| <b>Design:</b> As Drilled                                   | <b>Database:</b> Oklahoma District                               |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 11,843.0  | 89.40   | 341.59            | 6,586.2    | 5,352.8    | -1,814.6   | 5,651.5       | 2.75             |
| 11,939.0  | 89.87   | 342.39            | 6,586.8    | 5,444.1    | -1,844.3   | 5,747.5       | 0.97             |
| 12,036.0  | 89.90   | 342.38            | 6,587.0    | 5,536.5    | -1,873.6   | 5,844.5       | 0.03             |
| 12,132.0  | 89.26   | 341.15            | 6,587.7    | 5,627.7    | -1,903.7   | 5,940.5       | 1.44             |
| 12,229.0  | 90.40   | 343.51            | 6,588.0    | 5,720.1    | -1,933.1   | 6,037.5       | 2.70             |
| 12,325.0  | 89.50   | 342.04            | 6,588.0    | 5,811.8    | -1,961.5   | 6,133.5       | 1.80             |
| 12,421.0  | 89.80   | 342.80            | 6,588.6    | 5,903.3    | -1,990.5   | 6,229.5       | 0.85             |
| 12,518.0  | 90.00   | 342.57            | 6,588.8    | 5,995.9    | -2,019.4   | 6,326.5       | 0.31             |
| 12,614.0  | 89.66   | 342.39            | 6,589.1    | 6,087.5    | -2,048.3   | 6,422.5       | 0.40             |
| 12,710.0  | 89.46   | 343.22            | 6,589.8    | 6,179.2    | -2,076.7   | 6,518.4       | 0.89             |
| 12,806.0  | 90.40   | 343.28            | 6,589.9    | 6,271.1    | -2,104.4   | 6,614.4       | 0.98             |
| 12,903.0  | 89.46   | 342.41            | 6,590.0    | 6,363.8    | -2,133.0   | 6,711.4       | 1.32             |
| 12,999.0  | 90.00   | 344.58            | 6,590.5    | 6,455.8    | -2,160.2   | 6,807.4       | 2.33             |
| 13,095.0  | 88.96   | 340.70            | 6,591.4    | 6,547.4    | -2,188.9   | 6,903.3       | 4.18             |
| 13,192.0  | 89.46   | 341.58            | 6,592.7    | 6,639.2    | -2,220.2   | 7,000.3       | 1.04             |
| 13,288.0  | 90.20   | 340.06            | 6,593.0    | 6,729.9    | -2,251.8   | 7,096.3       | 1.76             |
| 13,384.0  | 90.24   | 339.96            | 6,592.6    | 6,820.1    | -2,284.6   | 7,192.2       | 0.11             |
| 13,480.0  | 91.41   | 339.57            | 6,591.2    | 6,910.2    | -2,317.8   | 7,288.1       | 1.28             |
| 13,576.0  | 91.65   | 340.18            | 6,588.7    | 7,000.3    | -2,350.8   | 7,384.0       | 0.68             |
| 13,672.0  | 91.14   | 343.45            | 6,586.3    | 7,091.4    | -2,380.7   | 7,480.0       | 3.45             |
| 13,769.0  | 88.86   | 342.16            | 6,586.3    | 7,184.1    | -2,409.4   | 7,577.0       | 2.70             |
| 13,865.0  | 88.96   | 340.79            | 6,588.2    | 7,275.1    | -2,439.9   | 7,673.0       | 1.43             |
| 13,961.0  | 88.22   | 341.45            | 6,590.5    | 7,365.9    | -2,471.0   | 7,768.9       | 1.03             |
| 14,058.0  | 89.06   | 342.60            | 6,592.8    | 7,458.1    | -2,500.9   | 7,865.9       | 1.47             |
| 14,153.0  | 89.87   | 341.94            | 6,593.7    | 7,548.6    | -2,529.8   | 7,960.9       | 1.10             |
| 14,250.0  | 90.84   | 340.99            | 6,593.1    | 7,640.6    | -2,560.7   | 8,057.9       | 1.40             |
| 14,346.0  | 88.99   | 341.07            | 6,593.3    | 7,731.4    | -2,591.9   | 8,153.8       | 1.93             |
| 14,442.0  | 88.25   | 342.03            | 6,595.6    | 7,822.4    | -2,622.2   | 8,249.8       | 1.26             |
| 14,539.0  | 88.49   | 342.19            | 6,598.3    | 7,914.7    | -2,652.0   | 8,346.8       | 0.30             |
| 14,594.0  | 89.21   | 341.74            | 6,599.4    | 7,967.0    | -2,669.0   | 8,401.8       | 1.54             |
| 14,654.0  | 89.21   | 341.74            | 6,600.3    | 8,023.9    | -2,687.8   | 8,461.8       | 0.00             |

Design Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment   |
|-----------------------|-----------------------|-------------------|--------------|-----------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |           |
| 6,237.0               | 6,185.0               | 219.0             | -128.0       | Sycamore  |
| 6,413.0               | 6,346.0               | 284.2             | -155.2       | Middlesex |
| 6,588.0               | 6,479.6               | 388.8             | -193.7       | Burkett   |
| 6,635.0               | 6,507.3               | 424.7             | -206.2       | Tully     |
| 6,759.0               | 6,566.2               | 527.3             | -242.7       | Marcellus |

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