

17-06190

Azinuths to Grid North
 True North: -0.09°
 Magnetic North: -8.47°
 Magnetic Field
 Strength: 52385.3snt
 Dip Angle: 66.87°
 Date: 8/2/2013
 Model: IGRF2010

To convert Magnetic North to Grid, Subtract 8.47°
 To convert True North to Grid, Subtract 0.09°



Ahouse Unit 1H
Doddridge County WV
Northing: 14249870.09
Eastng: 1682112.06
As Drilled



WELL DETAILS Ahouse Unit 1H
 Ground Level: 1005.0
 Northing: 14249870.09
 Easting: 1682112.0639
 +E-/W: 0.0
 +N-/S: 0.0
 Longitude: 81.9848 W
 Latitude: 39.095 N

LEGEND

- ▲ Callie Unit 2H, Original Wellpath, As Drilled V0
- ⊙ Callie Unit 1H, Original Wellpath, As Drilled V0
- ⊙ Ahouse Unit 2H, Original Wellpath, As Drilled V0
- ⊙ Ahouse Unit 1H, Original Wellpath, Plan 4 V0
- ⊙ As Drilled

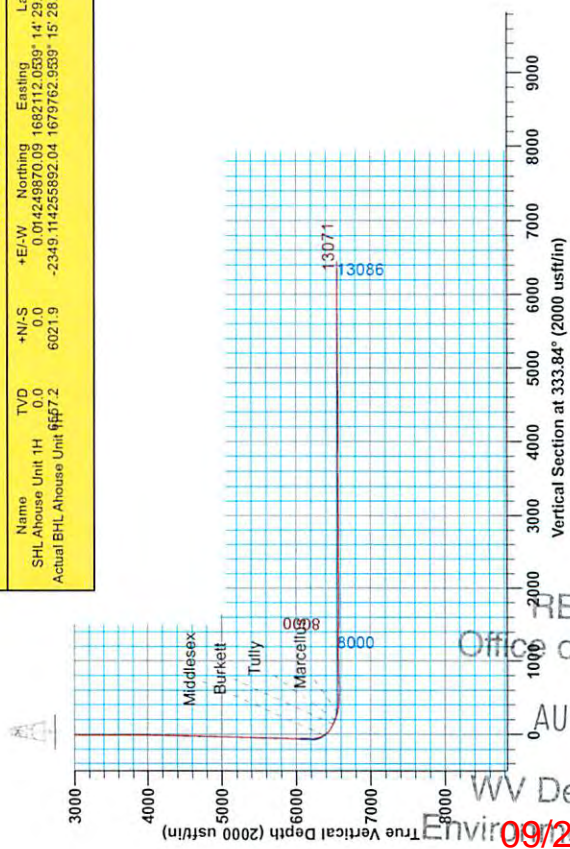
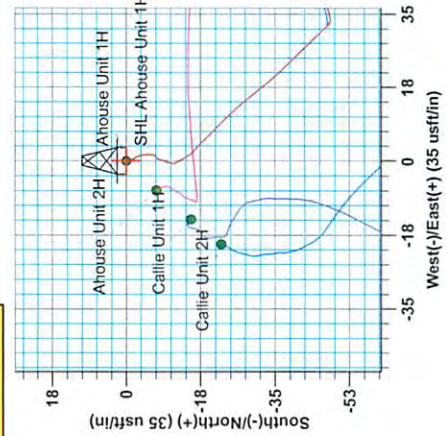
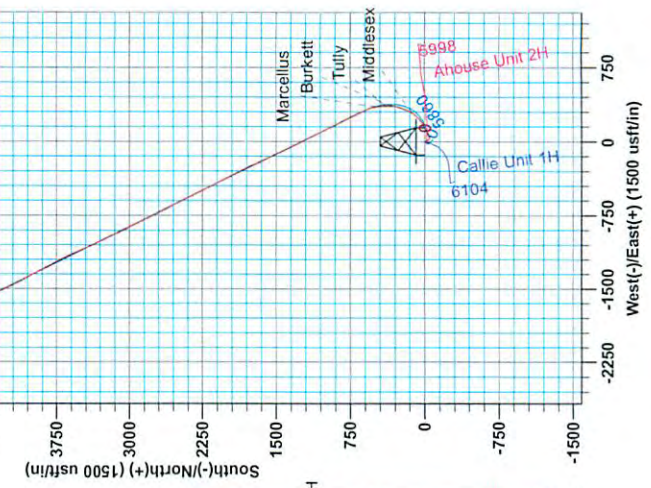
SITE DETAILS: Ahouse / Callie Pad
 Site Center: Ahouse Unit 1H
 Site Centre Northing: 14249870.09
 Easting: 1682112.06
 Positional Uncertainty: 2.0
 Convergence: 0.09
 Local North: Grid

PROJECT DETAILS: Doddridge County WV
 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

DESIGN TARGET DETAILS

| Name | TVD | +N-/S | +E-/W | Northing | Eastng | Latitude | Longitude |
|---------------------------|--------|--------|--------|--------------|--------------|-----------|------------|
| SHL Ahouse Unit 1H | 0.0 | 0.0 | 0.0 | 14249870.09 | 1682112.0639 | 39.095 N | 81.9848 W |
| Actual BHL Ahouse Unit 1H | 6597.2 | 6021.9 | -234.9 | 142455892.04 | 1679762.9539 | 39.1528 N | 81.39599 W |

Genie Lightfoot
 16.05, April 10 2014
 Scientific Drilling
 421 South Eagle Lane
 Oklahoma City, OK 73128



Precision 522 GL 1005 + 18" RKB @ 1023.0 usf/in
 Gr: 1005.0

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Antero Resources

Doddridge County WV
Ahouse / Callie Pad
Ahouse Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

10 April, 2014



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Scientific Drilling

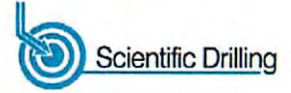
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WV Department of
Environmental Protection
09/25/2015

17-06190



EOW Completion Report



| | | | |
|------------------|---------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ahouse Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Site: | Ahouse / Callie Pad | MD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Well: | Ahouse Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

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

| | | | | | |
|------------------------------|---------------------|---------------------|-------------------|--------------------------|--------|
| Site | Ahouse / Callie Pad | | | | |
| Site Position: | Northing: | 14,249,870.09 usft | Latitude: | 39° 14' 29.095 N | |
| From: Map | Easting: | 1,682,112.06 usft | Longitude: | 80° 51' 9.848 W | |
| Position Uncertainty: | 2.0 usft | Slot Radius: | 13-3/16" | Grid Convergence: | 0.09 ° |

| | | | | | | |
|-----------------------------|---------------------------|----------------------------|------------------|----------------------|-------------------|------------------|
| Well | Ahouse Unit 1H, Marcellus | | | | | |
| Well Position | +N/-S | 0.0 usft | Northing: | 14,249,870.09 usft | Latitude: | 39° 14' 29.095 N |
| | +E/-W | 0.0 usft | Easting: | 1,682,112.06 usft | Longitude: | 80° 51' 9.848 W |
| Position Uncertainty | 2.0 usft | Wellhead Elevation: | 1,023.0 usft | Ground Level: | 1,005.0 usft | |

| | |
|-----------------|-------------------|
| Wellbore | Original Wellpath |
|-----------------|-------------------|

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
| | IGRF2010 | 8/2/2013 | -8.38 | 66.87 | 52,385 |

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

| | |
|----------------------|--------|
| Audit Notes: | |
| Version: | 1.0 |
| Phase: | ACTUAL |
| Tie On Depth: | 0.0 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|-------------------|-------------------------|--------------|--------------|---------------|
| | 0.0 | 0.0 | 0.0 | 333.84 |

| Survey Program | Date | From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
|----------------|-----------|-------------|-----------|--|---------------------|--|
| | 4/10/2014 | 105.0 | 5,851.0 | Survey #1 Final Gyro (Original Wellpath) | SDI Standard Keeper | Scientific Drilling Intl. Standard Wireline Keeper |
| | | 5,851.0 | 13,071.0 | Survey #2 SDI MWD (Original Wellpath) | SDI MWD | Scientific Drilling Intl. MWD - Standard ver 1.0.1 |

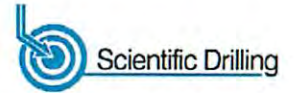
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 |
| 105.0 | 0.57 | 168.27 | 105.0 | -0.5 | 0.1 | -0.5 | 0.54 |
| 205.0 | 0.24 | 164.78 | 205.0 | -1.2 | 0.3 | -1.2 | 0.33 |
| 305.0 | 0.13 | 141.71 | 305.0 | -1.5 | 0.4 | -1.5 | 0.13 |
| 405.0 | 0.18 | 163.67 | 405.0 | -1.7 | 0.5 | -1.8 | 0.08 |
| 505.0 | 0.12 | 135.49 | 505.0 | -2.0 | 0.6 | -2.0 | 0.09 |
| 605.0 | 0.20 | 144.88 | 605.0 | -2.2 | 0.8 | -2.3 | 0.08 |
| 705.0 | 0.19 | 164.50 | 705.0 | -2.5 | 0.9 | -2.6 | 0.07 |
| 805.0 | 0.13 | 156.24 | 805.0 | -2.7 | 1.0 | -2.9 | 0.06 |
| 905.0 | 0.15 | 152.62 | 905.0 | -3.0 | 1.1 | -3.2 | 0.02 |
| 1,005.0 | 0.17 | 168.25 | 1,005.0 | -3.2 | 1.2 | -3.4 | 0.05 |

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EOW Completion Report



| | | | |
|------------------|---------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ahouse Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Site: | Ahouse / Callie Pad | MD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Well: | Ahouse Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 1,105.0 | 0.15 | 162.57 | 1,105.0 | -3.5 | 1.3 | -3.7 | 0.03 |
| 1,205.0 | 0.19 | 182.77 | 1,205.0 | -3.8 | 1.3 | -4.0 | 0.07 |
| 1,305.0 | 0.19 | 168.96 | 1,305.0 | -4.1 | 1.3 | -4.3 | 0.05 |
| 1,405.0 | 0.19 | 171.75 | 1,405.0 | -4.4 | 1.4 | -4.6 | 0.01 |
| 1,505.0 | 0.18 | 163.42 | 1,505.0 | -4.8 | 1.5 | -4.9 | 0.03 |
| 1,605.0 | 0.20 | 200.68 | 1,605.0 | -5.1 | 1.5 | -5.2 | 0.12 |
| 1,705.0 | 0.36 | 167.35 | 1,705.0 | -5.5 | 1.5 | -5.6 | 0.22 |
| 1,805.0 | 0.29 | 197.22 | 1,805.0 | -6.1 | 1.5 | -6.1 | 0.18 |
| 1,905.0 | 0.36 | 199.66 | 1,905.0 | -6.6 | 1.3 | -6.5 | 0.07 |
| 2,005.0 | 0.31 | 248.76 | 2,005.0 | -7.0 | 0.9 | -6.7 | 0.28 |
| 2,105.0 | 0.31 | 208.16 | 2,105.0 | -7.4 | 0.5 | -6.8 | 0.22 |
| 2,205.0 | 0.26 | 195.82 | 2,205.0 | -7.8 | 0.3 | -7.2 | 0.08 |
| 2,305.0 | 0.35 | 200.53 | 2,305.0 | -8.3 | 0.2 | -7.5 | 0.09 |
| 2,405.0 | 0.25 | 203.63 | 2,405.0 | -8.8 | 0.0 | -7.9 | 0.10 |
| 2,505.0 | 0.27 | 184.47 | 2,505.0 | -9.2 | -0.1 | -8.2 | 0.09 |
| 2,605.0 | 0.26 | 219.14 | 2,605.0 | -9.6 | -0.3 | -8.5 | 0.16 |
| 2,705.0 | 0.24 | 189.03 | 2,705.0 | -10.0 | -0.5 | -8.8 | 0.13 |
| 2,805.0 | 0.25 | 190.78 | 2,805.0 | -10.4 | -0.5 | -9.1 | 0.01 |
| 2,905.0 | 0.19 | 198.18 | 2,905.0 | -10.8 | -0.6 | -9.4 | 0.07 |
| 3,005.0 | 0.17 | 173.94 | 3,005.0 | -11.1 | -0.7 | -9.7 | 0.08 |
| 3,105.0 | 0.23 | 165.50 | 3,105.0 | -11.5 | -0.6 | -10.0 | 0.07 |
| 3,205.0 | 0.19 | 145.11 | 3,205.0 | -11.8 | -0.4 | -10.4 | 0.08 |
| 3,305.0 | 0.23 | 148.17 | 3,305.0 | -12.1 | -0.2 | -10.8 | 0.04 |
| 3,405.0 | 0.32 | 152.52 | 3,405.0 | -12.5 | 0.0 | -11.2 | 0.09 |
| 3,505.0 | 0.28 | 150.90 | 3,505.0 | -13.0 | 0.2 | -11.8 | 0.04 |
| 3,605.0 | 0.21 | 146.59 | 3,605.0 | -13.4 | 0.5 | -12.2 | 0.07 |
| 3,705.0 | 0.23 | 144.81 | 3,705.0 | -13.7 | 0.7 | -12.6 | 0.02 |
| 3,805.0 | 0.32 | 149.98 | 3,805.0 | -14.1 | 0.9 | -13.0 | 0.09 |
| 3,905.0 | 0.29 | 153.38 | 3,905.0 | -14.5 | 1.2 | -13.6 | 0.04 |
| 4,005.0 | 0.28 | 140.25 | 4,005.0 | -15.0 | 1.4 | -14.1 | 0.07 |
| 4,105.0 | 0.64 | 133.46 | 4,105.0 | -15.5 | 2.0 | -14.8 | 0.36 |
| 4,205.0 | 0.87 | 135.63 | 4,205.0 | -16.5 | 2.9 | -16.1 | 0.23 |
| 4,305.0 | 1.08 | 132.87 | 4,304.9 | -17.6 | 4.2 | -17.7 | 0.22 |
| 4,405.0 | 1.32 | 134.23 | 4,404.9 | -19.1 | 5.7 | -19.6 | 0.24 |
| 4,505.0 | 1.39 | 133.42 | 4,504.9 | -20.7 | 7.4 | -21.9 | 0.07 |
| 4,605.0 | 1.50 | 136.40 | 4,604.9 | -22.5 | 9.2 | -24.2 | 0.13 |
| 4,705.0 | 1.58 | 136.12 | 4,704.8 | -24.4 | 11.0 | -26.8 | 0.08 |
| 4,805.0 | 1.71 | 137.28 | 4,804.8 | -26.5 | 13.0 | -29.5 | 0.13 |
| 4,905.0 | 1.57 | 140.42 | 4,904.7 | -28.7 | 14.9 | -32.3 | 0.17 |
| 5,005.0 | 1.63 | 141.36 | 5,004.7 | -30.9 | 16.6 | -35.0 | 0.07 |
| 5,105.0 | 1.59 | 141.61 | 5,104.7 | -33.0 | 18.4 | -37.8 | 0.04 |
| 5,205.0 | 1.58 | 137.08 | 5,204.6 | -35.1 | 20.2 | -40.5 | 0.13 |
| 5,305.0 | 1.67 | 134.17 | 5,304.6 | -37.2 | 22.2 | -43.1 | 0.12 |
| 5,405.0 | 1.67 | 135.33 | 5,404.5 | -39.2 | 24.2 | -45.9 | 0.03 |

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EOW Completion Report



| | | | |
|------------------|---------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ahouse Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Site: | Ahouse / Callie Pad | MD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Well: | Ahouse Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|------------------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 5,505.0 | 1.64 | 134.71 | 5,504.5 | -41.3 | 26.3 | -48.6 | 0.03 |
| 5,605.0 | 1.40 | 135.58 | 5,604.5 | -43.1 | 28.2 | -51.1 | 0.24 |
| 5,705.0 | 1.39 | 135.27 | 5,704.4 | -44.9 | 29.9 | -53.5 | 0.01 |
| 5,805.0 | 1.22 | 135.38 | 5,804.4 | -46.5 | 31.5 | -55.6 | 0.17 |
| 5,851.0 | 1.26 | 136.22 | 5,850.4 | -47.2 | 32.2 | -56.6 | 0.10 |
| 5,875.0 | 1.40 | 136.09 | 5,874.4 | -47.6 | 32.6 | -57.1 | 0.58 |
| 5,906.0 | 2.09 | 101.14 | 5,905.4 | -48.0 | 33.4 | -57.8 | 3.99 |
| 5,937.0 | 5.85 | 74.98 | 5,936.3 | -47.7 | 35.5 | -58.4 | 13.16 |
| 5,968.0 | 10.41 | 67.76 | 5,967.0 | -46.2 | 39.6 | -58.9 | 15.05 |
| 5,999.0 | 15.00 | 64.83 | 5,997.2 | -43.5 | 45.8 | -59.2 | 14.95 |
| 6,030.0 | 18.83 | 61.30 | 6,026.9 | -39.3 | 53.8 | -59.0 | 12.79 |
| 6,060.0 | 22.28 | 60.08 | 6,054.9 | -34.2 | 63.0 | -58.5 | 11.59 |
| 6,091.0 | 25.36 | 59.39 | 6,083.3 | -27.9 | 73.8 | -57.6 | 9.98 |
| 6,122.0 | 28.36 | 60.16 | 6,111.0 | -20.8 | 85.9 | -56.6 | 9.74 |
| 6,153.0 | 31.30 | 65.39 | 6,137.9 | -13.8 | 99.6 | -56.3 | 12.66 |
| 6,184.0 | 34.02 | 67.84 | 6,163.9 | -7.2 | 115.0 | -57.1 | 9.75 |
| 6,215.0 | 38.26 | 67.42 | 6,189.0 | -0.2 | 131.9 | -58.3 | 13.70 |
| 6,246.0 | 41.26 | 65.21 | 6,212.8 | 7.8 | 150.0 | -59.2 | 10.70 |
| 6,277.0 | 43.07 | 59.94 | 6,235.8 | 17.3 | 168.5 | -58.7 | 12.81 |
| 6,307.0 | 46.85 | 56.32 | 6,257.0 | 28.5 | 186.5 | -56.6 | 15.21 |
| 6,338.0 | 49.72 | 53.51 | 6,277.6 | 41.9 | 205.4 | -53.0 | 11.47 |
| 6,369.0 | 50.91 | 49.54 | 6,297.4 | 56.7 | 224.0 | -47.9 | 10.58 |
| 6,400.0 | 50.44 | 45.45 | 6,317.1 | 72.9 | 241.7 | -41.1 | 10.32 |
| 6,431.0 | 49.11 | 40.57 | 6,337.1 | 90.2 | 257.9 | -32.7 | 12.76 |
| 6,462.0 | 49.01 | 36.10 | 6,357.4 | 108.5 | 272.4 | -22.7 | 10.90 |
| 6,489.0 | 50.64 | 32.26 | 6,374.9 | 125.6 | 284.0 | -12.4 | 12.44 |
| Middlesex | | | | | | | |
| 6,492.0 | 50.83 | 31.84 | 6,376.8 | 127.6 | 285.2 | -11.2 | 12.44 |
| 6,523.0 | 53.38 | 28.97 | 6,395.8 | 148.7 | 297.6 | 2.3 | 11.00 |
| 6,554.0 | 55.97 | 26.23 | 6,413.7 | 171.1 | 309.3 | 17.2 | 11.04 |
| 6,585.0 | 58.63 | 22.80 | 6,430.5 | 194.8 | 320.1 | 33.8 | 12.66 |
| 6,616.0 | 61.34 | 19.66 | 6,446.0 | 219.8 | 329.8 | 51.9 | 12.38 |
| 6,647.0 | 63.05 | 16.18 | 6,460.5 | 245.9 | 338.2 | 71.6 | 11.36 |
| 6,678.0 | 64.44 | 12.61 | 6,474.2 | 272.8 | 345.1 | 92.7 | 11.26 |
| 6,708.0 | 65.89 | 9.72 | 6,486.8 | 299.6 | 350.4 | 114.4 | 9.99 |
| 6,739.0 | 67.25 | 6.59 | 6,499.1 | 327.7 | 354.4 | 137.9 | 10.25 |
| Burkett | | | | | | | |
| 6,770.0 | 68.58 | 2.90 | 6,510.8 | 356.3 | 356.8 | 162.5 | 11.83 |
| 6,801.0 | 70.17 | 359.88 | 6,521.7 | 385.3 | 357.5 | 188.2 | 10.46 |
| 6,813.0 | 70.84 | 358.95 | 6,525.7 | 396.6 | 357.4 | 198.5 | 9.16 |
| Tully | | | | | | | |
| 6,832.0 | 71.90 | 357.50 | 6,531.8 | 414.6 | 356.8 | 214.8 | 9.16 |
| 6,863.0 | 73.28 | 354.68 | 6,541.0 | 444.1 | 354.8 | 242.2 | 9.75 |
| 6,894.0 | 75.29 | 352.19 | 6,549.4 | 473.8 | 351.4 | 270.3 | 10.09 |

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| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|------------------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 6,919.0 | 76.63 | 349.90 | 6,555.5 | 497.7 | 347.6 | 293.5 | 10.38 |
| Marcellus | | | | | | | |
| 6,925.0 | 76.95 | 349.35 | 6,556.9 | 503.5 | 346.6 | 299.1 | 10.38 |
| 6,955.0 | 78.57 | 344.86 | 6,563.2 | 532.1 | 340.0 | 327.6 | 15.59 |
| 6,986.0 | 80.11 | 340.55 | 6,569.0 | 561.1 | 331.0 | 357.7 | 14.54 |
| 7,017.0 | 82.93 | 336.33 | 6,573.5 | 589.6 | 319.7 | 388.3 | 16.25 |
| 7,047.0 | 86.61 | 333.87 | 6,576.3 | 616.7 | 307.1 | 418.2 | 14.74 |
| 7,078.0 | 88.55 | 332.64 | 6,577.6 | 644.4 | 293.2 | 449.1 | 7.41 |
| 7,109.0 | 88.90 | 332.37 | 6,578.3 | 671.9 | 278.9 | 480.1 | 1.43 |
| 7,201.0 | 89.34 | 334.13 | 6,579.7 | 754.0 | 237.5 | 572.1 | 1.97 |
| 7,294.0 | 91.88 | 334.28 | 6,578.7 | 837.7 | 197.0 | 665.1 | 2.74 |
| 7,387.0 | 91.45 | 333.60 | 6,576.0 | 921.2 | 156.2 | 758.0 | 0.86 |
| 7,479.0 | 91.36 | 333.95 | 6,573.7 | 1,003.7 | 115.5 | 850.0 | 0.39 |
| 7,572.0 | 89.52 | 333.69 | 6,573.0 | 1,087.2 | 74.5 | 943.0 | 2.00 |
| 7,665.0 | 91.28 | 333.08 | 6,572.4 | 1,170.3 | 32.8 | 1,036.0 | 2.00 |
| 7,757.0 | 91.98 | 333.25 | 6,569.8 | 1,252.4 | -8.7 | 1,127.9 | 0.78 |
| 7,850.0 | 89.16 | 334.13 | 6,568.8 | 1,335.8 | -49.9 | 1,220.9 | 3.18 |
| 7,943.0 | 89.08 | 334.57 | 6,570.3 | 1,419.6 | -90.2 | 1,313.9 | 0.48 |
| 8,037.0 | 88.72 | 334.04 | 6,572.1 | 1,504.3 | -130.9 | 1,407.9 | 0.68 |
| 8,132.0 | 88.72 | 333.87 | 6,574.2 | 1,589.6 | -172.6 | 1,502.9 | 0.18 |
| 8,227.0 | 89.96 | 334.57 | 6,575.3 | 1,675.1 | -213.9 | 1,597.9 | 1.50 |
| 8,322.0 | 89.60 | 335.10 | 6,575.6 | 1,761.1 | -254.3 | 1,692.8 | 0.67 |
| 8,416.0 | 89.78 | 332.46 | 6,576.2 | 1,845.4 | -295.8 | 1,786.8 | 2.81 |
| 8,511.0 | 90.92 | 333.60 | 6,575.6 | 1,930.1 | -338.9 | 1,881.8 | 1.70 |
| 8,606.0 | 90.75 | 333.34 | 6,574.2 | 2,015.1 | -381.4 | 1,976.8 | 0.33 |
| 8,700.0 | 91.01 | 333.34 | 6,572.7 | 2,099.1 | -423.5 | 2,070.8 | 0.28 |
| 8,794.0 | 90.40 | 333.51 | 6,571.6 | 2,183.1 | -465.6 | 2,164.8 | 0.67 |
| 8,889.0 | 89.78 | 333.87 | 6,571.4 | 2,268.3 | -507.7 | 2,259.8 | 0.75 |
| 8,983.0 | 90.04 | 333.60 | 6,571.6 | 2,352.6 | -549.3 | 2,353.8 | 0.40 |
| 9,078.0 | 90.75 | 333.78 | 6,570.9 | 2,437.8 | -591.4 | 2,448.8 | 0.77 |
| 9,170.0 | 90.66 | 332.99 | 6,569.8 | 2,520.0 | -632.6 | 2,540.8 | 0.86 |
| 9,263.0 | 89.78 | 333.51 | 6,569.4 | 2,603.0 | -674.5 | 2,633.8 | 1.10 |
| 9,356.0 | 88.90 | 333.78 | 6,570.5 | 2,686.4 | -715.7 | 2,726.8 | 0.99 |
| 9,448.0 | 90.92 | 334.48 | 6,570.7 | 2,769.1 | -755.9 | 2,818.7 | 2.32 |
| 9,541.0 | 90.57 | 334.57 | 6,569.5 | 2,853.1 | -795.9 | 2,911.7 | 0.39 |
| 9,634.0 | 90.57 | 332.99 | 6,568.5 | 2,936.5 | -837.0 | 3,004.7 | 1.70 |
| 9,726.0 | 90.66 | 333.60 | 6,567.5 | 3,018.7 | -878.3 | 3,096.7 | 0.67 |
| 9,819.0 | 90.84 | 334.31 | 6,566.3 | 3,102.3 | -919.1 | 3,189.7 | 0.79 |
| 9,911.0 | 89.78 | 333.08 | 6,565.8 | 3,184.7 | -959.9 | 3,281.7 | 1.76 |
| 10,004.0 | 89.08 | 334.83 | 6,566.7 | 3,268.3 | -1,000.7 | 3,374.7 | 2.03 |
| 10,097.0 | 89.43 | 333.87 | 6,568.0 | 3,352.1 | -1,041.0 | 3,467.7 | 1.10 |
| 10,189.0 | 91.19 | 336.68 | 6,567.5 | 3,435.7 | -1,079.5 | 3,559.6 | 3.60 |
| 10,282.0 | 90.57 | 336.77 | 6,566.0 | 3,521.1 | -1,116.2 | 3,652.5 | 0.67 |
| 10,375.0 | 91.19 | 335.45 | 6,564.6 | 3,606.1 | -1,153.9 | 3,745.4 | 1.57 |
| 10,467.0 | 88.90 | 332.99 | 6,564.5 | 3,688.9 | -1,193.9 | 3,837.4 | 3.65 |

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EOW Completion Report



| | | | |
|------------------|---------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ahouse Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Site: | Ahouse / Callie Pad | MD Reference: | Precision 522 GL 1005 + 18' RKB @ 1023.0usft |
| Well: | Ahouse Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 10,560.0 | 88.99 | 333.08 | 6,566.2 | 3,771.8 | -1,236.0 | 3,930.4 | 0.14 |
| 10,653.0 | 89.52 | 332.37 | 6,567.5 | 3,854.5 | -1,278.6 | 4,023.4 | 0.95 |
| 10,745.0 | 90.04 | 332.46 | 6,567.8 | 3,936.0 | -1,321.2 | 4,115.3 | 0.57 |
| 10,838.0 | 89.16 | 330.88 | 6,568.5 | 4,017.8 | -1,365.4 | 4,208.2 | 1.94 |
| 10,930.0 | 89.87 | 332.64 | 6,569.2 | 4,098.9 | -1,408.9 | 4,300.2 | 2.06 |
| 11,023.0 | 90.13 | 332.55 | 6,569.2 | 4,181.5 | -1,451.7 | 4,393.2 | 0.30 |
| 11,116.0 | 91.54 | 333.43 | 6,567.9 | 4,264.3 | -1,493.9 | 4,486.1 | 1.79 |
| 11,208.0 | 91.19 | 334.92 | 6,565.7 | 4,347.1 | -1,534.0 | 4,578.1 | 1.66 |
| 11,301.0 | 91.28 | 335.45 | 6,563.7 | 4,431.5 | -1,573.0 | 4,671.1 | 0.58 |
| 11,393.0 | 90.75 | 336.68 | 6,562.1 | 4,515.6 | -1,610.3 | 4,763.0 | 1.46 |
| 11,486.0 | 90.40 | 334.31 | 6,561.1 | 4,600.2 | -1,648.9 | 4,855.9 | 2.58 |
| 11,579.0 | 90.31 | 333.60 | 6,560.5 | 4,683.7 | -1,689.7 | 4,948.9 | 0.77 |
| 11,671.0 | 91.31 | 333.19 | 6,559.2 | 4,766.0 | -1,730.9 | 5,040.9 | 1.17 |
| 11,764.0 | 89.96 | 333.43 | 6,558.2 | 4,849.0 | -1,772.7 | 5,133.9 | 1.47 |
| 11,856.0 | 89.69 | 332.28 | 6,558.5 | 4,930.9 | -1,814.7 | 5,225.9 | 1.28 |
| 11,949.0 | 88.90 | 333.25 | 6,559.6 | 5,013.6 | -1,857.2 | 5,318.9 | 1.35 |
| 12,041.0 | 90.04 | 334.31 | 6,560.5 | 5,096.1 | -1,897.9 | 5,410.8 | 1.69 |
| 12,134.0 | 90.84 | 334.04 | 6,559.8 | 5,179.8 | -1,938.4 | 5,503.8 | 0.91 |
| 12,226.0 | 91.36 | 333.87 | 6,558.0 | 5,262.5 | -1,978.8 | 5,595.8 | 0.59 |
| 12,319.0 | 89.78 | 334.66 | 6,557.1 | 5,346.2 | -2,019.2 | 5,688.8 | 1.90 |
| 12,411.0 | 90.40 | 333.43 | 6,556.9 | 5,429.0 | -2,059.4 | 5,780.8 | 1.50 |
| 12,504.0 | 90.75 | 333.87 | 6,556.0 | 5,512.3 | -2,100.7 | 5,873.8 | 0.60 |
| 12,597.0 | 88.99 | 334.57 | 6,556.2 | 5,596.0 | -2,141.1 | 5,966.8 | 2.04 |
| 12,689.0 | 89.60 | 334.13 | 6,557.3 | 5,679.0 | -2,181.0 | 6,058.8 | 0.82 |
| 12,782.0 | 89.34 | 334.31 | 6,558.2 | 5,762.7 | -2,221.4 | 6,151.8 | 0.34 |
| 12,874.0 | 89.66 | 333.51 | 6,559.0 | 5,845.3 | -2,261.9 | 6,243.8 | 0.94 |
| 12,967.0 | 90.84 | 333.78 | 6,558.6 | 5,928.7 | -2,303.2 | 6,336.8 | 1.30 |
| 13,011.0 | 90.74 | 333.78 | 6,558.0 | 5,968.1 | -2,322.6 | 6,380.8 | 0.23 |
| 13,071.0 | 90.74 | 333.78 | 6,557.2 | 6,021.9 | -2,349.1 | 6,440.8 | 0.00 |

Design Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|-----------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 6,489.0 | 6,374.9 | 125.6 | 284.0 | Middlesex |
| 6,739.0 | 6,499.1 | 327.7 | 354.4 | Burkett |
| 6,813.0 | 6,525.7 | 396.6 | 357.4 | Tully |
| 6,919.0 | 6,555.5 | 497.7 | 347.6 | Marcellus |

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Checked By: _____ Approved By: _____ Date: AUG 08 2015

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