



# ANTERO RESOURCES CORPORATION

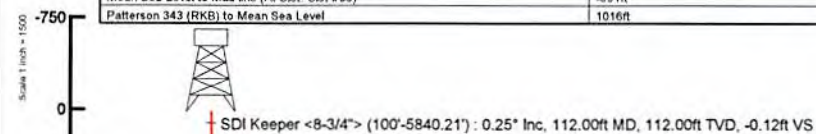
Location: Doddridge Co., WV  
 Field: Doddridge  
 Facility: James Webb Pad

Slot: Slot #06  
 Well: Mary Jane Unit 3H  
 Wellbore: Mary Jane Unit 3H PWB



|  |  |
|--|--|
| Plot reference wellpath is Mary Jane Unit 3H PWB Rev-A.0   | Grid System: NAD27 / UTM Zone 17 North, US feet              |
| True vertical depths are referenced to Patterson 343 (RKB) | * = Wellpath was transformed from a different geodetic datum |
| Measured depths are referenced to Patterson 343 (RKB)      | North Reference: Grid north                                  |
| Patterson 343 (RKB) to Mean Sea Level: 1018 feet           | Scale: True distance   |
| Mean Sea Level to Mud line (At Slot: Slot #06): -991 feet  | Depths are in feet   |
| Coordinates are in feet referenced to Slot                 | Created by edsharper on 2016-09-15                           |
|  | Database: WA_MPL_EASTERNUS_Data                              |

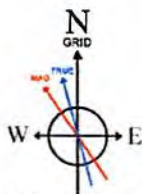
| Location Information                                |                   |                    |                   |                    |
|---|-------------------|--------------------|-------------------|--------------------|
| Facility Name                                       | Grid East (US ft) | Grid North (US ft) | Latitude          | Longitude          |
| James Webb Pad                                      | 1676270.820       | 14248823.840       | 39°14'18.837"N    | 80°52'24.137"W     |
| Slot  | Local N (ft)      | Local E (ft)       | Grid East (US ft) | Grid North (US ft) |
| Slot #06  | 4.14              | 8.93               | 1676279.750       | 14248827.980       |
|   |                   |                    | Latitude          | Longitude          |
|   |                   |                    | 39°14'18.878"N    | 80°52'24.023"W     |
| Comment   | Mary Jane Unit 3H |                    |                   |                    |
| Patterson 343 (RKB) to Mud line (At Slot: Slot #06) | 25ft              |                    |                   |                    |
| Mean Sea Level to Mud line (At Slot: Slot #06)      | -991ft            |                    |                   |                    |
| Patterson 343 (RKB) to Mean Sea Level               | 1016ft            |                    |                   |                    |



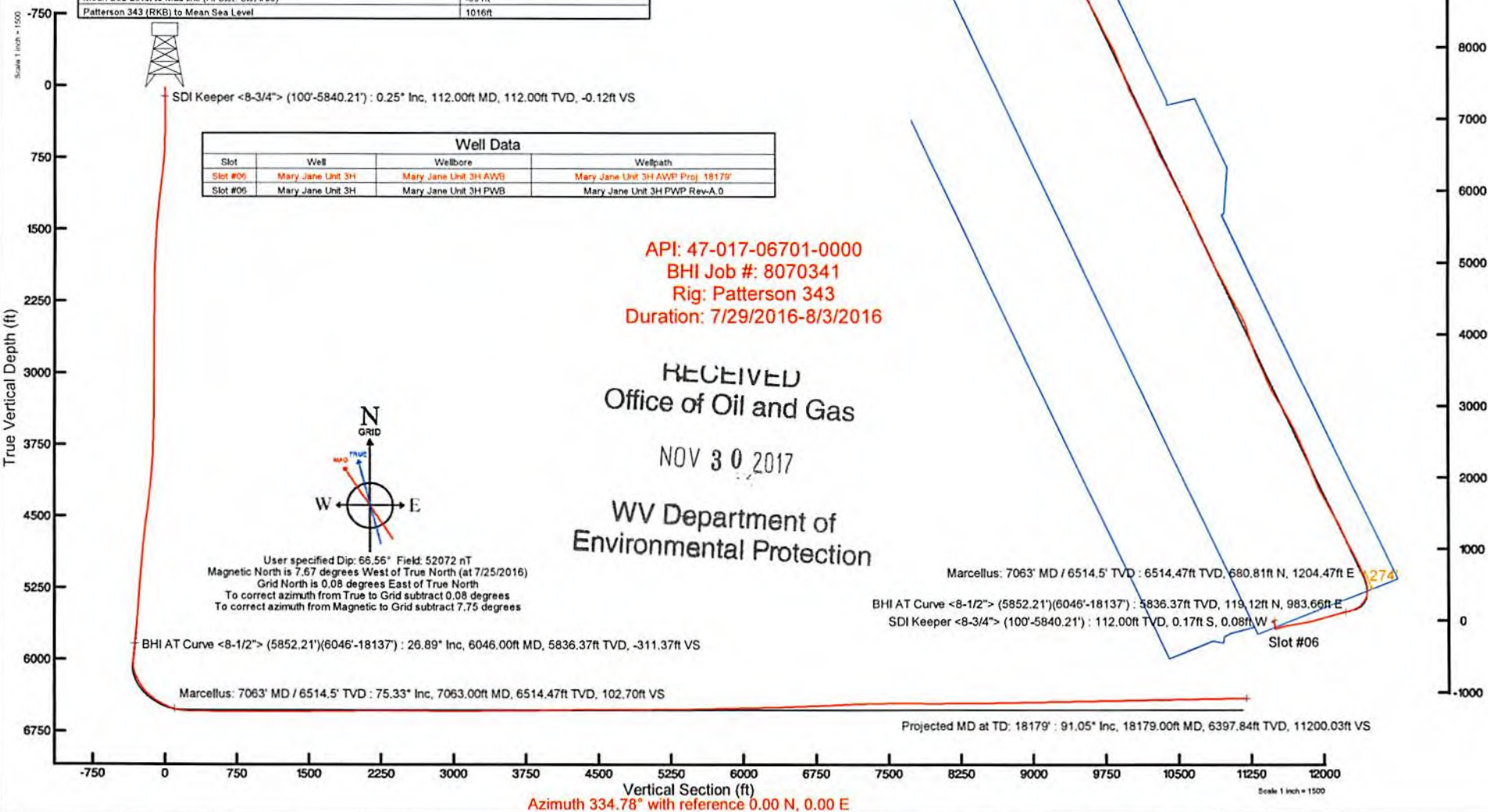
| Well Data |                   |                       |                                    |
|-----------|-------------------|-----------------------|------------------------------------|
| Slot      | Well              | Wellbore              | Wellpath                           |
| Slot #06  | Mary Jane Unit 3H | Mary Jane Unit 3H AWB | Mary Jane Unit 3H AWB Proj. 18179' |
| Slot #06  | Mary Jane Unit 3H | Mary Jane Unit 3H PWB | Mary Jane Unit 3H PWB Rev-A.0      |

API: 47-017-06701-0000  
 BHI Job #: 8070341  
 Rig: Patterson 343  
 Duration: 7/29/2016-8/3/2016

RECEIVED  
 Office of Oil and Gas  
 NOV 30 2017  
 WV Department of  
 Environmental Protection



User specified Dip: 66.56° Field: 52072 nT  
 Magnetic North is 7.67 degrees West of True North (at 7/25/2016)  
 Grid North is 0.08 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.08 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.75 degrees





## Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'

Page 1 of 12



### REFERENCE WELLPATH IDENTIFICATION

|          |                              |          |                       |
|----------|------------------------------|----------|-----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area     | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field    | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility | James Webb Pad               |          |                       |

### REPORT SETUP INFORMATION

|                     |                                    |                      |  |
|---------------------|------------------------------------|----------------------|--|
| Projection System   | NAD27 / UTM Zone 17 North, US feet | Software System      | WellArchitect® 5.0   |
| North Reference     | Grid                               | User                 | Edsaryar   |
| Scale               | 0.999601                           | Report Generated     | 9/15/2016 at 11:32:34 AM                                     |
| Convergence at slot | 0.09° East                         | Database/Source file | WA_MPL_EASTERNUS_Defn/Mary_Jane_Unit_3H_AWP_Proj__18179_.xml |

### WELLPATH LOCATION

|                       | Local coordinates |          | Grid coordinates |                 | Geographic coordinates |                |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|----------------|
|                       | North[ft]         | East[ft] | Easting[US ft]   | Northing[US ft] | Latitude               | Longitude      |
| Slot Location         | 4.14              | 8.93     | 1676279.75       | 14248827.98     | 39°14'18.878"N         | 80°52'24.023"W |
| Facility Reference Pt |                   |          | 1676270.82       | 14248823.84     | 39°14'18.837"N         | 80°52'24.137"W |
| Field Reference Pt    |                   |          | 0.00             | 0.00            | 0°00'00.000"           | 85°29'19.301"W |

### WELLPATH DATUM

|                          |                     |  |                   |
|--------------------------|---------------------|--|-------------------|
| Calculation method       | Minimum curvature   | Patterson 343 (RKB) to Facility Vertical Datum     | 25.00ft           |
| Horizontal Reference Pt  | Slot                | Patterson 343 (RKB) to Mean Sea Level              | 1016.00ft         |
| Vertical Reference Pt    | Patterson 343 (RKB) | Patterson 343 (RKB) to Mud Line at Slot (Slot #06) | 25.00ft           |
| MD Reference Pt          | Patterson 343 (RKB) | Section Origin                                     | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level      | Section Azimuth                                    | 334.78°           |

RECEIVED  
Office of Oil and Gas  
NOV 30 2017  
WV Department of  
Environmental Protection



# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'  
Page 2 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) † = interpolated/extrapolated station |             |         |        |           |        |       |            |             |                |                |              |             |           |            |           |                                     |
|--|-------------|---------|--------|-----------|--------|-------|------------|-------------|----------------|----------------|--------------|-------------|-----------|------------|-----------|-------------------------------------|
| MD   | Inclination | Azimuth | TVD    | Vert Sect | North  | East  | Grid East  | Grid North  | Latitude       | Longitude      | Closure Dist | Closure Dir | DLS       | Build Rate | Turn Rate | Comments                            |
| [ft]   | [°]         | [°]     | [ft]   | [ft]      | [ft]   | [ft]  | [US ft]    | [US ft]     |                |                | [ft]         | [°]         | [°/100ft] | [°/100ft]  | [°/100ft] |                                     |
| 0.00   | 0.000       | 205.320 | 0.00   | 0.00      | 0.00   | 0.00  | 1676279.75 | 14248827.98 | 39°14'18.878"N | 80°52'24.023"W | 0.00         | 0.000       | 0.00      | 0.00       | 0.00      |                                     |
| 25.00  | 0.000       | 205.320 | 25.00  | 0.00      | 0.00   | 0.00  | 1676279.75 | 14248827.98 | 39°14'18.878"N | 80°52'24.023"W | 0.00         | 0.000       | 0.00      | 0.00       | 0.00      |                                     |
| 112.00   | 0.250       | 205.320 | 112.00 | -0.12     | -0.17  | -0.08 | 1676279.67 | 14248827.81 | 39°14'18.876"N | 80°52'24.024"W | 0.19         | 205.320     | 0.29      | 0.29       | -177.79   | SDI Keeper <8-3/4"> (100'-5840.21') |
| 136.00   | 0.290       | 211.670 | 136.00 | -0.19     | -0.27  | -0.14 | 1676279.61 | 14248827.71 | 39°14'18.875"N | 80°52'24.025"W | 0.30         | 206.592     | 0.21      | 0.17       | 26.46     |                                     |
| 161.27   | 0.330       | 227.200 | 161.27 | -0.24     | -0.37  | -0.22 | 1676279.53 | 14248827.61 | 39°14'18.874"N | 80°52'24.026"W | 0.44         | 210.710     | 0.37      | 0.16       | 61.46     |                                     |
| 186.89   | 0.300       | 199.230 | 186.89 | -0.31     | -0.49  | -0.30 | 1676279.45 | 14248827.49 | 39°14'18.873"N | 80°52'24.027"W | 0.57         | 211.470     | 0.61      | -0.12      | -109.17   |                                     |
| 210.02   | 0.330       | 222.990 | 210.02 | -0.38     | -0.59  | -0.36 | 1676279.39 | 14248827.39 | 39°14'18.872"N | 80°52'24.028"W | 0.70         | 211.508     | 0.57      | 0.13       | 102.72    |                                     |
| 235.69   | 0.300       | 233.460 | 235.69 | -0.42     | -0.69  | -0.47 | 1676279.28 | 14248827.29 | 39°14'18.871"N | 80°52'24.029"W | 0.83         | 214.252     | 0.25      | -0.12      | 40.79     |                                     |
| 260.98   | 0.300       | 220.170 | 260.98 | -0.46     | -0.78  | -0.56 | 1676279.19 | 14248827.20 | 39°14'18.870"N | 80°52'24.030"W | 0.96         | 215.958     | 0.27      | 0.00       | -52.55    |                                     |
| 286.69   | 0.120       | 241.740 | 286.69 | -0.49     | -0.84  | -0.63 | 1676279.12 | 14248827.14 | 39°14'18.869"N | 80°52'24.031"W | 1.05         | 216.865     | 0.75      | -0.70      | 83.90     |                                     |
| 311.94   | 0.160       | 242.380 | 311.94 | -0.50     | -0.87  | -0.69 | 1676279.06 | 14248827.11 | 39°14'18.869"N | 80°52'24.032"W | 1.11         | 218.224     | 0.16      | 0.16       | 2.53      |                                     |
| 336.63   | 0.140       | 197.790 | 336.63 | -0.52     | -0.92  | -0.73 | 1676279.02 | 14248827.06 | 39°14'18.869"N | 80°52'24.032"W | 1.17         | 218.400     | 0.47      | -0.08      | -180.60   |                                     |
| 361.28   | 0.130       | 260.590 | 361.28 | -0.53     | -0.95  | -0.76 | 1676278.99 | 14248827.03 | 39°14'18.868"N | 80°52'24.033"W | 1.22         | 218.785     | 0.57      | -0.04      | 254.77    |                                     |
| 385.62   | 0.090       | 266.880 | 385.62 | -0.52     | -0.95  | -0.81 | 1676278.94 | 14248827.03 | 39°14'18.868"N | 80°52'24.033"W | 1.25         | 220.279     | 0.17      | -0.16      | 25.84     |                                     |
| 436.17   | 0.290       | 214.010 | 436.17 | -0.57     | -1.06  | -0.92 | 1676278.83 | 14248826.92 | 39°14'18.867"N | 80°52'24.035"W | 1.41         | 220.886     | 0.49      | 0.40       | -104.59   |                                     |
| 460.61   | 0.220       | 229.950 | 460.61 | -0.61     | -1.14  | -0.99 | 1676278.76 | 14248826.84 | 39°14'18.866"N | 80°52'24.036"W | 1.51         | 220.885     | 0.41      | -0.29      | 65.22     |                                     |
| 485.37   | 0.140       | 218.700 | 485.37 | -0.64     | -1.20  | -1.05 | 1676278.70 | 14248826.78 | 39°14'18.866"N | 80°52'24.036"W | 1.59         | 221.114     | 0.35      | -0.32      | -45.44    |                                     |
| 509.88   | 0.650       | 198.590 | 509.88 | -0.75     | -1.35  | -1.11 | 1676278.64 | 14248826.63 | 39°14'18.864"N | 80°52'24.037"W | 1.75         | 219.328     | 2.12      | 2.08       | -82.05    |                                     |
| 534.55   | 1.340       | 199.210 | 534.54 | -1.06     | -1.76  | -1.25 | 1676278.50 | 14248826.22 | 39°14'18.860"N | 80°52'24.039"W | 2.16         | 215.373     | 2.80      | 2.80       | 2.51      |                                     |
| 561.79   | 1.720       | 196.120 | 561.77 | -1.59     | -2.45  | -1.47 | 1676278.28 | 14248825.53 | 39°14'18.854"N | 80°52'24.042"W | 2.86         | 210.887     | 1.43      | 1.40       | -11.34    |                                     |
| 586.39   | 2.090       | 192.980 | 586.36 | -2.22     | -3.24  | -1.67 | 1676278.08 | 14248824.74 | 39°14'18.846"N | 80°52'24.044"W | 3.65         | 207.241     | 1.56      | 1.50       | -12.76    |                                     |
| 611.06   | 2.450       | 191.680 | 611.01 | -3.00     | -4.20  | -1.88 | 1676277.87 | 14248823.78 | 39°14'18.836"N | 80°52'24.047"W | 4.60         | 204.097     | 1.47      | 1.46       | -5.27     |                                     |
| 635.60   | 2.550       | 192.380 | 635.53 | -3.85     | -5.25  | -2.10 | 1676277.65 | 14248822.74 | 39°14'18.826"N | 80°52'24.050"W | 5.65         | 201.828     | 0.43      | 0.41       | 2.85      |                                     |
| 660.26   | 2.820       | 190.870 | 660.16 | -4.78     | -6.38  | -2.33 | 1676277.42 | 14248821.61 | 39°14'18.815"N | 80°52'24.053"W | 6.79         | 200.095     | 1.13      | 1.09       | -6.12     |                                     |
| 684.99   | 3.720       | 186.150 | 684.85 | -5.95     | -7.77  | -2.53 | 1676277.22 | 14248820.21 | 39°14'18.801"N | 80°52'24.055"W | 8.17         | 198.056     | 3.80      | 3.64       | -19.09    |                                     |
| 709.58   | 3.750       | 184.650 | 709.39 | -7.33     | -9.37  | -2.68 | 1676277.07 | 14248818.62 | 39°14'18.785"N | 80°52'24.057"W | 9.74         | 195.992     | 0.42      | 0.12       | -6.10     |                                     |
| 736.80   | 3.880       | 182.430 | 736.55 | -8.92     | -11.17 | -2.80 | 1676276.96 | 14248816.81 | 39°14'18.767"N | 80°52'24.059"W | 11.52        | 194.046     | 0.72      | 0.48       | -8.16     |                                     |
| 761.54   | 4.580       | 175.920 | 761.22 | -10.58    | -13.00 | -2.76 | 1676276.99 | 14248814.99 | 39°14'18.749"N | 80°52'24.058"W | 13.29        | 191.994     | 3.43      | 2.83       | -26.31    |                                     |
| 785.90   | 5.240       | 171.640 | 785.49 | -12.55    | -15.07 | -2.53 | 1676277.22 | 14248812.92 | 39°14'18.729"N | 80°52'24.055"W | 15.28        | 189.532     | 3.10      | 2.71       | -17.57    |                                     |
| 810.06   | 5.680       | 169.640 | 809.54 | -14.76    | -17.33 | -2.15 | 1676277.60 | 14248810.65 | 39°14'18.706"N | 80°52'24.051"W | 17.47        | 187.085     | 1.98      | 1.82       | -8.28     |                                     |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'

Page 3 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) |                 |             |          |                |            |           |                   |                    |                |                |                   |                 |               |                      |                     |          |
|------------------------------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|----------|
| MD [ft]                      | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS ["/100ft] | Build Rate ["/100ft] | Turn Rate ["/100ft] | Comments |
| 836.82                       | 5.710           | 170.160     | 836.17   | -17.33         | -19.95     | -1.69     | 1676278.06        | 14248808.04        | 39°14'18.681"N | 80°52'24.045"W | 20.02             | 184.839         | 0.22          | 0.11                 | 1.94                |          |
| 860.93                       | 6.430           | 171.380     | 860.14   | -19.78         | -22.46     | -1.28     | 1676278.47        | 14248805.52        | 39°14'18.656"N | 80°52'24.040"W | 22.50             | 183.265         | 3.03          | 2.99                 | 5.06                |          |
| 885.04                       | 6.430           | 172.270     | 884.10   | -22.36         | -25.14     | -0.90     | 1676278.85        | 14248802.85        | 39°14'18.629"N | 80°52'24.035"W | 25.15             | 182.045         | 0.41          | 0.00                 | 3.69                |          |
| 911.64                       | 6.760           | 170.940     | 910.52   | -25.28         | -28.16     | -0.45     | 1676279.30        | 14248799.83        | 39°14'18.599"N | 80°52'24.029"W | 28.16             | 180.917         | 1.37          | 1.24                 | -5.00               |          |
| 935.89                       | 7.030           | 171.240     | 934.60   | -28.08         | -31.04     | 0.00      | 1676279.75        | 14248796.96        | 39°14'18.571"N | 80°52'24.024"W | 31.04             | 180.000         | 1.12          | 1.11                 | 1.24                |          |
| 959.92                       | 7.270           | 171.530     | 958.44   | -30.94         | -33.99     | 0.45      | 1676280.20        | 14248794.00        | 39°14'18.542"N | 80°52'24.018"W | 34.00             | 179.245         | 1.01          | 1.00                 | 1.21                |          |
| 986.66                       | 7.430           | 170.810     | 984.96   | -34.23         | -37.37     | 0.97      | 1676280.72        | 14248790.62        | 39°14'18.508"N | 80°52'24.011"W | 37.39             | 178.508         | 0.69          | 0.60                 | -2.69               |          |
| 1010.74                      | 7.510           | 171.800     | 1008.84  | -37.23         | -40.47     | 1.45      | 1676281.20        | 14248787.53        | 39°14'18.478"N | 80°52'24.005"W | 40.49             | 177.953         | 0.63          | 0.33                 | 4.11                |          |
| 1034.81                      | 7.610           | 171.320     | 1032.70  | -40.26         | -43.60     | 1.91      | 1676281.66        | 14248784.40        | 39°14'18.447"N | 80°52'24.000"W | 43.64             | 177.490         | 0.49          | 0.42                 | -1.99               |          |
| 1061.99                      | 7.700           | 171.140     | 1059.64  | -43.73         | -47.18     | 2.46      | 1676282.21        | 14248780.82        | 39°14'18.411"N | 80°52'23.993"W | 47.24             | 177.011         | 0.34          | 0.33                 | -0.66               |          |
| 1085.50                      | 7.760           | 170.340     | 1082.93  | -46.77         | -50.30     | 2.97      | 1676282.72        | 14248777.70        | 39°14'18.381"N | 80°52'23.986"W | 50.39             | 176.618         | 0.52          | 0.26                 | -3.40               |          |
| 1110.10                      | 7.830           | 170.350     | 1107.31  | -49.98         | -53.59     | 3.53      | 1676283.28        | 14248774.41        | 39°14'18.348"N | 80°52'23.979"W | 53.70             | 176.229         | 0.28          | 0.28                 | 0.04                |          |
| 1136.81                      | 7.710           | 168.760     | 1133.77  | -53.48         | -57.14     | 4.19      | 1676283.93        | 14248770.86        | 39°14'18.313"N | 80°52'23.971"W | 57.29             | 175.810         | 0.92          | -0.45                | -5.95               |          |
| 1160.79                      | 7.630           | 170.390     | 1157.54  | -56.57         | -60.29     | 4.77      | 1676284.51        | 14248767.72        | 39°14'18.282"N | 80°52'23.964"W | 60.47             | 175.480         | 0.97          | -0.33                | 6.80                |          |
| 1184.93                      | 7.330           | 169.400     | 1181.47  | -59.60         | -63.38     | 5.32      | 1676285.06        | 14248764.63        | 39°14'18.251"N | 80°52'23.957"W | 63.60             | 175.205         | 1.35          | -1.24                | -4.10               |          |
| 1211.47                      | 6.900           | 171.060     | 1207.81  | -62.77         | -66.62     | 5.88      | 1676285.62        | 14248761.39        | 39°14'18.219"N | 80°52'23.950"W | 66.88             | 174.960         | 1.80          | -1.62                | 6.25                |          |
| 1235.61                      | 6.560           | 170.410     | 1231.78  | -65.49         | -69.41     | 6.33      | 1676286.08        | 14248758.60        | 39°14'18.192"N | 80°52'23.944"W | 69.70             | 174.789         | 1.44          | -1.41                | -2.69               |          |
| 1259.66                      | 6.280           | 170.920     | 1255.68  | -68.08         | -72.06     | 6.77      | 1676286.51        | 14248755.94        | 39°14'18.165"N | 80°52'23.938"W | 72.38             | 174.636         | 1.19          | -1.16                | 2.12                |          |
| 1286.27                      | 6.000           | 171.560     | 1282.14  | -70.81         | -74.88     | 7.20      | 1676286.95        | 14248753.13        | 39°14'18.138"N | 80°52'23.933"W | 75.22             | 174.507         | 1.08          | -1.05                | 2.41                |          |
| 1310.48                      | 5.770           | 170.210     | 1306.22  | -73.19         | -77.33     | 7.59      | 1676287.34        | 14248750.68        | 39°14'18.113"N | 80°52'23.928"W | 77.70             | 174.392         | 1.11          | -0.95                | -5.58               |          |
| 1334.37                      | 5.580           | 170.110     | 1329.99  | -75.47         | -79.66     | 8.00      | 1676287.74        | 14248748.36        | 39°14'18.090"N | 80°52'23.923"W | 80.06             | 174.267         | 0.80          | -0.80                | -0.42               |          |
| 1361.14                      | 5.510           | 169.470     | 1356.64  | -77.97         | -82.20     | 8.46      | 1676288.20        | 14248745.81        | 39°14'18.065"N | 80°52'23.917"W | 82.64             | 174.127         | 0.35          | -0.26                | -2.39               |          |
| 1385.18                      | 5.180           | 168.480     | 1380.57  | -80.14         | -84.40     | 8.88      | 1676288.63        | 14248743.61        | 39°14'18.043"N | 80°52'23.912"W | 84.87             | 173.992         | 1.43          | -1.37                | -4.12               |          |
| 1411.78                      | 4.920           | 167.990     | 1407.07  | -82.42         | -86.69     | 9.36      | 1676289.11        | 14248741.32        | 39°14'18.021"N | 80°52'23.906"W | 87.20             | 173.838         | 0.99          | -0.98                | -1.84               |          |
| 1435.90                      | 4.580           | 170.710     | 1431.11  | -84.35         | -88.65     | 9.73      | 1676289.48        | 14248739.36        | 39°14'18.001"N | 80°52'23.901"W | 89.19             | 173.736         | 1.69          | -1.41                | 11.28               |          |
| 1459.86                      | 4.490           | 169.530     | 1454.99  | -86.18         | -90.52     | 10.06     | 1676289.80        | 14248737.50        | 39°14'17.983"N | 80°52'23.897"W | 91.08             | 173.661         | 0.54          | -0.38                | -4.92               |          |
| 1486.56                      | 4.450           | 171.140     | 1481.61  | -88.18         | -92.57     | 10.41     | 1676290.15        | 14248735.45        | 39°14'17.963"N | 80°52'23.892"W | 93.15             | 173.587         | 0.49          | -0.15                | 6.03                |          |
| 1510.65                      | 4.150           | 169.800     | 1505.63  | -89.92         | -94.35     | 10.70     | 1676290.45        | 14248733.66        | 39°14'17.945"N | 80°52'23.889"W | 94.96             | 173.528         | 1.31          | -1.25                | -5.56               |          |
| 1536.02                      | 4.050           | 169.950     | 1530.94  | -91.67         | -96.14     | 11.02     | 1676290.77        | 14248731.88        | 39°14'17.927"N | 80°52'23.885"W | 96.77             | 173.459         | 0.40          | -0.39                | 0.59                |          |
| 1561.31                      | 3.700           | 171.370     | 1556.17  | -93.32         | -97.82     | 11.30     | 1676291.05        | 14248730.19        | 39°14'17.911"N | 80°52'23.881"W | 98.48             | 173.410         | 1.43          | -1.38                | 5.61                |          |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'

Page 4 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) |                    |                |             |                   |               |              |                      |                       |                |                |                      |                    |                  |                         |                        |          |
|------------------------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|----------------|----------------------|--------------------|------------------|-------------------------|------------------------|----------|
| MD<br>(ft)                   | Inclination<br>(°) | Azimuth<br>(°) | TVD<br>(ft) | Vert Sect<br>(ft) | North<br>(ft) | East<br>(ft) | Grid East<br>(US ft) | Grid North<br>(US ft) | Latitude       | Longitude      | Closure Dist<br>(ft) | Closure Dir<br>(°) | DLS<br>("/100ft) | Build Rate<br>("/100ft) | Turn Rate<br>("/100ft) | Comments |
| 1586.54                      | 3.490              | 169.610        | 1581.35     | -94.84            | -99.39        | 11.56        | 1676291.31           | 14248728.63           | 39°14'17.895"N | 80°52'23.878"W | 100.06               | 173.365            | 0.94             | -0.83                   | -6.98                  |          |
| 1611.23                      | 3.280              | 172.960        | 1606.00     | -96.24            | -100.83       | 11.78        | 1676291.53           | 14248727.20           | 39°14'17.881"N | 80°52'23.875"W | 101.51               | 173.334            | 1.17             | -0.85                   | 13.57                  |          |
| 1635.93                      | 3.040              | 172.110        | 1630.66     | -97.53            | -102.18       | 11.96        | 1676291.71           | 14248725.85           | 39°14'17.868"N | 80°52'23.873"W | 102.87               | 173.324            | 0.99             | -0.97                   | -3.44                  |          |
| 1660.84                      | 2.860              | 172.290        | 1655.54     | -98.76            | -103.45       | 12.13        | 1676291.88           | 14248724.58           | 39°14'17.855"N | 80°52'23.871"W | 104.15               | 173.310            | 0.72             | -0.72                   | 0.72                   |          |
| 1685.59                      | 2.690              | 172.360        | 1680.26     | -99.90            | -104.63       | 12.29        | 1676292.04           | 14248723.39           | 39°14'17.843"N | 80°52'23.869"W | 105.35               | 173.299            | 0.69             | -0.69                   | 0.28                   |          |
| 1710.33                      | 2.520              | 174.150        | 1704.97     | -100.96           | -105.75       | 12.43        | 1676292.17           | 14248722.27           | 39°14'17.832"N | 80°52'23.867"W | 106.48               | 173.298            | 0.76             | -0.69                   | 7.24                   |          |
| 1735.07                      | 2.360              | 173.960        | 1729.69     | -101.96           | -106.80       | 12.54        | 1676292.28           | 14248721.23           | 39°14'17.822"N | 80°52'23.866"W | 107.53               | 173.305            | 0.65             | -0.65                   | -0.77                  |          |
| 1759.79                      | 2.130              | 171.450        | 1754.39     | -102.88           | -107.76       | 12.66        | 1676292.40           | 14248720.27           | 39°14'17.813"N | 80°52'23.864"W | 108.50               | 173.301            | 1.01             | -0.93                   | -10.15                 |          |
| 1784.53                      | 2.080              | 173.380        | 1779.11     | -103.75           | -108.66       | 12.78        | 1676292.52           | 14248719.37           | 39°14'17.804"N | 80°52'23.863"W | 109.41               | 173.293            | 0.35             | -0.20                   | 7.80                   |          |
| 1811.90                      | 1.880              | 176.080        | 1806.47     | -104.63           | -109.60       | 12.87        | 1676292.61           | 14248718.42           | 39°14'17.794"N | 80°52'23.862"W | 110.35               | 173.305            | 0.81             | -0.73                   | 9.86                   |          |
| 1836.55                      | 1.700              | 170.850        | 1831.10     | -105.36           | -110.36       | 12.95        | 1676292.70           | 14248717.66           | 39°14'17.787"N | 80°52'23.860"W | 111.12               | 173.307            | 0.99             | -0.73                   | -21.22                 |          |
| 1861.44                      | 1.630              | 174.070        | 1855.98     | -106.05           | -111.08       | 13.05        | 1676292.79           | 14248716.94           | 39°14'17.780"N | 80°52'23.859"W | 111.84               | 173.301            | 0.47             | -0.28                   | 12.94                  |          |
| 1886.10                      | 1.560              | 175.020        | 1880.63     | -106.70           | -111.76       | 13.11        | 1676292.86           | 14248716.26           | 39°14'17.773"N | 80°52'23.858"W | 112.53               | 173.309            | 0.30             | -0.28                   | 3.85                   |          |
| 1910.91                      | 1.360              | 178.610        | 1905.44     | -107.28           | -112.39       | 13.15        | 1676292.89           | 14248715.63           | 39°14'17.767"N | 80°52'23.858"W | 113.16               | 173.328            | 0.89             | -0.81                   | 14.47                  |          |
| 1935.56                      | 1.280              | 184.140        | 1930.08     | -107.79           | -112.96       | 13.14        | 1676292.88           | 14248715.06           | 39°14'17.761"N | 80°52'23.858"W | 113.72               | 173.367            | 0.61             | -0.32                   | 22.43                  |          |
| 1960.38                      | 1.180              | 184.960        | 1954.89     | -108.25           | -113.49       | 13.09        | 1676292.84           | 14248714.53           | 39°14'17.756"N | 80°52'23.859"W | 114.25               | 173.419            | 0.41             | -0.40                   | 3.30                   |          |
| 1985.03                      | 0.970              | 187.620        | 1979.54     | -108.65           | -113.95       | 13.04        | 1676292.79           | 14248714.07           | 39°14'17.751"N | 80°52'23.859"W | 114.70               | 173.470            | 0.88             | -0.85                   | 10.79                  |          |
| 2009.84                      | 0.860              | 186.590        | 2004.35     | -108.98           | -114.35       | 12.99        | 1676292.74           | 14248713.68           | 39°14'17.747"N | 80°52'23.860"W | 115.08               | 173.516            | 0.45             | -0.44                   | -4.15                  |          |
| 2034.48                      | 0.660              | 183.800        | 2028.98     | -109.26           | -114.67       | 12.96        | 1676292.71           | 14248713.36           | 39°14'17.744"N | 80°52'23.860"W | 115.40               | 173.550            | 0.83             | -0.81                   | -11.32                 |          |
| 2061.74                      | 0.520              | 187.620        | 2056.24     | -109.51           | -114.95       | 12.94        | 1676292.68           | 14248713.08           | 39°14'17.741"N | 80°52'23.861"W | 115.68               | 173.578            | 0.53             | -0.51                   | 14.01                  |          |
| 2086.62                      | 0.380              | 185.540        | 2081.12     | -109.67           | -115.14       | 12.91        | 1676292.66           | 14248712.88           | 39°14'17.740"N | 80°52'23.861"W | 115.87               | 173.600            | 0.57             | -0.56                   | -8.36                  |          |
| 2111.33                      | 0.540              | 182.380        | 2105.83     | -109.84           | -115.34       | 12.90        | 1676292.65           | 14248712.68           | 39°14'17.738"N | 80°52'23.861"W | 116.06               | 173.618            | 0.66             | 0.65                    | -12.79                 |          |
| 2136.06                      | 0.390              | 167.900        | 2130.56     | -110.03           | -115.54       | 12.91        | 1676292.66           | 14248712.49           | 39°14'17.736"N | 80°52'23.861"W | 116.26               | 173.622            | 0.77             | -0.61                   | -58.55                 |          |
| 2160.78                      | 0.470              | 171.610        | 2155.28     | -110.21           | -115.72       | 12.95        | 1676292.69           | 14248712.30           | 39°14'17.734"N | 80°52'23.861"W | 116.45               | 173.616            | 0.34             | 0.32                    | 15.01                  |          |
| 2185.52                      | 0.330              | 186.210        | 2180.02     | -110.37           | -115.89       | 12.95        | 1676292.70           | 14248712.13           | 39°14'17.732"N | 80°52'23.861"W | 116.62               | 173.622            | 0.70             | -0.57                   | 59.01                  |          |
| 2210.27                      | 0.280              | 190.500        | 2204.77     | -110.48           | -116.02       | 12.94        | 1676292.68           | 14248712.00           | 39°14'17.731"N | 80°52'23.861"W | 116.74               | 173.638            | 0.22             | -0.20                   | 17.33                  |          |
| 2235.01                      | 0.250              | 184.380        | 2229.51     | -110.57           | -116.14       | 12.92        | 1676292.67           | 14248711.89           | 39°14'17.730"N | 80°52'23.861"W | 116.85               | 173.652            | 0.17             | -0.12                   | -24.74                 |          |
| 2259.73                      | 0.190              | 220.150        | 2254.23     | -110.64           | -116.22       | 12.89        | 1676292.63           | 14248711.80           | 39°14'17.729"N | 80°52'23.861"W | 116.94               | 173.671            | 0.59             | -0.24                   | 144.70                 |          |
| 2284.46                      | 0.180              | 213.330        | 2278.96     | -110.67           | -116.29       | 12.84        | 1676292.59           | 14248711.74           | 39°14'17.728"N | 80°52'23.862"W | 116.99               | 173.698            | 0.10             | -0.04                   | -27.58                 |          |
| 2311.85                      | 0.120              | 216.130        | 2306.35     | -110.71           | -116.35       | 12.80        | 1676292.55           | 14248711.68           | 39°14'17.728"N | 80°52'23.862"W | 117.05               | 173.721            | 0.22             | -0.22                   | 10.22                  |          |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'

Page 5 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) |                 |             |          |                |            |           |                   |                    |                |                |                   |                 |               |                      |                     |  |
|------------------------------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|--|
| MD [ft]                      | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS ["/100ft] | Build Rate ["/100ft] | Turn Rate ["/100ft] | Comments                                       |
| 2333.93                      | 0.210           | 207.880     | 2328.43  | -110.75        | -116.40    | 12.77     | 1676292.51        | 14248711.63        | 39°14'17.727"N | 80°52'23.863"W | 117.10            | 173.740         | 0.42          | 0.41                 | -37.36              |  |
| 2361.19                      | 0.190           | 213.890     | 2355.69  | -110.80        | -116.48    | 12.72     | 1676292.47        | 14248711.54        | 39°14'17.726"N | 80°52'23.863"W | 117.17            | 173.768         | 0.11          | -0.07                | 22.05               |  |
| 2385.91                      | 0.240           | 212.190     | 2380.41  | -110.85        | -116.56    | 12.67     | 1676292.41        | 14248711.47        | 39°14'17.726"N | 80°52'23.864"W | 117.25            | 173.796         | 0.20          | 0.20                 | -6.88               |  |
| 2409.56                      | 0.210           | 196.950     | 2404.06  | -110.91        | -116.64    | 12.63     | 1676292.38        | 14248711.38        | 39°14'17.725"N | 80°52'23.865"W | 117.33            | 173.820         | 0.28          | -0.13                | -64.44              |  |
| 2436.85                      | 0.050           | 82.740      | 2431.35  | -110.95        | -116.69    | 12.63     | 1676292.37        | 14248711.34        | 39°14'17.724"N | 80°52'23.865"W | 117.37            | 173.824         | 0.86          | -0.59                | -418.50             |  |
| 2461.20                      | 0.160           | 164.660     | 2455.70  | -110.98        | -116.72    | 12.65     | 1676292.39        | 14248711.31        | 39°14'17.724"N | 80°52'23.864"W | 117.40            | 173.816         | 0.66          | 0.45                 | 336.43              |  |
| 2485.25                      | 0.130           | 191.560     | 2479.75  | -111.04        | -116.78    | 12.65     | 1676292.40        | 14248711.25        | 39°14'17.723"N | 80°52'23.864"W | 117.46            | 173.817         | 0.31          | -0.12                | 111.85              |  |
| 3011.81                      | 0.110           | 290.200     | 3006.31  | -111.16        | -117.19    | 12.06     | 1676291.80        | 14248710.84        | 39°14'17.719"N | 80°52'23.872"W | 117.81            | 174.126         | 0.03          | 0.00                 | 18.73               |  |
| 3511.81                      | 8.560           | 72.910      | 3504.47  | -116.09        | -106.07    | 47.24     | 1676326.97        | 14248721.95        | 39°14'17.829"N | 80°52'23.425"W | 116.11            | 155.992         | 1.73          | 1.69                 | 28.54               |  |
| 3711.81                      | 11.580          | 70.420      | 3701.36  | -120.17        | -94.96     | 80.39     | 1676360.11        | 14248733.05        | 39°14'17.938"N | 80°52'23.003"W | 124.42            | 139.751         | 1.53          | 1.51                 | -1.25               |  |
| 3804.51                      | 13.860          | 71.250      | 3791.78  | -122.33        | -88.28     | 99.67     | 1676379.38        | 14248739.74        | 39°14'18.004"N | 80°52'22.758"W | 133.14            | 131.530         | 2.47          | 2.46                 | 0.90                |  |
| 4011.91                      | 17.170          | 80.000      | 3991.63  | -133.17        | -74.97     | 153.37    | 1676433.05        | 14248753.04        | 39°14'18.135"N | 80°52'22.075"W | 170.71            | 116.051         | 1.95          | 1.60                 | 4.22                |  |
| 4511.71                      | 27.500          | 80.480      | 4453.30  | -183.90        | -42.99     | 340.33    | 1676619.94        | 14248785.01        | 39°14'18.448"N | 80°52'19.699"W | 343.03            | 97.199          | 2.07          | 2.07                 | 0.10                |  |
| 5010.81                      | 25.700          | 75.310      | 4899.62  | -234.87        | 3.52       | 558.70    | 1676838.22        | 14248831.50        | 39°14'18.905"N | 80°52'16.922"W | 558.71            | 89.639          | 0.59          | -0.36                | -1.04               |  |
| 5510.61                      | 25.240          | 73.460      | 5350.85  | -270.76        | 61.34      | 765.68    | 1677045.13        | 14248889.30        | 39°14'19.473"N | 80°52'14.291"W | 768.14            | 85.420          | 0.18          | -0.09                | -0.37               |  |
| 5852.21                      | 24.000          | 75.620      | 5661.39  | -294.82        | 99.33      | 902.80    | 1677182.19        | 14248927.27        | 39°14'19.847"N | 80°52'12.547"W | 908.25            | 83.721          | 0.45          | -0.36                | 0.63                |  |
| 6046.00                      | 26.890          | 76.810      | 5836.37  | -311.37        | 119.12     | 983.66    | 1677263.02        | 14248947.06        | 39°14'20.041"N | 80°52'11.519"W | 990.85            | 83.095          | 1.51          | 1.49                 | 0.61                | BHI AT Curve <8-1/2"> (5852.21')(6046'-18137') |
| 6093.00                      | 29.310          | 75.630      | 5877.83  | -315.75        | 124.40     | 1005.16   | 1677284.51        | 14248952.33        | 39°14'20.093"N | 80°52'11.246"W | 1012.83           | 82.945          | 5.28          | 5.15                 | -2.51               |  |
| 6141.00                      | 32.380          | 72.320      | 5919.04  | -319.65        | 131.23     | 1028.79   | 1677308.13        | 14248959.15        | 39°14'20.160"N | 80°52'10.945"W | 1037.13           | 82.731          | 7.31          | 6.40                 | -6.90               |  |
| 6187.00                      | 35.460          | 70.280      | 5957.20  | -322.54        | 139.47     | 1053.10   | 1677332.42        | 14248967.40        | 39°14'20.241"N | 80°52'10.636"W | 1062.29           | 82.456          | 7.14          | 6.70                 | -4.43               |  |
| 6235.00                      | 37.960          | 69.510      | 5995.68  | -325.09        | 149.34     | 1080.04   | 1677359.35        | 14248977.26        | 39°14'20.339"N | 80°52'10.294"W | 1090.31           | 82.128          | 5.30          | 5.21                 | -1.60               |  |
| 6282.00                      | 40.560          | 68.550      | 6032.07  | -327.29        | 159.99     | 1107.80   | 1677387.11        | 14248987.90        | 39°14'20.443"N | 80°52'09.941"W | 1119.30           | 81.782          | 5.68          | 5.53                 | -2.04               |  |
| 6330.00                      | 41.000          | 60.720      | 6068.44  | -327.20        | 173.40     | 1136.08   | 1677415.38        | 14249001.32        | 39°14'20.576"N | 80°52'09.581"W | 1149.24           | 81.322          | 10.69         | 0.92                 | -16.31              |  |
| 6375.00                      | 41.810          | 51.190      | 6102.23  | -322.63        | 190.04     | 1160.67   | 1677439.95        | 14249017.95        | 39°14'20.740"N | 80°52'09.268"W | 1176.12           | 80.701          | 14.11         | 1.80                 | -21.18              |  |
| 6424.00                      | 42.930          | 44.320      | 6138.45  | -312.95        | 212.23     | 1185.07   | 1677464.34        | 14249040.13        | 39°14'20.959"N | 80°52'08.958"W | 1203.92           | 79.847          | 9.72          | 2.29                 | -14.02              |  |
| 6471.00                      | 43.840          | 39.690      | 6172.61  | -300.45        | 236.21     | 1206.65   | 1677485.92        | 14249064.10        | 39°14'21.195"N | 80°52'08.683"W | 1229.56           | 78.924          | 7.04          | 1.94                 | -9.85               |  |
| 6518.00                      | 43.820          | 34.020      | 6206.53  | -285.22        | 262.24     | 1226.16   | 1677505.42        | 14249090.11        | 39°14'21.452"N | 80°52'08.435"W | 1253.89           | 77.928          | 8.35          | -0.04                | -12.06              |  |
| 6565.00                      | 43.140          | 27.530      | 6240.65  | -267.16        | 289.99     | 1242.70   | 1677521.95        | 14249117.85        | 39°14'21.726"N | 80°52'08.224"W | 1276.09           | 76.865          | 9.61          | -1.45                | -13.81              |  |
| 6613.00                      | 43.950          | 19.700      | 6275.47  | -245.42        | 320.24     | 1255.91   | 1677535.16        | 14249148.10        | 39°14'22.025"N | 80°52'08.056"W | 1296.10           | 75.695          | 11.36         | 1.69                 | -16.31              |  |
| 6660.00                      | 46.040          | 12.880      | 6308.73  | -220.54        | 352.11     | 1265.18   | 1677544.43        | 14249179.95        | 39°14'22.340"N | 80°52'07.937"W | 1313.27           | 74.448          | 11.18         | 4.45                 | -14.51              |  |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'  
Page 6 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) † = interpolated/extrapolated station |             |         |         |           |         |         |            |             |                |                |              |             |           |            |           |                                   |
|--|-------------|---------|---------|-----------|---------|---------|------------|-------------|----------------|----------------|--------------|-------------|-----------|------------|-----------|-----------------------------------|
| MD   | Inclination | Azimuth | TVD     | Vert Sect | North   | East    | Grid East  | Grid North  | Latitude       | Longitude      | Closure Dist | Closure Dir | DLS       | Build Rate | Turn Rate | Comments                          |
| [ft]   | [°]         | [°]     | [ft]    | [ft]      | [ft]    | [ft]    | [US ft]    | [US ft]     |                |                | [ft]         | [°]         | [°/100ft] | [°/100ft]  | [°/100ft] |                                   |
| 6705.00†   | 47.940      | 7.607   | 6339.43 | -193.75   | 384.47  | 1271.01 | 1677550.25 | 14249212.30 | 39°14'22.660"N | 80°52'07.862"W | 1327.89      | 73.170      | 9.55      | 4.22       | -11.72    | Middlesex: 6705' MD / 6339.4' TVD |
| 6707.00  | 48.030      | 7.380   | 6340.77 | -192.50   | 385.95  | 1271.20 | 1677550.44 | 14249213.77 | 39°14'22.674"N | 80°52'07.860"W | 1328.50      | 73.111      | 9.55      | 4.50       | -11.34    |                                   |
| 6754.00  | 51.570      | 2.700   | 6371.11 | -161.49   | 421.69  | 1274.32 | 1677553.56 | 14249249.50 | 39°14'23.028"N | 80°52'07.820"W | 1342.27      | 71.690      | 10.70     | 7.53       | -9.96     |                                   |
| 6802.00  | 55.020      | 356.300 | 6399.82 | -126.55   | 460.13  | 1273.93 | 1677553.17 | 14249287.92 | 39°14'23.408"N | 80°52'07.824"W | 1354.48      | 70.141      | 12.88     | 7.19       | -13.33    |                                   |
| 6849.00  | 57.540      | 350.080 | 6425.92 | -89.48    | 498.91  | 1269.27 | 1677548.51 | 14249326.69 | 39°14'23.791"N | 80°52'07.882"W | 1363.80      | 68.542      | 12.24     | 5.36       | -13.23    |                                   |
| 6896.00  | 59.620      | 344.940 | 6450.43 | -50.38    | 538.04  | 1260.58 | 1677539.83 | 14249365.80 | 39°14'24.178"N | 80°52'07.992"W | 1370.60      | 66.886      | 10.33     | 4.43       | -10.94    |                                   |
| 6912.00†   | 60.768      | 343.096 | 6458.39 | -36.67    | 551.38  | 1256.76 | 1677536.00 | 14249379.14 | 39°14'24.310"N | 80°52'08.040"W | 1372.39      | 66.311      | 12.30     | 7.17       | -11.52    | Burkett: 6912' MD / 6458.4' TVD   |
| 6943.00  | 63.060      | 339.640 | 6472.99 | -9.51     | 577.29  | 1248.01 | 1677527.26 | 14249405.04 | 39°14'24.566"N | 80°52'08.151"W | 1375.06      | 65.176      | 12.30     | 7.39       | -11.15    |                                   |
| 6974.00†   | 66.575      | 337.969 | 6486.17 | 18.47     | 603.44  | 1237.87 | 1677517.12 | 14249431.18 | 39°14'24.825"N | 80°52'08.280"W | 1377.12      | 64.012      | 12.34     | 11.34      | -5.39     | Tully: 6974' MD / 6486.2' TVD     |
| 6991.00  | 68.510      | 337.090 | 6492.67 | 34.16     | 617.95  | 1231.86 | 1677511.12 | 14249445.69 | 39°14'24.968"N | 80°52'08.356"W | 1378.17      | 63.360      | 12.34     | 11.38      | -5.17     |                                   |
| 7032.00†   | 73.159      | 336.249 | 6506.12 | 72.85     | 653.50  | 1216.53 | 1677495.79 | 14249481.22 | 39°14'25.320"N | 80°52'08.550"W | 1380.94      | 61.756      | 11.50     | 11.34      | -2.05     | Hamilton: 7032' MD / 6506.1' TVD  |
| 7038.00  | 73.840      | 336.130 | 6507.83 | 78.61     | 658.77  | 1214.20 | 1677493.47 | 14249486.48 | 39°14'25.372"N | 80°52'08.579"W | 1381.40      | 61.518      | 11.50     | 11.34      | -1.99     |                                   |
| 7063.00†   | 75.329      | 336.221 | 6514.47 | 102.70    | 680.81  | 1204.47 | 1677483.74 | 14249508.52 | 39°14'25.590"N | 80°52'08.703"W | 1383.56      | 60.523      | 5.97      | 5.96       | 0.36      | Marcellus: 7063' MD / 6514.5' TVD |
| 7085.00  | 76.640      | 336.300 | 6519.80 | 124.04    | 700.35  | 1195.88 | 1677475.15 | 14249528.05 | 39°14'25.783"N | 80°52'08.812"W | 1385.86      | 59.645      | 5.97      | 5.96       | 0.36      |                                   |
| 7132.00  | 81.540      | 336.740 | 6528.69 | 170.15    | 742.67  | 1177.50 | 1677456.77 | 14249570.35 | 39°14'26.202"N | 80°52'09.044"W | 1392.14      | 57.760      | 10.47     | 10.43      | 0.94      |                                   |
| 7179.00  | 86.770      | 336.140 | 6533.48 | 216.87    | 785.51  | 1158.81 | 1677438.10 | 14249613.18 | 39°14'26.625"N | 80°52'09.281"W | 1399.95      | 55.868      | 11.20     | 11.13      | -1.28     |                                   |
| 7274.00  | 89.940      | 333.130 | 6536.21 | 311.81    | 871.30  | 1118.14 | 1677397.44 | 14249698.93 | 39°14'27.474"N | 80°52'09.796"W | 1417.53      | 52.073      | 4.60      | 3.34       | -3.17     |                                   |
| 7369.00  | 89.380      | 331.690 | 6536.77 | 406.72    | 955.49  | 1074.14 | 1677353.46 | 14249783.09 | 39°14'28.307"N | 80°52'10.354"W | 1437.62      | 48.346      | 1.63      | -0.59      | -1.52     |                                   |
| 7463.00  | 89.410      | 332.270 | 6537.76 | 500.60    | 1038.47 | 1029.99 | 1677309.32 | 14249866.03 | 39°14'29.127"N | 80°52'10.914"W | 1462.63      | 44.765      | 0.62      | 0.03       | 0.62      |                                   |
| 7558.00  | 88.490      | 334.790 | 6539.50 | 595.56    | 1123.48 | 987.65  | 1677267.01 | 14249951.01 | 39°14'29.968"N | 80°52'11.450"W | 1495.89      | 41.319      | 2.82      | -0.97      | 2.65      |                                   |
| 7652.00  | 89.720      | 336.740 | 6540.97 | 689.53    | 1209.18 | 949.08  | 1677228.45 | 14250036.68 | 39°14'30.816"N | 80°52'11.939"W | 1537.16      | 38.128      | 2.45      | 1.31       | 2.07      |                                   |
| 7747.00  | 90.650      | 335.000 | 6540.67 | 784.50    | 1295.88 | 910.24  | 1677189.63 | 14250123.34 | 39°14'31.673"N | 80°52'12.431"W | 1583.62      | 35.085      | 2.08      | 0.98       | -1.83     |                                   |
| 7842.00  | 90.550      | 332.460 | 6539.67 | 879.47    | 1381.05 | 868.20  | 1677147.60 | 14250208.48 | 39°14'32.516"N | 80°52'12.964"W | 1631.28      | 32.156      | 2.68      | -0.11      | -2.67     |                                   |
| 7936.00  | 90.090      | 328.470 | 6539.15 | 973.19    | 1462.82 | 821.87  | 1677101.29 | 14250290.22 | 39°14'33.324"N | 80°52'13.551"W | 1677.89      | 29.329      | 4.27      | -0.49      | -4.24     |                                   |
| 8031.00  | 89.720      | 331.700 | 6539.30 | 1067.86   | 1545.15 | 774.50  | 1677053.94 | 14250372.51 | 39°14'34.139"N | 80°52'14.152"W | 1728.40      | 26.622      | 3.42      | -0.39      | 3.40      |                                   |
| 8125.00  | 90.220      | 333.550 | 6539.35 | 1161.78   | 1628.62 | 731.28  | 1677010.74 | 14250455.95 | 39°14'34.965"N | 80°52'14.700"W | 1785.27      | 24.181      | 2.04      | 0.53       | 1.97      |                                   |
| 8220.00  | 90.340      | 331.830 | 6538.89 | 1256.72   | 1713.03 | 687.70  | 1676967.17 | 14250540.32 | 39°14'35.799"N | 80°52'15.252"W | 1845.91      | 21.873      | 1.81      | 0.13       | -1.81     |                                   |
| 8314.00  | 90.220      | 331.520 | 6538.43 | 1350.58   | 1795.77 | 643.10  | 1676922.59 | 14250623.03 | 39°14'36.618"N | 80°52'15.817"W | 1907.45      | 19.703      | 0.35      | -0.13      | -0.33     |                                   |
| 8409.00  | 90.250      | 336.980 | 6538.04 | 1445.54   | 1881.31 | 601.84  | 1676881.35 | 14250708.53 | 39°14'37.464"N | 80°52'16.340"W | 1975.23      | 17.740      | 5.75      | 0.03       | 5.75      |                                   |
| 8503.00  | 90.400      | 339.150 | 6537.51 | 1539.37   | 1968.50 | 566.73  | 1676846.25 | 14250795.69 | 39°14'38.326"N | 80°52'16.785"W | 2048.45      | 16.061      | 2.31      | 0.16       | 2.31      |                                   |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'  
Page 7 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) |                    |                |             |                   |               |              |                      |                       |                |                |                      |                    |                   |                          |                         |          |
|------------------------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|----------------|----------------------|--------------------|-------------------|--------------------------|-------------------------|----------|
| MD<br>(ft)                   | Inclination<br>(°) | Azimuth<br>(°) | TVD<br>(ft) | Vert Sect<br>(ft) | North<br>(ft) | East<br>(ft) | Grid East<br>(US ft) | Grid North<br>(US ft) | Latitude       | Longitude      | Closure Dist<br>(ft) | Closure Dir<br>(°) | DLS<br>(ft/100ft) | Build Rate<br>(ft/100ft) | Turn Rate<br>(ft/100ft) | Comments |
| 8597.00                      | 90.550             | 339.650        | 6536.73     | 1633.07           | 2056.48       | 533.66       | 1676813.19           | 14250883.64           | 39°14'39.196"N | 80°52'17.204"W | 2124.60              | 14.547             | 0.56              | 0.16                     | 0.53                    |          |
| 8692.00                      | 90.620             | 340.440        | 6535.76     | 1727.66           | 2145.77       | 501.24       | 1676780.79           | 14250972.89           | 39°14'40.079"N | 80°52'17.614"W | 2203.54              | 13.148             | 0.83              | 0.07                     | 0.83                    |          |
| 8787.00                      | 90.620             | 340.460        | 6534.73     | 1822.19           | 2235.29       | 469.45       | 1676749.01           | 14251062.38           | 39°14'40.964"N | 80°52'18.016"W | 2284.05              | 11.861             | 0.02              | 0.00                     | 0.02                    |          |
| 8881.00                      | 91.200             | 336.020        | 6533.23     | 1915.98           | 2322.56       | 434.62       | 1676714.19           | 14251149.61           | 39°14'41.827"N | 80°52'18.458"W | 2362.87              | 10.599             | 4.76              | 0.62                     | -4.72                   |          |
| 8976.00                      | 89.880             | 335.320        | 6532.34     | 2010.96           | 2409.12       | 395.48       | 1676675.07           | 14251236.13           | 39°14'42.683"N | 80°52'18.954"W | 2441.36              | 9.322              | 1.57              | -1.39                    | -0.74                   |          |
| 9071.00                      | 90.150             | 338.460        | 6532.31     | 2105.89           | 2496.48       | 358.20       | 1676637.80           | 14251323.46           | 39°14'43.547"N | 80°52'19.426"W | 2522.05              | 8.165              | 3.32              | 0.28                     | 3.31                    |          |
| 9165.00                      | 91.080             | 335.940        | 6531.31     | 2199.79           | 2583.12       | 321.78       | 1676601.40           | 14251410.07           | 39°14'44.404"N | 80°52'19.887"W | 2603.09              | 7.101              | 2.86              | 0.99                     | -2.68                   |          |
| 9259.00                      | 91.350             | 332.990        | 6529.31     | 2293.76           | 2667.91       | 281.27       | 1676560.91           | 14251494.83           | 39°14'45.243"N | 80°52'20.401"W | 2682.70              | 6.018              | 3.15              | 0.29                     | -3.14                   |          |
| 9354.00                      | 90.120             | 331.490        | 6528.09     | 2388.65           | 2751.97       | 237.03       | 1676516.68           | 14251578.85           | 39°14'46.074"N | 80°52'20.961"W | 2762.16              | 4.923              | 2.04              | -1.29                    | -1.58                   |          |
| 9448.00                      | 89.450             | 331.590        | 6528.45     | 2482.50           | 2834.61       | 192.23       | 1676471.91           | 14251661.45           | 39°14'46.892"N | 80°52'21.529"W | 2841.12              | 3.880              | 0.72              | -0.71                    | 0.11                    |          |
| 9543.00                      | 89.080             | 330.270        | 6529.66     | 2577.27           | 2917.63       | 146.08       | 1676425.77           | 14251744.44           | 39°14'47.713"N | 80°52'22.114"W | 2921.29              | 2.866              | 1.44              | -0.39                    | -1.39                   |          |
| 9637.00                      | 89.050             | 328.460        | 6531.20     | 2670.84           | 2998.50       | 98.19        | 1676377.90           | 14251825.28           | 39°14'48.513"N | 80°52'22.722"W | 3000.11              | 1.876              | 1.93              | -0.03                    | -1.93                   |          |
| 9731.00                      | 89.170             | 327.740        | 6532.66     | 2764.19           | 3078.29       | 48.52        | 1676328.25           | 14251905.04           | 39°14'49.302"N | 80°52'23.352"W | 3078.67              | 0.903              | 0.78              | 0.13                     | -0.77                   |          |
| 9826.00                      | 89.230             | 330.800        | 6533.99     | 2858.73           | 3159.93       | -0.01        | 1676279.74           | 14251986.65           | 39°14'50.110"N | 80°52'23.967"W | 3159.93              | 360.000            | 3.22              | 0.06                     | 3.22                    |          |
| 9920.00                      | 88.370             | 333.440        | 6535.95     | 2952.60           | 3243.00       | -43.96       | 1676235.81           | 14252069.68           | 39°14'50.931"N | 80°52'24.524"W | 3243.29              | 359.223            | 2.95              | -0.91                    | 2.81                    |          |
| 10014.00                     | 90.310             | 337.550        | 6537.04     | 3046.56           | 3328.50       | -82.93       | 1676196.85           | 14252155.15           | 39°14'51.777"N | 80°52'25.018"W | 3329.53              | 358.573            | 4.83              | 2.06                     | 4.37                    |          |
| 10109.00                     | 91.390             | 337.440        | 6535.63     | 3141.44           | 3416.26       | -119.29      | 1676160.51           | 14252242.87           | 39°14'52.645"N | 80°52'25.479"W | 3418.34              | 358.000            | 1.14              | 1.14                     | -0.12                   |          |
| 10203.00                     | 91.140             | 335.570        | 6533.55     | 3235.37           | 3502.44       | -156.75      | 1676123.06           | 14252329.02           | 39°14'53.497"N | 80°52'25.953"W | 3505.94              | 357.437            | 2.01              | -0.27                    | -1.99                   |          |
| 10297.00                     | 91.080             | 335.580        | 6531.73     | 3329.35           | 3588.01       | -195.62      | 1676084.21           | 14252414.55           | 39°14'54.344"N | 80°52'26.446"W | 3593.34              | 356.879            | 0.06              | -0.06                    | 0.01                    |          |
| 10392.00                     | 90.340             | 336.110        | 6530.55     | 3424.32           | 3674.68       | -234.49      | 1676045.36           | 14252501.19           | 39°14'55.201"N | 80°52'26.938"W | 3682.16              | 356.349            | 0.96              | -0.78                    | 0.56                    |          |
| 10486.00                     | 90.550             | 338.820        | 6529.82     | 3518.21           | 3761.50       | -270.51      | 1676009.35           | 14252587.97           | 39°14'56.059"N | 80°52'27.395"W | 3771.21              | 355.887            | 2.89              | 0.22                     | 2.88                    |          |
| 10581.00                     | 90.990             | 342.270        | 6528.55     | 3612.70           | 3851.05       | -302.14      | 1675977.73           | 14252677.49           | 39°14'56.945"N | 80°52'27.795"W | 3862.88              | 355.514            | 3.66              | 0.46                     | 3.63                    |          |
| 10675.00                     | 89.940             | 341.300        | 6527.78     | 3706.00           | 3940.33       | -331.52      | 1675948.36           | 14252766.74           | 39°14'57.828"N | 80°52'28.167"W | 3954.26              | 355.191            | 1.52              | -1.12                    | -1.03                   |          |
| 10769.00                     | 89.780             | 341.980        | 6528.01     | 3799.32           | 4029.55       | -361.13      | 1675918.76           | 14252855.91           | 39°14'58.710"N | 80°52'28.542"W | 4045.70              | 354.879            | 0.74              | -0.17                    | 0.72                    |          |
| 10864.00                     | 90.920             | 341.120        | 6527.43     | 3893.65           | 4119.66       | -391.19      | 1675888.71           | 14252945.99           | 39°14'59.601"N | 80°52'28.922"W | 4138.19              | 354.576            | 1.50              | 1.20                     | -0.91                   |          |
| 10958.00                     | 90.830             | 335.700        | 6526.00     | 3987.42           | 4207.02       | -425.77      | 1675854.15           | 14253033.32           | 39°15'00.465"N | 80°52'29.360"W | 4228.51              | 354.221            | 5.77              | -0.10                    | -5.77                   |          |
| 11052.00                     | 90.830             | 330.640        | 6524.64     | 4081.34           | 4290.87       | -468.17      | 1675811.76           | 14253117.13           | 39°15'01.294"N | 80°52'29.898"W | 4316.33              | 353.773            | 5.38              | 0.00                     | -5.38                   |          |
| 11147.00                     | 90.740             | 330.430        | 6523.33     | 4176.07           | 4373.57       | -514.90      | 1675765.06           | 14253199.80           | 39°15'02.112"N | 80°52'30.490"W | 4403.78              | 353.285            | 0.24              | -0.09                    | -0.22                   |          |
| 11241.00                     | 90.890             | 331.720        | 6522.00     | 4269.87           | 4455.84       | -560.36      | 1675719.62           | 14253282.03           | 39°15'02.926"N | 80°52'31.067"W | 4490.93              | 352.832            | 1.38              | 0.16                     | 1.37                    |          |
| 11336.00                     | 90.220             | 331.650        | 6521.08     | 4364.72           | 4539.47       | -605.42      | 1675674.58           | 14253365.63           | 39°15'03.753"N | 80°52'31.638"W | 4579.66              | 352.403            | 0.71              | -0.71                    | -0.07                   |          |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection





# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'

Page 8 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) |                    |                |             |                   |               |              |                      |                       |                |                |                      |                    |                  |                         |                        |          |
|------------------------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|----------------|----------------------|--------------------|------------------|-------------------------|------------------------|----------|
| MD<br>[ft]                   | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | Grid East<br>[US ft] | Grid North<br>[US ft] | Latitude       | Longitude      | Closure Dist<br>[ft] | Closure Dir<br>[°] | DLS<br>[°/100ft] | Build Rate<br>[°/100ft] | Turn Rate<br>[°/100ft] | Comments |
| 11430.00                     | 90.090             | 334.070        | 6520.82     | 4458.66           | 4623.11       | -648.29      | 1675631.72           | 14253449.24           | 39°15'04.580"N | 80°52'32.182"W | 4668.34              | 352.018            | 2.58             | -0.14                   | 2.57                   |          |
| 11525.00                     | 89.690             | 333.370        | 6521.00     | 4553.64           | 4708.29       | -690.35      | 1675589.67           | 14253534.38           | 39°15'05.423"N | 80°52'32.715"W | 4758.63              | 351.658            | 0.85             | -0.42                   | -0.74                  |          |
| 11619.00                     | 89.880             | 331.870        | 6521.36     | 4647.57           | 4791.76       | -733.58      | 1675546.46           | 14253617.82           | 39°15'06.248"N | 80°52'33.263"W | 4847.58              | 351.296            | 1.61             | 0.20                    | -1.60                  |          |
| 11714.00                     | 90.650             | 330.670        | 6520.92     | 4742.39           | 4875.06       | -779.25      | 1675500.82           | 14253701.09           | 39°15'07.072"N | 80°52'33.842"W | 4936.94              | 350.918            | 1.50             | 0.81                    | -1.26                  |          |
| 11808.00                     | 90.710             | 332.100        | 6519.80     | 4836.22           | 4957.57       | -824.26      | 1675455.82           | 14253783.56           | 39°15'07.889"N | 80°52'34.413"W | 5025.62              | 350.560            | 1.52             | 0.06                    | 1.52                   |          |
| 11903.00                     | 90.620             | 334.060        | 6518.70     | 4931.17           | 5042.26       | -867.27      | 1675412.83           | 14253868.23           | 39°15'08.726"N | 80°52'34.958"W | 5116.31              | 350.241            | 2.07             | -0.09                   | 2.06                   |          |
| 11997.00                     | 90.650             | 335.240        | 6517.66     | 5025.16           | 5127.21       | -907.51      | 1675372.61           | 14253953.13           | 39°15'09.566"N | 80°52'35.468"W | 5206.90              | 349.963            | 1.26             | 0.03                    | 1.26                   |          |
| 12091.00                     | 90.680             | 334.990        | 6516.57     | 5119.15           | 5212.47       | -947.06      | 1675333.07           | 14254038.37           | 39°15'10.410"N | 80°52'35.969"W | 5297.81              | 349.702            | 0.27             | 0.03                    | -0.27                  |          |
| 12186.00                     | 90.710             | 334.080        | 6515.41     | 5214.14           | 5298.24       | -987.90      | 1675292.24           | 14254124.09           | 39°15'11.258"N | 80°52'36.487"W | 5389.55              | 349.438            | 0.96             | 0.03                    | -0.96                  |          |
| 12280.00                     | 90.650             | 334.590        | 6514.30     | 5308.13           | 5382.96       | -1028.61     | 1675251.55           | 14254208.78           | 39°15'12.096"N | 80°52'37.003"W | 5480.35              | 349.182            | 0.55             | -0.06                   | 0.54                   |          |
| 12374.00                     | 90.550             | 336.730        | 6513.31     | 5402.11           | 5468.59       | -1067.35     | 1675212.83           | 14254294.38           | 39°15'12.943"N | 80°52'37.494"W | 5571.78              | 348.956            | 2.28             | -0.11                   | 2.28                   |          |
| 12469.00                     | 91.200             | 336.990        | 6511.86     | 5497.04           | 5555.94       | -1104.68     | 1675175.51           | 14254381.69           | 39°15'13.807"N | 80°52'37.967"W | 5664.69              | 348.755            | 0.74             | 0.68                    | 0.27                   |          |
| 12563.00                     | 91.110             | 337.980        | 6509.97     | 5590.91           | 5642.75       | -1140.67     | 1675139.54           | 14254468.47           | 39°15'14.665"N | 80°52'38.423"W | 5756.89              | 348.572            | 1.06             | -0.10                   | 1.05                   |          |
| 12657.00                     | 91.170             | 336.200        | 6508.10     | 5684.81           | 5729.32       | -1177.25     | 1675102.97           | 14254555.00           | 39°15'15.521"N | 80°52'38.887"W | 5849.02              | 348.389            | 1.89             | 0.06                    | -1.89                  |          |
| 12752.00                     | 91.140             | 330.660        | 6506.18     | 5779.73           | 5814.24       | -1219.72     | 1675060.52           | 14254639.89           | 39°15'16.361"N | 80°52'39.425"W | 5940.79              | 348.152            | 5.83             | -0.03                   | -5.83                  |          |
| 12846.00                     | 91.170             | 332.590        | 6504.29     | 5873.56           | 5896.92       | -1264.38     | 1675015.88           | 14254722.54           | 39°15'17.179"N | 80°52'39.991"W | 6030.95              | 347.898            | 2.05             | 0.03                    | 2.05                   |          |
| 12941.00                     | 91.230             | 332.390        | 6502.30     | 5968.47           | 5981.16       | -1308.25     | 1674972.02           | 14254806.75           | 39°15'18.012"N | 80°52'40.548"W | 6122.57              | 347.662            | 0.22             | 0.06                    | -0.21                  |          |
| 13035.00                     | 91.480             | 332.060        | 6500.07     | 6062.35           | 6064.31       | -1352.04     | 1674928.25           | 14254889.86           | 39°15'18.834"N | 80°52'41.103"W | 6213.20              | 347.431            | 0.44             | 0.27                    | -0.35                  |          |
| 13130.00                     | 91.050             | 333.970        | 6497.98     | 6157.27           | 6148.94       | -1395.14     | 1674885.17           | 14254974.46           | 39°15'19.671"N | 80°52'41.649"W | 6305.23              | 347.217            | 2.06             | -0.45                   | 2.01                   |          |
| 13224.00                     | 91.110             | 337.010        | 6496.20     | 6251.24           | 6234.44       | -1434.12     | 1674846.20           | 14255059.93           | 39°15'20.517"N | 80°52'42.143"W | 6397.26              | 347.046            | 3.23             | 0.06                    | 3.23                   |          |
| 13319.00                     | 91.480             | 332.960        | 6494.06     | 6346.19           | 6320.49       | -1474.27     | 1674806.07           | 14255145.94           | 39°15'21.368"N | 80°52'42.652"W | 6490.15              | 346.870            | 4.28             | 0.39                    | -4.26                  |          |
| 13413.00                     | 92.220             | 330.860        | 6491.02     | 6440.02           | 6403.37       | -1518.51     | 1674761.85           | 14255228.79           | 39°15'22.188"N | 80°52'43.213"W | 6580.96              | 346.659            | 2.37             | 0.79                    | -2.23                  |          |
| 13507.00                     | 92.370             | 331.520        | 6487.26     | 6533.76           | 6485.67       | -1563.77     | 1674716.61           | 14255311.05           | 39°15'23.002"N | 80°52'43.787"W | 6671.53              | 346.444            | 0.72             | 0.16                    | 0.70                   |          |
| 13602.00                     | 91.970             | 335.770        | 6483.66     | 6628.65           | 6570.72       | -1605.90     | 1674674.49           | 14255396.06           | 39°15'23.843"N | 80°52'44.321"W | 6764.11              | 346.266            | 4.49             | -0.42                   | 4.47                   |          |
| 13696.00                     | 92.460             | 339.150        | 6480.02     | 6722.46           | 6657.46       | -1641.90     | 1674638.50           | 14255482.77           | 39°15'24.701"N | 80°52'44.778"W | 6856.94              | 346.146            | 3.63             | 0.52                    | 3.60                   |          |
| 13791.00                     | 91.320             | 337.280        | 6476.89     | 6817.24           | 6745.62       | -1677.14     | 1674603.28           | 14255570.90           | 39°15'25.573"N | 80°52'45.224"W | 6950.98              | 346.038            | 2.30             | -1.20                   | -1.97                  |          |
| 13885.00                     | 92.800             | 337.000        | 6473.51     | 6911.09           | 6832.18       | -1713.63     | 1674566.80           | 14255657.42           | 39°15'26.429"N | 80°52'45.686"W | 7043.80              | 345.920            | 1.60             | 1.57                    | -0.30                  |          |
| 13980.00                     | 93.600             | 332.610        | 6468.21     | 7005.92           | 6917.98       | -1754.00     | 1674526.45           | 14255743.19           | 39°15'27.277"N | 80°52'46.198"W | 7136.88              | 345.773            | 4.69             | 0.84                    | -4.62                  |          |
| 14074.00                     | 92.220             | 333.070        | 6463.44     | 7099.74           | 7001.51       | -1796.85     | 1674483.62           | 14255826.69           | 39°15'28.103"N | 80°52'46.741"W | 7228.40              | 345.606            | 1.55             | -1.47                   | 0.49                   |          |
| 14169.00                     | 91.690             | 334.820        | 6460.19     | 7194.67           | 7086.80       | -1838.55     | 1674441.93           | 14255911.94           | 39°15'28.947"N | 80°52'47.270"W | 7321.41              | 345.456            | 1.92             | -0.56                   | 1.84                   |          |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



# Actual Wellpath Report

Mary Jane Unit 3H AWP Proj: 18179'

Page 9 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| WELLPATH DATA (253 stations) |             |         |         |           |         |          |            |             |                |                |              |             |           |            |           |          |
|------------------------------|-------------|---------|---------|-----------|---------|----------|------------|-------------|----------------|----------------|--------------|-------------|-----------|------------|-----------|----------|
| MD                           | Inclination | Azimuth | TVD     | Vert Sect | North   | East     | Grid East  | Grid North  | Latitude       | Longitude      | Closure Dist | Closure Dir | DLS       | Build Rate | Turn Rate | Comments |
| [ft]                         | [°]         | [°]     | [ft]    | [ft]      | [ft]    | [ft]     | [US ft]    | [US ft]     |                |                | [ft]         | [°]         | [°/100ft] | [°/100ft]  | [°/100ft] |          |
| 14263.00                     | 92.590      | 333.520 | 6456.68 | 7288.60   | 7171.35 | -1879.48 | 1674401.02 | 14255996.46 | 39°15'29.783"N | 80°52'47.789"W | 7413.55      | 345.314     | 1.68      | 0.96       | -1.38     |          |
| 14358.00                     | 91.110      | 332.270 | 6453.62 | 7383.50   | 7255.87 | -1922.74 | 1674357.78 | 14256080.94 | 39°15'30.619"N | 80°52'48.338"W | 7506.30      | 345.158     | 2.04      | -1.56      | -1.32     |          |
| 14453.00                     | 90.310      | 334.910 | 6452.44 | 7478.46   | 7340.94 | -1964.99 | 1674315.55 | 14256165.98 | 39°15'31.460"N | 80°52'48.873"W | 7599.38      | 345.015     | 2.90      | -0.84      | 2.78      |          |
| 14547.00                     | 90.120      | 338.610 | 6452.09 | 7572.39   | 7427.29 | -2002.07 | 1674278.48 | 14256252.30 | 39°15'32.314"N | 80°52'49.343"W | 7692.40      | 344.914     | 3.94      | -0.20      | 3.94      |          |
| 14642.00                     | 90.030      | 339.460 | 6451.96 | 7667.12   | 7516.00 | -2036.06 | 1674244.51 | 14256340.97 | 39°15'33.192"N | 80°52'49.774"W | 7786.90      | 344.843     | 0.90      | -0.09      | 0.89      |          |
| 14736.00                     | 89.910      | 338.860 | 6452.01 | 7760.85   | 7603.85 | -2069.50 | 1674211.08 | 14256428.79 | 39°15'34.060"N | 80°52'50.198"W | 7880.45      | 344.775     | 0.65      | -0.13      | -0.64     |          |
| 14831.00                     | 89.480      | 338.310 | 6452.52 | 7855.64   | 7692.29 | -2104.19 | 1674176.41 | 14256517.19 | 39°15'34.935"N | 80°52'50.637"W | 7974.90      | 344.701     | 0.73      | -0.45      | -0.58     |          |
| 14925.00                     | 89.420      | 340.910 | 6453.42 | 7949.29   | 7780.39 | -2136.93 | 1674143.67 | 14256605.26 | 39°15'35.806"N | 80°52'51.052"W | 8068.52      | 344.642     | 2.77      | -0.06      | 2.77      |          |
| 15020.00                     | 90.890      | 339.300 | 6453.16 | 8043.87   | 7869.72 | -2169.26 | 1674111.36 | 14256694.55 | 39°15'36.689"N | 80°52'51.461"W | 8163.22      | 344.589     | 2.29      | 1.55       | -1.69     |          |
| 15114.00                     | 92.520      | 335.200 | 6450.36 | 8137.72   | 7956.34 | -2205.58 | 1674075.05 | 14256781.14 | 39°15'37.546"N | 80°52'51.922"W | 8256.39      | 344.506     | 4.69      | 1.73       | -4.36     |          |
| 15208.00                     | 89.570      | 330.140 | 6448.65 | 8231.60   | 8039.80 | -2248.72 | 1674031.93 | 14256864.56 | 39°15'38.372"N | 80°52'52.469"W | 8348.36      | 344.374     | 6.23      | -3.14      | -5.38     |          |
| 15303.00                     | 89.570      | 331.310 | 6449.36 | 8326.36   | 8122.66 | -2295.17 | 1673985.50 | 14256947.39 | 39°15'39.191"N | 80°52'53.058"W | 8440.70      | 344.222     | 1.23      | 0.00       | 1.23      |          |
| 15397.00                     | 89.630      | 332.640 | 6450.02 | 8420.24   | 8205.64 | -2339.33 | 1673941.35 | 14257030.33 | 39°15'40.012"N | 80°52'53.618"W | 8532.58      | 344.088     | 1.42      | 0.06       | 1.41      |          |
| 15491.00                     | 91.200      | 335.880 | 6449.34 | 8514.22   | 8290.29 | -2380.15 | 1673900.55 | 14257114.95 | 39°15'40.849"N | 80°52'54.135"W | 8625.20      | 343.981     | 3.83      | 1.67       | 3.45      |          |
| 15586.00                     | 91.110      | 334.010 | 6447.42 | 8609.20   | 8376.33 | -2420.37 | 1673860.35 | 14257200.96 | 39°15'41.700"N | 80°52'54.645"W | 8719.01      | 343.883     | 1.97      | -0.09      | -1.97     |          |
| 15680.00                     | 91.110      | 331.480 | 6445.60 | 8703.11   | 8459.88 | -2463.41 | 1673817.33 | 14257284.47 | 39°15'42.526"N | 80°52'55.191"W | 8811.23      | 343.765     | 2.69      | 0.00       | -2.69     |          |
| 15774.00                     | 91.140      | 330.820 | 6443.76 | 8796.90   | 8542.19 | -2508.75 | 1673772.00 | 14257366.75 | 39°15'43.340"N | 80°52'55.766"W | 8902.97      | 343.633     | 0.70      | 0.03       | -0.70     |          |
| 15868.00                     | 90.950      | 332.350 | 6442.04 | 8890.74   | 8624.85 | -2553.48 | 1673727.30 | 14257449.38 | 39°15'44.158"N | 80°52'56.333"W | 8994.90      | 343.508     | 1.64      | -0.20      | 1.63      |          |
| 15963.00                     | 90.920      | 334.720 | 6440.49 | 8985.70   | 8709.88 | -2595.80 | 1673684.99 | 14257534.37 | 39°15'44.999"N | 80°52'56.870"W | 9088.46      | 343.404     | 2.49      | -0.03      | 2.49      |          |
| 16057.00                     | 91.350      | 334.290 | 6438.63 | 9079.68   | 8794.71 | -2636.26 | 1673644.55 | 14257619.17 | 39°15'45.838"N | 80°52'57.383"W | 9181.33      | 343.314     | 0.65      | 0.46       | -0.46     |          |
| 16151.00                     | 91.140      | 330.920 | 6436.59 | 9173.57   | 8878.13 | -2679.49 | 1673601.33 | 14257702.56 | 39°15'46.663"N | 80°52'57.931"W | 9273.67      | 343.206     | 3.59      | -0.22      | -3.59     |          |
| 16245.00                     | 90.920      | 333.970 | 6434.90 | 9267.47   | 8961.45 | -2722.96 | 1673557.88 | 14257785.84 | 39°15'47.487"N | 80°52'58.483"W | 9366.01      | 343.098     | 3.25      | -0.23      | 3.24      |          |
| 16339.00                     | 91.050      | 336.080 | 6433.28 | 9361.45   | 9046.64 | -2762.64 | 1673518.21 | 14257871.00 | 39°15'48.330"N | 80°52'58.986"W | 9459.07      | 343.018     | 2.25      | 0.14       | 2.24      |          |
| 16434.00                     | 91.080      | 336.960 | 6431.51 | 9456.39   | 9133.76 | -2800.49 | 1673480.38 | 14257958.08 | 39°15'49.191"N | 80°52'59.465"W | 9553.44      | 342.954     | 0.93      | 0.03       | 0.93      |          |
| 16528.00                     | 91.110      | 337.420 | 6429.72 | 9550.29   | 9220.39 | -2836.92 | 1673443.96 | 14258044.68 | 39°15'50.048"N | 80°52'59.927"W | 9646.96      | 342.898     | 0.49      | 0.03       | 0.49      |          |
| 16623.00                     | 91.110      | 337.550 | 6427.88 | 9645.16   | 9308.13 | -2873.29 | 1673407.61 | 14258132.39 | 39°15'50.915"N | 80°53'00.388"W | 9741.52      | 342.845     | 0.14      | 0.00       | 0.14      |          |
| 16718.00                     | 91.020      | 336.420 | 6426.11 | 9740.08   | 9395.56 | -2910.43 | 1673370.49 | 14258219.77 | 39°15'51.780"N | 80°53'00.859"W | 9836.01      | 342.789     | 1.19      | -0.09      | -1.19     |          |
| 16812.00                     | 91.110      | 336.350 | 6424.36 | 9834.02   | 9481.67 | -2948.08 | 1673332.85 | 14258305.85 | 39°15'52.632"N | 80°53'01.336"W | 9929.41      | 342.728     | 0.12      | 0.10       | -0.07     |          |
| 16907.00                     | 91.110      | 335.850 | 6422.52 | 9928.98   | 9568.51 | -2986.56 | 1673294.39 | 14258392.65 | 39°15'53.490"N | 80°53'01.824"W | 10023.77     | 342.666     | 0.53      | 0.00       | -0.53     |          |
| 17002.00                     | 91.170      | 334.770 | 6420.63 | 10023.96  | 9654.80 | -3026.23 | 1673254.73 | 14258478.92 | 39°15'54.344"N | 80°53'02.327"W | 10117.97     | 342.597     | 1.14      | 0.06       | -1.14     |          |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



**Actual Wellpath Report**  
Mary Jane Unit 3H AWP Proj: 18179  
Page 10 of 12



**REFERENCE WELLPATH IDENTIFICATION**

|          |                              |
|----------|------------------------------|
| Operator | ANTERO RESOURCES CORPORATION |
| Area     | Doddridge Co., WV            |
| Field    | Doddridge                    |
| Facility | James Webb Pad               |
| Slot     | Slot #06                     |
| Well     | Mary Jane Unit 3H            |
| Wellbore | Mary Jane Unit 3H AWP        |

**WELLPATH DATA (253 stations)**

| MD       | Inclination | Azimuth | TVD     | Vert Sect | North    | East     | Grid East  | Grid North  | Latitude       | Longitude      | Closure Dist | Closure Dir | DLS        | Build Rate | Turn Rate | Comments                   |
|----------|-------------|---------|---------|-----------|----------|----------|------------|-------------|----------------|----------------|--------------|-------------|------------|------------|-----------|----------------------------|
| (ft)     | (°)         | (°)     | (ft)    | (ft)      | (ft)     | (ft)     | (US ft)    | (US ft)     | (ft)           | (ft)           | (ft)         | (ft)        | (ft/100ft) | (ft/100ft) | (°/100ft) |                            |
| 17096.00 | 91.110      | 333.600 | 6418.76 | 10117.93  | 9739.41  | -3067.16 | 1673213.82 | 14258563.48 | 39°15'55.180"N | 80°53'02.846"W | 10210.95     | 342.520     | 1.25       | -0.06      | -1.24     |                            |
| 17190.00 | 91.140      | 332.230 | 6416.92 | 10211.86  | 9823.08  | -3109.95 | 1673171.05 | 14258647.12 | 39°15'56.008"N | 80°53'03.389"W | 10303.62     | 342.432     | 1.46       | 0.03       | -1.46     |                            |
| 17285.00 | 91.110      | 331.740 | 6415.05 | 10306.73  | 9906.93  | -3154.56 | 1673126.45 | 14258730.94 | 39°15'56.837"N | 80°53'03.955"W | 10397.04     | 342.337     | 0.52       | -0.03      | -0.52     |                            |
| 17380.00 | 91.200      | 331.570 | 6413.14 | 10401.57  | 9990.52  | -3199.66 | 1673081.37 | 14258814.50 | 39°15'57.664"N | 80°53'04.527"W | 10490.39     | 342.241     | 0.20       | 0.09       | -0.18     |                            |
| 17475.00 | 91.080      | 332.050 | 6411.25 | 10496.42  | 10074.24 | -3244.53 | 1673036.52 | 14258898.18 | 39°15'58.492"N | 80°53'05.096"W | 10583.82     | 342.148     | 0.52       | -0.13      | 0.51      |                            |
| 17569.00 | 90.980      | 333.400 | 6409.56 | 10590.34  | 10157.77 | -3287.59 | 1672993.47 | 14258981.68 | 39°15'59.318"N | 80°53'05.642"W | 10676.54     | 342.066     | 1.44       | -0.11      | 1.44      |                            |
| 17663.00 | 91.020      | 335.810 | 6407.92 | 10684.32  | 10242.67 | -3327.90 | 1672953.19 | 14259066.55 | 39°16'00.158"N | 80°53'06.153"W | 10769.73     | 342.001     | 2.56       | 0.04       | 2.56      |                            |
| 17759.00 | 91.230      | 337.990 | 6406.03 | 10780.23  | 10330.95 | -3365.55 | 1672915.55 | 14259154.79 | 39°16'01.031"N | 80°53'06.630"W | 10865.33     | 341.956     | 2.28       | 0.22       | 2.27      |                            |
| 17854.00 | 91.110      | 336.140 | 6404.09 | 10875.13  | 10418.42 | -3402.56 | 1672878.55 | 14259242.22 | 39°16'01.896"N | 80°53'07.099"W | 10959.97     | 341.913     | 1.95       | -0.13      | -1.95     |                            |
| 17948.00 | 91.140      | 335.040 | 6402.25 | 10969.10  | 10504.00 | -3441.40 | 1672839.73 | 14259327.77 | 39°16'02.742"N | 80°53'07.592"W | 11053.38     | 341.860     | 1.17       | 0.03       | -1.17     |                            |
| 18042.00 | 91.110      | 334.500 | 6400.40 | 11063.09  | 10589.01 | -3481.46 | 1672799.68 | 14259412.75 | 39°16'03.583"N | 80°53'08.100"W | 11146.65     | 341.800     | 0.58       | -0.03      | -0.57     |                            |
| 18137.00 | 91.050      | 333.320 | 6398.61 | 11158.06  | 10674.32 | -3523.23 | 1672757.93 | 14259498.02 | 39°16'04.427"N | 80°53'08.630"W | 11240.74     | 341.734     | 1.24       | -0.06      | -1.24     |                            |
| 18179.00 | 91.050      | 333.320 | 6397.84 | 11200.03  | 10711.84 | -3542.09 | 1672739.08 | 14259535.53 | 39°16'04.798"N | 80°53'08.869"W | 11282.28     | 341.702     | 0.00       | 0.00       | 0.00      | Projected MD at TD: 18179' |

| HOLE & CASING SECTIONS - Ref Wellbore: Mary Jane Unit 3H AWP |          |         |          |           |         |           |           |         |         |            |          |            |          |        |          |
|--|----------|---------|----------|-----------|---------|-----------|-----------|---------|---------|------------|----------|------------|----------|--------|----------|
| Ref Wellpath: Mary Jane Unit 3H AWP Proj: 18179'             |          |         |          |           |         |           |           |         |         |            |          |            |          |        |          |
| String/Diameter  | Start MD | End MD  | Interval | Start TVD | End TVD | Start N/S | Start E/W | End N/S | End E/W | Start (ft) | End (ft) | Start (ft) | End (ft) | End EM | End (ft) |
| 20in Conductor   | 25.00    | 40.00   | 65.00    | 25.00     | 40.00   | 65.00     | 25.00     | 493.00  | 25.00   | 2571.50    | 2577.00  | 25.00      | 493.00   | 65.00  | -0.02    |
| 13.375in Casing Surface                                      | 25.00    | 468.00  | 493.00   | 25.00     | 468.00  | 493.00    | 25.00     | 493.00  | 25.00   | 2571.50    | 2577.00  | 25.00      | 493.00   | 65.00  | -1.06    |
| 9.625in Casing Intermediate                                  | 25.00    | 2552.00 | 2577.00  | 25.00     | 2552.00 | 2577.00   | 25.00     | 2571.50 | 25.00   | 2571.50    | 2577.00  | 25.00      | 2571.50  | 65.00  | 12.60    |

RECEIVED  
Office of Oil and Gas

NOV 30 2017

WV Department of  
Environmental Protection



**Actual Wellpath Report**  
 Mary Jane Unit 3H AWP Proj: 18179'  
 Page 11 of 12



| REFERENCE WELLPATH IDENTIFICATION |                              |          |                       |
|-----------------------------------|------------------------------|----------|-----------------------|
| Operator                          | ANTERO RESOURCES CORPORATION | Slot     | Slot #06              |
| Area                              | Doddridge Co., WV            | Well     | Mary Jane Unit 3H     |
| Field                             | Doddridge                    | Wellbore | Mary Jane Unit 3H AWB |
| Facility                          | James Webb Pad               |          |                       |

| TARGETS                     |          |            |           |                   |                    |                |                |       |  |
|-----------------------------|----------|------------|-----------|-------------------|--------------------|----------------|----------------|-------|--|
| Name                        | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Shape |  |
| Mary Jane Unit 3H POE Rev-2 | 6504.00  | 629.66     | 1217.06   | 1677496.33        | 14249457.39        | 39°14'25.084"N | 80°52'08.544"W | point |  |
| Mary Jane Unit 3H BHL Rev-2 | 6525.00  | 10675.68   | -3515.40  | 1672765.76        | 14259499.38        | 39°16'04.440"N | 80°53'08.530"W | point |  |
| Mary Jane Unit 3H LP Rev-2  | 6525.00  | 756.35     | 1157.38   | 1677436.67        | 14249584.03        | 39°14'26.337"N | 80°52'09.300"W | point |  |

| WELLPATH COMPOSITION - Ref Wellbore: Mary Jane Unit 3H AWB Ref Wellpath: Mary Jane Unit 3H AWP Proj: 18179' |             |                              |  |                       |  |  |
|---|-------------|------------------------------|--|-----------------------|--|--|
| Start MD [ft]   | End MD [ft] | Positional Uncertainty Model | Log Name/Comment                                 | Wellbore              |  |  |
| 25.00   | 5852.21     | SDI Keeper v1.04             | 01 SDI Std. Keeper Gyro (100' - 5840.21')        | Mary Jane Unit 3H AWB |  |  |
| 5852.21   | 18137.00    | BHI AutoTrak Curve (Short)   | 02 BHI AT Curve <8-1/2">(5852.21')(6046'-18137') | Mary Jane Unit 3H AWB |  |  |
| 18137.00  | 18179.00    | Blind Drilling (std)         | Projection to bit                                | Mary Jane Unit 3H AWB |  |  |

RECEIVED  
 Office of Oil and Gas  
 NOV 30 2017  
 WV Department of  
 Environmental Protection