WR-35
Rev. 8/23/13

APPROVED
NAME: [illegible] Page ___ of ___
DATE 1/3/18

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Environmental Protection

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 017 - 06700 County Doddridge District Central
Quad Oxford 7.5' Pad Name James Webb Pad Field/Pool Name -----
Farm name James E. Webb Well Number Mary Jane Unit 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey

| | | |
|---|---|---|
| Top hole | Northing 4343272m | Easting 510951m |
| Landing Point of Curve | Northing 4343901.777m | Easting 510880.976m |
| Bottom Hole | Northing 4346456m | Easting 509683m |

Elevation (ft) 991' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type □ Deviated □ Horizontal ■ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework ■ Stimulate

Well Type □ Brine Disposal □ CBM ■ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other ____

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine ■Gas □ NGL ■ Oil □ Other ____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud □Fresh Water Intermediate hole ■ Air □ Mud □ Fresh Water □ Brine
Production hole □ Air ■ Mud □ Fresh Water □ Brine
Mud Type(s) and Additive(s)
Air - Foam & 4% KCL
Mud - Polymer

Date permit issued 03/25/2015 Date drilling commenced 07/31/2015 Date drilling ceased 07/17/2016
Date completion activities began 04/08/2017 Date completion activities ceased 09/04/2017
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 62', 173' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1145' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 1552', 1632' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:

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API 47- 017 - 06700 Farm name James E. Webb Well number Mary Jane Unit 2H

| CASING STRINGS | Hole Size | Casing Size | Depth | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/ N) * Provide details below* |
|---|---|---|---|---|---|---|---|
| Conductor | 24" | 20" | 53' | New | 106.5#, K-55 | N/A | Y |
| Surface | 17-1/2" | 13-3/8" | 458' | New | 48#, H-40 | N/A | Y |
| Coal | | | | | | | |
| Intermediate 1 | 12-1/4" | 9-5/8" | 2580' | New | 36#, J-55 | N/A | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8-3/4"/8-1/2" | 5-1/2" | 18063' | New | 23#, HCP-110 | N/A | Y |
| Tubing | | 2-3/8" | 6733' | | 4.7#, N-80 | | |
| Packer type and depth set | | N/A | | | | | |

Comment Details

| CEMENT DATA | Class/Type of Cement | Number of Sacks | Slurry wt (ppg) | Yield ( $ft^3$/sks) | Volume ($ft^3$) | Cement Top (MD) | WOC (hrs) |
|---|---|---|---|---|---|---|---|
| Conductor | Class A | 60 sx | 15.6 | 1.18 | 71 | 0' | 8 Hrs. |
| Surface | Class A | 523 sx | 15.6 | 1.18 | 617 | 0' | 8 Hrs. |
| Coal | | | | | | | |
| Intermediate 1 | Class A | 1000 sx | 15.6 | 1.18 | 1180 | 0' | 8 Hrs. |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | Class H | 819 sx (Lead) 1806 sx (Tail) | 13.5 (Lead), 15.2 (Tail) | 1.44 (Lead), 1.84 (Tail) | 4502 | ~500' into Intermediate Casing | 8 Hrs. |
| Tubing | | | | | | | |

Drillers TD (ft) 18063' MD, 6409' TVD (BHL) & 6532' TVD (Deepest Point Drilled) Loggers TD (ft) 18050' MD

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Mahogany Unit 2H API #47-017-06702). Please reference the wireline logs submitted with Form WR-35 for Mahogany Unit 2H. A Cement Bond Log has been included with this submittal.

Kick off depth (ft) 5809'

Check all wireline logs run ☐ caliper ☐ density ☐ deviated/directional ☐ induction ☐ neutron ☐ resistivity ☐ gamma ray ☐ temperature ☐ sonic

Well cored ☐ Yes ■ No Conventional Sidewall Were cuttings collected ☐ Yes ■ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

Conductor - 0

Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface

Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? ☐ Yes ■ No DETAILS

WERE TRACERS USED ☐ Yes ■ No TYPE OF TRACER(S) USED N/A

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API 47- 017 - 06700 Farm name James E. Webb Well number Mary Jane Unit 2H

PERFORATION RECORD

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|---|---|---|---|---|---|
| | | | | | |

***PLEASE SEE ATTACHED EXHIBIT 1**

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

| Stage No. | Stimulations Date | Ave Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen/other (units) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

***PLEASE SEE ATTACHED EXHIBIT 2**

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API 47- 017 - 06700 Farm name James E. Webb Well number Mary Jane Unit 2H

| PRODUCING FORMATION(S) | DEPTHS | | | |
|---|---|---|---|---|
| Marcellus | 6467' (TOP) | TVD | 6934' (TOP) | MD |
| | | | | |
| | | | | |
| | | | | |

Please insert additional pages as applicable.

GAS TEST □ Build up □ Drawdown ■ Open Flow OIL TEST ■ Flow □ Pump

SHUT-IN PRESSURE Surface 3000 psi Bottom Hole --- psi DURATION OF TEST --- hrs

| OPEN FLOW | Gas | Oil | NGL | Water | GAS MEASURED BY |
|---|---|---|---|---|---|
| | 11740 mcfpd | 76 bpd | --- bpd | 21 bpd | □ Estimated ■ Orifice □ Pilot |

| LITHOLOGY/ FORMATION NAME | TOP DEPTH IN FT TVD | BOTTOM DEPTH IN FT TVD | TOP DEPTH IN FT MD | BOTTOM DEPTH IN FT MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, $H_2S$, ETC) |
|---|---|---|---|---|---|

# *PLEASE SEE ATTACHED EXHIBIT 3

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Please insert additional pages as applicable.

Drilling Contractor Patterson – UTI Drilling Company LLC
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Allied Horizontal Wireline Services
Address 381 Colonial Manor Rd. City North Huntingdon State PA Zip 15642

Cementing Company C&J Energy Services
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company US Well Services
Address 533 Industrial Park Drive City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Samantha Klaas Telephone 303-357-6759
Signature Title Permitting Agent Date 11/29/2017

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

API 47-017-06700 Farm Name James E. Webb Well Number Mary Jane Unit 2H

## EXHIBIT 1

| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formations |
|---|---|---|---|---|---|
| 1 | 4/8/2017 | 17792 | 17961 | 60 | Marcellus |
| 2 | 4/8/2017 | 17592 | 17761 | 60 | Marcellus |
| 3 | 4/9/2017 | 17392 | 17561 | 60 | Marcellus |
| 4 | 5/31/2017 | 17191 | 17360 | 60 | Marcellus |
| 5 | 5/31/2017 | 16991 | 17160 | 60 | Marcellus |
| 6 | 6/1/2017 | 16791 | 16960 | 60 | Marcellus |
| 7 | 6/1/2017 | 16591 | 16760 | 60 | Marcellus |
| 8 | 6/2/2017 | 16390 | 16559 | 60 | Marcellus |
| 9 | 6/2/2017 | 16190 | 16359 | 60 | Marcellus |
| 10 | 6/2/2017 | 15990 | 16159 | 60 | Marcellus |
| 11 | 6/2/2017 | 15790 | 15959 | 60 | Marcellus |
| 12 | 6/3/2017 | 15589 | 15758 | 60 | Marcellus |
| 13 | 6/3/2017 | 15389 | 15558 | 60 | Marcellus |
| 14 | 6/3/2017 | 15189 | 15358 | 60 | Marcellus |
| 15 | 6/3/2017 | 14989 | 15158 | 60 | Marcellus |
| 16 | 6/4/2017 | 14788 | 14957 | 60 | Marcellus |
| 17 | 6/4/2017 | 14588 | 14757 | 60 | Marcellus |
| 18 | 6/4/2017 | 14388 | 14557 | 60 | Marcellus |
| 19 | 6/4/2017 | 14188 | 14357 | 60 | Marcellus |
| 20 | 6/5/2017 | 13987 | 14156 | 60 | Marcellus |
| 21 | 6/5/2017 | 13787 | 13956 | 60 | Marcellus |
| 22 | 6/5/2017 | 13587 | 13756 | 60 | Marcellus |
| 23 | 6/5/2017 | 13387 | 13556 | 60 | Marcellus |
| 24 | 6/6/2017 | 13187 | 13355 | 60 | Marcellus |
| 25 | 6/6/2017 | 12986 | 13155 | 60 | Marcellus |
| 26 | 6/6/2017 | 12786 | 12955 | 60 | Marcellus |
| 27 | 6/7/2017 | 12586 | 12755 | 60 | Marcellus |
| 28 | 6/7/2017 | 12386 | 12554 | 60 | Marcellus |
| 29 | 6/7/2017 | 12185 | 12354 | 60 | Marcellus |
| 30 | 6/7/2017 | 11985 | 12154 | 60 | Marcellus |
| 31 | 6/7/2017 | 11785 | 11954 | 60 | Marcellus |
| 32 | 6/8/2017 | 11585 | 11753 | 60 | Marcellus |
| 33 | 6/8/2017 | 11384 | 11553 | 60 | Marcellus |
| 34 | 6/8/2017 | 11184 | 11353 | 60 | Marcellus |
| 35 | 6/8/2017 | 10984 | 11153 | 60 | Marcellus |
| 36 | 6/9/2017 | 10784 | 10952 | 60 | Marcellus |
| 37 | 6/9/2017 | 10583 | 10752 | 60 | Marcellus |
| 38 | 6/9/2017 | 10383 | 10552 | 60 | Marcellus |
| 39 | 6/9/2017 | 10183 | 10352 | 60 | Marcellus |
| 40 | 6/9/2017 | 9983 | 10151 | 60 | Marcellus |
| 41 | 6/10/2017 | 9782 | 9951 | 60 | Marcellus |
| 42 | 6/10/2017 | 9582 | 9751 | 60 | Marcellus |
| 43 | 6/10/2017 | 9382 | 9551 | 60 | Marcellus |
| 44 | 6/11/2017 | 9182 | 9351 | 60 | Marcellus |
| 45 | 6/11/2017 | 8981 | 9150 | 60 | Marcellus |
| 46 | 6/11/2017 | 8781 | 8950 | 60 | Marcellus |
| 47 | 6/11/2017 | 8581 | 8750 | 60 | Marcellus |
| 48 | 6/12/2017 | 8381 | 8550 | 60 | Marcellus |
| 49 | 6/12/2017 | 8180 | 8349 | 60 | Marcellus |
| 50 | 6/12/2017 | 7980 | 8149 | 60 | Marcellus |
| 51 | 6/12/2017 | 7780 | 7949 | 60 | Marcellus |
| 52 | 6/12/2017 | 7580 | 7749 | 60 | Marcellus |
| 53 | 6/13/2017 | 7379 | 7548 | 60 | Marcellus |
| 54 | 6/13/2017 | 7179 | 7348 | 60 | Marcellus |
| 55 | 6/13/2017 | 6979 | 7148 | 60 | Marcellus |

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API 47-017-06700 Farm Name James E. Webb Well Number Mary Jane Unit 2H

## EXHIBIT 2

| Stage No. | Stimulations Date | Avg Pump Rate | Avg Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen/ other (units) |
|---|---|---|---|---|---|---|---|---|
| 1 | 4/8/2017 | 70.3 | 7900 | 6018 | 5480 | 409600 | 9238 | N/A |
| 2 | 4/8/2017 | 73.5 | 7814 | 6175 | 4817 | 409800 | 9218 | N/A |
| 3 | 4/9/2017 | 68.9 | 7897 | 6535 | 5517 | 408650 | 10895 | N/A |
| 4 | 5/31/2017 | 74.1 | 7950 | 6151 | 4013 | 408500 | 9150 | N/A |
| 5 | 5/31/2017 | 73.5 | 7627 | 6144 | 3830 | 407700 | 9194 | N/A |
| 6 | 6/1/2017 | 75.4 | 7571 | 5345 | 4066 | 408100 | 9094 | N/A |
| 7 | 6/1/2017 | 78.0 | 7766 | 6044 | 4470 | 406200 | 9366 | N/A |
| 8 | 6/2/2017 | 75.5 | 7998 | 5919 | 4320 | 408000 | 9154 | N/A |
| 9 | 6/2/2017 | 77.1 | 7917 | 5640 | 4410 | 408300 | 9168 | N/A |
| 10 | 6/2/2017 | 73.5 | 7915 | 5568 | 4270 | 407500 | 9228 | N/A |
| 11 | 6/2/2017 | 71.1 | 8118 | 5769 | 4553 | 391200 | 12216 | N/A |
| 12 | 6/3/2017 | 74.7 | 7916 | 5525 | 4317 | 410300 | 9110 | N/A |
| 13 | 6/3/2017 | 74.5 | 8061 | 5819 | 4538 | 410200 | 9100 | N/A |
| 14 | 6/3/2017 | 72.5 | 8001 | 5972 | 4113 | 410200 | 9220 | N/A |
| 15 | 6/3/2017 | 73.4 | 7967 | 6140 | 4170 | 408600 | 9200 | N/A |
| 16 | 6/4/2017 | 75.6 | 7848 | 6126 | 4410 | 409400 | 9085 | N/A |
| 17 | 6/4/2017 | 77.2 | 7984 | 6080 | 4621 | 408600 | 9145 | N/A |
| 18 | 6/4/2017 | 77.1 | 8180 | 5880 | 4460 | 408500 | 10865 | N/A |
| 19 | 6/4/2017 | 75.4 | 8030 | 5479 | 4349 | 408700 | 9152 | N/A |
| 20 | 6/5/2017 | 75.6 | 7945 | 5525 | 4663 | 409300 | 9144 | N/A |
| 21 | 6/5/2017 | 75.4 | 7996 | 5758 | 4642 | 411900 | 9034 | N/A |
| 22 | 6/5/2017 | 73.3 | 8086 | 6945 | 4374 | 410600 | 9124 | N/A |
| 23 | 6/5/2017 | 67.7 | 7773 | 6384 | 4402 | 410900 | 9700 | N/A |
| 24 | 6/6/2017 | 73.7 | 8022 | 6351 | 4545 | 411300 | 9010 | N/A |
| 25 | 6/6/2017 | 76.9 | 7941 | 6220 | 5082 | 411900 | 10299 | N/A |
| 26 | 6/6/2017 | 74.5 | 7812 | 6094 | 5400 | 411100 | 9099 | N/A |
| 27 | 6/7/2017 | 75.7 | 7816 | 5815 | 4699 | 409700 | 9082 | N/A |
| 28 | 6/7/2017 | 74.1 | 8110 | 5926 | 5318 | 412000 | 8976 | N/A |
| 29 | 6/7/2017 | 75.6 | 8269 | 5729 | 5397 | 409900 | 11265 | N/A |
| 30 | 6/7/2017 | 74.2 | 7852 | 5805 | 3988 | 409000 | 9130 | N/A |
| 31 | 6/7/2017 | 75.3 | 7931 | 5801 | 4174 | 409300 | 9181 | N/A |
| 32 | 6/8/2017 | 77.0 | 7856 | 5239 | 5797 | 409000 | 9187 | N/A |
| 33 | 6/8/2017 | 73.5 | 7782 | 5315 | 5111 | 410000 | 9052 | N/A |
| 34 | 6/8/2017 | 73.6 | 7496 | 5579 | 4134 | 407200 | 8924 | N/A |
| 35 | 6/8/2017 | 75.7 | 7671 | 5797 | 5203 | 408700 | 10090 | N/A |
| 36 | 6/9/2017 | 76.6 | 7616 | 5196 | 5243 | 408300 | 12127 | N/A |
| 37 | 6/9/2017 | 75.0 | 7539 | 5270 | 4177 | 407400 | 8900 | N/A |
| 38 | 6/9/2017 | 74.4 | 7593 | 5865 | 4746 | 406700 | 9751 | N/A |
| 39 | 6/9/2017 | 72.9 | 7474 | 5585 | 5057 | 408200 | 10557 | N/A |
| 40 | 6/9/2017 | 75.1 | 7439 | 5811 | 4174 | 408300 | 12452 | N/A |
| 41 | 6/10/2017 | 72.7 | 7289 | 6144 | 4227 | 408200 | 8904 | N/A |
| 42 | 6/10/2017 | 73.2 | 7521 | 6480 | 4131 | 407900 | 8858 | N/A |
| 43 | 6/10/2017 | 72.3 | 7640 | 5622 | 3898 | 386200 | 8348 | N/A |
| 44 | 6/11/2017 | 46.3 | 8379 | 5690 | 5368 | 213800 | 13616 | N/A |
| 45 | 6/11/2017 | 74.3 | 7749 | 5883 | 5375 | 410700 | 8987 | N/A |
| 46 | 6/11/2017 | 68.8 | 7620 | 5860 | 4009 | 411100 | 8846 | N/A |
| 47 | 6/11/2017 | 77.2 | 7769 | 5515 | 4424 | 410800 | 11660 | N/A |
| 48 | 6/12/2017 | 74.9 | 7744 | 6309 | 4810 | 411300 | 13540 | N/A |
| 49 | 6/12/2017 | 68.9 | 7655 | 5533 | 5057 | 409600 | 8830 | N/A |
| 50 | 6/12/2017 | 72.6 | 7336 | 5575 | 5229 | 409400 | 9050 | N/A |
| 51 | 6/12/2017 | 76.2 | 7224 | 5475 | 4764 | 409200 | 8955 | N/A |
| 52 | 6/12/2017 | 74.6 | 7024 | 6094 | 5414 | 409200 | 8899 | N/A |
| 53 | 6/13/2017 | 74.2 | 7054 | 5708 | 5372 | 409300 | 8900 | N/A |
| 54 | 6/13/2017 | 71.4 | 7021 | 6505 | 4939 | 409000 | 8852 | N/A |
| 55 | 6/13/2017 | 73.4 | 6712 | 5718 | 3691 | 409600 | 8855 | N/A |
| AVG= | | 73.6 | 7,749 | 5,863 | 4,650 | 22,274,050 | 529,982 | TOTAL |

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API 47-017-06700 Farm Name James E. Webb Well Number Mary Jane Unit 2H

## EXHIBIT 3

| LITHOLOGY/ FORMATION | TOP DEPTH (TVD) From Surface | BOTTOM DEPTH (TVD) From Surface | TOP DEPTH (MD) From Surface | BOTTOM DEPTH (MD) From Surface |
|---|---|---|---|---|
| Fresh Water | 62' | N/A | 62' | N/A |
| Fresh Water | 173' | N/A | 173' | N/A |
| Siltstone | est. 0 | 177 | est. 0 | 177 |
| Sandstone | est. 177 | 237 | est. 177 | 237 |
| Siltstone | est. 237 | 567 | est. 237 | 567 |
| Sandstone | est. 567 | 1552 | est. 567 | 1552 |
| Coal | est. 1552 | 1557 | est. 1552 | 1557 |
| Shale | est. 1557 | 1587 | est. 1557 | 1587 |
| Sandstone | est. 1587 | 1632 | est. 1587 | 1632 |
| Coal | est. 1632 | 1634 | est. 1632 | 1634 |
| Sandstone | est. 1634 | 2045 | est. 1634 | 2046 |
| Big Lime | 2045 | 2131 | 2046 | 2132 |
| Big Injun | 2131 | 2440 | 2132 | 2441 |
| Gantz Sand | 2440 | 2686 | 2441 | 2687 |
| Fifty Foot Sandstone | 2686 | 2763 | 2687 | 2764 |
| Gordon | 2763 | 3080 | 2764 | 3081 |
| Fifth Sandstone | 3080 | 3105 | 3081 | 3107 |
| Bayard | 3105 | 3433 | 3107 | 3434 |
| Warren | 3433 | 3797 | 3434 | 3798 |
| Speechley | 3797 | 4541 | 3798 | 4542 |
| Bradford | 4541 | 4933 | 4542 | 4935 |
| Benson | 4933 | 5199 | 4935 | 5200 |
| Alexander | 5199 | 5354 | 5200 | 5356 |
| Elk | 5354 | 5804 | 5356 | 5806 |
| Rhinestreet | 5804 | 6133 | 5806 | 6182 |
| Sycamore | 6127 | 6293 | 6182 | 6482 |
| Middlesex | 6293 | 6411 | 6482 | 6746 |
| Burkett | 6411 | 6440 | 6746 | 6830 |
| Tully | 6440 | 6467 | 6830 | 6934 |
| Marcellus | 6467 | NA | 6934 | NA |

*Please note Antero determines formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

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# ANTERO RESOURCES CORPORATION

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

Slot: Slot #08
Well: Mary Jane Unit 2H
Wellbore: Mary Jane Unit 2H PWB

| | |
|---|---|
| Plot reference wellpath is Mary Jane Unit 2H PWP 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: 1016 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot: Slot #08): -991 feet | Depths are in feet |
| Coordinates are in feet referenced to Slot | Created by: edsaryar on 2016-09-15 |
| | Database: WA_MPL_EASTERNUS_Defn |

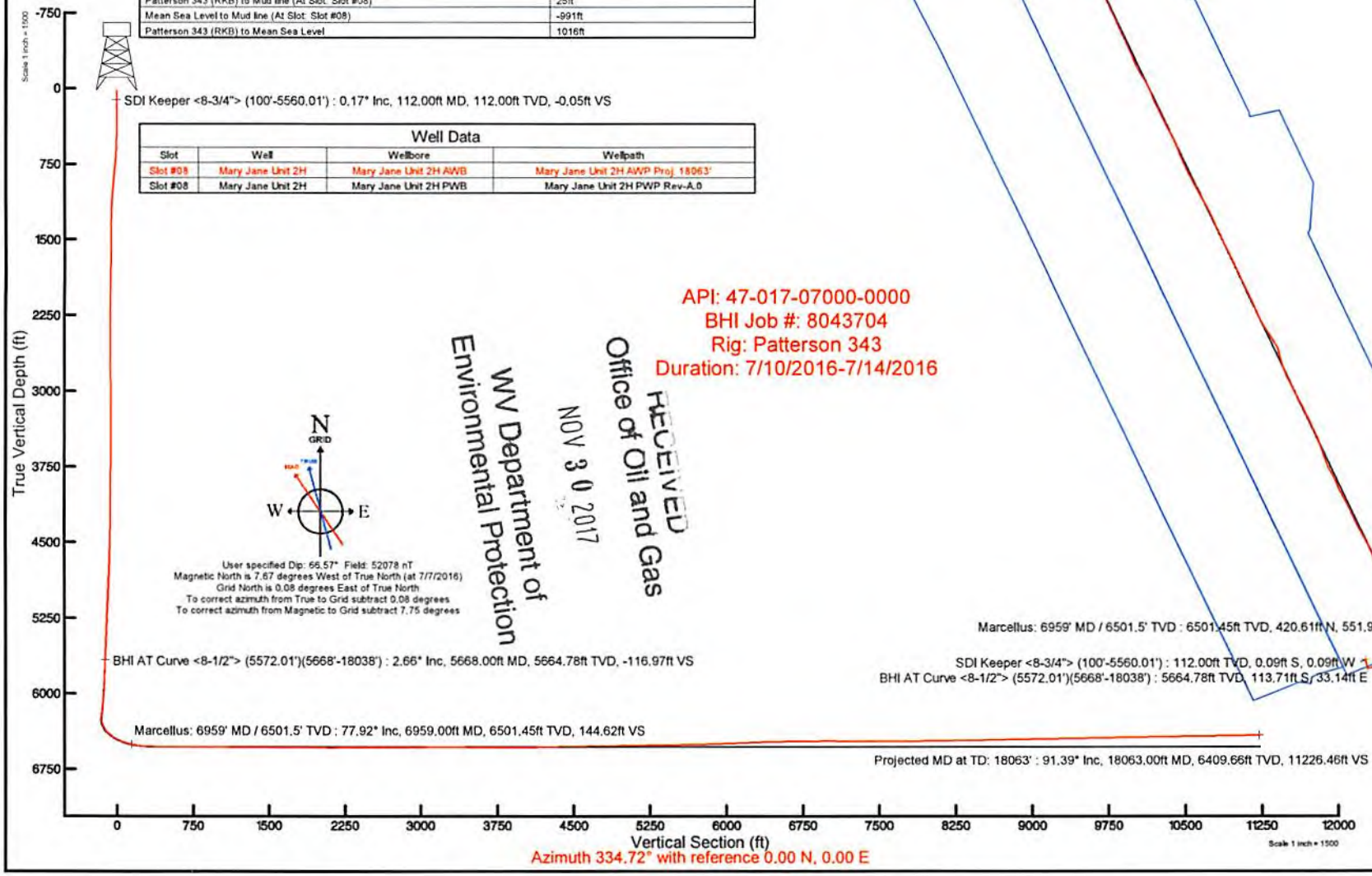
## Location Information

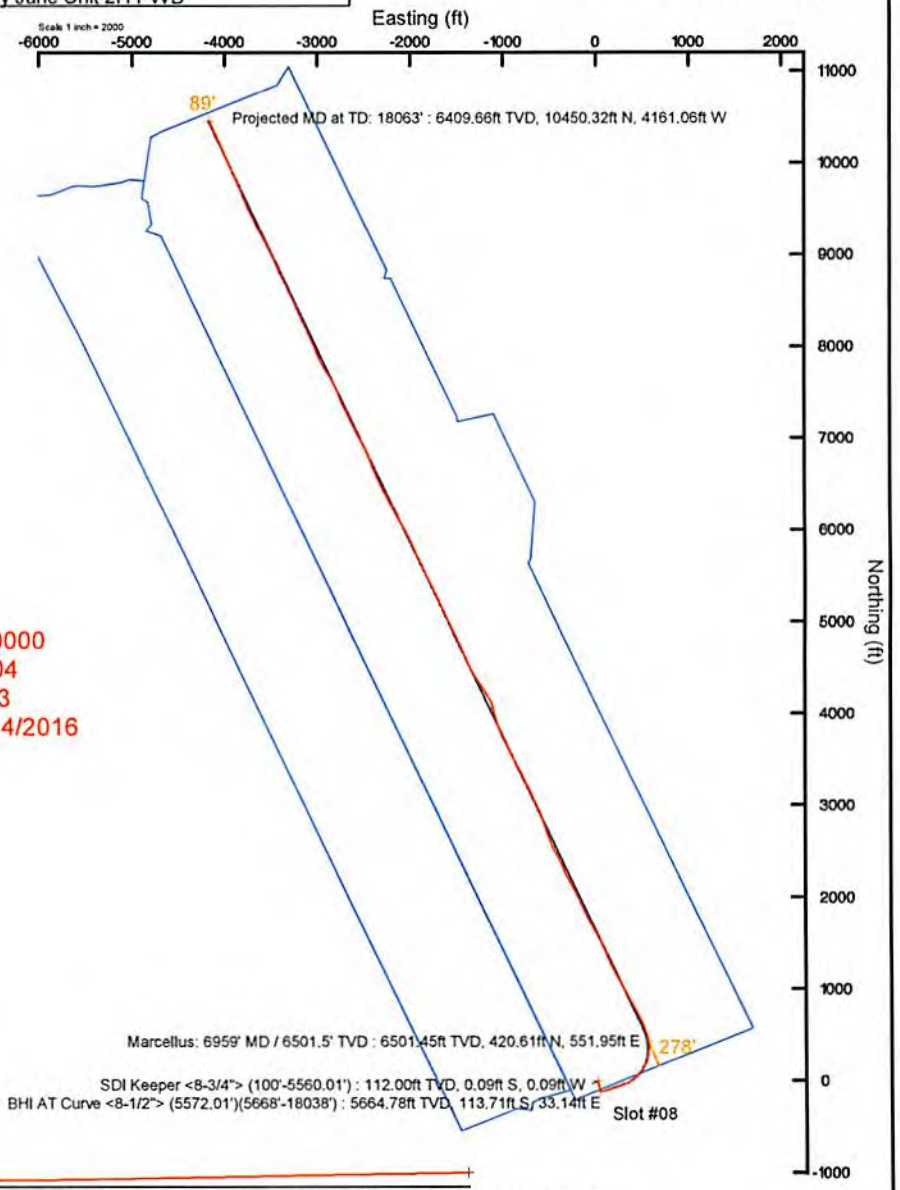
| Facility Name | | | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude |
|---|---|---|---|---|---|---|
| James Webb Pad | | | 1676270.820 | 14248823.840 | 39°14'18.837"N | 80°52'24.137"W |
| Slot | Local N (ft) | Local E (ft) | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude |
| Slot #08 | 14.43 | 25.76 | 1676296.570 | 14248838.260 | 39°14'18.979"N | 80°52'23.809"W |
| Comment | Mary Jane Unit 2H | | | | | |

| | |
|---|---|
| Patterson 343 (RKB) to Mud line (At Slot: Slot #08) | 25ft |
| Mean Sea Level to Mud line (At Slot: Slot #08) | -991ft |
| Patterson 343 (RKB) to Mean Sea Level | 1016ft |

## Well Data

| Slot | Well | Wellbore | Wellpath |
|---|---|---|---|
| Slot #08 | Mary Jane Unit 2H | Mary Jane Unit 2H AWB | Mary Jane Unit 2H AWP Proj. 18063' |
| Slot #08 | Mary Jane Unit 2H | Mary Jane Unit 2H PWB | Mary Jane Unit 2H PWP Rev-A.0 |




API: 47-017-07000-0000
BHI Job #: 8043704
Rig: Patterson 343
Duration: 7/10/2016-7/14/2016

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H 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 10:48:36 AM |
| Convergence at slot | 0.09° East | Database/Source file | WA_MPL_EASTERNUS_Defn/Mary_Jane_Unit_2H_AWP_Proj__18063_.xml |

| WELLPATH LOCATION | Local coordinates | | Grid coordinates | | Geographic coordinates | |
|---|---|---|---|---|---|---|
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | 14.43 | 25.76 | 1676296.57 | 14248838.26 | 39°14'18.979"N | 80°52'23.809"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 #08) | 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 | 334.72° |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 stations)** † = interpolated/extrapolated station

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00† | 0.000 | 224.150 | 0.00 | 0.00 | 0.00 | 0.00 | 1676296.57 | 14248838.26 | 39°14'18.979"N | 80°52'23.809"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 25.00 | 0.000 | 224.150 | 25.00 | 0.00 | 0.00 | 0.00 | 1676296.57 | 14248838.26 | 39°14'18.979"N | 80°52'23.809"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 112.00 | 0.170 | 224.150 | 112.00 | -0.05 | -0.09 | -0.09 | 1676296.48 | 14248838.17 | 39°14'18.978"N | 80°52'23.810"W | 0.13 | 224.150 | 0.20 | 0.20 | -156.15 | SDI Keeper <8-3/4"> (100'-5560.01') |
| 137.00 | 0.240 | 194.140 | 137.00 | -0.10 | -0.17 | -0.13 | 1676296.44 | 14248838.09 | 39°14'18.977"N | 80°52'23.811"W | 0.21 | 217.091 | 0.50 | 0.28 | -120.04 | |
| 162.00 | 0.300 | 189.220 | 162.00 | -0.19 | -0.29 | -0.15 | 1676296.42 | 14248837.97 | 39°14'18.976"N | 80°52'23.811"W | 0.32 | 208.011 | 0.26 | 0.24 | -19.68 | |
| 187.00 | 0.280 | 189.320 | 187.00 | -0.30 | -0.41 | -0.17 | 1676296.40 | 14248837.85 | 39°14'18.975"N | 80°52'23.811"W | 0.44 | 202.768 | 0.08 | -0.08 | 0.40 | |
| 212.00 | 0.270 | 193.810 | 212.00 | -0.39 | -0.53 | -0.20 | 1676296.37 | 14248837.73 | 39°14'18.974"N | 80°52'23.812"W | 0.56 | 200.388 | 0.09 | -0.04 | 17.96 | |
| 237.00 | 0.290 | 187.320 | 237.00 | -0.49 | -0.65 | -0.22 | 1676296.35 | 14248837.61 | 39°14'18.973"N | 80°52'23.812"W | 0.68 | 198.623 | 0.15 | 0.08 | -25.96 | |
| 262.00 | 0.310 | 188.600 | 262.00 | -0.60 | -0.78 | -0.24 | 1676296.33 | 14248837.48 | 39°14'18.971"N | 80°52'23.812"W | 0.81 | 196.918 | 0.08 | 0.08 | 5.12 | |
| 287.00 | 0.320 | 190.470 | 287.00 | -0.71 | -0.91 | -0.26 | 1676296.31 | 14248837.35 | 39°14'18.970"N | 80°52'23.812"W | 0.95 | 195.854 | 0.06 | 0.04 | 7.48 | |
| 312.00 | 0.310 | 189.070 | 312.00 | -0.83 | -1.05 | -0.28 | 1676296.29 | 14248837.21 | 39°14'18.969"N | 80°52'23.813"W | 1.09 | 195.086 | 0.05 | -0.04 | -5.60 | |
| 337.00 | 0.370 | 181.020 | 337.00 | -0.96 | -1.20 | -0.29 | 1676296.28 | 14248837.06 | 39°14'18.967"N | 80°52'23.813"W | 1.23 | 193.844 | 0.31 | 0.24 | -32.20 | |
| 362.00 | 0.330 | 184.810 | 362.00 | -1.09 | -1.35 | -0.30 | 1676296.27 | 14248836.91 | 39°14'18.966"N | 80°52'23.813"W | 1.38 | 192.632 | 0.18 | -0.16 | 15.16 | |
| 387.00 | 0.330 | 188.870 | 387.00 | -1.21 | -1.49 | -0.32 | 1676296.25 | 14248836.77 | 39°14'18.964"N | 80°52'23.813"W | 1.52 | 192.086 | 0.09 | 0.00 | 16.24 | |
| 412.00 | 0.400 | 189.050 | 412.00 | -1.34 | -1.65 | -0.34 | 1676296.23 | 14248836.61 | 39°14'18.963"N | 80°52'23.813"W | 1.68 | 191.792 | 0.28 | 0.28 | 0.72 | |
| 437.00 | 0.430 | 188.430 | 436.99 | -1.49 | -1.83 | -0.37 | 1676296.20 | 14248836.43 | 39°14'18.961"N | 80°52'23.814"W | 1.86 | 191.494 | 0.12 | 0.12 | -2.48 | |
| 462.00 | 0.820 | 184.890 | 461.99 | -1.73 | -2.10 | -0.40 | 1676296.17 | 14248836.16 | 39°14'18.958"N | 80°52'23.814"W | 2.14 | 190.808 | 1.57 | 1.56 | -14.16 | |
| 487.00 | 1.570 | 190.480 | 486.99 | -2.16 | -2.61 | -0.48 | 1676296.09 | 14248835.65 | 39°14'18.953"N | 80°52'23.815"W | 2.66 | 190.368 | 3.03 | 3.00 | 22.36 | |
| 512.00 | 2.130 | 189.270 | 511.97 | -2.82 | -3.41 | -0.62 | 1676295.95 | 14248834.85 | 39°14'18.945"N | 80°52'23.817"W | 3.46 | 190.232 | 2.25 | 2.24 | -4.84 | |
| 537.00 | 2.440 | 184.740 | 536.95 | -3.66 | -4.40 | -0.73 | 1676295.84 | 14248833.86 | 39°14'18.936"N | 80°52'23.818"W | 4.46 | 189.477 | 1.43 | 1.24 | -18.12 | |
| 562.00 | 2.860 | 180.130 | 561.93 | -4.69 | -5.55 | -0.78 | 1676295.79 | 14248832.71 | 39°14'18.924"N | 80°52'23.819"W | 5.61 | 187.992 | 1.88 | 1.68 | -18.44 | |
| 587.00 | 2.970 | 179.540 | 586.90 | -5.84 | -6.82 | -0.78 | 1676295.79 | 14248831.44 | 39°14'18.912"N | 80°52'23.819"W | 6.87 | 186.486 | 0.46 | 0.44 | -2.36 | |
| 612.00 | 3.070 | 177.650 | 611.86 | -7.04 | -8.14 | -0.74 | 1676295.83 | 14248830.12 | 39°14'18.899"N | 80°52'23.819"W | 8.17 | 185.216 | 0.56 | 0.40 | -7.56 | |
| 637.00 | 3.600 | 174.360 | 636.82 | -8.40 | -9.59 | -0.64 | 1676295.93 | 14248828.67 | 39°14'18.884"N | 80°52'23.817"W | 9.61 | 183.809 | 2.25 | 2.12 | -13.16 | |
| 662.00 | 4.220 | 171.100 | 661.76 | -10.02 | -11.28 | -0.42 | 1676296.15 | 14248826.99 | 39°14'18.868"N | 80°52'23.815"W | 11.29 | 182.127 | 2.63 | 2.48 | -13.04 | |
| 687.00 | 4.370 | 170.630 | 686.69 | -11.82 | -13.13 | -0.12 | 1676296.45 | 14248825.14 | 39°14'18.849"N | 80°52'23.811"W | 13.13 | 180.531 | 0.62 | 0.60 | -1.88 | |
| 712.00 | 4.580 | 167.940 | 711.61 | -13.71 | -15.04 | 0.24 | 1676296.81 | 14248823.22 | 39°14'18.830"N | 80°52'23.806"W | 15.05 | 179.078 | 1.19 | 0.84 | -10.76 | |
| 737.00 | 4.740 | 166.450 | 736.53 | -15.69 | -17.02 | 0.69 | 1676297.26 | 14248821.24 | 39°14'18.811"N | 80°52'23.801"W | 17.04 | 177.670 | 0.80 | 0.64 | -5.96 | |
| 762.00 | 5.030 | 164.220 | 761.44 | -17.78 | -19.08 | 1.23 | 1676297.80 | 14248819.18 | 39°14'18.791"N | 80°52'23.794"W | 19.12 | 176.304 | 1.39 | 1.16 | -8.92 | |
| 787.00 | 5.240 | 163.370 | 786.34 | -19.99 | -21.23 | 1.86 | 1676298.43 | 14248817.04 | 39°14'18.769"N | 80°52'23.786"W | 21.31 | 175.000 | 0.89 | 0.84 | -3.40 | |

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# Actual Wellpath Report

Mary Jane Unit 2H AWP Proj: 18063'



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 812.00 | 5.280 | 162.430 | 811.23 | -22.26 | -23.42 | 2.53 | 1676299.10 | 14248814.85 | 39°14'18.748"N | 80°52'23.777"W | 23.56 | 173.832 | 0.38 | 0.16 | -3.76 | |
| 837.00 | 5.400 | 162.210 | 836.13 | -24.57 | -25.64 | 3.24 | 1676299.81 | 14248812.63 | 39°14'18.726"N | 80°52'23.768"W | 25.84 | 172.802 | 0.49 | 0.48 | -0.88 | |
| 862.00 | 5.420 | 161.580 | 861.01 | -26.90 | -27.88 | 3.97 | 1676300.54 | 14248810.39 | 39°14'18.704"N | 80°52'23.759"W | 28.16 | 171.895 | 0.25 | 0.08 | -2.52 | |
| 887.00 | 5.540 | 161.170 | 885.90 | -29.28 | -30.14 | 4.73 | 1676301.30 | 14248808.13 | 39°14'18.681"N | 80°52'23.749"W | 30.51 | 171.076 | 0.50 | 0.48 | -1.64 | |
| 912.00 | 5.470 | 160.770 | 910.79 | -31.66 | -32.41 | 5.51 | 1676302.08 | 14248805.86 | 39°14'18.659"N | 80°52'23.740"W | 32.87 | 170.342 | 0.32 | -0.28 | -1.60 | |
| 937.00 | 5.610 | 161.110 | 935.67 | -34.06 | -34.69 | 6.30 | 1676302.87 | 14248803.58 | 39°14'18.636"N | 80°52'23.730"W | 35.26 | 169.702 | 0.58 | 0.56 | 1.36 | |
| 962.00 | 5.470 | 159.770 | 960.55 | -36.46 | -36.96 | 7.11 | 1676303.68 | 14248801.31 | 39°14'18.614"N | 80°52'23.719"W | 37.64 | 169.111 | 0.76 | -0.56 | -5.36 | |
| 987.00 | 5.260 | 159.430 | 985.44 | -38.79 | -39.15 | 7.93 | 1676304.49 | 14248799.12 | 39°14'18.592"N | 80°52'23.709"W | 39.95 | 168.557 | 0.85 | -0.84 | -1.36 | |
| 1012.00 | 4.840 | 159.300 | 1010.35 | -40.98 | -41.21 | 8.70 | 1676305.27 | 14248797.06 | 39°14'18.572"N | 80°52'23.699"W | 42.12 | 168.079 | 1.68 | -1.68 | -0.52 | |
| 1037.00 | 4.510 | 159.100 | 1035.26 | -43.01 | -43.12 | 9.42 | 1676305.99 | 14248795.16 | 39°14'18.553"N | 80°52'23.690"W | 44.14 | 167.671 | 1.32 | -1.32 | -0.80 | |
| 1062.00 | 4.250 | 160.110 | 1060.19 | -44.92 | -44.91 | 10.09 | 1676306.66 | 14248793.37 | 39°14'18.535"N | 80°52'23.682"W | 46.03 | 167.337 | 1.08 | -1.04 | 4.04 | |
| 1087.00 | 3.930 | 160.960 | 1085.13 | -46.69 | -46.59 | 10.68 | 1676307.25 | 14248791.69 | 39°14'18.519"N | 80°52'23.674"W | 47.80 | 167.083 | 1.30 | -1.28 | 3.40 | |
| 1112.00 | 3.590 | 160.300 | 1110.07 | -48.32 | -48.14 | 11.23 | 1676307.79 | 14248790.14 | 39°14'18.503"N | 80°52'23.667"W | 49.43 | 166.870 | 1.37 | -1.36 | -2.64 | |
| 1137.00 | 3.400 | 160.930 | 1135.02 | -49.84 | -49.57 | 11.73 | 1676308.30 | 14248788.71 | 39°14'18.489"N | 80°52'23.661"W | 50.94 | 166.683 | 0.78 | -0.76 | 2.52 | |
| 1162.00 | 2.950 | 160.720 | 1159.99 | -51.21 | -50.88 | 12.19 | 1676308.75 | 14248787.40 | 39°14'18.476"N | 80°52'23.655"W | 52.32 | 166.529 | 1.80 | -1.80 | -0.84 | |
| 1187.00 | 2.820 | 162.100 | 1184.95 | -52.46 | -52.07 | 12.59 | 1676309.16 | 14248786.21 | 39°14'18.464"N | 80°52'23.650"W | 53.57 | 166.408 | 0.59 | -0.52 | 5.52 | |
| 1212.00 | 2.550 | 163.300 | 1209.93 | -53.62 | -53.19 | 12.94 | 1676309.50 | 14248785.09 | 39°14'18.453"N | 80°52'23.646"W | 54.74 | 166.328 | 1.10 | -1.08 | 4.80 | |
| 1237.00 | 2.220 | 164.000 | 1234.91 | -54.65 | -54.19 | 13.23 | 1676309.80 | 14248784.09 | 39°14'18.443"N | 80°52'23.642"W | 55.78 | 166.278 | 1.33 | -1.32 | 2.80 | |
| 1262.00 | 1.950 | 161.820 | 1259.89 | -55.55 | -55.06 | 13.50 | 1676310.06 | 14248783.22 | 39°14'18.435"N | 80°52'23.638"W | 56.69 | 166.225 | 1.13 | -1.08 | -8.72 | |
| 1287.00 | 1.780 | 162.070 | 1284.88 | -56.36 | -55.83 | 13.75 | 1676310.32 | 14248782.45 | 39°14'18.427"N | 80°52'23.635"W | 57.50 | 166.165 | 0.68 | -0.68 | 1.00 | |
| 1312.00 | 1.680 | 165.900 | 1309.86 | -57.10 | -56.56 | 13.96 | 1676310.52 | 14248781.72 | 39°14'18.420"N | 80°52'23.633"W | 58.26 | 166.136 | 0.61 | -0.40 | 15.32 | |
| 1337.00 | 1.440 | 165.730 | 1334.86 | -57.77 | -57.22 | 14.13 | 1676310.69 | 14248781.07 | 39°14'18.413"N | 80°52'23.631"W | 58.94 | 166.132 | 0.96 | -0.96 | -0.68 | |
| 1362.00 | 1.220 | 170.740 | 1359.85 | -58.33 | -57.78 | 14.25 | 1676310.81 | 14248780.50 | 39°14'18.408"N | 80°52'23.629"W | 59.52 | 166.150 | 0.99 | -0.88 | 20.04 | |
| 1387.00 | 1.120 | 170.260 | 1384.84 | -58.83 | -58.29 | 14.33 | 1676310.89 | 14248779.99 | 39°14'18.403"N | 80°52'23.628"W | 60.02 | 166.187 | 0.40 | -0.40 | -1.92 | |
| 1412.00 | 0.950 | 167.820 | 1409.84 | -59.26 | -58.73 | 14.42 | 1676310.98 | 14248779.55 | 39°14'18.398"N | 80°52'23.627"W | 60.48 | 166.210 | 0.70 | -0.68 | -9.76 | |
| 1437.00 | 0.880 | 171.550 | 1434.84 | -59.65 | -59.12 | 14.49 | 1676311.05 | 14248779.16 | 39°14'18.395"N | 80°52'23.626"W | 60.87 | 166.232 | 0.37 | -0.28 | 14.92 | |
| 1462.00 | 0.770 | 171.210 | 1459.83 | -59.99 | -59.48 | 14.54 | 1676311.11 | 14248778.80 | 39°14'18.391"N | 80°52'23.625"W | 61.23 | 166.262 | 0.44 | -0.44 | -1.36 | |
| 1487.00 | 0.680 | 171.760 | 1484.83 | -60.30 | -59.79 | 14.59 | 1676311.15 | 14248778.49 | 39°14'18.388"N | 80°52'23.625"W | 61.55 | 166.289 | 0.36 | -0.36 | 2.20 | |
| 1512.00 | 0.590 | 176.620 | 1509.83 | -60.56 | -60.07 | 14.62 | 1676311.18 | 14248778.22 | 39°14'18.385"N | 80°52'23.624"W | 61.82 | 166.323 | 0.42 | -0.36 | 19.44 | |
| 1537.00 | 0.440 | 181.990 | 1534.83 | -60.76 | -60.29 | 14.62 | 1676311.19 | 14248777.99 | 39°14'18.383"N | 80°52'23.624"W | 62.04 | 166.369 | 0.63 | -0.60 | 21.48 | |

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# Actual Wellpath Report

Mary Jane Unit 2H AWP Proj: 18063'



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1562.00 | 0.390 | 182.140 | 1559.83 | -60.92 | -60.47 | 14.61 | 1676311.18 | 14248777.81 | 39°14'18.381"N | 80°52'23.624"W | 62.21 | 166.414 | 0.20 | -0.20 | 0.60 | |
| 1587.00 | 0.440 | 185.580 | 1584.83 | -61.08 | -60.65 | 14.60 | 1676311.17 | 14248777.63 | 39°14'18.379"N | 80°52'23.625"W | 62.39 | 166.464 | 0.22 | 0.20 | 13.76 | |
| 1612.00 | 0.410 | 186.490 | 1609.83 | -61.24 | -60.84 | 14.58 | 1676311.15 | 14248777.45 | 39°14'18.378"N | 80°52'23.625"W | 62.56 | 166.521 | 0.12 | -0.12 | 3.64 | |
| 1637.00 | 0.370 | 189.260 | 1634.83 | -61.38 | -61.01 | 14.56 | 1676311.12 | 14248777.28 | 39°14'18.376"N | 80°52'23.625"W | 62.72 | 166.577 | 0.18 | -0.16 | 11.08 | |
| 1662.00 | 0.410 | 190.070 | 1659.83 | -61.52 | -61.18 | 14.53 | 1676311.10 | 14248777.11 | 39°14'18.374"N | 80°52'23.625"W | 62.88 | 166.638 | 0.16 | 0.16 | 3.24 | |
| 1687.00 | 0.310 | 178.910 | 1684.83 | -61.66 | -61.33 | 14.52 | 1676311.08 | 14248776.95 | 39°14'18.373"N | 80°52'23.626"W | 63.03 | 166.683 | 0.49 | -0.40 | -44.64 | |
| 1712.00 | 0.420 | 190.270 | 1709.82 | -61.79 | -61.49 | 14.50 | 1676311.07 | 14248776.80 | 39°14'18.371"N | 80°52'23.626"W | 63.18 | 166.729 | 0.52 | 0.44 | 45.44 | |
| 1737.00 | 0.310 | 188.430 | 1734.82 | -61.92 | -61.65 | 14.48 | 1676311.04 | 14248776.64 | 39°14'18.370"N | 80°52'23.626"W | 63.32 | 166.785 | 0.44 | -0.44 | -7.36 | |
| 1762.00 | 0.450 | 194.470 | 1759.82 | -62.06 | -61.81 | 14.44 | 1676311.01 | 14248776.48 | 39°14'18.368"N | 80°52'23.627"W | 63.47 | 166.849 | 0.58 | 0.56 | 24.16 | |
| 1787.00 | 0.330 | 184.830 | 1784.82 | -62.19 | -61.97 | 14.41 | 1676310.97 | 14248776.31 | 39°14'18.366"N | 80°52'23.627"W | 63.63 | 166.910 | 0.55 | -0.48 | -38.56 | |
| 1812.00 | 0.420 | 191.890 | 1809.82 | -62.33 | -62.14 | 14.39 | 1676310.95 | 14248776.15 | 39°14'18.365"N | 80°52'23.627"W | 63.78 | 166.965 | 0.40 | 0.36 | 28.24 | |
| 1837.00 | 0.470 | 190.180 | 1834.82 | -62.48 | -62.33 | 14.35 | 1676310.91 | 14248775.96 | 39°14'18.363"N | 80°52'23.628"W | 63.96 | 167.035 | 0.21 | 0.20 | -6.84 | |
| 1862.00 | 0.440 | 197.070 | 1859.82 | -62.64 | -62.52 | 14.30 | 1676310.87 | 14248775.77 | 39°14'18.361"N | 80°52'23.628"W | 64.13 | 167.114 | 0.25 | -0.12 | 27.56 | |
| 1887.00 | 0.140 | 206.700 | 1884.82 | -62.73 | -62.64 | 14.26 | 1676310.82 | 14248775.65 | 39°14'18.360"N | 80°52'23.629"W | 64.24 | 167.174 | 1.21 | -1.20 | 38.52 | |
| 1912.00 | 0.220 | 232.370 | 1909.82 | -62.76 | -62.69 | 14.21 | 1676310.77 | 14248775.59 | 39°14'18.359"N | 80°52'23.630"W | 64.28 | 167.231 | 0.45 | 0.32 | 102.68 | |
| 1937.00 | 0.140 | 233.230 | 1934.82 | -62.77 | -62.74 | 14.15 | 1676310.71 | 14248775.54 | 39°14'18.359"N | 80°52'23.630"W | 64.32 | 167.294 | 0.32 | -0.32 | 3.44 | |
| 1962.00 | 0.150 | 230.970 | 1959.82 | -62.79 | -62.78 | 14.10 | 1676310.66 | 14248775.50 | 39°14'18.358"N | 80°52'23.631"W | 64.34 | 167.345 | 0.05 | 0.04 | -9.04 | |
| 1987.00 | 0.170 | 272.410 | 1984.82 | -62.78 | -62.80 | 14.03 | 1676310.60 | 14248775.48 | 39°14'18.358"N | 80°52'23.632"W | 64.35 | 167.403 | 0.46 | 0.08 | 165.76 | |
| 2012.00 | 0.110 | 236.710 | 2009.82 | -62.77 | -62.81 | 13.98 | 1676310.54 | 14248775.47 | 39°14'18.358"N | 80°52'23.633"W | 64.35 | 167.455 | 0.41 | -0.24 | -142.80 | |
| 2037.00 | 0.160 | 229.900 | 2034.82 | -62.78 | -62.85 | 13.93 | 1676310.49 | 14248775.44 | 39°14'18.358"N | 80°52'23.633"W | 64.37 | 167.503 | 0.21 | 0.20 | -27.24 | |
| 2062.00 | 0.150 | 254.360 | 2059.82 | -62.78 | -62.88 | 13.87 | 1676310.44 | 14248775.41 | 39°14'18.357"N | 80°52'23.634"W | 64.39 | 167.559 | 0.27 | -0.04 | 97.84 | |
| 2087.00 | 0.160 | 254.370 | 2084.82 | -62.77 | -62.90 | 13.81 | 1676310.37 | 14248775.39 | 39°14'18.357"N | 80°52'23.635"W | 64.39 | 167.619 | 0.04 | 0.04 | 0.04 | |
| 2112.00 | 0.170 | 316.810 | 2109.82 | -62.73 | -62.88 | 13.75 | 1676310.31 | 14248775.41 | 39°14'18.357"N | 80°52'23.635"W | 64.36 | 167.667 | 0.69 | 0.04 | 249.76 | |
| 2137.00 | 0.050 | 272.490 | 2134.82 | -62.69 | -62.85 | 13.71 | 1676310.28 | 14248775.43 | 39°14'18.358"N | 80°52'23.636"W | 64.33 | 167.694 | 0.55 | -0.48 | -177.28 | |
| 2162.00 | 0.160 | 205.450 | 2159.82 | -62.70 | -62.88 | 13.69 | 1676310.25 | 14248775.40 | 39°14'18.357"N | 80°52'23.636"W | 64.35 | 167.722 | 0.59 | 0.44 | -268.16 | |
| 2187.00 | 0.120 | 210.840 | 2184.82 | -62.74 | -62.94 | 13.66 | 1676310.22 | 14248775.35 | 39°14'18.357"N | 80°52'23.637"W | 64.40 | 167.757 | 0.17 | -0.16 | 21.56 | |
| 2212.00 | 0.100 | 285.650 | 2209.82 | -62.74 | -62.95 | 13.62 | 1676310.19 | 14248775.33 | 39°14'18.357"N | 80°52'23.637"W | 64.41 | 167.790 | 0.54 | -0.08 | 299.24 | |
| 2237.00 | 0.170 | 269.890 | 2234.82 | -62.71 | -62.95 | 13.56 | 1676310.13 | 14248775.34 | 39°14'18.357"N | 80°52'23.638"W | 64.39 | 167.839 | 0.31 | 0.28 | -63.04 | |
| 2262.00 | 0.120 | 304.560 | 2259.82 | -62.67 | -62.93 | 13.51 | 1676310.07 | 14248775.35 | 39°14'18.357"N | 80°52'23.639"W | 64.37 | 167.888 | 0.39 | -0.20 | 138.68 | |
| 2287.00 | 0.150 | 275.330 | 2284.82 | -62.63 | -62.91 | 13.45 | 1676310.02 | 14248775.37 | 39°14'18.357"N | 80°52'23.639"W | 64.34 | 167.931 | 0.30 | 0.12 | -116.92 | |

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# Actual Wellpath Report

Mary Jane Unit 2H AWP Proj: 18063'



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2312.00 | 0.120 | 241.800 | 2309.82 | -62.62 | -62.92 | 13.40 | 1676309.96 | 14248775.36 | 39°14'18.357"N | 80°52'23.640"W | 64.33 | 167.982 | 0.33 | -0.12 | -134.12 | |
| 2337.00 | 0.160 | 199.020 | 2334.82 | -62.65 | -62.97 | 13.36 | 1676309.93 | 14248775.32 | 39°14'18.357"N | 80°52'23.640"W | 64.37 | 168.020 | 0.43 | 0.16 | -171.12 | |
| 2362.00 | 0.060 | 299.000 | 2359.82 | -62.66 | -63.00 | 13.34 | 1676309.90 | 14248775.29 | 39°14'18.356"N | 80°52'23.641"W | 64.39 | 168.045 | 0.72 | -0.40 | 399.92 | |
| 2387.00 | 0.040 | 248.950 | 2384.82 | -62.65 | -62.99 | 13.32 | 1676309.88 | 14248775.29 | 39°14'18.356"N | 80°52'23.641"W | 64.39 | 168.061 | 0.18 | -0.08 | -200.20 | |
| 2412.00 | 0.130 | 274.650 | 2409.82 | -62.63 | -62.99 | 13.28 | 1676309.85 | 14248775.29 | 39°14'18.356"N | 80°52'23.641"W | 64.38 | 168.093 | 0.38 | 0.36 | 102.80 | |
| 2437.00 | 0.140 | 281.470 | 2434.82 | -62.60 | -62.99 | 13.22 | 1676309.79 | 14248775.30 | 39°14'18.356"N | 80°52'23.642"W | 64.36 | 168.142 | 0.08 | 0.04 | 27.28 | |
| 2462.00 | 0.180 | 226.630 | 2459.82 | -62.59 | -63.01 | 13.17 | 1676309.73 | 14248775.28 | 39°14'18.356"N | 80°52'23.643"W | 64.37 | 168.197 | 0.61 | 0.16 | -219.36 | |
| 2487.00 | 0.100 | 217.960 | 2484.82 | -62.62 | -63.05 | 13.12 | 1676309.69 | 14248775.23 | 39°14'18.356"N | 80°52'23.643"W | 64.40 | 168.242 | 0.33 | -0.32 | -34.68 | |
| 2512.01 | 0.070 | 318.980 | 2509.83 | -62.61 | -63.06 | 13.10 | 1676309.67 | 14248775.23 | 39°14'18.356"N | 80°52'23.644"W | 64.40 | 168.263 | 0.53 | -0.12 | 403.92 | |
| 2537.01 | 0.080 | 286.250 | 2534.83 | -62.59 | -63.04 | 13.07 | 1676309.64 | 14248775.25 | 39°14'18.356"N | 80°52'23.644"W | 64.38 | 168.283 | 0.17 | 0.04 | -130.92 | |
| 2562.01 | 0.160 | 226.680 | 2559.83 | -62.59 | -63.06 | 13.03 | 1676309.60 | 14248775.23 | 39°14'18.356"N | 80°52'23.645"W | 64.39 | 168.324 | 0.55 | 0.32 | -238.28 | |
| 2587.01 | 0.150 | 251.430 | 2584.83 | -62.59 | -63.09 | 12.98 | 1676309.54 | 14248775.19 | 39°14'18.355"N | 80°52'23.645"W | 64.41 | 168.379 | 0.27 | -0.04 | 99.00 | |
| 2612.01 | 0.220 | 228.470 | 2609.83 | -62.60 | -63.14 | 12.91 | 1676309.47 | 14248775.15 | 39°14'18.355"N | 80°52'23.646"W | 64.44 | 168.445 | 0.40 | 0.28 | -91.84 | |
| 2637.01 | 0.130 | 319.550 | 2634.83 | -62.59 | -63.15 | 12.85 | 1676309.42 | 14248775.14 | 39°14'18.355"N | 80°52'23.647"W | 64.44 | 168.494 | 1.03 | -0.36 | 364.32 | |
| 2662.01 | 0.150 | 285.260 | 2659.83 | -62.54 | -63.12 | 12.80 | 1676309.37 | 14248775.17 | 39°14'18.355"N | 80°52'23.647"W | 64.40 | 168.532 | 0.34 | 0.08 | -137.16 | |
| 2687.01 | 0.200 | 286.340 | 2684.83 | -62.49 | -63.09 | 12.73 | 1676309.30 | 14248775.19 | 39°14'18.355"N | 80°52'23.648"W | 64.37 | 168.593 | 0.20 | 0.20 | 4.32 | |
| 2712.01 | 0.300 | 272.330 | 2709.83 | -62.43 | -63.08 | 12.62 | 1676309.19 | 14248775.21 | 39°14'18.356"N | 80°52'23.650"W | 64.33 | 168.684 | 0.47 | 0.40 | -56.04 | |
| 2737.01 | 0.300 | 266.040 | 2734.83 | -62.38 | -63.08 | 12.49 | 1676309.06 | 14248775.20 | 39°14'18.355"N | 80°52'23.651"W | 64.31 | 168.798 | 0.13 | 0.00 | -25.16 | |
| 2762.01 | 0.290 | 265.090 | 2759.83 | -62.33 | -63.09 | 12.36 | 1676308.93 | 14248775.19 | 39°14'18.355"N | 80°52'23.653"W | 64.29 | 168.912 | 0.04 | -0.04 | -3.80 | |
| 2787.01 | 0.240 | 279.180 | 2784.83 | -62.28 | -63.09 | 12.25 | 1676308.81 | 14248775.20 | 39°14'18.355"N | 80°52'23.654"W | 64.27 | 169.012 | 0.33 | -0.20 | 56.36 | |
| 2812.01 | 0.310 | 269.310 | 2809.83 | -62.22 | -63.08 | 12.13 | 1676308.70 | 14248775.20 | 39°14'18.356"N | 80°52'23.656"W | 64.24 | 169.115 | 0.34 | 0.28 | -39.48 | |
| 2837.01 | 0.270 | 267.170 | 2834.83 | -62.17 | -63.08 | 12.00 | 1676308.57 | 14248775.20 | 39°14'18.355"N | 80°52'23.658"W | 64.22 | 169.226 | 0.17 | -0.16 | -8.56 | |
| 2862.01 | 0.290 | 268.080 | 2859.83 | -62.12 | -63.09 | 11.88 | 1676308.45 | 14248775.20 | 39°14'18.355"N | 80°52'23.659"W | 64.20 | 169.334 | 0.08 | 0.08 | 3.64 | |
| 2887.01 | 0.300 | 262.640 | 2884.83 | -62.08 | -63.10 | 11.75 | 1676308.32 | 14248775.18 | 39°14'18.355"N | 80°52'23.661"W | 64.19 | 169.448 | 0.12 | 0.04 | -21.76 | |
| 2912.01 | 0.270 | 269.260 | 2909.83 | -62.03 | -63.11 | 11.63 | 1676308.20 | 14248775.18 | 39°14'18.355"N | 80°52'23.662"W | 64.17 | 169.559 | 0.18 | -0.12 | 26.48 | |
| 2937.01 | 0.270 | 278.900 | 2934.83 | -61.97 | -63.10 | 11.51 | 1676308.08 | 14248775.18 | 39°14'18.355"N | 80°52'23.664"W | 64.14 | 169.660 | 0.18 | 0.00 | 38.56 | |
| 2962.01 | 0.290 | 269.420 | 2959.82 | -61.91 | -63.09 | 11.39 | 1676307.96 | 14248775.19 | 39°14'18.355"N | 80°52'23.665"W | 64.11 | 169.766 | 0.20 | 0.08 | -37.92 | |
| 2987.01 | 0.300 | 272.010 | 2984.82 | -61.86 | -63.09 | 11.26 | 1676307.83 | 14248775.19 | 39°14'18.355"N | 80°52'23.667"W | 64.09 | 169.879 | 0.07 | 0.04 | 10.36 | |
| 3012.01 | 0.340 | 258.310 | 3009.82 | -61.81 | -63.10 | 11.12 | 1676307.69 | 14248775.18 | 39°14'18.355"N | 80°52'23.669"W | 64.08 | 170.002 | 0.34 | 0.16 | -54.80 | |
| 3037.01 | 0.270 | 292.060 | 3034.82 | -61.75 | -63.10 | 11.00 | 1676307.56 | 14248775.19 | 39°14'18.355"N | 80°52'23.670"W | 64.05 | 170.113 | 0.76 | -0.28 | 135.00 | |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3062.01 | 0.300 | 273.750 | 3059.82 | -61.68 | -63.07 | 10.88 | 1676307.44 | 14248775.21 | 39°14'18.356"N | 80°52'23.672"W | 64.00 | 170.215 | 0.38 | 0.12 | -73.24 | |
| 3087.01 | 0.270 | 316.940 | 3084.82 | -61.59 | -63.02 | 10.77 | 1676307.34 | 14248775.26 | 39°14'18.356"N | 80°52'23.673"W | 63.94 | 170.301 | 0.85 | -0.12 | 172.76 | |
| 3112.01 | 0.160 | 289.440 | 3109.82 | -61.51 | -62.97 | 10.70 | 1676307.26 | 14248775.32 | 39°14'18.357"N | 80°52'23.674"W | 63.87 | 170.357 | 0.59 | -0.44 | -110.00 | |
| 3137.01 | 0.210 | 298.840 | 3134.82 | -61.45 | -62.93 | 10.63 | 1676307.19 | 14248775.35 | 39°14'18.357"N | 80°52'23.675"W | 63.83 | 170.417 | 0.23 | 0.20 | 37.60 | |
| 3162.01 | 0.210 | 303.080 | 3159.82 | -61.37 | -62.89 | 10.55 | 1676307.11 | 14248775.40 | 39°14'18.357"N | 80°52'23.676"W | 63.77 | 170.479 | 0.06 | 0.00 | 16.96 | |
| 3187.01 | 0.150 | 301.720 | 3184.82 | -61.30 | -62.85 | 10.48 | 1676307.05 | 14248775.44 | 39°14'18.358"N | 80°52'23.677"W | 63.71 | 170.532 | 0.24 | -0.24 | -5.44 | |
| 3212.01 | 0.200 | 346.420 | 3209.82 | -61.23 | -62.79 | 10.44 | 1676307.01 | 14248775.50 | 39°14'18.358"N | 80°52'23.677"W | 63.65 | 170.557 | 0.56 | 0.20 | 178.80 | |
| 3237.01 | 0.150 | 309.660 | 3234.82 | -61.16 | -62.72 | 10.41 | 1676306.97 | 14248775.56 | 39°14'18.359"N | 80°52'23.678"W | 63.58 | 170.579 | 0.48 | -0.20 | -147.04 | |
| 3262.01 | 0.150 | 305.180 | 3259.82 | -61.10 | -62.68 | 10.36 | 1676306.92 | 14248775.60 | 39°14'18.359"N | 80°52'23.679"W | 63.53 | 170.619 | 0.05 | 0.00 | -17.92 | |
| 3287.01 | 0.080 | 288.430 | 3284.82 | -61.06 | -62.66 | 10.31 | 1676306.88 | 14248775.63 | 39°14'18.360"N | 80°52'23.679"W | 63.50 | 170.654 | 0.31 | -0.28 | -67.00 | |
| 3312.01 | 0.100 | 181.740 | 3309.82 | -61.07 | -62.67 | 10.29 | 1676306.86 | 14248775.61 | 39°14'18.360"N | 80°52'23.679"W | 63.51 | 170.672 | 0.58 | 0.08 | -426.76 | |
| 3337.01 | 0.120 | 195.460 | 3334.82 | -61.11 | -62.72 | 10.29 | 1676306.85 | 14248775.56 | 39°14'18.359"N | 80°52'23.679"W | 63.56 | 170.686 | 0.13 | 0.08 | 54.88 | |
| 3362.01 | 0.130 | 160.330 | 3359.82 | -61.16 | -62.77 | 10.29 | 1676306.86 | 14248775.51 | 39°14'18.359"N | 80°52'23.679"W | 63.61 | 170.691 | 0.30 | 0.04 | -140.52 | |
| 3387.01 | 0.100 | 173.910 | 3384.82 | -61.20 | -62.82 | 10.30 | 1676306.87 | 14248775.46 | 39°14'18.358"N | 80°52'23.679"W | 63.66 | 170.687 | 0.16 | -0.12 | 54.32 | |
| 3412.01 | 0.090 | 181.350 | 3409.82 | -61.24 | -62.86 | 10.30 | 1676306.87 | 14248775.42 | 39°14'18.358"N | 80°52'23.679"W | 63.70 | 170.692 | 0.06 | -0.04 | 29.76 | |
| 3437.01 | 0.100 | 142.450 | 3434.82 | -61.28 | -62.90 | 10.32 | 1676306.88 | 14248775.39 | 39°14'18.357"N | 80°52'23.679"W | 63.74 | 170.686 | 0.26 | 0.04 | -155.60 | |
| 3462.01 | 0.140 | 202.530 | 3459.82 | -61.32 | -62.95 | 10.32 | 1676306.88 | 14248775.34 | 39°14'18.357"N | 80°52'23.679"W | 63.79 | 170.691 | 0.50 | 0.16 | 240.32 | |
| 3487.01 | 0.160 | 197.260 | 3484.82 | -61.37 | -63.01 | 10.30 | 1676306.86 | 14248775.28 | 39°14'18.356"N | 80°52'23.679"W | 63.84 | 170.719 | 0.10 | 0.08 | -21.08 | |
| 3512.01 | 0.140 | 192.760 | 3509.82 | -61.42 | -63.07 | 10.28 | 1676306.84 | 14248775.21 | 39°14'18.356"N | 80°52'23.680"W | 63.90 | 170.744 | 0.09 | -0.08 | -18.00 | |
| 3537.01 | 0.190 | 193.610 | 3534.82 | -61.48 | -63.14 | 10.26 | 1676306.83 | 14248775.14 | 39°14'18.355"N | 80°52'23.680"W | 63.97 | 170.768 | 0.20 | 0.20 | 3.40 | |
| 3562.01 | 0.140 | 211.160 | 3559.82 | -61.53 | -63.21 | 10.24 | 1676306.80 | 14248775.08 | 39°14'18.354"N | 80°52'23.680"W | 64.03 | 170.800 | 0.28 | -0.20 | 70.20 | |
| 3587.01 | 0.130 | 202.840 | 3584.82 | -61.56 | -63.26 | 10.21 | 1676306.78 | 14248775.03 | 39°14'18.354"N | 80°52'23.680"W | 64.08 | 170.832 | 0.09 | -0.04 | -33.28 | |
| 3612.01 | 0.170 | 195.940 | 3609.82 | -61.61 | -63.32 | 10.19 | 1676306.75 | 14248774.96 | 39°14'18.353"N | 80°52'23.681"W | 64.14 | 170.859 | 0.18 | 0.16 | -27.60 | |
| 3637.01 | 0.140 | 173.430 | 3634.82 | -61.66 | -63.39 | 10.18 | 1676306.75 | 14248774.90 | 39°14'18.353"N | 80°52'23.681"W | 64.20 | 170.874 | 0.27 | -0.12 | -90.04 | |
| 3662.01 | 0.160 | 185.730 | 3659.82 | -61.72 | -63.45 | 10.18 | 1676306.75 | 14248774.83 | 39°14'18.352"N | 80°52'23.681"W | 64.26 | 170.883 | 0.15 | 0.08 | 49.20 | |
| 3687.01 | 0.150 | 151.630 | 3684.82 | -61.79 | -63.52 | 10.19 | 1676306.76 | 14248774.77 | 39°14'18.351"N | 80°52'23.681"W | 64.33 | 170.882 | 0.37 | -0.04 | -136.40 | |
| 3712.01 | 0.150 | 139.130 | 3709.82 | -61.85 | -63.57 | 10.23 | 1676306.80 | 14248774.72 | 39°14'18.351"N | 80°52'23.680"W | 64.39 | 170.857 | 0.13 | 0.00 | -50.00 | |
| 3737.01 | 0.150 | 119.210 | 3734.82 | -61.91 | -63.61 | 10.28 | 1676306.85 | 14248774.68 | 39°14'18.350"N | 80°52'23.680"W | 64.44 | 170.819 | 0.21 | 0.00 | -79.68 | |
| 3762.01 | 0.220 | 137.050 | 3759.82 | -61.98 | -63.66 | 10.34 | 1676306.91 | 14248774.62 | 39°14'18.350"N | 80°52'23.679"W | 64.50 | 170.772 | 0.36 | 0.28 | 71.36 | |
| 3787.01 | 0.230 | 114.390 | 3784.82 | -62.06 | -63.72 | 10.42 | 1676306.99 | 14248774.57 | 39°14'18.349"N | 80°52'23.678"W | 64.56 | 170.712 | 0.36 | 0.04 | -90.64 | |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3812.01 | 0.240 | 124.160 | 3809.82 | -62.15 | -63.77 | 10.51 | 1676307.08 | 14248774.52 | 39°14'18.349"N | 80°52'23.677"W | 64.63 | 170.641 | 0.16 | 0.04 | 39.08 | |
| 3837.01 | 0.230 | 109.600 | 3834.82 | -62.23 | -63.81 | 10.60 | 1676307.17 | 14248774.47 | 39°14'18.348"N | 80°52'23.675"W | 64.69 | 170.568 | 0.24 | -0.04 | -58.24 | |
| 3862.01 | 0.230 | 105.780 | 3859.82 | -62.30 | -63.84 | 10.70 | 1676307.26 | 14248774.44 | 39°14'18.348"N | 80°52'23.674"W | 64.73 | 170.489 | 0.06 | 0.00 | -15.28 | |
| 3887.01 | 0.200 | 114.400 | 3884.82 | -62.36 | -63.88 | 10.78 | 1676307.35 | 14248774.41 | 39°14'18.348"N | 80°52'23.673"W | 64.78 | 170.417 | 0.18 | -0.12 | 34.48 | |
| 3912.01 | 0.240 | 123.710 | 3909.82 | -62.44 | -63.92 | 10.87 | 1676307.43 | 14248774.36 | 39°14'18.347"N | 80°52'23.672"W | 64.84 | 170.352 | 0.21 | 0.16 | 37.24 | |
| 3937.01 | 0.220 | 130.430 | 3934.82 | -62.53 | -63.98 | 10.95 | 1676307.51 | 14248774.30 | 39°14'18.347"N | 80°52'23.671"W | 64.91 | 170.291 | 0.13 | -0.08 | 26.88 | |
| 3962.01 | 0.210 | 126.750 | 3959.82 | -62.61 | -64.04 | 11.02 | 1676307.59 | 14248774.24 | 39°14'18.346"N | 80°52'23.670"W | 64.98 | 170.236 | 0.07 | -0.04 | -14.72 | |
| 3987.01 | 0.250 | 100.220 | 3984.82 | -62.69 | -64.08 | 11.11 | 1676307.68 | 14248774.21 | 39°14'18.346"N | 80°52'23.669"W | 65.03 | 170.163 | 0.45 | 0.16 | -106.12 | |
| 4012.01 | 0.220 | 130.750 | 4009.82 | -62.76 | -64.12 | 11.20 | 1676307.77 | 14248774.17 | 39°14'18.345"N | 80°52'23.668"W | 65.09 | 170.091 | 0.51 | -0.12 | 122.12 | |
| 4037.01 | 0.210 | 127.780 | 4034.82 | -62.85 | -64.18 | 11.27 | 1676307.84 | 14248774.11 | 39°14'18.345"N | 80°52'23.667"W | 65.16 | 170.037 | 0.06 | -0.04 | -11.88 | |
| 4062.01 | 0.300 | 155.140 | 4059.82 | -62.95 | -64.27 | 11.34 | 1676307.90 | 14248774.02 | 39°14'18.344"N | 80°52'23.666"W | 65.26 | 169.995 | 0.60 | 0.36 | 109.44 | |
| 4087.01 | 0.430 | 155.750 | 4084.82 | -63.11 | -64.41 | 11.40 | 1676307.97 | 14248773.87 | 39°14'18.342"N | 80°52'23.665"W | 65.41 | 169.960 | 0.52 | 0.52 | 2.44 | |
| 4112.01 | 0.470 | 140.420 | 4109.82 | -63.31 | -64.58 | 11.51 | 1676308.07 | 14248773.71 | 39°14'18.341"N | 80°52'23.664"W | 65.59 | 169.896 | 0.51 | 0.16 | -61.32 | |
| 4137.01 | 0.720 | 150.370 | 4134.82 | -63.56 | -64.79 | 11.65 | 1676308.22 | 14248773.49 | 39°14'18.339"N | 80°52'23.662"W | 65.83 | 169.806 | 1.08 | 1.00 | 39.80 | |
| 4162.01 | 0.690 | 142.330 | 4159.81 | -63.86 | -65.05 | 11.82 | 1676308.39 | 14248773.24 | 39°14'18.336"N | 80°52'23.660"W | 66.11 | 169.701 | 0.41 | -0.12 | -32.16 | |
| 4187.01 | 0.700 | 147.850 | 4184.81 | -64.16 | -65.30 | 11.99 | 1676308.56 | 14248772.99 | 39°14'18.334"N | 80°52'23.658"W | 66.39 | 169.592 | 0.27 | 0.04 | 22.08 | |
| 4212.01 | 0.660 | 142.180 | 4209.81 | -64.46 | -65.54 | 12.16 | 1676308.73 | 14248772.75 | 39°14'18.331"N | 80°52'23.656"W | 66.66 | 169.487 | 0.31 | -0.16 | -22.68 | |
| 4237.01 | 0.750 | 145.120 | 4234.81 | -64.76 | -65.79 | 12.34 | 1676308.91 | 14248772.50 | 39°14'18.329"N | 80°52'23.653"W | 66.93 | 169.372 | 0.39 | 0.36 | 11.76 | |
| 4262.01 | 0.750 | 137.930 | 4259.81 | -65.08 | -66.04 | 12.55 | 1676309.11 | 14248772.24 | 39°14'18.326"N | 80°52'23.651"W | 67.22 | 169.242 | 0.38 | 0.00 | -28.76 | |
| 4287.01 | 0.950 | 145.740 | 4284.80 | -65.44 | -66.33 | 12.77 | 1676309.34 | 14248771.95 | 39°14'18.323"N | 80°52'23.648"W | 67.55 | 169.100 | 0.92 | 0.80 | 31.24 | |
| 4312.01 | 1.050 | 142.130 | 4309.80 | -65.87 | -66.69 | 13.03 | 1676309.60 | 14248771.60 | 39°14'18.320"N | 80°52'23.645"W | 67.95 | 168.943 | 0.47 | 0.40 | -14.44 | |
| 4337.01 | 1.050 | 144.810 | 4334.80 | -66.31 | -67.05 | 13.30 | 1676309.87 | 14248771.23 | 39°14'18.316"N | 80°52'23.641"W | 68.36 | 168.778 | 0.20 | 0.00 | 10.72 | |
| 4362.01 | 1.040 | 138.320 | 4359.79 | -66.76 | -67.41 | 13.59 | 1676310.15 | 14248770.88 | 39°14'18.313"N | 80°52'23.638"W | 68.77 | 168.605 | 0.47 | -0.04 | -25.96 | |
| 4387.01 | 1.200 | 143.870 | 4384.79 | -67.23 | -67.79 | 13.89 | 1676310.46 | 14248770.49 | 39°14'18.309"N | 80°52'23.634"W | 69.20 | 168.419 | 0.77 | 0.64 | 22.20 | |
| 4412.01 | 1.360 | 144.460 | 4409.78 | -67.78 | -68.25 | 14.22 | 1676310.78 | 14248770.04 | 39°14'18.304"N | 80°52'23.630"W | 69.71 | 168.231 | 0.64 | 0.64 | 2.36 | |
| 4437.01 | 1.460 | 145.700 | 4434.77 | -68.39 | -68.75 | 14.57 | 1676311.13 | 14248769.54 | 39°14'18.299"N | 80°52'23.625"W | 70.28 | 168.034 | 0.42 | 0.40 | 4.96 | |
| 4462.01 | 1.550 | 149.070 | 4459.76 | -69.04 | -69.30 | 14.92 | 1676311.49 | 14248768.98 | 39°14'18.294"N | 80°52'23.621"W | 70.89 | 167.847 | 0.50 | 0.36 | 13.48 | |
| 4487.01 | 1.430 | 146.470 | 4484.76 | -69.68 | -69.85 | 15.27 | 1676311.83 | 14248768.44 | 39°14'18.289"N | 80°52'23.616"W | 71.50 | 167.669 | 0.55 | -0.48 | -10.40 | |
| 4512.01 | 1.530 | 148.110 | 4509.75 | -70.32 | -70.40 | 15.62 | 1676312.18 | 14248767.89 | 39°14'18.283"N | 80°52'23.612"W | 72.11 | 167.490 | 0.43 | 0.40 | 6.56 | |
| 4537.01 | 1.590 | 150.130 | 4534.74 | -71.00 | -70.98 | 15.97 | 1676312.53 | 14248767.31 | 39°14'18.277"N | 80°52'23.607"W | 72.75 | 167.322 | 0.33 | 0.24 | 8.08 | |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4562.01 | 1.650 | 152.770 | 4559.73 | -71.71 | -71.60 | 16.31 | 1676312.87 | 14248766.69 | 39°14'18.271"N | 80°52'23.603"W | 73.43 | 167.171 | 0.38 | 0.24 | 10.56 | |
| 4587.01 | 1.740 | 152.200 | 4584.72 | -72.45 | -72.26 | 16.65 | 1676313.21 | 14248766.03 | 39°14'18.265"N | 80°52'23.599"W | 74.15 | 167.026 | 0.37 | 0.36 | -2.28 | |
| 4612.01 | 1.800 | 154.510 | 4609.71 | -73.22 | -72.95 | 16.99 | 1676313.56 | 14248765.34 | 39°14'18.258"N | 80°52'23.594"W | 74.90 | 166.887 | 0.37 | 0.24 | 9.24 | |
| 4637.01 | 1.820 | 153.910 | 4634.69 | -74.01 | -73.66 | 17.34 | 1676313.90 | 14248764.63 | 39°14'18.251"N | 80°52'23.590"W | 75.67 | 166.756 | 0.11 | 0.08 | -2.40 | |
| 4662.01 | 1.990 | 155.860 | 4659.68 | -74.84 | -74.41 | 17.69 | 1676314.25 | 14248763.88 | 39°14'18.243"N | 80°52'23.586"W | 76.48 | 166.628 | 0.73 | 0.68 | 7.80 | |
| 4687.01 | 2.310 | 159.030 | 4684.66 | -75.77 | -75.28 | 18.05 | 1676314.61 | 14248763.01 | 39°14'18.235"N | 80°52'23.581"W | 77.41 | 166.519 | 1.37 | 1.28 | 12.68 | |
| 4712.01 | 2.170 | 156.390 | 4709.64 | -76.75 | -76.18 | 18.42 | 1676314.98 | 14248762.11 | 39°14'18.226"N | 80°52'23.576"W | 78.38 | 166.410 | 0.70 | -0.56 | -10.56 | |
| 4737.01 | 2.270 | 157.970 | 4734.62 | -77.72 | -77.07 | 18.79 | 1676315.35 | 14248761.22 | 39°14'18.217"N | 80°52'23.572"W | 79.33 | 166.298 | 0.47 | 0.40 | 6.32 | |
| 4762.01 | 2.290 | 157.080 | 4759.60 | -78.71 | -77.99 | 19.17 | 1676315.73 | 14248760.30 | 39°14'18.208"N | 80°52'23.567"W | 80.31 | 166.190 | 0.16 | 0.08 | -3.56 | |
| 4787.01 | 2.430 | 159.150 | 4784.58 | -79.74 | -78.95 | 19.55 | 1676316.12 | 14248759.34 | 39°14'18.199"N | 80°52'23.562"W | 81.33 | 166.088 | 0.66 | 0.56 | 8.28 | |
| 4812.01 | 2.470 | 159.180 | 4809.56 | -80.80 | -79.95 | 19.94 | 1676316.50 | 14248758.34 | 39°14'18.189"N | 80°52'23.557"W | 82.40 | 165.999 | 0.16 | 0.16 | 0.12 | |
| 4837.01 | 2.410 | 160.270 | 4834.54 | -81.86 | -80.95 | 20.30 | 1676316.87 | 14248757.35 | 39°14'18.179"N | 80°52'23.552"W | 83.45 | 165.919 | 0.30 | -0.24 | 4.36 | |
| 4862.01 | 2.340 | 158.480 | 4859.52 | -82.90 | -81.92 | 20.67 | 1676317.23 | 14248756.38 | 39°14'18.169"N | 80°52'23.548"W | 84.48 | 165.839 | 0.41 | -0.28 | -7.16 | |
| 4887.01 | 2.300 | 159.730 | 4884.50 | -83.91 | -82.86 | 21.03 | 1676317.59 | 14248755.43 | 39°14'18.160"N | 80°52'23.543"W | 85.49 | 165.759 | 0.26 | -0.16 | 5.00 | |
| 4912.01 | 2.400 | 160.540 | 4909.47 | -84.93 | -83.82 | 21.38 | 1676317.94 | 14248754.47 | 39°14'18.150"N | 80°52'23.539"W | 86.51 | 165.693 | 0.42 | 0.40 | 3.24 | |
| 4937.01 | 2.350 | 160.830 | 4934.45 | -85.96 | -84.80 | 21.72 | 1676318.28 | 14248753.49 | 39°14'18.141"N | 80°52'23.534"W | 87.54 | 165.634 | 0.21 | -0.20 | 1.16 | |
| 4962.01 | 2.330 | 159.150 | 4959.43 | -86.97 | -85.76 | 22.07 | 1676318.63 | 14248752.53 | 39°14'18.131"N | 80°52'23.530"W | 88.56 | 165.569 | 0.29 | -0.08 | -6.72 | |
| 4987.01 | 2.370 | 159.230 | 4984.41 | -87.99 | -86.72 | 22.43 | 1676318.99 | 14248751.58 | 39°14'18.122"N | 80°52'23.525"W | 89.57 | 165.496 | 0.16 | 0.16 | 0.32 | |
| 5012.01 | 2.230 | 157.340 | 5009.39 | -89.00 | -87.65 | 22.80 | 1676319.37 | 14248750.64 | 39°14'18.113"N | 80°52'23.521"W | 90.57 | 165.416 | 0.64 | -0.56 | -7.56 | |
| 5037.01 | 2.340 | 158.870 | 5034.37 | -89.99 | -88.58 | 23.18 | 1676319.74 | 14248749.72 | 39°14'18.103"N | 80°52'23.516"W | 91.56 | 165.337 | 0.50 | 0.44 | 6.12 | |
| 5062.01 | 2.420 | 158.450 | 5059.35 | -91.03 | -89.54 | 23.55 | 1676320.11 | 14248748.75 | 39°14'18.094"N | 80°52'23.511"W | 92.59 | 165.263 | 0.33 | 0.32 | -1.68 | |
| 5087.01 | 2.380 | 158.060 | 5084.33 | -92.07 | -90.52 | 23.94 | 1676320.50 | 14248747.78 | 39°14'18.084"N | 80°52'23.506"W | 93.63 | 165.184 | 0.17 | -0.16 | -1.56 | |
| 5112.01 | 2.740 | 160.990 | 5109.30 | -93.18 | -91.56 | 24.33 | 1676320.89 | 14248746.73 | 39°14'18.074"N | 80°52'23.501"W | 94.74 | 165.119 | 1.53 | 1.44 | 11.72 | |
| 5137.01 | 2.700 | 157.600 | 5134.27 | -94.37 | -92.67 | 24.75 | 1676321.31 | 14248745.63 | 39°14'18.063"N | 80°52'23.496"W | 95.92 | 165.047 | 0.66 | -0.16 | -13.56 | |
| 5162.01 | 2.670 | 158.300 | 5159.25 | -95.53 | -93.76 | 25.19 | 1676321.75 | 14248744.54 | 39°14'18.052"N | 80°52'23.491"W | 97.08 | 164.962 | 0.18 | -0.12 | 2.80 | |
| 5187.01 | 2.640 | 158.690 | 5184.22 | -96.69 | -94.83 | 25.61 | 1676322.17 | 14248743.46 | 39°14'18.041"N | 80°52'23.485"W | 98.23 | 164.886 | 0.14 | -0.12 | 1.56 | |
| 5212.01 | 2.510 | 156.580 | 5209.19 | -97.81 | -95.87 | 26.04 | 1676322.60 | 14248742.43 | 39°14'18.031"N | 80°52'23.480"W | 99.35 | 164.804 | 0.64 | -0.52 | -8.44 | |
| 5237.01 | 2.400 | 157.420 | 5234.17 | -98.88 | -96.86 | 26.46 | 1676323.02 | 14248741.44 | 39°14'18.021"N | 80°52'23.474"W | 100.41 | 164.721 | 0.46 | -0.44 | 3.36 | |
| 5262.01 | 2.350 | 157.100 | 5259.15 | -99.92 | -97.81 | 26.86 | 1676323.42 | 14248740.48 | 39°14'18.012"N | 80°52'23.469"W | 101.44 | 164.645 | 0.21 | -0.20 | -1.28 | |
| 5287.01 | 2.440 | 159.070 | 5284.13 | -100.96 | -98.78 | 27.25 | 1676323.81 | 14248739.52 | 39°14'18.002"N | 80°52'23.464"W | 102.47 | 164.579 | 0.49 | 0.36 | 7.88 | |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5312.01 | 2.330 | 159.790 | 5309.11 | -102.00 | -99.76 | 27.61 | 1676324.17 | 14248738.54 | 39°14'17.993"N | 80°52'23.460"W | 103.51 | 164.527 | 0.46 | -0.44 | 2.88 | |
| 5337.01 | 2.510 | 157.880 | 5334.08 | -103.05 | -100.74 | 28.00 | 1676324.56 | 14248737.56 | 39°14'17.983"N | 80°52'23.455"W | 104.56 | 164.469 | 0.79 | 0.72 | -7.64 | |
| 5362.01 | 2.410 | 157.530 | 5359.06 | -104.12 | -101.73 | 28.40 | 1676324.96 | 14248736.57 | 39°14'17.973"N | 80°52'23.450"W | 105.62 | 164.401 | 0.40 | -0.40 | -1.40 | |
| 5387.01 | 2.340 | 156.430 | 5384.04 | -105.16 | -102.69 | 28.81 | 1676325.37 | 14248735.61 | 39°14'17.964"N | 80°52'23.445"W | 106.65 | 164.329 | 0.33 | -0.28 | -4.40 | |
| 5412.01 | 2.430 | 158.310 | 5409.02 | -106.20 | -103.65 | 29.21 | 1676325.77 | 14248734.65 | 39°14'17.954"N | 80°52'23.440"W | 107.69 | 164.262 | 0.48 | 0.36 | 7.52 | |
| 5437.01 | 2.430 | 156.790 | 5434.00 | -107.25 | -104.63 | 29.61 | 1676326.17 | 14248733.67 | 39°14'17.945"N | 80°52'23.435"W | 108.74 | 164.197 | 0.26 | 0.00 | -6.08 | |
| 5462.01 | 2.360 | 159.350 | 5458.97 | -108.30 | -105.60 | 30.00 | 1676326.56 | 14248732.71 | 39°14'17.935"N | 80°52'23.430"W | 109.78 | 164.138 | 0.51 | -0.28 | 10.24 | |
| 5487.01 | 2.360 | 157.240 | 5483.95 | -109.32 | -106.55 | 30.38 | 1676326.94 | 14248731.75 | 39°14'17.926"N | 80°52'23.425"W | 110.80 | 164.084 | 0.35 | 0.00 | -8.44 | |
| 5512.01 | 2.240 | 159.520 | 5508.93 | -110.32 | -107.49 | 30.75 | 1676327.31 | 14248730.82 | 39°14'17.916"N | 80°52'23.420"W | 111.80 | 164.033 | 0.60 | -0.48 | 9.12 | |
| 5537.01 | 2.450 | 162.640 | 5533.91 | -111.34 | -108.45 | 31.08 | 1676327.64 | 14248729.85 | 39°14'17.907"N | 80°52'23.416"W | 112.82 | 164.007 | 0.98 | 0.84 | 12.48 | |
| 5562.01 | 2.290 | 158.510 | 5558.89 | -112.37 | -109.43 | 31.43 | 1676327.98 | 14248728.88 | 39°14'17.897"N | 80°52'23.412"W | 113.85 | 163.976 | 0.94 | -0.64 | -16.52 | |
| 5572.01 | 2.360 | 157.640 | 5568.88 | -112.77 | -109.80 | 31.58 | 1676328.14 | 14248728.50 | 39°14'17.893"N | 80°52'23.410"W | 114.25 | 163.955 | 0.78 | 0.70 | -8.70 | |
| 5668.00 | 2.660 | 158.780 | 5664.78 | -116.97 | -113.71 | 33.14 | 1676329.69 | 14248724.60 | 39°14'17.855"N | 80°52'23.390"W | 118.44 | 163.753 | 0.32 | 0.31 | 1.19 | BHI AT Curve <8-1/2"> (5572.01')(5668'-18038') |
| 5715.00 | 2.940 | 160.030 | 5711.72 | -119.26 | -115.86 | 33.94 | 1676330.50 | 14248722.45 | 39°14'17.834"N | 80°52'23.380"W | 120.73 | 163.671 | 0.61 | 0.60 | 2.66 | |
| 5763.00 | 3.900 | 102.390 | 5759.65 | -121.48 | -117.37 | 35.96 | 1676332.51 | 14248720.94 | 39°14'17.819"N | 80°52'23.354"W | 122.75 | 162.966 | 7.09 | 2.00 | -120.08 | |
| 5809.00 | 7.900 | 78.720 | 5805.40 | -123.20 | -117.08 | 40.59 | 1676337.14 | 14248721.22 | 39°14'17.821"N | 80°52'23.295"W | 123.92 | 160.880 | 10.00 | 8.70 | -51.46 | |
| 5858.00 | 10.800 | 72.880 | 5853.75 | -124.67 | -115.07 | 48.28 | 1676344.83 | 14248723.23 | 39°14'17.841"N | 80°52'23.197"W | 124.79 | 157.239 | 6.22 | 5.92 | -11.92 | |
| 5908.00 | 15.110 | 75.860 | 5902.46 | -126.59 | -112.10 | 59.08 | 1676355.63 | 14248726.21 | 39°14'17.870"N | 80°52'23.060"W | 126.72 | 152.209 | 8.72 | 8.62 | 5.96 | |
| 5952.00 | 18.710 | 76.730 | 5944.56 | -129.17 | -109.08 | 71.52 | 1676368.06 | 14248729.23 | 39°14'17.900"N | 80°52'22.902"W | 130.43 | 146.749 | 8.20 | 8.18 | 1.98 | |
| 6000.00 | 24.200 | 74.270 | 5989.21 | -132.41 | -104.64 | 88.49 | 1676385.03 | 14248733.66 | 39°14'17.944"N | 80°52'22.686"W | 137.04 | 139.779 | 11.59 | 11.44 | -5.12 | |
| 6046.00 | 29.240 | 73.340 | 6030.29 | -135.66 | -98.86 | 108.34 | 1676404.87 | 14248739.44 | 39°14'18.001"N | 80°52'22.434"W | 146.67 | 132.379 | 10.99 | 10.96 | -2.02 | |
| 6088.00 | 33.880 | 72.430 | 6066.07 | -138.77 | -92.38 | 129.34 | 1676425.86 | 14248745.92 | 39°14'18.064"N | 80°52'22.167"W | 158.95 | 125.536 | 11.11 | 11.05 | -2.17 | |
| 6141.00 | 38.380 | 72.360 | 6108.86 | -142.94 | -82.93 | 159.12 | 1676455.63 | 14248755.36 | 39°14'18.157"N | 80°52'21.788"W | 179.43 | 117.528 | 8.49 | 8.49 | -0.13 | |
| 6187.00 | 43.060 | 71.960 | 6143.72 | -146.82 | -73.73 | 187.68 | 1676484.17 | 14248764.55 | 39°14'18.248"N | 80°52'21.425"W | 201.64 | 111.449 | 10.19 | 10.17 | -0.87 | |
| 6235.00 | 47.450 | 71.170 | 6177.50 | -150.87 | -62.95 | 220.01 | 1676516.49 | 14248775.34 | 39°14'18.354"N | 80°52'21.014"W | 228.84 | 105.967 | 9.22 | 9.15 | -1.65 | |
| 6283.00 | 52.380 | 69.690 | 6208.40 | -154.51 | -50.64 | 254.59 | 1676551.06 | 14248787.64 | 39°14'18.475"N | 80°52'20.574"W | 259.58 | 101.249 | 10.54 | 10.27 | -3.08 | |
| 6330.00 | 57.120 | 67.300 | 6235.52 | -157.01 | -36.55 | 290.28 | 1676586.73 | 14248801.73 | 39°14'18.614"N | 80°52'20.120"W | 292.57 | 97.176 | 10.91 | 10.09 | -5.09 | |
| 6377.00 | 58.680 | 61.140 | 6260.51 | -156.65 | -19.23 | 326.10 | 1676622.53 | 14248819.04 | 39°14'18.785"N | 80°52'19.665"W | 326.66 | 93.375 | 11.59 | 3.32 | -13.11 | |
| 6424.00 | 59.650 | 55.430 | 6284.62 | -152.12 | 1.98 | 360.40 | 1676656.82 | 14248840.24 | 39°14'18.994"N | 80°52'19.229"W | 360.40 | 89.685 | 10.63 | 2.06 | -12.15 | |
| 6473.00 | 59.900 | 52.090 | 6309.29 | -144.07 | 27.01 | 394.54 | 1676690.95 | 14248865.25 | 39°14'19.241"N | 80°52'18.794"W | 395.46 | 86.084 | 5.91 | 0.51 | -6.82 | |

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# Actual Wellpath Report

Mary Jane Unit 2H AWP Proj: 18063'



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 stations)** † = interpolated/extrapolated station

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6507.00† | 59.932 | 48.818 | 6326.33 | -136.82 | 45.73 | 417.22 | 1676713.62 | 14248883.97 | 39°14'19.425"N | 80°52'18.506"W | 419.72 | 83.745 | 8.33 | 0.09 | -9.62 | Middlesex: 6507' MD / 6326.3' TVD |
| 6518.00 | 59.960 | 47.760 | 6331.84 | -134.12 | 52.07 | 424.33 | 1676720.73 | 14248890.31 | 39°14'19.488"N | 80°52'18.415"W | 427.51 | 83.004 | 8.33 | 0.25 | -9.62 | |
| 6565.00 | 60.120 | 40.010 | 6355.34 | -119.66 | 81.38 | 452.52 | 1676748.91 | 14248919.61 | 39°14'19.777"N | 80°52'18.056"W | 459.78 | 79.805 | 14.29 | 0.34 | -16.49 | |
| 6613.00 | 61.770 | 36.100 | 6378.66 | -100.82 | 114.42 | 478.37 | 1676774.75 | 14248952.63 | 39°14'20.103"N | 80°52'17.727"W | 491.86 | 76.548 | 7.91 | 3.44 | -8.15 | |
| 6659.00 | 63.820 | 31.110 | 6399.70 | -79.68 | 148.49 | 500.99 | 1676797.36 | 14248986.69 | 39°14'20.440"N | 80°52'17.439"W | 522.53 | 73.491 | 10.63 | 4.46 | -10.85 | |
| 6708.00 | 64.930 | 23.270 | 6420.92 | -52.78 | 187.75 | 521.14 | 1676817.50 | 14249025.93 | 39°14'20.828"N | 80°52'17.182"W | 553.93 | 70.188 | 14.60 | 2.27 | -16.00 | |
| 6755.00 | 66.690 | 15.940 | 6440.20 | -22.42 | 228.10 | 535.49 | 1676831.85 | 14249066.27 | 39°14'21.226"N | 80°52'16.999"W | 582.05 | 66.927 | 14.71 | 3.74 | -15.60 | |
| 6771.00† | 67.476 | 13.906 | 6446.43 | -11.16 | 242.34 | 539.29 | 1676835.64 | 14249080.51 | 39°14'21.367"N | 80°52'16.951"W | 591.24 | 65.802 | 12.70 | 4.91 | -12.72 | Burkett: 6771' MD / 6446.4' TVD |
| 6802.00 | 69.070 | 10.030 | 6457.91 | 11.76 | 270.51 | 545.25 | 1676841.60 | 14249108.66 | 39°14'21.645"N | 80°52'16.874"W | 608.67 | 63.613 | 12.70 | 5.14 | -12.50 | |
| 6853.00 | 72.370 | 4.890 | 6474.75 | 52.24 | 318.22 | 551.48 | 1676847.83 | 14249156.35 | 39°14'22.117"N | 80°52'16.794"W | 636.70 | 60.014 | 11.50 | 6.47 | -10.08 | |
| 6855.00† | 72.498 | 4.749 | 6475.36 | 53.89 | 320.12 | 551.64 | 1676847.99 | 14249158.25 | 39°14'22.135"N | 80°52'16.792"W | 637.79 | 59.873 | 9.29 | 6.42 | -7.05 | Tully: 6855' MD / 6475.5' TVD |
| 6896.00 | 75.150 | 1.900 | 6486.78 | 88.45 | 359.42 | 553.91 | 1676850.26 | 14249197.54 | 39°14'22.524"N | 80°52'16.763"W | 660.31 | 57.022 | 9.29 | 6.47 | -6.95 | |
| 6932.00† | 76.734 | 357.599 | 6495.53 | 120.09 | 394.33 | 553.76 | 1676850.10 | 14249232.43 | 39°14'22.869"N | 80°52'16.764"W | 679.81 | 54.545 | 12.39 | 4.40 | -11.95 | Hamilton: 6932' MD / 6495.5' TVD |
| 6939.00 | 77.050 | 356.770 | 6497.12 | 126.39 | 401.14 | 553.42 | 1676849.77 | 14249239.24 | 39°14'22.936"N | 80°52'16.768"W | 683.51 | 54.064 | 12.39 | 4.52 | -11.85 | |
| 6959.00† | 77.921 | 354.601 | 6501.45 | 144.62 | 420.61 | 551.95 | 1676848.30 | 14249258.70 | 39°14'23.129"N | 80°52'16.787"W | 693.95 | 52.691 | 11.45 | 4.36 | -10.84 | Marcellus: 6959' MD / 6501.5' TVD |
| 6991.00 | 79.350 | 351.160 | 6507.76 | 174.43 | 451.73 | 548.06 | 1676844.41 | 14249289.81 | 39°14'23.436"N | 80°52'16.835"W | 710.24 | 50.503 | 11.45 | 4.46 | -10.75 | |
| 7035.00 | 83.030 | 345.930 | 6514.50 | 216.63 | 494.32 | 539.42 | 1676835.78 | 14249332.38 | 39°14'23.857"N | 80°52'16.944"W | 731.66 | 47.498 | 14.42 | 8.36 | -11.89 | |
| 7085.00 | 85.930 | 340.310 | 6519.31 | 265.84 | 541.92 | 524.97 | 1676821.33 | 14249379.96 | 39°14'24.328"N | 80°52'17.127"W | 754.50 | 44.090 | 12.60 | 5.80 | -11.24 | |
| 7130.00 | 89.050 | 337.630 | 6521.28 | 310.66 | 583.87 | 508.84 | 1676805.21 | 14249421.90 | 39°14'24.743"N | 80°52'17.332"W | 774.49 | 41.072 | 9.14 | 6.93 | -5.96 | |
| 7179.00 | 88.860 | 335.080 | 6522.18 | 359.63 | 628.75 | 489.19 | 1676785.57 | 14249466.76 | 39°14'25.187"N | 80°52'17.580"W | 796.64 | 37.885 | 5.22 | -0.39 | -5.20 | |
| 7274.00 | 89.780 | 333.380 | 6523.31 | 454.61 | 714.29 | 447.90 | 1676744.29 | 14249552.26 | 39°14'26.033"N | 80°52'18.104"W | 843.10 | 32.090 | 2.03 | 0.97 | -1.79 | |
| 7369.00 | 89.570 | 332.060 | 6523.84 | 549.55 | 798.72 | 404.36 | 1676700.76 | 14249636.66 | 39°14'26.868"N | 80°52'18.656"W | 895.24 | 26.851 | 1.41 | -0.22 | -1.39 | |
| 7463.00 | 89.690 | 330.830 | 6524.45 | 643.39 | 881.28 | 359.43 | 1676655.85 | 14249719.19 | 39°14'27.685"N | 80°52'19.225"W | 951.76 | 22.188 | 1.31 | 0.13 | -1.31 | |
| 7558.00 | 89.660 | 332.150 | 6524.99 | 738.24 | 964.76 | 314.08 | 1676610.53 | 14249802.63 | 39°14'28.510"N | 80°52'19.800"W | 1014.60 | 18.033 | 1.39 | -0.03 | 1.39 | |
| 7652.00 | 89.630 | 330.940 | 6525.57 | 832.09 | 1047.40 | 269.30 | 1676565.76 | 14249885.24 | 39°14'29.328"N | 80°52'20.368"W | 1081.47 | 14.419 | 1.29 | -0.03 | -1.29 | |
| 7747.00 | 89.600 | 331.640 | 6526.21 | 926.92 | 1130.72 | 223.66 | 1676520.14 | 14249968.53 | 39°14'30.152"N | 80°52'20.946"W | 1152.63 | 11.189 | 0.74 | -0.03 | 0.74 | |
| 7842.00 | 89.630 | 332.970 | 6526.85 | 1021.83 | 1214.83 | 179.51 | 1676476.01 | 14250052.61 | 39°14'30.984"N | 80°52'21.506"W | 1228.02 | 8.406 | 1.40 | 0.03 | 1.40 | |
| 7936.00 | 89.600 | 335.700 | 6527.48 | 1115.82 | 1299.55 | 138.80 | 1676435.32 | 14250137.29 | 39°14'31.822"N | 80°52'22.022"W | 1306.94 | 6.097 | 2.90 | -0.03 | 2.90 | |
| 8031.00 | 89.600 | 337.920 | 6528.14 | 1210.75 | 1386.86 | 101.40 | 1676397.93 | 14250224.57 | 39°14'32.685"N | 80°52'22.496"W | 1390.57 | 4.182 | 2.34 | 0.00 | 2.34 | |
| 8125.00 | 89.690 | 336.580 | 6528.73 | 1304.65 | 1473.55 | 65.05 | 1676361.59 | 14250311.22 | 39°14'33.543"N | 80°52'22.956"W | 1474.98 | 2.528 | 1.43 | 0.10 | -1.43 | |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8220.00 | 89.690 | 332.890 | 6529.24 | 1399.63 | 1559.44 | 24.51 | 1676321.07 | 14250397.08 | 39°14'34.392"N | 80°52'23.470"W | 1559.64 | 0.900 | 3.88 | 0.00 | -3.88 | |
| 8314.00 | 89.690 | 330.280 | 6529.75 | 1493.48 | 1642.11 | -20.22 | 1676276.36 | 14250479.71 | 39°14'35.210"N | 80°52'24.037"W | 1642.24 | 359.295 | 2.78 | 0.00 | -2.78 | |
| 8409.00 | 89.690 | 331.110 | 6530.26 | 1588.25 | 1724.95 | -66.71 | 1676229.88 | 14250562.52 | 39°14'36.029"N | 80°52'24.626"W | 1726.24 | 357.785 | 0.87 | 0.00 | 0.87 | |
| 8503.00 | 89.660 | 334.050 | 6530.80 | 1682.17 | 1808.38 | -110.00 | 1676186.62 | 14250645.92 | 39°14'36.854"N | 80°52'25.175"W | 1811.72 | 356.519 | 3.13 | -0.03 | 3.13 | |
| 8598.00 | 89.780 | 337.510 | 6531.26 | 1777.14 | 1895.00 | -148.96 | 1676147.67 | 14250732.51 | 39°14'37.711"N | 80°52'25.669"W | 1900.85 | 355.505 | 3.64 | 0.13 | 3.64 | |
| 8692.00 | 89.600 | 335.550 | 6531.77 | 1871.08 | 1981.22 | -186.40 | 1676110.25 | 14250818.69 | 39°14'38.564"N | 80°52'26.143"W | 1989.97 | 354.625 | 2.09 | -0.19 | -2.09 | |
| 8787.00 | 90.220 | 331.470 | 6531.92 | 1966.04 | 2066.23 | -228.76 | 1676067.90 | 14250903.66 | 39°14'39.405"N | 80°52'26.680"W | 2078.85 | 353.682 | 4.34 | 0.65 | -4.29 | |
| 8882.00 | 89.450 | 329.270 | 6532.19 | 2060.76 | 2148.80 | -275.73 | 1676020.95 | 14250986.20 | 39°14'40.221"N | 80°52'27.275"W | 2166.42 | 352.688 | 2.45 | -0.81 | -2.32 | |
| 8976.00 | 90.400 | 334.490 | 6532.32 | 2154.61 | 2231.68 | -320.01 | 1675976.68 | 14251069.04 | 39°14'41.041"N | 80°52'27.837"W | 2254.50 | 351.840 | 5.64 | 1.01 | 5.55 | |
| 9071.00 | 90.000 | 336.850 | 6531.98 | 2249.59 | 2318.23 | -359.15 | 1675937.56 | 14251155.56 | 39°14'41.897"N | 80°52'28.333"W | 2345.89 | 351.194 | 2.52 | -0.42 | 2.48 | |
| 9165.00 | 90.280 | 334.920 | 6531.75 | 2343.57 | 2404.02 | -397.55 | 1675899.18 | 14251241.32 | 39°14'42.746"N | 80°52'28.819"W | 2436.67 | 350.610 | 2.07 | 0.30 | -2.05 | |
| 9260.00 | 90.280 | 329.220 | 6531.29 | 2438.43 | 2487.92 | -442.03 | 1675854.71 | 14251325.19 | 39°14'43.575"N | 80°52'29.383"W | 2526.89 | 349.925 | 6.00 | 0.00 | -6.00 | |
| 9354.00 | 90.030 | 336.230 | 6531.04 | 2532.31 | 2571.42 | -485.08 | 1675811.68 | 14251408.65 | 39°14'44.401"N | 80°52'29.929"W | 2616.77 | 349.317 | 7.46 | -0.27 | 7.46 | |
| 9448.00 | 90.340 | 341.580 | 6530.73 | 2626.02 | 2659.09 | -518.90 | 1675777.88 | 14251496.28 | 39°14'45.268"N | 80°52'30.357"W | 2709.24 | 348.958 | 5.70 | 0.33 | 5.69 | |
| 9543.00 | 90.430 | 342.330 | 6530.09 | 2720.26 | 2749.41 | -548.33 | 1675748.46 | 14251586.57 | 39°14'46.161"N | 80°52'30.730"W | 2803.56 | 348.721 | 0.80 | 0.09 | 0.79 | |
| 9637.00 | 90.400 | 340.660 | 6529.41 | 2813.60 | 2838.55 | -578.16 | 1675718.64 | 14251675.67 | 39°14'47.043"N | 80°52'31.107"W | 2896.83 | 348.487 | 1.78 | -0.03 | -1.78 | |
| 9731.00 | 90.400 | 337.580 | 6528.76 | 2907.31 | 2926.36 | -611.66 | 1675685.16 | 14251763.45 | 39°14'47.911"N | 80°52'31.532"W | 2989.60 | 348.194 | 3.28 | 0.00 | -3.28 | |
| 9826.00 | 90.680 | 335.050 | 6527.86 | 3002.26 | 3013.35 | -649.82 | 1675647.01 | 14251850.40 | 39°14'48.771"N | 80°52'32.015"W | 3082.62 | 347.831 | 2.68 | 0.29 | -2.66 | |
| 9920.00 | 90.490 | 334.000 | 6526.90 | 3096.26 | 3098.20 | -690.24 | 1675606.60 | 14251935.22 | 39°14'49.611"N | 80°52'32.527"W | 3174.16 | 347.440 | 1.14 | -0.20 | -1.12 | |
| 10015.00 | 89.940 | 334.570 | 6526.54 | 3191.25 | 3183.79 | -731.46 | 1675565.40 | 14252020.78 | 39°14'50.457"N | 80°52'33.050"W | 3266.74 | 347.061 | 0.83 | -0.58 | 0.60 | |
| 10109.00 | 89.820 | 335.460 | 6526.74 | 3285.25 | 3269.00 | -771.17 | 1675525.71 | 14252105.95 | 39°14'51.300"N | 80°52'33.553"W | 3358.72 | 346.726 | 0.96 | -0.13 | 0.95 | |
| 10203.00 | 89.850 | 333.770 | 6527.01 | 3379.25 | 3353.92 | -811.46 | 1675485.43 | 14252190.83 | 39°14'52.140"N | 80°52'34.064"W | 3450.68 | 346.399 | 1.80 | 0.03 | -1.80 | |
| 10298.00 | 88.920 | 330.670 | 6528.03 | 3474.14 | 3437.95 | -855.73 | 1675441.18 | 14252274.83 | 39°14'52.971"N | 80°52'34.625"W | 3542.85 | 346.023 | 3.41 | -0.98 | -3.26 | |
| 10392.00 | 89.910 | 332.880 | 6528.99 | 3568.00 | 3520.76 | -900.18 | 1675396.75 | 14252357.61 | 39°14'53.790"N | 80°52'35.189"W | 3634.02 | 345.658 | 2.58 | 1.05 | 2.35 | |
| 10486.00 | 89.510 | 333.280 | 6529.47 | 3661.96 | 3604.58 | -942.74 | 1675354.21 | 14252441.39 | 39°14'54.619"N | 80°52'35.728"W | 3725.82 | 345.343 | 0.60 | -0.43 | 0.43 | |
| 10581.00 | 89.260 | 332.480 | 6530.49 | 3756.91 | 3689.13 | -986.04 | 1675310.92 | 14252525.91 | 39°14'55.455"N | 80°52'36.277"W | 3818.63 | 345.036 | 0.88 | -0.26 | -0.84 | |
| 10675.00 | 90.550 | 337.260 | 6530.64 | 3850.88 | 3774.20 | -1025.95 | 1675271.03 | 14252610.95 | 39°14'56.297"N | 80°52'36.783"W | 3911.16 | 344.793 | 5.27 | 1.37 | 5.09 | |
| 10770.00 | 90.520 | 341.980 | 6529.76 | 3945.50 | 3863.23 | -1059.02 | 1675237.97 | 14252699.94 | 39°14'57.177"N | 80°52'37.202"W | 4005.75 | 344.670 | 4.97 | -0.03 | 4.97 | |
| 10864.00 | 90.550 | 343.800 | 6528.88 | 4038.54 | 3953.06 | -1086.67 | 1675210.33 | 14252789.73 | 39°14'58.065"N | 80°52'37.552"W | 4099.70 | 344.629 | 1.94 | 0.03 | 1.94 | |
| 10958.00 | 90.950 | 346.690 | 6527.65 | 4130.94 | 4043.94 | -1110.61 | 1675186.40 | 14252880.58 | 39°14'58.964"N | 80°52'37.854"W | 4193.67 | 344.643 | 3.10 | 0.43 | 3.07 | |

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| REFERENCE WELLPATH IDENTIFICATION | | | |
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| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
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| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11053.00 | 91.020 | 336.860 | 6526.01 | 4225.09 | 4134.05 | -1140.28 | 1675156.75 | 14252970.65 | 39°14'59.855"N | 80°52'38.230"W | 4288.43 | 344.580 | 10.35 | 0.07 | -10.35 | |
| 11147.00 | 92.340 | 327.660 | 6523.25 | 4318.86 | 4217.12 | -1183.97 | 1675113.08 | 14253053.69 | 39°15'00.676"N | 80°52'38.784"W | 4380.17 | 344.318 | 9.88 | 1.40 | -9.79 | |
| 11242.00 | 90.890 | 325.260 | 6520.57 | 4412.83 | 4296.26 | -1236.43 | 1675060.64 | 14253132.80 | 39°15'01.459"N | 80°52'39.449"W | 4470.64 | 343.945 | 2.95 | -1.53 | -2.53 | |
| 11336.00 | 90.890 | 327.500 | 6519.11 | 4505.81 | 4374.53 | -1288.47 | 1675008.62 | 14253211.03 | 39°15'02.234"N | 80°52'40.109"W | 4560.33 | 343.588 | 2.38 | 0.00 | 2.38 | |
| 11430.00 | 90.830 | 331.810 | 6517.70 | 4599.41 | 4455.62 | -1335.94 | 1674961.17 | 14253292.10 | 39°15'03.036"N | 80°52'40.712"W | 4651.59 | 343.310 | 4.59 | -0.06 | 4.59 | |
| 11525.00 | 90.920 | 334.950 | 6516.25 | 4694.37 | 4540.53 | -1378.49 | 1674918.63 | 14253376.97 | 39°15'03.875"N | 80°52'41.251"W | 4745.17 | 343.112 | 3.31 | 0.09 | 3.31 | |
| 11619.00 | 90.920 | 336.420 | 6514.74 | 4788.34 | 4626.18 | -1417.19 | 1674879.94 | 14253462.58 | 39°15'04.723"N | 80°52'41.742"W | 4838.38 | 342.968 | 1.56 | 0.00 | 1.56 | |
| 11714.00 | 90.890 | 336.520 | 6513.24 | 4883.28 | 4713.27 | -1455.12 | 1674842.04 | 14253549.64 | 39°15'05.584"N | 80°52'42.222"W | 4932.77 | 342.843 | 0.11 | -0.03 | 0.11 | |
| 11808.00 | 90.990 | 335.220 | 6511.70 | 4977.25 | 4799.04 | -1493.54 | 1674803.63 | 14253635.38 | 39°15'06.432"N | 80°52'42.709"W | 5026.08 | 342.713 | 1.39 | 0.11 | -1.38 | |
| 11903.00 | 91.200 | 332.930 | 6509.88 | 5072.22 | 4884.46 | -1535.06 | 1674762.12 | 14253720.76 | 39°15'07.277"N | 80°52'43.235"W | 5120.00 | 342.553 | 2.42 | 0.22 | -2.41 | |
| 11997.00 | 90.980 | 332.940 | 6508.09 | 5166.16 | 4968.15 | -1577.82 | 1674719.38 | 14253804.42 | 39°15'08.105"N | 80°52'43.778"W | 5212.68 | 342.381 | 0.23 | -0.23 | 0.01 | |
| 12092.00 | 91.110 | 335.490 | 6506.36 | 5261.13 | 5053.67 | -1619.14 | 1674678.08 | 14253889.91 | 39°15'08.950"N | 80°52'44.301"W | 5306.71 | 342.235 | 2.69 | 0.14 | 2.68 | |
| 12186.00 | 90.490 | 335.350 | 6505.05 | 5355.11 | 5139.14 | -1658.23 | 1674639.00 | 14253975.34 | 39°15'09.796"N | 80°52'44.797"W | 5400.05 | 342.117 | 0.68 | -0.66 | -0.15 | |
| 12280.00 | 90.830 | 334.580 | 6503.96 | 5449.10 | 5224.30 | -1698.01 | 1674599.24 | 14254060.47 | 39°15'10.638"N | 80°52'45.301"W | 5493.32 | 341.995 | 0.90 | 0.36 | -0.82 | |
| 12374.00 | 91.010 | 334.680 | 6502.45 | 5543.09 | 5309.23 | -1738.28 | 1674558.99 | 14254145.36 | 39°15'11.478"N | 80°52'45.811"W | 5586.55 | 341.871 | 0.22 | 0.19 | 0.11 | |
| 12469.00 | 90.620 | 333.810 | 6501.10 | 5638.08 | 5394.78 | -1779.55 | 1674517.73 | 14254230.88 | 39°15'12.324"N | 80°52'46.335"W | 5680.71 | 341.744 | 1.00 | -0.41 | -0.92 | |
| 12563.00 | 91.420 | 332.810 | 6499.43 | 5732.03 | 5478.75 | -1821.77 | 1674475.53 | 14254314.82 | 39°15'13.155"N | 80°52'46.870"W | 5773.69 | 341.607 | 1.36 | 0.85 | -1.06 | |
| 12657.00 | 91.690 | 336.890 | 6496.88 | 5825.98 | 5563.79 | -1861.69 | 1674435.62 | 14254399.82 | 39°15'13.996"N | 80°52'47.376"W | 5867.00 | 341.499 | 4.35 | 0.29 | 4.34 | |
| 12752.00 | 92.000 | 335.120 | 6493.82 | 5920.90 | 5650.53 | -1900.30 | 1674397.03 | 14254486.53 | 39°15'14.853"N | 80°52'47.865"W | 5961.52 | 341.412 | 1.89 | 0.33 | -1.86 | |
| 12846.00 | 91.880 | 335.060 | 6490.64 | 6014.84 | 5735.74 | -1939.87 | 1674357.47 | 14254571.70 | 39°15'15.696"N | 80°52'48.367"W | 6054.90 | 341.314 | 0.14 | -0.13 | -0.06 | |
| 12941.00 | 92.430 | 337.060 | 6487.06 | 6109.75 | 5822.50 | -1978.39 | 1674318.97 | 14254658.43 | 39°15'16.554"N | 80°52'48.855"W | 6149.43 | 341.233 | 2.18 | 0.58 | 2.11 | |
| 13035.00 | 92.400 | 334.640 | 6483.10 | 6203.64 | 5908.19 | -2016.82 | 1674280.56 | 14254744.08 | 39°15'17.402"N | 80°52'49.342"W | 6242.94 | 341.152 | 2.57 | -0.03 | -2.57 | |
| 13130.00 | 92.460 | 331.660 | 6479.07 | 6298.51 | 5992.86 | -2059.68 | 1674237.72 | 14254828.72 | 39°15'18.239"N | 80°52'49.886"W | 6336.93 | 341.033 | 3.13 | 0.06 | -3.14 | |
| 13224.00 | 91.050 | 330.280 | 6476.19 | 6392.26 | 6075.01 | -2105.27 | 1674192.14 | 14254910.84 | 39°15'19.052"N | 80°52'50.464"W | 6429.46 | 340.886 | 2.10 | -1.50 | -1.47 | |
| 13319.00 | 91.380 | 330.810 | 6474.18 | 6486.98 | 6157.71 | -2151.98 | 1674145.46 | 14254993.50 | 39°15'19.870"N | 80°52'51.056"W | 6522.91 | 340.737 | 0.66 | 0.35 | 0.56 | |
| 13413.00 | 91.510 | 334.520 | 6471.81 | 6580.87 | 6241.17 | -2195.12 | 1674102.33 | 14255076.93 | 39°15'20.695"N | 80°52'51.603"W | 6615.95 | 340.622 | 3.95 | 0.14 | 3.95 | |
| 13508.00 | 91.050 | 333.210 | 6469.69 | 6675.84 | 6326.44 | -2236.95 | 1674060.51 | 14255162.16 | 39°15'21.538"N | 80°52'52.134"W | 6710.27 | 340.527 | 1.46 | -0.48 | -1.38 | |
| 13602.00 | 90.000 | 331.050 | 6468.83 | 6769.73 | 6409.52 | -2280.89 | 1674016.59 | 14255245.22 | 39°15'22.360"N | 80°52'52.691"W | 6803.27 | 340.411 | 2.55 | -1.12 | -2.30 | |
| 13696.00 | 90.920 | 335.030 | 6468.07 | 6863.67 | 6493.29 | -2323.50 | 1673974.00 | 14255328.95 | 39°15'23.189"N | 80°52'53.231"W | 6896.48 | 340.311 | 4.35 | 0.98 | 4.23 | |
| 13791.00 | 90.340 | 337.040 | 6467.03 | 6958.63 | 6580.09 | -2362.08 | 1673935.44 | 14255415.71 | 39°15'24.047"N | 80°52'53.720"W | 6991.21 | 340.253 | 2.20 | -0.61 | 2.12 | |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**

Page 13 of 16

| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13885.00 | 89.600 | 337.380 | 6467.08 | 7052.54 | 6666.75 | -2398.49 | 1673899.04 | 14255502.34 | 39°15'24.904"N | 80°52'54.181"W | 7085.08 | 340.213 | 0.87 | -0.79 | 0.36 | |
| 13980.00 | 89.910 | 339.210 | 6467.48 | 7147.35 | 6755.01 | -2433.62 | 1673863.92 | 14255590.56 | 39°15'25.777"N | 80°52'54.627"W | 7180.02 | 340.187 | 1.95 | 0.33 | 1.93 | |
| 14074.00 | 90.120 | 337.470 | 6467.46 | 7241.16 | 6842.37 | -2468.32 | 1673829.24 | 14255677.89 | 39°15'26.641"N | 80°52'55.066"W | 7273.97 | 340.164 | 1.86 | 0.22 | -1.85 | |
| 14169.00 | 89.600 | 332.440 | 6467.69 | 7336.13 | 6928.41 | -2508.52 | 1673789.06 | 14255763.89 | 39°15'27.492"N | 80°52'55.576"W | 7368.55 | 340.097 | 5.32 | -0.55 | -5.29 | |
| 14263.00 | 89.630 | 331.040 | 6468.32 | 7430.00 | 7011.20 | -2553.02 | 1673744.57 | 14255846.65 | 39°15'28.310"N | 80°52'56.140"W | 7461.56 | 339.992 | 1.49 | 0.03 | -1.49 | |
| 14358.00 | 89.660 | 334.140 | 6468.91 | 7524.92 | 7095.52 | -2596.75 | 1673700.86 | 14255930.94 | 39°15'29.144"N | 80°52'56.695"W | 7555.76 | 339.899 | 3.26 | 0.03 | 3.26 | |
| 14453.00 | 89.940 | 334.580 | 6469.24 | 7619.92 | 7181.17 | -2637.86 | 1673659.77 | 14256016.55 | 39°15'29.991"N | 80°52'57.216"W | 7650.32 | 339.830 | 0.55 | 0.29 | 0.46 | |
| 14547.00 | 90.250 | 334.500 | 6469.09 | 7713.92 | 7266.04 | -2678.27 | 1673619.38 | 14256101.39 | 39°15'30.831"N | 80°52'57.728"W | 7743.93 | 339.766 | 0.34 | 0.33 | -0.09 | |
| 14642.00 | 90.580 | 331.290 | 6468.40 | 7808.85 | 7350.59 | -2721.54 | 1673576.12 | 14256185.91 | 39°15'31.667"N | 80°52'58.277"W | 7838.24 | 339.683 | 3.40 | 0.35 | -3.38 | |
| 14736.00 | 90.650 | 341.280 | 6467.39 | 7902.69 | 7436.54 | -2759.30 | 1673538.38 | 14256271.82 | 39°15'32.517"N | 80°52'58.756"W | 7931.95 | 339.643 | 10.63 | 0.07 | 10.63 | |
| 14831.00 | 91.050 | 338.380 | 6465.98 | 7997.29 | 7525.69 | -2792.05 | 1673505.64 | 14256360.94 | 39°15'33.399"N | 80°52'59.170"W | 8026.93 | 339.645 | 3.08 | 0.42 | -3.05 | |
| 14925.00 | 90.980 | 330.130 | 6464.31 | 8091.20 | 7610.28 | -2832.84 | 1673464.87 | 14256445.49 | 39°15'34.235"N | 80°52'59.688"W | 8120.42 | 339.583 | 8.78 | -0.07 | -8.78 | |
| 15020.00 | 90.890 | 329.610 | 6462.76 | 8185.84 | 7692.43 | -2880.52 | 1673417.21 | 14256527.61 | 39°15'35.048"N | 80°53'00.292"W | 8214.07 | 339.471 | 0.56 | -0.09 | -0.55 | |
| 15114.00 | 91.020 | 330.070 | 6461.19 | 8279.49 | 7773.69 | -2927.74 | 1673370.00 | 14256608.84 | 39°15'35.852"N | 80°53'00.891"W | 8306.74 | 339.363 | 0.51 | 0.14 | 0.49 | |
| 15209.00 | 90.890 | 332.870 | 6459.61 | 8374.31 | 7857.14 | -2973.10 | 1673324.66 | 14256692.25 | 39°15'36.677"N | 80°53'01.467"W | 8400.83 | 339.274 | 2.95 | -0.14 | 2.95 | |
| 15303.00 | 90.980 | 339.440 | 6458.07 | 8468.22 | 7943.06 | -3011.08 | 1673286.70 | 14256778.13 | 39°15'37.527"N | 80°53'01.948"W | 8494.63 | 339.239 | 6.99 | 0.10 | 6.99 | |
| 15397.00 | 91.290 | 337.310 | 6456.21 | 8562.00 | 8030.42 | -3045.71 | 1673252.08 | 14256865.46 | 39°15'38.390"N | 80°53'02.387"W | 8588.59 | 339.230 | 2.29 | 0.33 | -2.27 | |
| 15491.00 | 91.260 | 335.870 | 6454.12 | 8655.93 | 8116.66 | -3083.05 | 1673214.76 | 14256951.66 | 39°15'39.243"N | 80°53'02.860"W | 8682.47 | 339.201 | 1.53 | -0.03 | -1.53 | |
| 15586.00 | 91.260 | 334.510 | 6452.03 | 8750.90 | 8202.86 | -3122.90 | 1673174.92 | 14257037.84 | 39°15'40.096"N | 80°53'03.366"W | 8777.21 | 339.158 | 1.43 | 0.00 | -1.43 | |
| 15680.00 | 91.140 | 333.350 | 6450.06 | 8844.87 | 8287.28 | -3164.20 | 1673133.64 | 14257122.22 | 39°15'40.931"N | 80°53'03.889"W | 8870.81 | 339.102 | 1.24 | -0.13 | -1.23 | |
| 15774.00 | 91.260 | 337.170 | 6448.09 | 8938.83 | 8372.62 | -3203.52 | 1673094.33 | 14257207.53 | 39°15'41.775"N | 80°53'04.388"W | 8964.56 | 339.062 | 4.06 | 0.13 | 4.06 | |
| 15868.00 | 90.950 | 336.440 | 6446.28 | 9032.75 | 8459.00 | -3240.54 | 1673057.33 | 14257293.88 | 39°15'42.629"N | 80°53'04.857"W | 9058.47 | 339.039 | 0.84 | -0.33 | -0.78 | |
| 15963.00 | 90.990 | 334.350 | 6444.67 | 9127.72 | 8545.36 | -3280.08 | 1673017.80 | 14257380.20 | 39°15'43.483"N | 80°53'05.358"W | 9153.26 | 339.001 | 2.20 | 0.04 | -2.20 | |
| 16057.00 | 91.050 | 333.720 | 6443.00 | 9221.70 | 8629.86 | -3321.23 | 1672976.67 | 14257464.66 | 39°15'44.319"N | 80°53'05.880"W | 9246.89 | 338.951 | 0.67 | 0.06 | -0.67 | |
| 16151.00 | 91.110 | 333.950 | 6441.22 | 9315.67 | 8714.21 | -3362.68 | 1672935.24 | 14257548.98 | 39°15'45.153"N | 80°53'06.406"W | 9340.51 | 338.899 | 0.25 | 0.06 | 0.24 | |
| 16245.00 | 91.020 | 335.400 | 6439.48 | 9409.65 | 8799.16 | -3402.88 | 1672895.06 | 14257633.90 | 39°15'45.993"N | 80°53'06.915"W | 9434.24 | 338.857 | 1.55 | -0.10 | 1.54 | |
| 16339.00 | 90.990 | 335.530 | 6437.83 | 9503.63 | 8884.66 | -3441.90 | 1672856.04 | 14257719.36 | 39°15'46.839"N | 80°53'07.410"W | 9528.06 | 338.824 | 0.14 | -0.03 | 0.14 | |
| 16435.00 | 91.020 | 336.320 | 6436.14 | 9599.59 | 8972.29 | -3481.06 | 1672816.91 | 14257806.96 | 39°15'47.705"N | 80°53'07.907"W | 9623.92 | 338.795 | 0.82 | 0.03 | 0.82 | |
| 16529.00 | 90.980 | 334.460 | 6434.50 | 9693.57 | 9057.74 | -3520.20 | 1672777.78 | 14257892.37 | 39°15'48.550"N | 80°53'08.403"W | 9717.74 | 338.762 | 1.98 | -0.04 | -1.98 | |
| 16623.00 | 90.950 | 332.510 | 6432.92 | 9787.53 | 9141.84 | -3562.15 | 1672735.84 | 14257976.43 | 39°15'49.382"N | 80°53'08.935"W | 9811.33 | 338.711 | 2.07 | -0.03 | -2.07 | |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

**WELLPATH DATA (376 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16718.00 | 90.980 | 329.720 | 6431.32 | 9882.32 | 9225.00 | -3608.03 | 1672689.98 | 14258059.56 | 39°15'50.204"N | 80°53'09.517"W | 9905.48 | 338.639 | 2.94 | 0.03 | -2.94 | |
| 16813.00 | 90.890 | 333.380 | 6429.77 | 9977.14 | 9308.50 | -3653.28 | 1672644.76 | 14258143.03 | 39°15'51.030"N | 80°53'10.091"W | 9999.73 | 338.572 | 3.85 | -0.09 | 3.85 | |
| 16908.00 | 90.950 | 335.500 | 6428.24 | 10072.12 | 9394.19 | -3694.26 | 1672603.79 | 14258228.68 | 39°15'51.878"N | 80°53'10.610"W | 10094.47 | 338.533 | 2.23 | 0.06 | 2.23 | |
| 17002.00 | 90.980 | 335.710 | 6426.66 | 10166.10 | 9479.78 | -3733.08 | 1672564.99 | 14258314.24 | 39°15'52.724"N | 80°53'11.103"W | 10188.33 | 338.506 | 0.23 | 0.03 | 0.22 | |
| 17097.00 | 90.980 | 337.170 | 6425.04 | 10261.04 | 9566.85 | -3771.04 | 1672527.04 | 14258401.28 | 39°15'53.585"N | 80°53'11.584"W | 10283.25 | 338.487 | 1.54 | 0.00 | 1.54 | |
| 17192.00 | 90.740 | 338.230 | 6423.61 | 10355.90 | 9654.73 | -3807.08 | 1672491.01 | 14258489.12 | 39°15'54.454"N | 80°53'12.041"W | 10378.23 | 338.480 | 1.14 | -0.25 | 1.12 | |
| 17286.00 | 90.770 | 336.430 | 6422.37 | 10449.79 | 9741.46 | -3843.31 | 1672454.80 | 14258575.82 | 39°15'55.312"N | 80°53'12.500"W | 10472.20 | 338.469 | 1.91 | 0.03 | -1.91 | |
| 17380.00 | 90.740 | 335.270 | 6421.13 | 10543.76 | 9827.22 | -3881.76 | 1672416.36 | 14258661.55 | 39°15'56.160"N | 80°53'12.987"W | 10566.10 | 338.446 | 1.23 | -0.03 | -1.23 | |
| 17476.00 | 90.800 | 335.980 | 6419.84 | 10639.74 | 9914.66 | -3921.38 | 1672376.76 | 14258748.95 | 39°15'57.025"N | 80°53'13.490"W | 10661.97 | 338.421 | 0.74 | 0.06 | 0.74 | |
| 17571.00 | 91.020 | 336.440 | 6418.33 | 10734.70 | 10001.57 | -3959.70 | 1672338.46 | 14258835.83 | 39°15'57.884"N | 80°53'13.976"W | 10756.89 | 338.401 | 0.54 | 0.23 | 0.48 | |
| 17665.00 | 91.020 | 336.220 | 6416.66 | 10828.64 | 10087.65 | -3997.43 | 1672300.74 | 14258921.87 | 39°15'58.736"N | 80°53'14.454"W | 10850.81 | 338.383 | 0.23 | 0.00 | -0.23 | |
| 17760.00 | 90.920 | 337.350 | 6415.05 | 10923.57 | 10174.95 | -4034.87 | 1672263.32 | 14259009.13 | 39°15'59.599"N | 80°53'14.929"W | 10945.76 | 338.369 | 1.19 | -0.11 | 1.19 | |
| 17854.00 | 90.920 | 335.270 | 6413.54 | 11017.51 | 10261.01 | -4072.63 | 1672225.57 | 14259095.16 | 39°16'00.450"N | 80°53'15.407"W | 11039.68 | 338.352 | 2.21 | 0.00 | -2.21 | |
| 17949.00 | 90.890 | 335.820 | 6412.04 | 11112.49 | 10347.47 | -4111.95 | 1672186.26 | 14259181.59 | 39°16'01.305"N | 80°53'15.906"W | 11134.56 | 338.328 | 0.58 | -0.03 | 0.58 | |
| 18038.00 | 91.390 | 333.620 | 6410.27 | 11201.47 | 10427.93 | -4149.95 | 1672148.28 | 14259262.01 | 39°16'02.101"N | 80°53'16.388"W | 11223.36 | 338.299 | 2.53 | 0.56 | -2.47 | |
| 18063.00 | 91.390 | 333.620 | 6409.66 | 11226.46 | 10450.32 | -4161.06 | 1672137.18 | 14259284.39 | 39°16'02.322"N | 80°53'16.529"W | 11248.27 | 338.289 | 0.00 | 0.00 | 0.00 | Projected MD at TD: 18063' |

**HOLE & CASING SECTIONS - Ref Wellbore: Mary Jane Unit 2H AWB Ref Wellpath: Mary Jane Unit 2H AWP Proj: 18063'**

| String/Diameter | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start E/W [ft] | End N/S [ft] | End E/W [ft] |
|---|---|---|---|---|---|---|---|---|---|
| 20in Conductor | 25.00 | 65.00 | 40.00 | 25.00 | 65.00 | 0.00 | 0.00 | -0.02 | -0.02 |
| 13.375in Casing Surface | 25.00 | 454.00 | 429.00 | 25.00 | 453.99 | 0.00 | 0.00 | -1.99 | -0.39 |
| 9.625in Casing Intermediate | 25.00 | 2580.00 | 2555.00 | 25.00 | 2577.82 | 0.00 | 0.00 | -63.09 | 12.99 |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H 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 2H POE Rev-2 | 6502.00 | 400.49 | 539.64 | 1676836.00 | 14249238.59 | 39°14'22.930"N | 80°52'16.943"W | point |
| Mary Jane Unit 2H BHL Rev-1 | 6523.00 | 10449.09 | -4169.81 | **1672128.43** | **14259283.16** | 39°16'02.310"N | 80°53'16.640"W | point |
| Mary Jane Unit 2H LP Rev-1 | 6523.00 | 584.19 | 488.62 | 1676784.99 | 14249422.22 | 39°14'24.746"N | 80°52'17.589"W | point |

**WELLPATH COMPOSITION - Ref Wellbore: Mary Jane Unit 2H AWB Ref Wellpath: Mary Jane Unit 2H AWP Proj: 18063'**

| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore |
|---|---|---|---|---|
| 25.00 | 5572.01 | SDI Keeper v1.04 | 01_SDI Std. Keeper Gyro (100' - 5560.01') | Mary Jane Unit 2H AWB |
| 5572.01 | 18038.00 | BHI AutoTrak Curve (Short) | 02_BHI AT Curve <8-1/2">(5572.01')(5668'-18038') | Mary Jane Unit 2H AWB |
| 18038.00 | 18063.00 | Blind Drilling (std) | Projection to bit | Mary Jane Unit 2H AWB |

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# Actual Wellpath Report

**Mary Jane Unit 2H AWP Proj: 18063'**



| REFERENCE WELLPATH IDENTIFICATION | | | |
|---|---|---|---|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #08 |
| Area | Doddridge Co., WV | Well | Mary Jane Unit 2H |
| Field | Doddridge | Wellbore | Mary Jane Unit 2H AWB |
| Facility | James Webb Pad | | |

## COMMENTS

**Wellpath general comments**
API: 47-017-07000-0000
BHI Job #: 8043704
Rig: Patterson 343
Duration: 7/10/2016-7/14/2016
SDI Keeper <8-3/4"> (100'-5560.01')
BHI AT Curve <8-1/2"> (5572.01')(5668'-18038')
Middlesex: 6507' MD
Burkett: 6771' MD
Tully: 6855' MD
Hamilton: 6932' MD
Marcellus POE: 6959' MD
Projected MD at TD: 18063'

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|---|---|
| Job Start Date: | 5/31/2017 |
| Job End Date: | 6/13/2017 |
| State: | West Virginia |
| County: | Doddridge |
| API Number: | 47-017-06700-00-00 |
| Operator Name: | Antero Resources Corporation |
| Well Name and Number: | Mary Jane 2H |
| Latitude: | 39.23851111 |
| Longitude: | -80.87373611 |
| Datum: | NAD83 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 6,532 |
| Total Base Water Volume (gal): | 21,709,680 |
| Total Base Non Water Volume: | 0 |

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## Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|---|---|---|---|---|---|---|---|
| Water | Antero Resources | Carrier/Base Fluid | | | | | |
| | | | Water | 7732-18-5 | 100.00000 | 89.36985 | |
| Sand | U.S. Well Services, LLC | Proppant | | | | | |
| | | | Crystalline Silica, quartz | 14808-60-7 | 100.00000 | 10.38822 | |
| HCL Acid (12.6%-17.5%) | U.S. Well Services, LLC | Bulk Acid | | | | | |
| | | | Water | 7732-18-5 | 87.40000 | 0.09705 | |
| | | | Hydrogen Chloride | 7647-01-0 | 17.50000 | 0.02256 | |
| LGC-15 | U.S. Well Services, LLC | Gelling Agents | | | | | |
| | | | Guar Gum | 9000-30-0 | 50.00000 | 0.03513 | |
| | | | Petroleum Distillates | 64742-47-8 | 60.00000 | 0.03327 | |
| | | | Suspending agent (solid) | 14808-60-7 | 3.00000 | 0.00537 | |
| | | | Surfactant | 68439-51-0 | 3.00000 | 0.00211 | |
| WFRA-405 | U.S. Well Services, LLC | Friction Reducer | | | | | |
| | | | 2-Propenoic acid, polymer with 2 propenamide | 9003-06-9 | 30.00000 | 0.02120 | |
| | | | Hydrated light distillate (petroleum) | 64742-47-8 | 30.00000 | 0.01706 | |

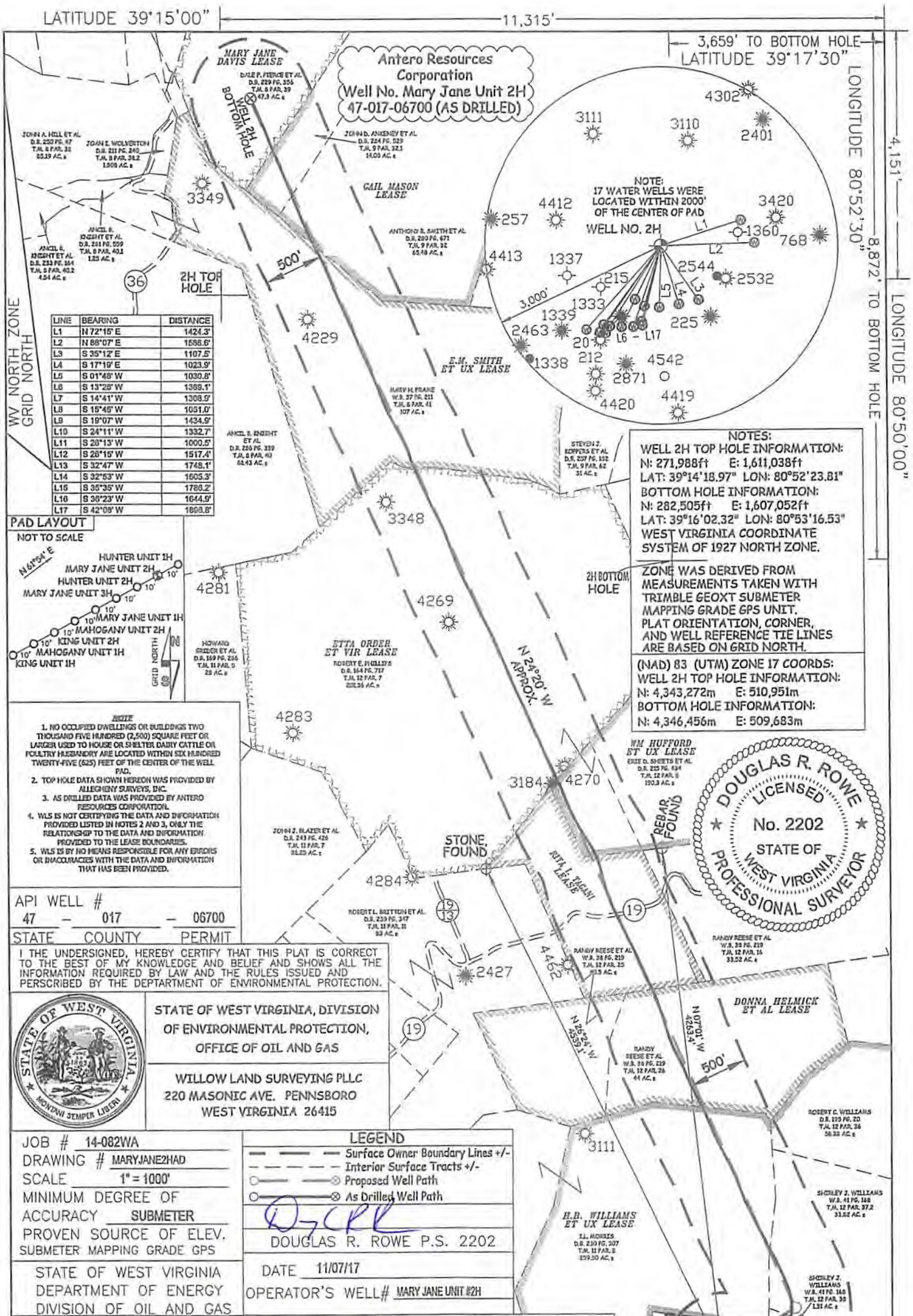
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bioclear 2000 | U.S. Well Services, LLC | Anti-Bacterial Agent | | | | | |
| | | | 2,2-dibromo-3-nitrilopropionamide | 10222-01-2 | 20.00000 | 0.00405 | |
| | | | Deionized Water | 7732-18-5 | 28.00000 | 0.00232 | |
| AP One | U.S. Well Services, LLC | Gel Breakers | | | | | |
| | | | Ammonium Persulfate | 7727-54-0 | 100.00000 | 0.00099 | |
| SI-1200s | U.S. Well Services, LLC | Scale Inhibitor | | | | | |
| | | | Alkyl Phosphonic Acid | Proprietary | 5.00000 | 0.00065 | |
| | | | Ammonia | 7664-41-7 | 0.50000 | 0.00010 | |
| AI-303 | U.S. Well Services, LLC | Acid Corrosion Inhibitors | | | | | |
| | | | Ethylene glycol | 107-21-1 | 40.00000 | 0.00003 | |
| | | | Cinnamaldehyde | 104-55-2 | 20.00000 | 0.00001 | |
| | | | Formic acid | 64-18-6 | 20.00000 | 0.00001 | |
| | | | Butyl cellosolve | 111-76-2 | 20.00000 | 0.00001 | |
| | | | Polyether | 60828-78-6 | 10.00000 | 0.00001 | |
| | | | Acetophenone,thiourea,formaldehyde polymer | 68527-49-1 | 5.00000 | 0.00000 | |

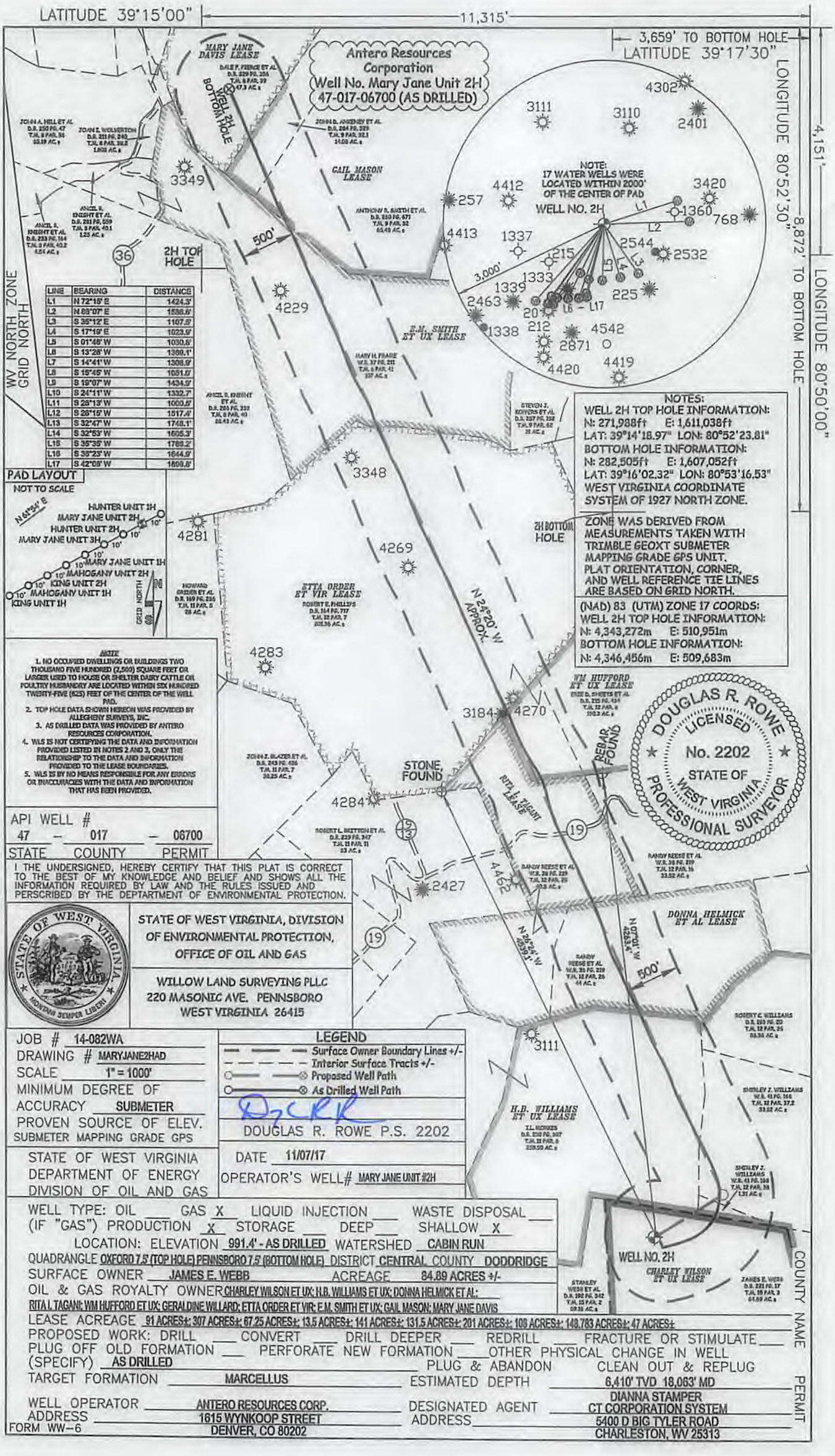
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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


LATITUDE 39°15'00"
11,315'
3,659' TO BOTTOM HOLE
LATITUDE 39°17'30"
LONGITUDE 80°52'30"
4,151'
8,872' TO BOTTOM HOLE
LONGITUDE 80°50'00"
Antero Resources Corporation
Well No. Mary Jane Unit 2H
47-017-06700 (AS DRILLED)
MARY JANE DAVIS LEASE
GAIL MASON LEASE
E.M. SMITH ET UX LEASE
ETTA ORDER ET VIR LEASE
WM HUFFORD ET UX LEASE
RITA I. TAGANI LEASE
DONNA HELMICK ET AL LEASE
H.B. WILLIAMS ET UX LEASE
CHARLEY WILSON ET UX LEASE
2H BOTTOM HOLE
2H TOP HOLE
500'
3,000'
N 24°20' W APPROX.
STONE FOUND
REBAR FOUND
WV NORTH ZONE GRID NORTH
NOTE:
17 WATER WELLS WERE LOCATED WITHIN 2000' OF THE CENTER OF PAD
WELL NO. 2H
4302
3111
3110
2401
3420
1360
768
4412
257
4413
1337
2544
2532
215
1333
1339
2463
225
20
212
1338
4542
2871
4419
4420
3349
4229
3348
4281
4269
4283
3184
4270
4284
2427
4462
3111
L1
L2
L3
L4
L5
L6 - L17
NOTES:
WELL 2H TOP HOLE INFORMATION:
N: 271,988ft E: 1,611,038ft
LAT: 39°14'18.97" LON: 80°52'23.81"
BOTTOM HOLE INFORMATION:
N: 282,505ft E: 1,607,052ft
LAT: 39°16'02.32" LON: 80°53'16.53"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE.
ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 4,343,272m E: 510,951m
BOTTOM HOLE INFORMATION:
N: 4,346,456m E: 509,683m
PAD LAYOUT
NOT TO SCALE
N 61°54' E
HUNTER UNIT 1H
MARY JANE UNIT 2H
HUNTER UNIT 2H
MARY JANE UNIT 3H
MARY JANE UNIT 1H
MAHOGANY UNIT 2H
KING UNIT 2H
MAHOGANY UNIT 1H
KING UNIT 1H
GRID NORTH
NOTE
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.
API WELL #
47 - 017 - 06700
STATE COUNTY PERMIT
I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPTARTMENT OF ENVIRONMENTAL PROTECTION.
STATE OF WEST VIRGINIA
MONTANI SEMPER LIBERI
STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415
DOUGLAS R. ROWE
LICENSED
No. 2202
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR
JOB # 14-082WA
DRAWING # MARYJANE2HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
LEGEND
Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Proposed Well Path
As Drilled Well Path
DRR
DOUGLAS R. ROWE P.S. 2202
DATE 11/07/17
OPERATOR'S WELL# MARY JANE UNIT #2H
STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 991.4' - AS DRILLED WATERSHED CABIN RUN
QUADRANGLE OXFORD 7.5' (TOP HOLE) PENNSBORO 7.5' (BOTTOM HOLE) DISTRICT CENTRAL COUNTY DODDRIDGE
SURFACE OWNER JAMES E. WEBB ACREAGE 84.89 ACRES +/-
OIL & GAS ROYALTY OWNER CHARLEY WILSON ET UX; H.B. WILLIAMS ET UX; DONNA HELMICK ET AL; RITA I. TAGANI; WM HUFFORD ET UX; GERALDINE WILLARD; ETTA ORDER ET VIR; E.M. SMITH ET UX; GAIL MASON; MARY JANE DAVIS
LEASE ACREAGE 91 ACRES±; 307 ACRES±; 67.25 ACRES±; 13.5 ACRES±; 141 ACRES±; 131.5 ACRES±; 201 ACRES±; 108 ACRES±; 149.783 ACRES±; 47 ACRES±
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,410' TVD 18,063' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1615 WYNKOOP STREET ADDRESS CT CORPORATION SYSTEM
DENVER, CO 80202 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313
FORM WW-6
COUNTY NAME PERMIT




| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N 72°15' E | 1424.3' |
| L2 | N 88°07' E | 1536.6' |
| L3 | S 35°12' E | 1107.5' |
| L4 | S 17°19' E | 1023.9' |
| L5 | S 01°46' W | 1030.6' |
| L6 | S 13°28' W | 1369.1' |
| L7 | S 14°41' W | 1308.9' |
| L8 | S 15°45' W | 1051.0' |
| L9 | S 19°07' W | 1434.5' |
| L10 | S 24°11' W | 1332.7' |
| L11 | S 28°13' W | 1000.5' |
| L12 | S 28°15' W | 1517.4' |
| L13 | S 32°47' W | 1748.1' |
| L14 | S 32°53' W | 1605.3' |
| L15 | S 35°35' W | 1769.2' |
| L16 | S 39°23' W | 1644.9' |
| L17 | S 42°09' W | 1699.8' |

NOTES:
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WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

JOB # 14-082WA
DRAWING # MARYJANE2HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

LEGEND
Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Proposed Well Path
As Drilled Well Path

DRR
DOUGLAS R. ROWE P.S. 2202

DATE 11/07/17
OPERATOR'S WELL# MARY JANE UNIT #2H

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(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
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COUNTY NAME PERMIT