



ANTERO RESOURCES CORPORATION

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

Slot: Slot #05
 Well: Mary Jane Unit 1H
 Wellbore: Mary Jane Unit 1H PWB



Plot reference wellpath is Mary Jane Unit 1H 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 geosidic 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 #05): -991 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: edbarry on 2016-09-15
	Database: WA_MPL_EASTERNUS_Datb

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
Slot #05	0.00	0.00	1676270.820	14248823.840	39°14'18.837"N
Comment	Mary Jane Unit 1H		25ft		
Patterson 343 (RKB) to Mud line (At Slot: Slot #05)			25ft		
Mean Sea Level to Mud line (At Slot: Slot #05)			-991ft		
Patterson 343 (RKB) to Mean Sea Level			1016ft		

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #05	Mary Jane Unit 1H	Mary Jane Unit 1H AWB	Mary Jane Unit 1H AWP Proj: 17542
Slot #05	Mary Jane Unit 1H	Mary Jane Unit 1H PWB	Mary Jane Unit 1H PWP Rev-A.0

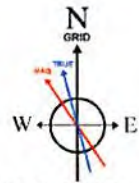
Scale 1 inch = 1500'

True Vertical Depth (ft)

Vertical Section (ft)



SDI Keeper <8-3/4"> (100'-5750.19') : 0.07° Inc, 112.00ft MD, 112.00ft TVD, -0.04ft VS



User specified Dip: 66.57° Field: 52089 nT
 Magnetic North is 7.64 degrees West of True North (at 8/3/2016)
 Grid North is 0.08 degrees East of True North
 To correct azimuth from True to Grid subtract 0.08 degrees
 To correct azimuth from Magnetic to Grid subtract 7.72 degrees

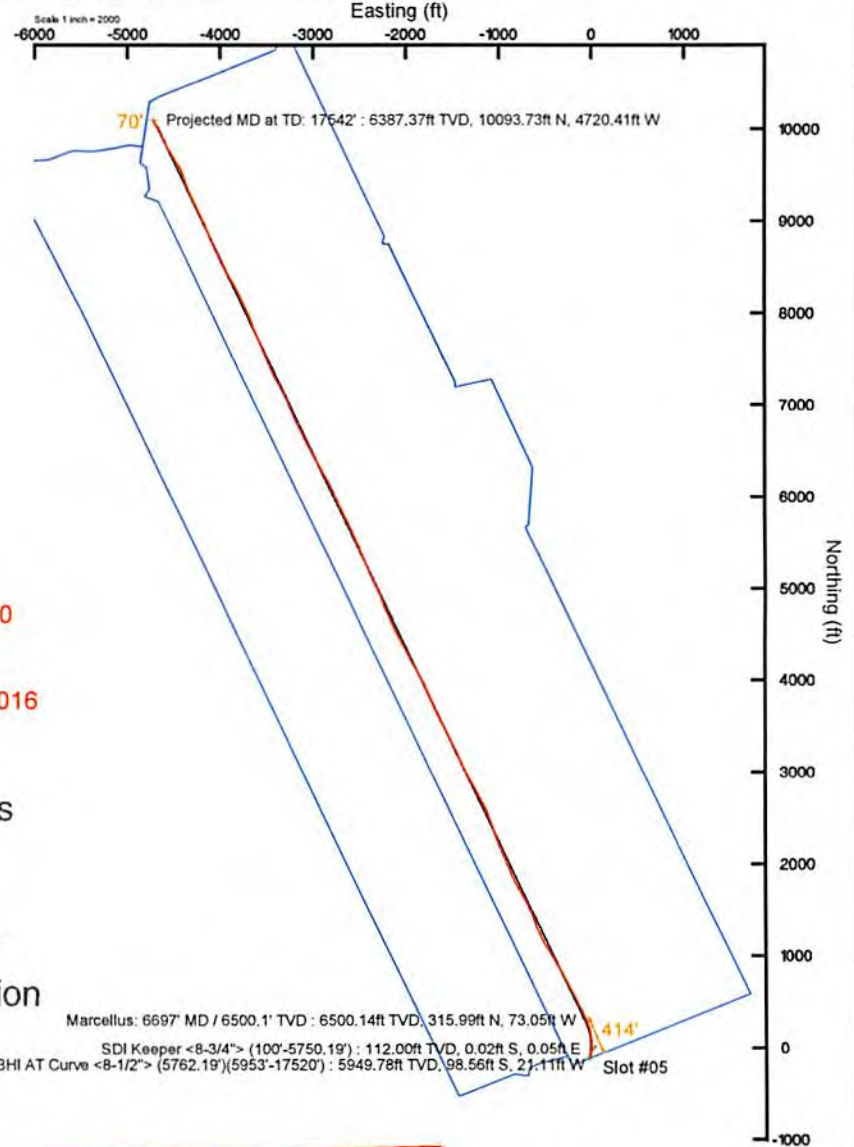
BHI AT Curve <8-1/2"> (5762.19')(5953'-17520') : 0.24° Inc, 5953.00ft MD, 5949.78ft TVD, -80.09ft VS

Marcellus: 6697' MD / 6500.1' TVD : 74.73° Inc, 6697.00ft MD, 6500.14ft TVD, 316.91ft VS

Projected MD at TD: 17542' : 90.43° Inc, 17542.00ft MD, 6387.37ft TVD, 11142.88ft VS

Marcellus: 6697' MD / 6500.1' TVD : 6500.14ft TVD, 315.99ft N, 73.05ft W
 SDI Keeper <8-3/4"> (100'-5750.19') : 112.00ft TVD, 0.02ft S, 0.05ft E
 BHI AT Curve <8-1/2"> (5762.19')(5953'-17520') : 5949.78ft TVD, 98.56ft S, 21.11ft W

Slot #05



API: 47-017-06699-0000
 BHI Job #: 8090950
 Rig: Patterson 343
 Duration: 8/5/2016-8/10/2016

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

Azimuth 334.71° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500'



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'
Page 1 of 16



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H 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 12:08:04 PM
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Mary_Jane_Unit_1H_AWP_Proj__17542_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1676270.82	14248823.84	39°14'18.837"N	80°52'24.137"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 #05)	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	334.71°

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



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'
Page 2 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 stations) † = interpolated/extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	["/100ft]	["/100ft]	["/100ft]	
0.00	0.00	117.290	0.00	0.00	0.00	0.00	1676270.82	14248823.84	39°14'18.837"N	80°52'24.137"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	117.290	25.00	0.00	0.00	0.00	1676270.82	14248823.84	39°14'18.837"N	80°52'24.137"W	0.00	0.000	0.00	0.00	0.00	
112.00	0.070	117.290	112.00	-0.04	-0.02	0.05	1676270.87	14248823.82	39°14'18.837"N	80°52'24.136"W	0.05	117.290	0.08	0.08	134.82	SDI Keeper <8-3/4"> (100'-5750.19')
137.00	0.060	205.770	137.00	-0.06	-0.04	0.06	1676270.88	14248823.80	39°14'18.837"N	80°52'24.136"W	0.07	128.064	0.36	-0.04	353.92	
162.00	0.030	202.940	162.00	-0.08	-0.06	0.05	1676270.87	14248823.78	39°14'18.836"N	80°52'24.136"W	0.08	142.451	0.12	-0.12	-11.32	
187.00	0.040	200.000	187.00	-0.09	-0.08	0.04	1676270.86	14248823.76	39°14'18.836"N	80°52'24.136"W	0.09	151.205	0.04	0.04	-11.76	
212.00	0.080	177.560	212.00	-0.11	-0.10	0.04	1676270.86	14248823.74	39°14'18.836"N	80°52'24.136"W	0.11	158.810	0.18	0.16	-89.76	
237.00	0.020	178.060	237.00	-0.13	-0.12	0.04	1676270.86	14248823.72	39°14'18.836"N	80°52'24.136"W	0.13	161.943	0.24	-0.24	2.00	
262.00	0.080	68.370	262.00	-0.13	-0.12	0.06	1676270.88	14248823.72	39°14'18.836"N	80°52'24.136"W	0.13	154.947	0.36	0.24	-438.76	
287.00	0.050	217.100	287.00	-0.14	-0.12	0.07	1676270.89	14248823.72	39°14'18.836"N	80°52'24.136"W	0.14	151.750	0.50	-0.12	594.92	
312.00	0.050	160.640	312.00	-0.16	-0.14	0.06	1676270.88	14248823.70	39°14'18.836"N	80°52'24.136"W	0.16	156.037	0.19	0.00	-225.84	
337.00	0.010	165.050	337.00	-0.17	-0.15	0.07	1676270.89	14248823.69	39°14'18.835"N	80°52'24.136"W	0.17	156.451	0.16	-0.16	17.64	
362.00	0.230	134.150	362.00	-0.22	-0.19	0.10	1676270.92	14248823.65	39°14'18.835"N	80°52'24.135"W	0.22	151.518	0.89	0.88	-123.60	
387.00	0.240	125.020	387.00	-0.31	-0.26	0.18	1676271.00	14248823.58	39°14'18.834"N	80°52'24.134"W	0.31	144.520	0.15	0.04	-36.52	
412.00	0.150	188.880	412.00	-0.38	-0.32	0.22	1676271.04	14248823.52	39°14'18.834"N	80°52'24.134"W	0.39	145.319	0.88	-0.36	255.44	
437.00	0.210	148.100	437.00	-0.45	-0.39	0.24	1676271.06	14248823.45	39°14'18.833"N	80°52'24.134"W	0.46	148.422	0.55	0.24	-163.12	
462.00	0.560	186.390	462.00	-0.60	-0.55	0.25	1676271.07	14248823.29	39°14'18.831"N	80°52'24.134"W	0.60	155.541	1.66	1.40	153.16	
487.00	1.580	199.470	486.99	-0.95	-1.00	0.12	1676270.94	14248822.84	39°14'18.827"N	80°52'24.135"W	1.00	173.033	4.17	4.08	52.32	
512.00	2.180	203.670	511.98	-1.51	-1.76	-0.18	1676270.64	14248822.08	39°14'18.820"N	80°52'24.139"W	1.77	185.978	2.46	2.40	16.80	
537.00	2.490	205.630	536.96	-2.16	-2.68	-0.61	1676270.21	14248821.16	39°14'18.810"N	80°52'24.144"W	2.75	192.809	1.28	1.24	7.84	
562.00	3.220	207.150	561.93	-2.93	-3.80	-1.17	1676269.66	14248820.04	39°14'18.799"N	80°52'24.152"W	3.97	197.060	2.94	2.92	6.08	
587.00	4.180	207.040	586.88	-3.92	-5.23	-1.90	1676268.92	14248818.61	39°14'18.785"N	80°52'24.161"W	5.57	199.953	3.84	3.84	-0.44	
612.00	4.840	207.010	611.80	-5.12	-6.98	-2.79	1676268.03	14248816.86	39°14'18.768"N	80°52'24.172"W	7.52	201.796	2.64	2.64	-0.12	
637.00	5.320	206.500	636.70	-6.48	-8.96	-3.79	1676267.03	14248814.88	39°14'18.748"N	80°52'24.185"W	9.73	202.921	1.93	1.92	-2.04	
662.00	5.510	206.760	661.59	-7.94	-11.07	-4.85	1676265.98	14248812.77	39°14'18.728"N	80°52'24.198"W	12.08	203.645	0.77	0.76	1.04	
687.00	5.610	206.580	686.47	-9.43	-13.23	-5.93	1676264.89	14248810.61	39°14'18.706"N	80°52'24.212"W	14.50	204.150	0.41	0.40	-0.72	
712.00	5.670	206.630	711.35	-10.95	-15.43	-7.03	1676263.79	14248808.42	39°14'18.685"N	80°52'24.226"W	16.96	204.505	0.24	0.24	0.20	
737.00	5.750	206.700	736.23	-12.48	-17.65	-8.15	1676262.67	14248806.19	39°14'18.663"N	80°52'24.241"W	19.44	204.781	0.32	0.32	0.28	
762.00	5.780	207.390	761.10	-14.01	-19.89	-9.29	1676261.53	14248803.96	39°14'18.640"N	80°52'24.255"W	21.95	205.040	0.30	0.12	2.76	
787.00	5.800	207.420	785.97	-15.54	-22.13	-10.45	1676260.37	14248801.72	39°14'18.618"N	80°52'24.270"W	24.47	205.284	0.08	0.08	0.12	

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'
Page 3 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 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	5.790	206.970	810.84	-17.08	-24.37	-11.61	1676259.22	14248799.48	39°14'18.596"N	80°52'24.285"W	27.00	205.463	0.19	-0.04	-1.80	
837.00	5.830	206.870	835.72	-18.63	-26.63	-12.75	1676258.07	14248797.22	39°14'18.574"N	80°52'24.299"W	29.53	205.588	0.17	0.16	-0.40	
862.00	5.860	206.650	860.59	-20.20	-28.90	-13.90	1676256.93	14248794.95	39°14'18.551"N	80°52'24.314"W	32.07	205.681	0.15	0.12	-0.88	
887.00	5.880	206.510	885.45	-21.78	-31.19	-15.04	1676255.78	14248792.66	39°14'18.529"N	80°52'24.328"W	34.63	205.747	0.10	0.08	-0.56	
912.00	5.940	206.420	910.32	-23.37	-33.50	-16.19	1676254.64	14248790.36	39°14'18.506"N	80°52'24.343"W	37.20	205.797	0.24	0.24	-0.36	
937.00	5.980	206.750	935.19	-24.97	-35.82	-17.35	1676253.48	14248788.04	39°14'18.483"N	80°52'24.358"W	39.80	205.848	0.21	0.16	1.32	
962.00	5.820	206.430	960.05	-26.56	-38.11	-18.50	1676252.33	14248785.74	39°14'18.460"N	80°52'24.373"W	42.37	205.893	0.65	-0.64	-1.28	
987.00	5.770	206.240	984.93	-28.12	-40.38	-19.62	1676251.21	14248783.48	39°14'18.438"N	80°52'24.387"W	44.89	205.918	0.21	-0.20	-0.76	
1012.00	5.400	205.600	1009.81	-29.65	-42.57	-20.69	1676250.14	14248781.29	39°14'18.417"N	80°52'24.400"W	47.33	205.919	1.50	-1.48	-2.56	
1037.00	4.980	205.910	1034.71	-31.07	-44.60	-21.67	1676249.16	14248779.26	39°14'18.396"N	80°52'24.413"W	49.59	205.911	1.68	-1.68	1.24	
1062.00	4.560	205.640	1059.62	-32.38	-46.47	-22.57	1676248.26	14248777.38	39°14'18.378"N	80°52'24.424"W	51.67	205.906	1.68	-1.68	-1.08	
1087.00	4.230	206.970	1084.55	-33.57	-48.19	-23.42	1676247.41	14248775.67	39°14'18.361"N	80°52'24.435"W	53.58	205.919	1.38	-1.32	5.32	
1112.00	3.990	207.170	1109.48	-34.66	-49.79	-24.24	1676246.59	14248774.07	39°14'18.345"N	80°52'24.446"W	55.37	205.956	0.96	-0.96	0.80	
1137.00	3.770	207.960	1134.42	-35.68	-51.29	-25.02	1676245.81	14248772.57	39°14'18.330"N	80°52'24.456"W	57.06	206.004	0.91	-0.88	3.16	
1162.00	3.310	207.700	1159.38	-36.61	-52.65	-25.74	1676245.09	14248771.21	39°14'18.317"N	80°52'24.465"W	58.61	206.052	1.84	-1.84	-1.04	
1187.00	3.410	208.200	1184.33	-37.49	-53.95	-26.43	1676244.40	14248769.92	39°14'18.304"N	80°52'24.474"W	60.07	206.098	0.42	0.40	2.00	
1212.00	2.840	208.400	1209.30	-38.30	-55.15	-27.07	1676243.76	14248768.72	39°14'18.292"N	80°52'24.482"W	61.43	206.147	2.28	-2.28	0.80	
1237.00	2.710	207.050	1234.27	-39.02	-56.22	-27.64	1676243.20	14248767.65	39°14'18.282"N	80°52'24.489"W	62.64	206.178	0.58	-0.52	-5.40	
1262.00	2.480	207.850	1259.24	-39.71	-57.22	-28.16	1676242.67	14248766.64	39°14'18.272"N	80°52'24.496"W	63.77	206.200	0.93	-0.92	3.20	
1287.00	2.110	209.970	1284.22	-40.30	-58.10	-28.64	1676242.19	14248765.76	39°14'18.263"N	80°52'24.502"W	64.77	206.241	1.52	-1.48	8.48	
1312.00	1.940	209.000	1309.20	-40.81	-58.87	-29.07	1676241.76	14248765.00	39°14'18.255"N	80°52'24.507"W	65.66	206.284	0.69	-0.68	-3.88	
1337.00	1.640	211.670	1334.19	-41.25	-59.54	-29.47	1676241.36	14248764.32	39°14'18.249"N	80°52'24.512"W	66.43	206.331	1.25	-1.20	10.68	
1362.00	1.560	213.760	1359.18	-41.62	-60.13	-29.84	1676240.99	14248763.73	39°14'18.243"N	80°52'24.517"W	67.13	206.397	0.40	-0.32	8.36	
1387.00	1.410	214.790	1384.17	-41.95	-60.67	-30.21	1676240.62	14248763.20	39°14'18.238"N	80°52'24.522"W	67.77	206.472	0.61	-0.60	4.12	
1412.00	1.300	214.750	1409.17	-42.24	-61.15	-30.55	1676240.29	14248762.71	39°14'18.233"N	80°52'24.526"W	68.36	206.543	0.44	-0.44	-0.16	
1437.00	1.140	212.930	1434.16	-42.51	-61.59	-30.84	1676239.99	14248762.27	39°14'18.229"N	80°52'24.530"W	68.88	206.600	0.66	-0.64	-7.28	
1462.00	0.920	215.320	1459.16	-42.74	-61.97	-31.09	1676239.74	14248761.90	39°14'18.225"N	80°52'24.533"W	69.33	206.648	0.90	-0.88	9.56	
1487.00	0.680	213.320	1484.16	-42.92	-62.25	-31.29	1676239.54	14248761.61	39°14'18.222"N	80°52'24.535"W	69.67	206.687	0.97	-0.96	-8.00	
1512.00	0.700	212.080	1509.15	-43.08	-62.51	-31.45	1676239.38	14248761.36	39°14'18.220"N	80°52'24.538"W	69.97	206.712	0.10	0.08	-4.96	
1537.00	0.620	205.810	1534.15	-43.25	-62.76	-31.59	1676239.24	14248761.11	39°14'18.217"N	80°52'24.539"W	70.26	206.722	0.43	-0.32	-25.08	

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report
 Mary Jane Unit 1H AWP Proj: 17542
 Page 4 of 16



Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 stations)												
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(N)	(E)	(ft)	(°)
1562.00	0.390	200.440	1559.15	-43.39	-31.68	1676239.15	14248760.91	39°14'18.215"N	80°52'24.540"W	70.48	206.713	0.94
1587.00	0.410	193.660	1584.15	-43.52	-63.13	1676239.10	14248760.74	39°14'18.213"N	80°52'24.541"W	70.65	206.689	0.08
1612.00	0.340	188.440	1609.15	-43.65	-63.29	1676239.07	14248760.58	39°14'18.212"N	80°52'24.542"W	70.81	206.654	0.31
1637.00	0.380	196.700	1634.15	-43.77	-63.44	1676239.03	14248760.43	39°14'18.210"N	80°52'24.542"W	70.96	206.624	0.26
1662.00	0.360	196.900	1659.15	-43.89	-63.59	1676238.99	14248760.27	39°14'18.209"N	80°52'24.543"W	71.12	206.601	0.08
1687.00	0.430	209.690	1684.15	-44.01	-63.75	1676238.92	14248760.12	39°14'18.207"N	80°52'24.543"W	71.29	206.595	0.45
1712.00	0.340	200.960	1709.15	-44.11	-63.90	1676238.84	14248759.97	39°14'18.206"N	80°52'24.544"W	71.46	206.593	0.43
1737.00	0.350	200.270	1734.15	-44.21	-64.04	1676238.79	14248759.82	39°14'18.204"N	80°52'24.545"W	71.61	206.581	0.04
1762.00	0.320	210.170	1759.15	-44.31	-64.17	1676238.73	14248759.69	39°14'18.203"N	80°52'24.546"W	71.76	206.577	0.26
1787.00	0.230	201.510	1784.15	-44.38	-64.28	1676238.68	14248759.59	39°14'18.202"N	80°52'24.547"W	71.88	206.577	0.40
1812.00	0.280	195.640	1809.15	-44.46	-64.39	1676238.64	14248759.48	39°14'18.201"N	80°52'24.547"W	71.99	206.565	0.23
1837.00	0.210	186.840	1834.15	-44.55	-64.49	1676238.62	14248759.38	39°14'18.200"N	80°52'24.547"W	72.09	206.543	0.32
1862.00	0.340	204.760	1859.15	-44.65	-64.61	1676238.61	14248759.26	39°14'18.199"N	80°52'24.547"W	72.20	206.509	0.52
1887.00	0.240	184.760	1884.15	-44.75	-64.73	1676238.58	14248759.13	39°14'18.198"N	80°52'24.548"W	72.32	206.486	0.56
1912.00	0.190	205.360	1909.15	-44.81	-64.82	1676238.54	14248759.05	39°14'18.197"N	80°52'24.548"W	72.42	206.484	0.20
1937.00	0.180	218.320	1934.15	-44.85	-64.88	1676238.50	14248758.98	39°14'18.196"N	80°52'24.549"W	72.50	206.490	0.17
1962.00	0.140	225.010	1959.14	-44.88	-64.94	1676238.45	14248758.93	39°14'18.196"N	80°52'24.549"W	72.56	206.504	0.18
1987.00	0.060	243.450	1984.14	-44.89	-64.96	1676238.42	14248758.90	39°14'18.195"N	80°52'24.550"W	72.60	206.518	0.34
2012.00	0.100	239.640	2009.14	-44.89	-64.98	1676238.39	14248758.88	39°14'18.195"N	80°52'24.550"W	72.63	206.534	0.16
2037.00	0.060	261.930	2034.14	-44.89	-64.99	1676238.36	14248758.87	39°14'18.195"N	80°52'24.551"W	72.66	206.551	0.20
2062.00	0.120	216.500	2059.14	-44.90	-65.02	1676238.33	14248758.85	39°14'18.195"N	80°52'24.551"W	72.69	206.563	0.36
2087.00	0.140	191.590	2084.14	-44.94	-65.07	1676238.31	14248758.80	39°14'18.194"N	80°52'24.551"W	72.75	206.561	0.24
2112.00	0.150	202.740	2109.14	-44.98	-65.13	1676238.29	14248758.74	39°14'18.194"N	80°52'24.551"W	72.81	206.553	0.12
2137.00	0.110	234.220	2134.14	-45.01	-65.17	1676238.25	14248758.69	39°14'18.193"N	80°52'24.552"W	72.86	206.560	0.32
2162.00	0.200	198.220	2159.14	-45.04	-65.23	1676238.22	14248758.64	39°14'18.193"N	80°52'24.552"W	72.93	206.564	0.51
2187.00	0.110	209.950	2184.14	-45.09	-65.29	1676238.20	14248758.58	39°14'18.192"N	80°52'24.553"W	72.99	206.560	0.38
2212.00	0.150	206.540	2209.14	-45.12	-65.34	1676238.17	14248758.53	39°14'18.192"N	80°52'24.553"W	73.05	206.561	0.16
2237.00	0.230	231.480	2234.14	-45.16	-65.40	1676238.12	14248758.47	39°14'18.191"N	80°52'24.554"W	73.13	206.578	0.45
2262.00	0.160	227.080	2259.14	-45.18	-65.46	1676238.05	14248758.41	39°14'18.190"N	80°52'24.554"W	73.21	206.604	0.29
2287.00	0.180	197.290	2284.14	-45.22	-65.52	1676238.01	14248758.35	39°14'18.190"N	80°52'24.555"W	73.28	206.608	0.36

REFERENCE WELLPATH IDENTIFICATION

RECEIVED
 Office of Oil and Gas
 NOV 30 2017

WV Department of
 Environmental Protection



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'

Page 5 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 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	0.170	222.410	2309.14	-45.26	-65.58	-32.86	1676237.98	14248758.28	39°14'18.189"N	80°52'24.555"W	73.35	206.611	0.31	-0.04	100.48	
2337.00	0.130	206.650	2334.14	-45.29	-65.63	-32.89	1676237.94	14248758.23	39°14'18.189"N	80°52'24.556"W	73.42	206.619	0.23	-0.16	-63.04	
2362.00	0.220	226.330	2359.14	-45.32	-65.69	-32.94	1676237.89	14248758.17	39°14'18.188"N	80°52'24.557"W	73.49	206.632	0.43	0.36	78.72	
2387.00	0.150	250.720	2384.14	-45.34	-65.74	-33.01	1676237.83	14248758.13	39°14'18.188"N	80°52'24.557"W	73.56	206.662	0.42	-0.28	97.56	
2412.00	0.280	223.890	2409.14	-45.35	-65.79	-33.08	1676237.75	14248758.07	39°14'18.187"N	80°52'24.558"W	73.64	206.694	0.64	0.56	-107.32	
2437.00	0.140	293.680	2434.14	-45.35	-65.82	-33.15	1676237.68	14248758.04	39°14'18.187"N	80°52'24.559"W	73.70	206.732	1.07	-0.52	279.16	
2462.00	0.270	216.800	2459.14	-45.36	-65.86	-33.21	1676237.62	14248758.01	39°14'18.186"N	80°52'24.560"W	73.76	206.763	1.10	0.52	-307.52	
2487.00	0.250	228.040	2484.14	-45.40	-65.94	-33.29	1676237.54	14248757.92	39°14'18.186"N	80°52'24.561"W	73.87	206.787	0.22	-0.08	44.96	
2512.00	0.260	240.540	2509.14	-45.42	-66.01	-33.38	1676237.45	14248757.86	39°14'18.185"N	80°52'24.562"W	73.97	206.826	0.23	0.04	50.00	
2537.00	0.270	249.890	2534.14	-45.42	-66.05	-33.48	1676237.35	14248757.81	39°14'18.185"N	80°52'24.563"W	74.06	206.882	0.18	0.04	37.40	
2562.00	0.200	231.630	2559.14	-45.42	-66.10	-33.57	1676237.26	14248757.76	39°14'18.184"N	80°52'24.565"W	74.14	206.927	0.41	-0.28	-73.04	
2587.00	0.270	259.560	2584.14	-45.42	-66.14	-33.67	1676237.17	14248757.73	39°14'18.184"N	80°52'24.566"W	74.21	206.977	0.53	0.28	111.72	
2612.00	0.280	255.550	2609.14	-45.39	-66.17	-33.78	1676237.05	14248757.70	39°14'18.183"N	80°52'24.567"W	74.29	207.049	0.09	0.04	-16.04	
2637.00	0.310	244.010	2634.14	-45.38	-66.21	-33.90	1676236.93	14248757.66	39°14'18.183"N	80°52'24.569"W	74.39	207.115	0.27	0.12	-46.16	
2662.00	0.250	230.860	2659.14	-45.39	-66.27	-34.01	1676236.83	14248757.59	39°14'18.182"N	80°52'24.570"W	74.49	207.163	0.35	-0.24	-52.60	
2687.00	0.310	247.690	2684.14	-45.40	-66.33	-34.11	1676236.72	14248757.53	39°14'18.182"N	80°52'24.571"W	74.59	207.214	0.40	0.24	67.32	
2712.00	0.300	242.460	2709.14	-45.40	-66.39	-34.23	1676236.60	14248757.48	39°14'18.181"N	80°52'24.573"W	74.70	207.276	0.12	-0.04	-20.92	
2737.00	0.340	260.550	2734.14	-45.39	-66.43	-34.36	1676236.47	14248757.43	39°14'18.181"N	80°52'24.575"W	74.79	207.351	0.43	0.16	72.36	
2762.00	0.250	263.210	2759.14	-45.35	-66.45	-34.49	1676236.34	14248757.42	39°14'18.181"N	80°52'24.576"W	74.87	207.431	0.36	-0.36	10.64	
2787.00	0.210	249.340	2784.14	-45.33	-66.47	-34.59	1676236.25	14248757.39	39°14'18.180"N	80°52'24.577"W	74.93	207.489	0.27	-0.16	-55.48	
2812.00	0.210	265.100	2809.14	-45.31	-66.49	-34.68	1676236.16	14248757.37	39°14'18.180"N	80°52'24.579"W	74.99	207.542	0.23	0.00	63.04	
2837.00	0.200	265.500	2834.14	-45.28	-66.50	-34.77	1676236.07	14248757.37	39°14'18.180"N	80°52'24.580"W	75.04	207.599	0.04	-0.04	1.60	
2862.00	0.260	254.630	2859.14	-45.25	-66.52	-34.86	1676235.97	14248757.35	39°14'18.180"N	80°52'24.581"W	75.10	207.659	0.30	0.24	-43.48	
2887.00	0.190	253.290	2884.14	-45.23	-66.55	-34.96	1676235.88	14248757.32	39°14'18.180"N	80°52'24.582"W	75.17	207.714	0.28	-0.28	-5.36	
2912.00	0.180	250.720	2909.14	-45.22	-66.57	-35.03	1676235.80	14248757.29	39°14'18.179"N	80°52'24.583"W	75.23	207.756	0.05	-0.04	-10.28	
2937.00	0.230	240.390	2934.14	-45.22	-66.61	-35.12	1676235.72	14248757.26	39°14'18.179"N	80°52'24.584"W	75.30	207.797	0.25	0.20	-41.32	
2962.00	0.210	244.610	2959.14	-45.23	-66.65	-35.20	1676235.63	14248757.21	39°14'18.179"N	80°52'24.585"W	75.38	207.839	0.10	-0.08	16.88	
2987.00	0.280	244.380	2984.14	-45.23	-66.70	-35.30	1676235.54	14248757.17	39°14'18.178"N	80°52'24.586"W	75.46	207.887	0.28	0.28	-0.92	
3012.00	0.280	251.270	3009.14	-45.22	-66.75	-35.41	1676235.42	14248757.12	39°14'18.178"N	80°52'24.588"W	75.56	207.947	0.13	0.00	27.56	
3037.00	0.290	242.340	3034.14	-45.22	-66.79	-35.52	1676235.31	14248757.07	39°14'18.177"N	80°52'24.589"W	75.65	208.005	0.18	0.04	-35.72	

Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report
 Mary Jane Unit 1H AWP Proj: 17542
 Page 6 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddrige Co., WV	Well	Mary Jane Unit 1H AWB
Field	Doddrige	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/100ft)	(°/100ft)
3062.00	0.280	238.230	3059.14	-45.23	-66.86	-35.63	1676235.20	14248757.01	39°14'18.17"N	80°52'24.59"W	75.76	208.056	0.09	-15.44
3087.00	0.280	237.340	3084.14	-45.24	-66.92	-35.74	1676235.10	14248756.95	39°14'18.17"N	80°52'24.59"W	75.86	208.101	0.02	-3.56
3112.00	0.290	246.530	3109.14	-45.25	-66.98	-35.84	1676234.99	14248756.89	39°14'18.17"N	80°52'24.59"W	75.97	208.154	0.19	36.76
3137.00	0.280	244.190	3134.14	-45.25	-67.03	-35.96	1676234.88	14248756.84	39°14'18.17"N	80°52'24.59"W	76.07	208.210	0.06	-9.36
3162.00	0.310	258.910	3159.14	-45.23	-67.07	-36.08	1676234.75	14248756.80	39°14'18.17"N	80°52'24.59"W	76.16	208.277	0.32	58.88
3187.00	0.290	256.390	3184.14	-45.20	-67.10	-36.21	1676234.63	14248756.77	39°14'18.17"N	80°52'24.59"W	76.24	208.351	0.10	-10.08
3212.00	0.250	257.840	3209.14	-45.18	-67.13	-36.32	1676234.51	14248756.74	39°14'18.17"N	80°52'24.60"W	76.32	208.418	0.16	5.80
3237.00	0.190	243.440	3234.14	-45.16	-67.16	-36.41	1676234.42	14248756.71	39°14'18.17"N	80°52'24.60"W	76.39	208.467	0.32	-57.60
3262.00	0.130	241.140	3259.13	-45.17	-67.19	-36.47	1676234.36	14248756.68	39°14'18.17"N	80°52'24.60"W	76.45	208.496	0.24	-8.80
3287.00	0.100	233.230	3284.13	-45.17	-67.21	-36.52	1676234.32	14248756.65	39°14'18.17"N	80°52'24.60"W	76.49	208.514	0.14	-32.04
3312.00	0.090	231.780	3309.13	-45.18	-67.24	-36.55	1676234.29	14248756.63	39°14'18.17"N	80°52'24.60"W	76.53	208.527	0.04	-5.80
3337.00	0.070	213.680	3334.13	-45.19	-67.26	-36.57	1676234.26	14248756.60	39°14'18.17"N	80°52'24.60"W	76.56	208.534	0.13	-72.40
3362.00	0.160	201.140	3359.13	-45.23	-67.31	-36.59	1676234.24	14248756.56	39°14'18.17"N	80°52'24.60"W	76.61	208.531	0.37	50.16
3387.00	0.150	213.900	3384.13	-45.27	-67.37	-36.62	1676234.21	14248756.50	39°14'18.17"N	80°52'24.60"W	76.68	208.530	0.14	-50.16
3412.00	0.200	218.470	3409.13	-45.30	-67.43	-36.67	1676234.16	14248756.44	39°14'18.17"N	80°52'24.60"W	76.76	208.538	0.21	18.28
3437.00	0.190	227.640	3434.13	-45.33	-67.49	-36.73	1676234.11	14248756.37	39°14'18.17"N	80°52'24.60"W	76.84	208.554	0.13	36.68
3462.00	0.170	237.720	3459.13	-45.35	-67.54	-36.79	1676234.04	14248756.33	39°14'18.17"N	80°52'24.60"W	76.91	208.578	0.15	40.48
3487.00	0.150	256.320	3484.13	-45.35	-67.57	-36.85	1676233.98	14248756.30	39°14'18.17"N	80°52'24.60"W	76.96	208.609	0.22	74.24
3512.00	0.180	243.780	3509.13	-45.34	-67.59	-36.92	1676233.91	14248756.27	39°14'18.169"N	80°52'24.60"W	77.02	208.644	0.19	-50.16
3537.00	0.140	245.010	3534.13	-45.34	-67.62	-36.98	1676233.85	14248756.24	39°14'18.169"N	80°52'24.60"W	77.08	208.674	0.16	4.92
3562.00	0.070	242.560	3559.13	-45.34	-67.64	-37.02	1676233.81	14248756.22	39°14'18.169"N	80°52'24.60"W	77.11	208.694	0.28	-9.80
3587.00	0.080	234.710	3584.13	-45.35	-67.66	-37.05	1676233.78	14248756.21	39°14'18.169"N	80°52'24.60"W	77.14	208.706	0.06	-31.40
3612.00	0.180	196.930	3609.13	-45.38	-67.71	-37.08	1676233.76	14248756.16	39°14'18.168"N	80°52'24.60"W	77.20	208.706	0.51	-151.12
3637.00	0.190	194.170	3634.13	-45.44	-67.79	-37.10	1676233.74	14248756.08	39°14'18.167"N	80°52'24.60"W	77.27	208.692	0.05	-11.04
3662.00	0.180	204.780	3659.13	-45.50	-67.86	-37.13	1676233.71	14248756.01	39°14'18.167"N	80°52'24.61"W	77.35	208.682	0.14	42.44
3687.00	0.160	210.940	3684.13	-45.54	-67.93	-37.16	1676233.67	14248755.94	39°14'18.166"N	80°52'24.61"W	77.43	208.681	0.11	-0.08
3712.00	0.220	229.370	3709.13	-45.57	-67.99	-37.21	1676233.62	14248755.88	39°14'18.165"N	80°52'24.61"W	77.51	208.695	0.34	73.72
3737.00	0.210	223.400	3734.13	-45.60	-68.05	-37.28	1676233.55	14248755.81	39°14'18.165"N	80°52'24.61"W	77.60	208.716	0.10	-23.88
3762.00	0.150	212.450	3759.13	-45.64	-68.11	-37.33	1676233.50	14248755.75	39°14'18.164"N	80°52'24.61"W	77.67	208.726	0.28	-43.80
3787.00	0.130	222.310	3784.13	-45.67	-68.16	-37.37	1676233.47	14248755.70	39°14'18.164"N	80°52'24.61"W	77.73	208.733	0.12	39.44

RECEIVED
 Office of Oil and Gas
 NOV 30 2017

WV Department of
 Environmental Protection



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'

Page 7 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 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
3812.00	0.090	249.050	3809.13	-45.68	-68.19	-37.41	1676233.43	14248755.68	39°14'18.163"N	80°52'24.613"W	77.78	208.747	0.26	-0.16	106.96	
3837.00	0.070	259.320	3834.13	-45.67	-68.20	-37.44	1676233.40	14248755.67	39°14'18.163"N	80°52'24.614"W	77.80	208.765	0.10	-0.08	41.08	
3862.00	0.070	187.700	3859.13	-45.68	-68.22	-37.46	1676233.38	14248755.65	39°14'18.163"N	80°52'24.614"W	77.82	208.770	0.33	0.00	-286.48	
3887.00	0.070	257.680	3884.13	-45.69	-68.24	-37.47	1676233.36	14248755.63	39°14'18.163"N	80°52'24.614"W	77.85	208.774	0.32	0.00	279.92	
3912.00	0.080	173.230	3909.13	-45.70	-68.26	-37.49	1676233.35	14248755.61	39°14'18.163"N	80°52'24.614"W	77.87	208.775	0.40	0.04	-337.80	
3937.00	0.130	154.450	3934.13	-45.75	-68.30	-37.47	1676233.36	14248755.57	39°14'18.162"N	80°52'24.614"W	77.90	208.751	0.24	0.20	-75.12	
3962.00	0.120	189.850	3959.13	-45.80	-68.35	-37.46	1676233.37	14248755.52	39°14'18.162"N	80°52'24.614"W	77.95	208.727	0.31	-0.04	141.60	
3987.00	0.170	174.560	3984.13	-45.85	-68.41	-37.47	1676233.37	14248755.45	39°14'18.161"N	80°52'24.614"W	78.00	208.706	0.25	0.20	-61.16	
4012.00	0.150	190.550	4009.13	-45.91	-68.48	-37.47	1676233.37	14248755.38	39°14'18.161"N	80°52'24.614"W	78.06	208.683	0.19	-0.08	63.96	
4037.00	0.270	184.260	4034.13	-45.99	-68.57	-37.48	1676233.36	14248755.29	39°14'18.160"N	80°52'24.614"W	78.15	208.658	0.49	0.48	-25.16	
4062.00	0.220	169.130	4059.13	-46.09	-68.68	-37.47	1676233.36	14248755.19	39°14'18.159"N	80°52'24.614"W	78.24	208.618	0.33	-0.20	-60.52	
4087.00	0.300	165.980	4084.13	-46.20	-68.79	-37.45	1676233.39	14248755.08	39°14'18.158"N	80°52'24.614"W	78.32	208.563	0.32	0.32	-12.60	
4112.00	0.340	166.430	4109.13	-46.34	-68.93	-37.42	1676233.42	14248754.94	39°14'18.156"N	80°52'24.613"W	78.43	208.494	0.16	0.16	1.80	
4137.00	0.390	158.900	4134.13	-46.49	-69.08	-37.37	1676233.47	14248754.79	39°14'18.155"N	80°52'24.613"W	78.54	208.411	0.28	0.20	-30.12	
4162.00	0.420	153.180	4159.13	-46.67	-69.24	-37.30	1676233.54	14248754.63	39°14'18.153"N	80°52'24.612"W	78.64	208.309	0.20	0.12	-22.88	
4187.00	0.420	153.150	4184.13	-46.85	-69.40	-37.21	1676233.62	14248754.47	39°14'18.151"N	80°52'24.611"W	78.75	208.199	0.00	0.00	-0.12	
4212.00	0.390	150.960	4209.13	-47.03	-69.56	-37.13	1676233.71	14248754.31	39°14'18.150"N	80°52'24.610"W	78.85	208.093	0.14	-0.12	-8.76	
4237.00	0.430	147.770	4234.13	-47.21	-69.71	-37.04	1676233.80	14248754.16	39°14'18.148"N	80°52'24.609"W	78.94	207.982	0.18	0.16	-12.76	
4262.00	0.430	145.000	4259.13	-47.39	-69.87	-36.93	1676233.90	14248754.00	39°14'18.147"N	80°52'24.607"W	79.03	207.862	0.08	0.00	-11.08	
4287.00	0.490	141.320	4284.13	-47.59	-70.03	-36.81	1676234.02	14248753.84	39°14'18.145"N	80°52'24.606"W	79.12	207.731	0.27	0.24	-14.72	
4312.00	0.460	145.910	4309.13	-47.79	-70.20	-36.69	1676234.14	14248753.67	39°14'18.144"N	80°52'24.604"W	79.21	207.596	0.19	-0.12	18.36	
4337.00	0.470	143.850	4334.13	-47.99	-70.36	-36.57	1676234.26	14248753.51	39°14'18.142"N	80°52'24.603"W	79.30	207.465	0.08	0.04	-8.24	
4362.00	0.520	143.500	4359.12	-48.21	-70.54	-36.45	1676234.39	14248753.33	39°14'18.140"N	80°52'24.601"W	79.40	207.326	0.20	0.20	-1.40	
4387.00	0.700	135.460	4384.12	-48.46	-70.74	-36.27	1676234.56	14248753.13	39°14'18.138"N	80°52'24.599"W	79.49	207.148	0.80	0.72	-32.16	
4412.00	0.740	139.140	4409.12	-48.76	-70.97	-36.06	1676234.78	14248752.90	39°14'18.136"N	80°52'24.596"W	79.60	206.936	0.24	0.16	14.72	
4437.00	0.910	136.830	4434.12	-49.11	-71.23	-35.82	1676235.02	14248752.64	39°14'18.133"N	80°52'24.593"W	79.73	206.694	0.69	0.68	-9.24	
4462.00	0.740	141.510	4459.12	-49.45	-71.50	-35.58	1676235.25	14248752.36	39°14'18.131"N	80°52'24.590"W	79.87	206.455	0.73	-0.68	18.72	
4487.00	0.860	141.430	4484.11	-49.79	-71.78	-35.36	1676235.47	14248752.09	39°14'18.128"N	80°52'24.587"W	80.02	206.229	0.48	0.48	-0.32	
4512.00	0.860	146.890	4509.11	-50.16	-72.08	-35.14	1676235.69	14248751.79	39°14'18.125"N	80°52'24.585"W	80.19	205.992	0.33	0.00	21.84	
4537.00	0.930	149.780	4534.11	-50.55	-72.41	-34.94	1676235.89	14248751.46	39°14'18.122"N	80°52'24.582"W	80.40	205.757	0.33	0.28	11.56	

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'

Page 8 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 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
4562.00	0.890	147.550	4559.10	-50.94	-72.75	-34.73	1676236.10	14248751.12	39°14'18.118"N	80°52'24.579"W	80.62	205.520	0.21	-0.16	-8.92	
4587.00	0.970	144.040	4584.10	-51.34	-73.09	-34.50	1676236.33	14248750.78	39°14'18.115"N	80°52'24.577"W	80.82	205.272	0.39	0.32	-14.04	
4612.00	1.010	150.440	4609.10	-51.77	-73.45	-34.27	1676236.56	14248750.42	39°14'18.111"N	80°52'24.574"W	81.05	205.013	0.47	0.16	25.60	
4637.00	0.990	148.540	4634.09	-52.20	-73.83	-34.05	1676236.78	14248750.04	39°14'18.108"N	80°52'24.571"W	81.30	204.760	0.15	-0.08	-7.60	
4662.00	0.960	149.580	4659.09	-52.63	-74.19	-33.83	1676237.00	14248749.68	39°14'18.104"N	80°52'24.568"W	81.54	204.513	0.14	-0.12	4.16	
4687.00	1.070	149.590	4684.09	-53.07	-74.57	-33.61	1676237.23	14248749.30	39°14'18.100"N	80°52'24.565"W	81.80	204.259	0.44	0.44	0.04	
4712.00	1.000	149.720	4709.08	-53.52	-74.96	-33.38	1676237.45	14248748.91	39°14'18.096"N	80°52'24.562"W	82.06	204.002	0.28	-0.28	0.52	
4737.00	1.150	149.090	4734.08	-53.99	-75.37	-33.14	1676237.69	14248748.50	39°14'18.092"N	80°52'24.559"W	82.33	203.736	0.60	0.60	-2.52	
4762.00	1.120	151.430	4759.07	-54.48	-75.80	-32.89	1676237.94	14248748.07	39°14'18.088"N	80°52'24.556"W	82.63	203.460	0.22	-0.12	9.36	
4787.00	1.230	151.900	4784.07	-54.99	-76.25	-32.65	1676238.18	14248747.62	39°14'18.084"N	80°52'24.553"W	82.95	203.182	0.44	0.44	1.88	
4812.00	1.190	152.270	4809.06	-55.52	-76.71	-32.40	1676238.43	14248747.16	39°14'18.079"N	80°52'24.550"W	83.28	202.899	0.16	-0.16	1.48	
4837.00	1.300	151.770	4834.06	-56.06	-77.19	-32.15	1676238.68	14248746.68	39°14'18.074"N	80°52'24.547"W	83.62	202.610	0.44	0.44	-2.00	
4862.00	1.260	150.040	4859.05	-56.62	-77.68	-31.88	1676238.95	14248746.19	39°14'18.070"N	80°52'24.543"W	83.97	202.311	0.22	-0.16	-6.92	
4887.00	1.370	147.510	4884.04	-57.19	-78.17	-31.58	1676239.25	14248745.70	39°14'18.065"N	80°52'24.539"W	84.31	201.998	0.50	0.44	-10.12	
4912.00	1.340	151.390	4909.04	-57.78	-78.68	-31.28	1676239.55	14248745.19	39°14'18.060"N	80°52'24.536"W	84.67	201.680	0.39	-0.12	15.52	
4937.00	1.300	153.160	4934.03	-58.35	-79.19	-31.01	1676239.82	14248744.68	39°14'18.055"N	80°52'24.532"W	85.05	201.386	0.23	-0.16	7.08	
4962.00	1.280	152.680	4959.02	-58.92	-79.69	-30.76	1676240.08	14248744.18	39°14'18.050"N	80°52'24.529"W	85.42	201.103	0.09	-0.08	-1.92	
4987.00	1.430	149.070	4984.02	-59.50	-80.21	-30.47	1676240.37	14248743.66	39°14'18.045"N	80°52'24.525"W	85.80	200.799	0.69	0.60	-14.44	
5012.00	1.400	153.560	5009.01	-60.12	-80.75	-30.17	1676240.66	14248743.12	39°14'18.039"N	80°52'24.522"W	86.20	200.487	0.46	-0.12	17.96	
5037.00	1.350	153.140	5034.00	-60.72	-81.28	-29.90	1676240.93	14248742.59	39°14'18.034"N	80°52'24.518"W	86.61	200.197	0.20	-0.20	-1.68	
5062.00	1.370	152.790	5058.99	-61.31	-81.81	-29.63	1676241.20	14248742.06	39°14'18.029"N	80°52'24.515"W	87.01	199.910	0.09	0.08	-1.40	
5087.00	1.500	152.250	5083.99	-61.94	-82.37	-29.34	1676241.49	14248741.50	39°14'18.023"N	80°52'24.511"W	87.44	199.608	0.52	0.52	-2.16	
5112.00	1.490	150.120	5108.98	-62.59	-82.94	-29.03	1676241.80	14248740.93	39°14'18.018"N	80°52'24.507"W	87.87	199.290	0.23	-0.04	-8.52	
5137.00	1.430	152.260	5133.97	-63.23	-83.50	-28.72	1676242.11	14248740.38	39°14'18.012"N	80°52'24.503"W	88.30	198.982	0.32	-0.24	8.56	
5162.00	1.410	154.810	5158.96	-63.84	-84.05	-28.45	1676242.39	14248739.82	39°14'18.007"N	80°52'24.500"W	88.74	198.697	0.27	-0.08	10.20	
5187.00	1.400	153.810	5183.95	-64.46	-84.60	-28.18	1676242.65	14248739.27	39°14'18.001"N	80°52'24.496"W	89.17	198.422	0.11	-0.04	-4.00	
5212.00	1.300	153.050	5208.95	-65.05	-85.13	-27.92	1676242.91	14248738.74	39°14'17.996"N	80°52'24.493"W	89.59	198.155	0.41	-0.40	-3.04	
5237.00	1.160	157.230	5233.94	-65.58	-85.62	-27.69	1676243.14	14248738.26	39°14'17.991"N	80°52'24.490"W	89.98	197.922	0.66	-0.56	16.72	
5262.00	1.240	155.270	5258.94	-66.11	-86.10	-27.48	1676243.35	14248737.78	39°14'17.986"N	80°52'24.487"W	90.38	197.701	0.36	0.32	-7.84	
5287.00	1.280	152.600	5283.93	-66.66	-86.59	-27.24	1676243.59	14248737.28	39°14'17.981"N	80°52'24.484"W	90.77	197.461	0.28	0.16	-10.68	

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'
Page 9 of 16



REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #05
Area	Doddridge Co., WV		Well	Mary Jane Unit 1H
Field	Doddridge		Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad			

WELLPATH DATA (370 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
5312.00	1.190	157.360	5308.92	-67.19	-87.08	-27.01	1676243.82	14248736.80	39°14'17.977"N	80°52'24.481"W	91.17	197.232	0.55	-0.36	19.04	
5337.00	1.210	153.140	5333.92	-67.72	-87.55	-26.79	1676244.04	14248736.32	39°14'17.972"N	80°52'24.479"W	91.56	197.013	0.36	0.08	-16.88	
5362.00	1.240	154.370	5358.91	-68.25	-88.03	-26.55	1676244.28	14248735.84	39°14'17.967"N	80°52'24.476"W	91.95	196.785	0.16	0.12	4.92	
5387.00	1.200	153.170	5383.91	-68.78	-88.51	-26.32	1676244.51	14248735.37	39°14'17.962"N	80°52'24.473"W	92.34	196.560	0.19	-0.16	-4.80	
5412.00	1.220	153.650	5408.90	-69.31	-88.98	-26.08	1676244.75	14248734.89	39°14'17.958"N	80°52'24.470"W	92.73	196.337	0.09	0.08	1.92	
5437.00	1.210	156.390	5433.90	-69.84	-89.46	-25.86	1676244.97	14248734.41	39°14'17.953"N	80°52'24.467"W	93.12	196.121	0.24	-0.04	10.96	
5462.00	1.240	150.910	5458.89	-70.38	-89.94	-25.62	1676245.21	14248733.94	39°14'17.948"N	80°52'24.464"W	93.52	195.900	0.48	0.12	-21.92	
5487.00	1.260	154.390	5483.88	-70.92	-90.42	-25.37	1676245.46	14248733.45	39°14'17.944"N	80°52'24.461"W	93.92	195.672	0.31	0.08	13.92	
5512.00	1.200	152.700	5508.88	-71.46	-90.91	-25.13	1676245.70	14248732.97	39°14'17.939"N	80°52'24.458"W	94.32	195.454	0.28	-0.24	-6.76	
5537.00	1.250	152.290	5533.87	-71.99	-91.38	-24.88	1676245.95	14248732.50	39°14'17.934"N	80°52'24.455"W	94.71	195.233	0.20	0.20	-1.64	
5562.00	1.270	154.390	5558.87	-72.54	-91.87	-24.64	1676246.19	14248732.01	39°14'17.929"N	80°52'24.451"W	95.12	195.012	0.20	0.08	8.40	
5587.00	1.400	152.790	5583.86	-73.12	-92.39	-24.38	1676246.45	14248731.48	39°14'17.924"N	80°52'24.448"W	95.55	194.781	0.54	0.52	-6.40	
5612.00	1.340	150.130	5608.85	-73.72	-92.92	-24.09	1676246.74	14248730.96	39°14'17.919"N	80°52'24.445"W	95.99	194.537	0.35	-0.24	-10.64	
5637.00	1.430	153.090	5633.85	-74.32	-93.45	-23.81	1676247.02	14248730.43	39°14'17.914"N	80°52'24.441"W	96.43	194.292	0.46	0.36	11.84	
5662.00	1.520	154.440	5658.84	-74.97	-94.03	-23.52	1676247.31	14248729.85	39°14'17.908"N	80°52'24.437"W	96.92	194.045	0.39	0.36	5.40	
5687.00	1.540	154.930	5683.83	-75.63	-94.63	-23.24	1676247.59	14248729.25	39°14'17.902"N	80°52'24.434"W	97.44	193.796	0.10	0.08	1.96	
5712.00	1.520	154.610	5708.82	-76.30	-95.23	-22.95	1676247.88	14248728.64	39°14'17.896"N	80°52'24.430"W	97.96	193.551	0.09	-0.08	-1.28	
5737.00	1.370	162.500	5733.81	-76.93	-95.82	-22.72	1676248.11	14248728.05	39°14'17.890"N	80°52'24.427"W	98.47	193.340	1.00	-0.60	31.56	
5762.00	1.460	155.960	5758.80	-77.54	-96.39	-22.50	1676248.33	14248727.48	39°14'17.885"N	80°52'24.424"W	98.99	193.139	0.74	0.36	-26.16	
5762.19	1.460	155.910	5758.99	-77.55	-96.40	-22.50	1676248.33	14248727.48	39°14'17.884"N	80°52'24.424"W	98.99	193.137	0.67	0.00	-26.32	
5953.00	0.240	81.700	5949.78	-80.09	-98.56	-21.11	1676249.72	14248725.32	39°14'17.863"N	80°52'24.407"W	100.80	192.090	0.74	-0.64	-38.89	BHI AT Curve <8-1/2"> (5762.19')(5953'-17520')
5999.00	5.010	357.500	5995.72	-78.27	-96.54	-21.10	1676249.73	14248725.34	39°14'17.883"N	80°52'24.407"W	98.82	192.331	10.85	10.37	-183.04	
6047.00	9.830	355.190	6043.31	-72.50	-90.36	-21.54	1676249.29	14248733.52	39°14'17.944"N	80°52'24.412"W	92.89	193.407	10.06	10.04	-4.81	
6094.00	14.650	359.410	6089.23	-63.33	-80.41	-21.94	1676248.89	14248743.46	39°14'18.042"N	80°52'24.417"W	83.35	195.259	10.42	10.26	8.98	
6141.00	19.430	4.850	6134.15	-51.16	-66.67	-21.34	1676249.49	14248757.20	39°14'18.178"N	80°52'24.409"W	70.00	197.747	10.71	10.17	11.57	
6188.00	24.760	7.230	6177.69	-36.09	-49.10	-19.44	1676251.39	14248774.76	39°14'18.352"N	80°52'24.385"W	52.81	201.594	11.50	11.34	5.06	
6236.00	29.690	5.870	6220.36	-17.43	-27.29	-16.95	1676253.87	14248796.56	39°14'18.567"N	80°52'24.353"W	32.13	211.847	10.35	10.27	-2.83	
6283.00	34.940	2.910	6260.07	4.40	-2.25	-15.08	1676255.75	14248821.59	39°14'18.815"N	80°52'24.328"W	15.25	261.503	11.66	11.17	-6.30	
6330.00	38.700	0.910	6297.68	29.46	25.89	-14.16	1676256.66	14248849.72	39°14'19.093"N	80°52'24.316"W	29.51	331.324	8.40	8.00	-4.26	
6365.00†	41.025	358.943	6324.55	49.76	48.32	-14.20	1676256.63	14248872.14	39°14'19.315"N	80°52'24.316"W	50.36	343.624	7.56	6.64	-5.62	Middlesex: 6365' MD / 6324.6' TVD

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'
Page 10 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 stations) † = interpolated/extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	["/100ft]	["/100ft]	["/100ft]	
6377.00	41.830	358.310	6333.55	57.01	56.26	-14.39	1676256.44	14248880.08	39°14'19.393"N	80°52'24.319"W	58.07	345.652	7.56	6.70	-5.27	
6424.00	46.160	355.530	6367.35	87.24	88.84	-16.17	1676254.65	14248912.65	39°14'19.715"N	80°52'24.341"W	90.30	349.682	10.09	9.21	-5.91	
6471.00	52.270	353.520	6398.04	120.71	124.24	-19.60	1676251.23	14248948.03	39°14'20.065"N	80°52'24.384"W	125.78	351.037	13.40	13.00	-4.28	
6519.00	57.130	351.960	6425.77	157.95	163.09	-24.56	1676246.27	14248986.86	39°14'20.449"N	80°52'24.446"W	164.93	351.436	10.47	10.13	-3.25	
6555.00†	60.362	348.042	6444.45	187.63	193.38	-29.92	1676240.91	14249017.14	39°14'20.749"N	80°52'24.514"W	195.68	351.205	12.93	8.98	-10.88	Burkett: 6555' MD / 6444.5' TVD
6565.00	61.280	347.000	6449.33	196.14	201.90	-31.81	1676239.03	14249025.66	39°14'20.833"N	80°52'24.537"W	204.39	351.048	12.93	9.18	-10.42	
6613.00	64.970	340.820	6471.04	238.38	243.00	-43.70	1676227.14	14249066.74	39°14'21.239"N	80°52'24.688"W	246.89	349.805	13.82	7.69	-12.87	
6617.00†	65.406	340.499	6472.72	241.99	246.42	-44.90	1676225.94	14249070.16	39°14'21.273"N	80°52'24.703"W	250.48	349.673	13.11	10.90	-8.02	Tully: 6617' MD / 6472.7' TVD
6658.00	69.910	337.330	6488.30	279.79	281.78	-58.55	1676212.29	14249105.51	39°14'21.623"N	80°52'24.876"W	287.80	348.261	13.11	10.99	-7.73	
6675.00†	72.011	337.076	6493.85	295.85	296.60	-64.78	1676206.07	14249120.32	39°14'21.769"N	80°52'24.955"W	303.59	347.679	12.44	12.36	-1.49	Hamilton: 6675' MD / 6493.9' TVD
6697.00†	74.730	336.757	6500.14	316.91	315.99	-73.05	1676197.80	14249139.70	39°14'21.961"N	80°52'25.059"W	324.32	346.984	12.44	12.36	-1.45	Marcellus: 6697' MD / 6500.1' TVD
6708.00	76.090	336.600	6502.91	327.55	325.76	-77.26	1676193.59	14249149.47	39°14'22.058"N	80°52'25.113"W	334.80	346.658	12.44	12.36	-1.42	
6763.00	81.660	334.880	6513.52	381.48	374.94	-99.43	1676171.43	14249198.63	39°14'22.544"N	80°52'25.394"W	387.90	345.148	10.58	10.13	-3.13	
6802.00	82.720	333.250	6518.82	420.12	409.68	-116.33	1676154.54	14249233.36	39°14'22.888"N	80°52'25.608"W	425.88	344.148	4.95	2.72	-4.18	
6847.00	85.720	332.830	6523.35	464.86	449.59	-136.62	1676134.25	14249273.25	39°14'23.282"N	80°52'25.865"W	469.89	343.096	6.73	6.67	-0.93	
6897.00	89.850	334.510	6525.29	514.80	494.35	-158.78	1676112.10	14249318.00	39°14'23.725"N	80°52'26.146"W	519.23	342.194	8.92	8.26	3.36	
6991.00	89.910	333.300	6525.48	608.79	578.77	-200.12	1676070.78	14249402.38	39°14'24.560"N	80°52'26.670"W	612.39	340.926	1.29	0.06	-1.29	
7085.00	89.850	332.810	6525.68	702.75	662.57	-242.72	1676028.20	14249486.14	39°14'25.389"N	80°52'27.210"W	705.62	339.881	0.53	-0.06	-0.52	
7180.00	89.880	332.340	6525.90	797.69	746.89	-286.47	1675984.46	14249570.43	39°14'26.223"N	80°52'27.764"W	799.94	339.015	0.50	0.03	-0.49	
7275.00	90.090	330.050	6525.93	892.50	830.13	-332.25	1675938.71	14249653.64	39°14'27.046"N	80°52'28.345"W	894.15	338.187	2.42	0.22	-2.41	
7369.00	89.750	331.490	6526.06	986.28	912.16	-378.15	1675892.83	14249735.63	39°14'27.858"N	80°52'28.927"W	987.43	337.483	1.57	-0.36	1.53	
7464.00	90.310	330.120	6526.01	1081.05	995.09	-424.48	1675846.51	14249818.53	39°14'28.678"N	80°52'29.514"W	1081.84	336.898	1.56	0.59	-1.44	
7558.00	89.320	327.190	6526.31	1174.52	1075.36	-473.38	1675797.63	14249898.77	39°14'29.472"N	80°52'30.134"W	1174.94	336.241	3.29	-1.05	-3.12	
7653.00	89.820	331.080	6527.03	1269.05	1156.88	-522.10	1675748.93	14249980.26	39°14'30.279"N	80°52'30.752"W	1269.24	335.710	4.13	0.53	4.09	
7747.00	89.820	336.980	6527.32	1363.00	1241.35	-563.25	1675707.80	14250064.70	39°14'31.114"N	80°52'31.273"W	1363.16	335.595	6.28	0.00	6.28	
7842.00	90.060	340.180	6527.42	1457.77	1329.78	-597.94	1675673.12	14250153.09	39°14'31.988"N	80°52'31.713"W	1458.03	335.789	3.38	0.25	3.37	
7937.00	90.520	338.940	6526.94	1552.43	1418.80	-631.11	1675639.96	14250242.07	39°14'32.869"N	80°52'32.133"W	1552.83	336.019	1.39	0.48	-1.31	
8031.00	92.150	337.950	6524.75	1646.20	1506.20	-665.63	1675605.45	14250329.43	39°14'33.733"N	80°52'32.570"W	1646.72	336.158	2.03	1.73	-1.05	
8126.00	93.110	332.250	6520.39	1741.05	1592.24	-705.57	1675565.53	14250415.44	39°14'34.584"N	80°52'33.076"W	1741.57	336.100	6.08	1.01	-6.00	
8220.00	90.370	328.520	6517.53	1834.72	1673.90	-751.99	1675519.13	14250497.07	39°14'35.392"N	80°52'33.665"W	1835.05	335.808	4.92	-2.91	-3.97	

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'

Page 11 of 16



REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #05
Area	Doddridge Co., WV		Well	Mary Jane Unit 1H
Field	Doddridge		Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad			

WELLPATH DATA (370 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
8314.00	90.250	330.250	6517.03	1928.31	1754.79	-799.86	1675471.28	14250577.93	39°14'36.192"N	80°52'34.272"W	1928.49	335.496	1.84	-0.13	1.84	
8409.00	89.850	335.590	6516.94	2023.23	1839.34	-843.09	1675428.07	14250662.45	39°14'37.028"N	80°52'34.820"W	2023.36	335.375	5.64	-0.42	5.62	
8503.00	90.430	337.670	6516.71	2117.17	1925.63	-880.38	1675390.80	14250748.70	39°14'37.881"N	80°52'35.292"W	2117.33	335.431	2.30	0.62	2.21	
8598.00	90.310	336.770	6516.10	2212.07	2013.21	-917.16	1675354.03	14250836.25	39°14'38.748"N	80°52'35.758"W	2212.29	335.507	0.96	-0.13	-0.95	
8693.00	90.150	337.420	6515.72	2306.99	2100.72	-954.13	1675317.07	14250923.72	39°14'39.613"N	80°52'36.227"W	2307.25	335.573	0.70	-0.17	0.68	
8787.00	89.380	337.340	6516.10	2400.89	2187.49	-990.29	1675280.93	14251010.45	39°14'40.471"N	80°52'36.685"W	2401.20	335.644	0.82	-0.82	-0.09	
8882.00	89.200	339.070	6517.28	2495.70	2275.69	-1025.55	1675245.68	14251098.62	39°14'41.343"N	80°52'37.131"W	2496.10	335.741	1.83	-0.19	1.82	
8976.00	89.480	342.260	6518.36	2589.17	2364.37	-1056.67	1675214.57	14251187.26	39°14'42.220"N	80°52'37.525"W	2589.75	335.919	3.41	0.30	3.39	
9071.00	89.570	342.090	6519.15	2683.36	2454.81	-1085.75	1675185.50	14251277.66	39°14'43.115"N	80°52'37.893"W	2684.20	336.140	0.20	0.09	-0.18	
9165.00	90.370	337.950	6519.20	2776.94	2543.13	-1117.86	1675153.41	14251365.95	39°14'43.988"N	80°52'38.300"W	2777.97	336.272	4.49	0.85	-4.40	
9260.00	89.630	332.090	6519.20	2871.90	2629.20	-1157.96	1675113.32	14251451.99	39°14'44.839"N	80°52'38.808"W	2872.91	336.230	6.22	-0.78	-6.17	
9354.00	89.510	331.800	6519.91	2965.78	2712.16	-1202.17	1675069.13	14251534.91	39°14'45.660"N	80°52'39.369"W	2966.65	336.095	0.33	-0.13	-0.31	
9449.00	89.540	332.860	6520.69	3060.70	2796.29	-1246.29	1675025.03	14251619.01	39°14'46.492"N	80°52'39.928"W	3061.45	335.978	1.12	0.03	1.12	
9543.00	89.850	330.970	6521.19	3154.58	2879.21	-1290.54	1674980.80	14251701.90	39°14'47.312"N	80°52'40.489"W	3155.21	335.857	2.04	0.33	-2.01	
9637.00	89.970	331.450	6521.34	3248.40	2961.60	-1335.81	1674935.55	14251784.25	39°14'48.127"N	80°52'41.063"W	3248.91	335.723	0.53	0.13	0.51	
9732.00	90.000	335.260	6521.37	3343.36	3046.49	-1378.40	1674892.97	14251869.11	39°14'48.967"N	80°52'41.603"W	3343.81	335.655	4.01	0.03	4.01	
9826.00	90.060	336.630	6521.32	3437.34	3132.33	-1416.72	1674854.67	14251954.91	39°14'49.815"N	80°52'42.089"W	3437.81	335.663	1.46	0.06	1.46	
9921.00	90.090	335.360	6521.19	3532.31	3219.11	-1455.36	1674816.04	14252041.66	39°14'50.674"N	80°52'42.578"W	3532.81	335.672	1.34	0.03	-1.34	
10015.00	90.000	333.220	6521.12	3626.30	3303.80	-1496.14	1674775.28	14252126.31	39°14'51.511"N	80°52'43.095"W	3626.78	335.636	2.28	-0.10	-2.28	
10109.00	90.340	334.060	6520.84	3720.28	3388.02	-1537.88	1674733.56	14252210.50	39°14'52.344"N	80°52'43.624"W	3720.72	335.586	0.96	0.36	0.89	
10204.00	90.090	333.270	6520.48	3815.27	3473.16	-1580.02	1674691.43	14252295.61	39°14'53.186"N	80°52'44.159"W	3815.67	335.538	0.87	-0.26	-0.83	
10298.00	90.310	330.970	6520.16	3909.16	3556.24	-1623.97	1674647.50	14252378.66	39°14'54.008"N	80°52'44.716"W	3909.50	335.456	2.46	0.23	-2.45	
10393.00	90.250	334.710	6519.69	4004.10	3640.75	-1667.33	1674604.16	14252463.13	39°14'54.844"N	80°52'45.266"W	4004.38	335.394	3.94	-0.06	3.94	
10487.00	90.830	335.840	6518.81	4098.08	3726.13	-1706.64	1674564.86	14252548.48	39°14'55.688"N	80°52'45.764"W	4098.37	335.391	1.35	0.62	1.20	
10581.00	90.920	337.910	6517.37	4192.00	3812.56	-1743.55	1674527.96	14252634.87	39°14'56.543"N	80°52'46.232"W	4192.33	335.425	2.20	0.10	2.20	
10675.00	90.950	337.980	6515.84	4285.84	3899.67	-1778.85	1674492.69	14252721.95	39°14'57.404"N	80°52'46.679"W	4286.23	335.480	0.08	0.03	0.07	
10770.00	91.230	332.890	6514.03	4380.78	3986.03	-1818.32	1674453.23	14252808.27	39°14'58.259"N	80°52'47.179"W	4381.18	335.479	5.37	0.29	-5.36	
10864.00	90.860	328.930	6512.31	4474.54	4068.14	-1864.01	1674407.56	14252890.35	39°14'59.071"N	80°52'47.758"W	4474.85	335.383	4.23	-0.39	-4.21	
10959.00	91.630	331.080	6510.25	4569.19	4150.39	-1911.48	1674360.10	14252972.57	39°14'59.884"N	80°52'48.360"W	4569.41	335.271	2.40	0.81	2.26	
11053.00	91.660	333.470	6507.55	4663.06	4233.56	-1955.19	1674316.41	14253055.70	39°15'00.707"N	80°52'48.915"W	4663.24	335.211	2.54	0.03	2.54	

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report
Mary Jane Unit 1H AWP Proj: 17542
Page 12 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H AWP
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWP
Facility	James Webb Pad		

WELLPATH DATA (370 stations)													
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(ft)	(ft)	(ft)	(°)	
1147.00	91.910	334.020	6504.62	4757.00	4317.82	-1996.76	1674274.86	14253139.93	39°15'01.54"N	80°52'49.44"W	4757.16	335.182	
11242.00	92.280	330.980	6501.15	4402.02	-2040.59	1674231.05	14253224.10	39°15'02.37"N	80°52'49.99"W	4851.99	335.130	3.22	
11336.00	91.600	331.770	6497.97	4484.48	-2085.59	1674186.06	14253306.53	39°15'03.18"N	80°52'50.56"W	4945.73	335.058	1.11	
11431.00	91.570	336.710	6495.34	5040.57	4569.98	-2126.85	1674144.82	14253391.99	39°15'04.034"N	80°52'51.091"W	5040.66	335.043	5.20
11525.00	91.750	337.460	6492.61	5134.45	4656.53	-2163.44	1674108.25	14253478.50	39°15'04.890"N	80°52'51.655"W	5134.56	335.080	0.82
11619.00	91.570	333.780	6489.89	4742.10	-2202.22	1674069.49	14253564.04	39°15'05.736"N	80°52'52.046"W	5228.50	335.090	3.92	
11714.00	91.600	338.230	6487.26	5323.30	4828.83	-2240.82	1674030.89	14253650.74	39°15'06.594"N	80°52'52.535"W	5323.43	335.106	4.68
11809.00	91.630	339.770	6484.58	5417.99	4917.48	-2274.85	1673996.88	14253739.35	39°15'07.471"N	80°52'52.967"W	5418.17	335.174	1.62
11903.00	91.660	334.620	6481.88	5004.07	-2311.26	1673960.48	14253825.91	39°15'08.327"N	80°52'53.428"W	5512.05	335.209	5.48	
11997.00	91.630	333.350	6479.18	5605.79	-2352.47	1673919.29	14253910.31	39°15'09.162"N	80°52'53.950"W	5605.98	335.188	1.35	
12092.00	91.630	336.960	6476.48	5700.73	5174.67	-2392.37	1673879.41	14253996.43	39°15'10.014"N	80°52'54.456"W	5700.93	335.188	3.80
12186.00	91.690	337.810	6473.76	5794.59	5261.40	-2428.50	1673843.30	14254083.13	39°15'10.872"N	80°52'54.914"W	5794.82	335.223	0.91
12281.00	90.490	337.140	6471.95	5889.46	5349.14	-2464.88	1673806.92	14254170.83	39°15'11.740"N	80°52'55.375"W	5889.73	335.260	1.45
12375.00	90.890	337.460	6470.82	5983.36	5435.85	-2501.15	1673770.67	14254257.51	39°15'12.597"N	80°52'55.835"W	5983.66	335.292	0.43
12469.00	90.550	336.850	6469.64	6077.26	5522.47	-2537.65	1673734.19	14254344.10	39°15'13.454"N	80°52'56.297"W	6077.61	335.321	0.74
12564.00	90.220	334.970	6469.00	6172.23	5609.19	-2576.42	1673695.43	14254430.78	39°15'14.311"N	80°52'56.789"W	6172.60	335.330	2.01
12658.00	90.180	335.810	6468.67	6266.23	5694.65	-2615.56	1673666.30	14254516.21	39°15'15.156"N	80°52'57.285"W	6266.59	335.331	0.89
12752.00	90.580	333.820	6468.05	6360.22	5779.72	-2655.54	1673616.34	14254601.24	39°15'15.998"N	80°52'57.792"W	6360.58	335.323	2.13
12847.00	90.250	333.200	6467.36	6455.20	5864.75	-2697.89	1673574.01	14254686.24	39°15'16.839"N	80°52'58.328"W	6455.53	335.297	0.77
12941.00	90.180	336.490	6467.01	6549.18	5949.82	-2737.84	1673534.08	14254771.28	39°15'17.680"N	80°52'58.835"W	6549.52	335.290	3.50
13035.00	91.320	337.220	6465.78	6643.11	6036.25	-2774.78	1673497.15	14254857.67	39°15'18.535"N	80°52'59.303"W	6643.47	335.312	1.44
13124.00	90.400	331.100	6463.33	6831.95	6205.29	-2859.07	1673412.89	14255026.64	39°15'20.207"N	80°53'00.372"W	6832.27	335.262	1.84
13219.00	91.140	331.310	6462.05	6926.76	6288.53	-2904.83	1673367.16	14255109.85	39°15'21.030"N	80°53'00.952"W	6927.02	335.207	0.81
13313.00	90.310	330.310	6460.86	7020.54	6370.59	-2950.67	1673321.33	14255191.88	39°15'21.842"N	80°53'01.534"W	7020.74	335.148	1.38
13408.00	90.220	331.210	6460.42	7115.31	6453.48	-2997.07	1673274.95	14255274.74	39°15'22.661"N	80°53'02.122"W	7115.47	335.089	0.95
13502.00	90.280	333.180	6460.01	7209.21	6536.62	-3040.92	1673231.12	14255357.84	39°15'23.484"N	80°53'02.678"W	7209.34	335.052	2.10
13597.00	90.340	334.600	6459.50	7304.20	6621.92	-3082.72	1673189.33	14255443.11	39°15'24.327"N	80°53'03.208"W	7304.32	335.036	1.50
13692.00	90.400	333.740	6458.89	7398.19	6706.53	-3123.68	1673148.39	14255527.68	39°15'25.164"N	80°53'03.728"W	7398.30	335.025	0.92
13788.00	89.420	333.210	6459.04	7492.17	6790.63	-3165.66	1673106.43	14255611.75	39°15'25.996"N	80°53'04.260"W	7492.27	335.006	1.19

REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H AWP
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWP
Facility	James Webb Pad		

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



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'
Page 13 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

WELLPATH DATA (370 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
13980.00	90.250	335.750	6459.31	7587.16	6876.36	-3206.58	1673065.52	14255697.44	39°15'26.844"N	80°53'04.779"W	7587.26	334.999	2.81	0.87	2.67	
14074.00	90.280	338.260	6458.88	7681.08	6962.88	-3243.30	1673028.82	14255783.93	39°15'27.699"N	80°53'05.244"W	7681.19	335.024	2.67	0.03	2.67	
14169.00	90.800	336.010	6457.98	7775.98	7050.41	-3280.21	1672991.93	14255871.42	39°15'28.565"N	80°53'05.712"W	7776.12	335.050	2.43	0.55	-2.37	
14263.00	90.770	332.690	6456.70	7869.96	7135.12	-3320.89	1672951.26	14255956.10	39°15'29.403"N	80°53'06.228"W	7870.09	335.041	3.53	-0.03	-3.53	
14358.00	90.740	331.500	6455.44	7964.85	7219.07	-3365.35	1672906.82	14256040.02	39°15'30.233"N	80°53'06.791"W	7964.95	335.006	1.25	-0.03	-1.25	
14452.00	90.740	334.190	6454.23	8058.78	7302.69	-3408.24	1672863.95	14256123.61	39°15'31.060"N	80°53'07.335"W	8058.87	334.981	2.86	0.00	2.86	
14547.00	90.800	335.230	6452.95	8153.77	7388.58	-3448.82	1672823.38	14256209.46	39°15'31.909"N	80°53'07.850"W	8153.86	334.978	1.10	0.06	1.09	
14642.00	90.800	337.740	6451.63	8248.71	7475.67	-3486.72	1672785.50	14256296.52	39°15'32.771"N	80°53'08.330"W	8248.81	334.995	2.64	0.00	2.64	
14736.00	90.770	336.870	6450.34	8342.60	7562.39	-3522.98	1672749.25	14256383.20	39°15'33.628"N	80°53'08.790"W	8342.73	335.021	0.93	-0.03	-0.93	
14831.00	91.480	337.650	6448.47	8437.49	7649.98	-3559.69	1672712.55	14256470.76	39°15'34.494"N	80°53'09.255"W	8437.63	335.046	1.11	0.75	0.82	
14925.00	91.110	336.700	6446.35	8531.38	7736.60	-3596.15	1672676.11	14256557.34	39°15'35.351"N	80°53'09.717"W	8531.54	335.070	1.08	-0.39	-1.01	
15020.00	91.110	338.920	6444.51	8626.21	7824.54	-3632.02	1672640.25	14256645.25	39°15'36.221"N	80°53'10.172"W	8626.41	335.100	2.34	0.00	2.34	
15114.00	91.080	339.540	6442.71	8719.90	7912.42	-3665.35	1672606.94	14256733.09	39°15'37.090"N	80°53'10.594"W	8720.15	335.145	0.66	-0.03	0.66	
15209.00	91.230	336.730	6440.80	8814.71	8000.56	-3700.72	1672571.59	14256821.19	39°15'37.961"N	80°53'11.043"W	8815.00	335.177	2.96	0.16	-2.96	
15303.00	91.140	333.390	6438.85	8908.67	8085.76	-3740.34	1672531.98	14256906.36	39°15'38.804"N	80°53'11.545"W	8908.96	335.176	3.55	-0.10	-3.55	
15398.00	91.170	336.580	6436.94	9003.64	8171.82	-3780.50	1672491.84	14256992.39	39°15'39.655"N	80°53'12.054"W	9003.93	335.174	3.36	0.03	3.36	
15492.00	91.230	330.530	6434.97	9097.55	8255.93	-3822.33	1672450.02	14257076.46	39°15'40.487"N	80°53'12.585"W	9097.83	335.157	6.44	0.06	-6.44	
15586.00	91.050	329.350	6433.10	9191.21	8337.27	-3869.41	1672402.96	14257157.77	39°15'41.291"N	80°53'13.182"W	9191.43	335.104	1.27	-0.19	-1.26	
15681.00	91.140	329.930	6431.28	9285.82	8419.22	-3917.41	1672354.98	14257239.69	39°15'42.102"N	80°53'13.791"W	9285.98	335.048	0.62	0.09	0.61	
15775.00	91.110	331.950	6429.44	9379.59	8501.37	-3963.06	1672309.35	14257321.80	39°15'42.914"N	80°53'14.370"W	9379.72	335.007	2.15	-0.03	2.15	
15869.00	91.170	334.230	6427.56	9473.53	8585.17	-4005.59	1672266.83	14257405.57	39°15'43.743"N	80°53'14.909"W	9473.64	334.988	2.43	0.06	2.43	
15964.00	91.170	336.010	6425.62	9568.50	8671.33	-4045.55	1672226.89	14257491.70	39°15'44.595"N	80°53'15.416"W	9568.62	334.989	1.87	0.00	1.87	
16058.00	91.170	337.210	6423.71	9662.43	8757.59	-4082.86	1672189.60	14257577.92	39°15'45.448"N	80°53'15.889"W	9662.56	335.005	1.28	0.00	1.28	
16152.00	91.170	337.420	6421.79	9756.31	8844.30	-4119.10	1672153.37	14257664.59	39°15'46.306"N	80°53'16.348"W	9756.46	335.027	0.22	0.00	0.22	
16246.00	91.170	337.000	6419.87	9850.21	8930.94	-4155.51	1672116.98	14257751.20	39°15'47.163"N	80°53'16.810"W	9850.38	335.048	0.45	0.00	-0.45	
16341.00	91.110	335.660	6417.98	9945.15	9017.93	-4193.64	1672078.86	14257838.16	39°15'48.023"N	80°53'17.293"W	9945.33	335.060	1.41	-0.06	-1.41	
16435.00	91.230	334.680	6416.06	10039.12	9103.22	-4233.10	1672039.41	14257923.41	39°15'48.866"N	80°53'17.794"W	10039.31	335.061	1.05	0.13	-1.04	
16529.00	91.200	334.150	6414.06	10133.10	9187.98	-4273.69	1671998.84	14258008.14	39°15'49.705"N	80°53'18.308"W	10133.28	335.055	0.56	-0.03	-0.56	
16623.00	91.020	334.320	6412.24	10227.08	9272.62	-4314.54	1671958.01	14258092.75	39°15'50.542"N	80°53'18.825"W	10227.26	335.047	0.26	-0.19	0.18	
16718.00	92.090	339.310	6409.66	10321.95	9359.89	-4351.92	1671920.65	14258179.98	39°15'51.405"N	80°53'19.300"W	10322.14	335.064	5.37	1.13	5.25	

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection



Actual Wellpath Report
 Mary Jane Unit 1H AWP Proj: 17542
 Page 14 of 16



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #05
Area	Doddridge Co., WV	Well
Field	Doddridge	Wellbore
Facility	James Webb Pad	Mary Jane Unit 1H AWP

WELLPATH DATA (370 stations)

MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(ft)	(ft)	(ft)	(°)	(ft/100ft)	(ft/100ft)	(ft/100ft)	
16812.00	92.060	342.380	6406.26	10415.34	9448.61	-4382.74	1671889.84	14258268.67	39°15'52.28"N	80°53'19.69"W	10415.60	335.116	3.26	-0.03	3.27	
16907.00	91.450	336.860	6403.35	10509.91	9537.59	-4415.79	1671856.80	14258357.61	39°15'53.16"N	80°53'20.10"W	10510.23	335.156	5.84	-0.64	-5.81	
17002.00	91.450	327.190	6400.94	10604.66	9621.36	-4460.29	1671812.32	14258441.35	39°15'53.990"N	80°53'20.674"W	10604.94	335.128	10.18	0.00	-10.18	
17096.00	91.570	326.810	6398.46	10697.78	9700.17	-4511.47	1671761.16	14258520.13	39°15'54.770"N	80°53'21.323"W	10697.97	335.057	0.42	0.13	-0.40	
17191.00	91.510	330.680	6395.91	10792.21	9781.34	-4560.73	1671711.92	14258601.26	39°15'55.573"N	80°53'21.948"W	10792.35	335.002	4.07	-0.06	4.07	
17286.00	91.510	332.280	6393.40	10887.02	9864.78	-4606.07	1671666.59	14258684.67	39°15'56.398"N	80°53'22.524"W	10887.14	334.971	1.68	0.00	1.68	
17381.00	91.540	334.220	6390.87	10981.96	9949.58	-4648.81	1671623.87	14258769.43	39°15'57.236"N	80°53'23.066"W	10982.06	334.956	2.04	0.03	2.04	
17475.00	91.570	333.280	6388.32	11075.91	10033.85	-4690.37	1671582.33	14258853.67	39°15'58.070"N	80°53'23.593"W	11076.00	334.946	1.00	0.03	-1.00	
17520.00	90.430	333.400	6387.54	11120.89	10074.06	-4710.56	1671562.15	14258893.87	39°15'58.468"N	80°53'23.849"W	11120.98	334.940	2.55	-2.53	0.27	
17542.00	90.430	333.400	6387.37	11142.88	10093.73	-4720.41	1671552.30	14258913.53	39°15'58.662"N	80°53'23.974"W	11142.97	334.937	0.00	0.00	0.00	Projected MD at TD: 17542

HOLE & CASING SECTIONS - Ref Wellbore: Mary Jane Unit 1H AWP Ref Wellpath: Mary Jane Unit 1H AWP Proj: 17542																
String/Diameter	Start MD	End MD	Interval	Start TVD	End TVD	Start N/S	Start E/W	End N/S	End E/W							
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)							
20in Conductor	25.00	65.00	40.00	25.00	65.00	0.00	0.00	0.00	0.00	0.01						
13.375in Casing Surface	25.00	453.00	428.00	25.00	453.00	0.00	0.00	0.00	0.00	0.26						
9.625in Casing Intermediate	25.00	2576.00	2551.00	25.00	2573.14	0.00	0.00	0.00	0.00	-33.62						

RECEIVED
 Office of Oil and Gas

NOV 30 2017

WV Department of
 Environmental Protection



Actual Wellpath Report
 Mary Jane Unit 1H AWP Proj: 17542'
 Page 15 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H 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 1H POE Rev-2	6496.00	292.16	-79.24	1676191.61	14249115.88	39°14'21.726"N	80°52'25.139"W	point
Mary Jane Unit 1H BHL Rev-2	6519.00	10022.75	-4676.77	1671595.93	14258842.57	39°15'57.960"N	80°53'23.420"W	point
Mary Jane Unit 1H LP Rev-2	6519.00	424.53	-141.78	1676129.09	14249248.20	39°14'23.035"N	80°52'25.931"W	point

WELLPATH COMPOSITION - Ref Wellbore: Mary Jane Unit 1H AWB Ref Wellpath: Mary Jane Unit 1H AWP Proj: 17542'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
25.00	5762.19	SDI Keeper v1.04	01 SDI Std. Keeper Gyro (100' - 5750.19')	Mary Jane Unit 1H AWB	
5762.19	17520.00	BHI AutoTrak Curve (Short)	02 BHI AT Curve<8-1/2">(5762.19')(5953'-17520')	Mary Jane Unit 1H AWB	
17520.00	17542.00	Blind Drilling (std)	Projection to bit	Mary Jane Unit 1H AWB	

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



Actual Wellpath Report

Mary Jane Unit 1H AWP Proj: 17542'

Page 16 of 16



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Doddridge Co., WV	Well	Mary Jane Unit 1H
Field	Doddridge	Wellbore	Mary Jane Unit 1H AWB
Facility	James Webb Pad		

COMMENTS
<p>Wellpath general comments API: 47-017-06699-0000 BHI Job #: 8090950 Rig: Patterson 343 Duration: 8/5/2016-8/10/2016 SDI Keeper <8-3/4"> (100'-5750.19') BHI AT Curve <8-1/2"> (5762.19')(5953'-17520') Middlesex: 6365' MD Burkett: 6555' MD Tully: 6617' MD Hamilton: 6675' MD Marcellus POE: 6697' MD Projected MD at TD: 17542'</p>

RECEIVED
Office of Oil and Gas

NOV 30 2017

WV Department of
Environmental Protection