



ANTERO RESOURCES CORPORATION

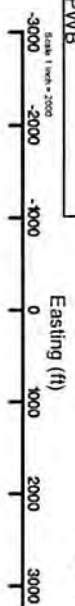
Location: Tyler County, WV
Field: Tyler
Facility: Terry Snider Pad

Slot: Slot #11
Well: Markle Unit 1H
Wellbore: Markle Unit 1H PWB



Pat reference wellbore to Markle Unit 1H PWB PWB-A-D	Grid System: NAD83 UTM Zone 17 North, US Feet
True vertical depth as referenced to Paterson 342 (RKB)	* Wellbore was transferred from a different geospatial datum
Measured depth as referenced to Paterson 342 (RKB)	North Reference: Grid north
Production 342 (RKB) to Mean Slot Level 1172' bbl	Scale: True distance
Mean slot level to Well line (41342 Slot #11) -1147' bbl	Depth unit in feet
Coordinates are referenced to GCR	Created by software on 2016-09-29
	Created by: WVA, WVA, EX2128NUS, Chm

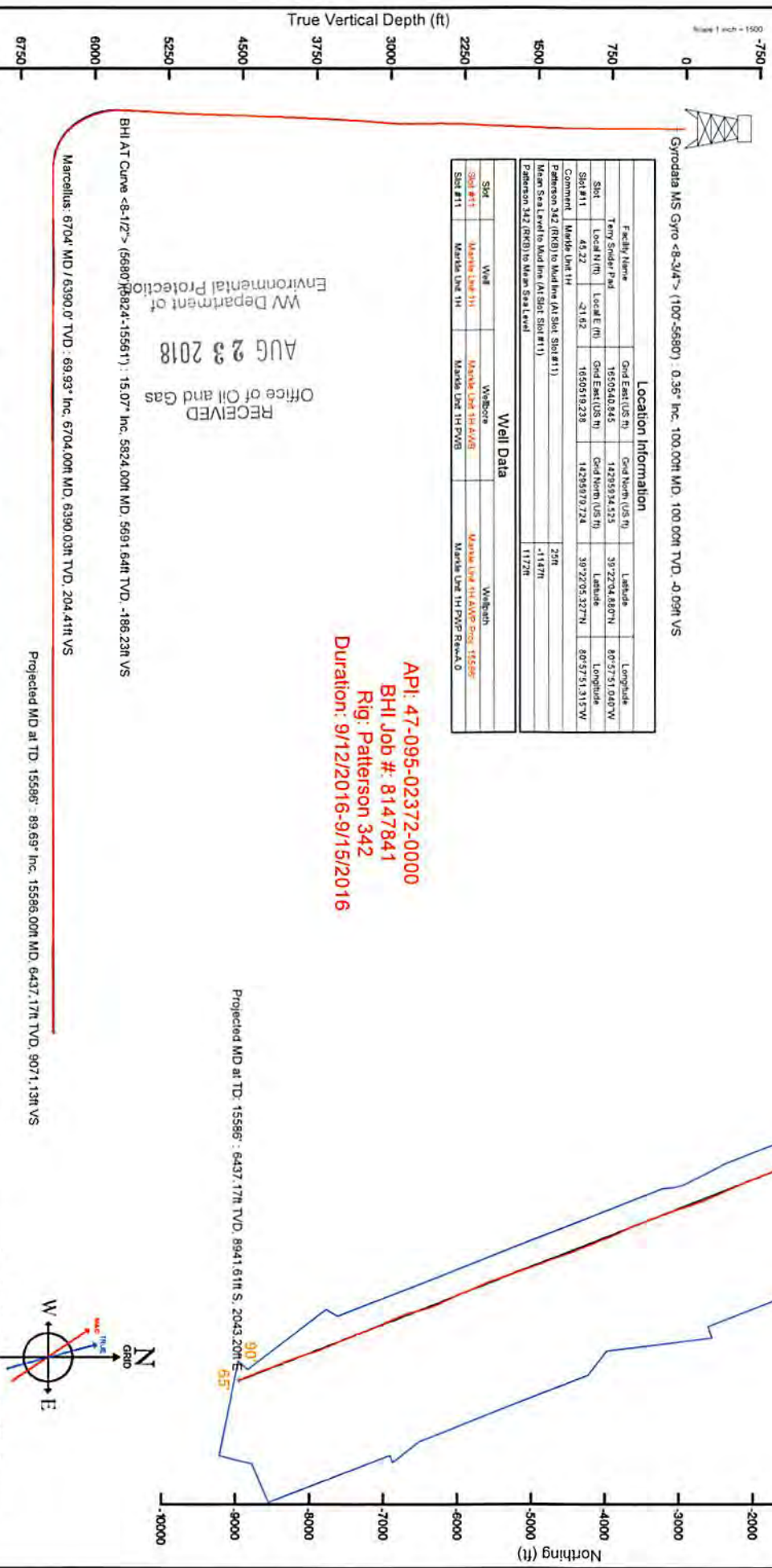
Gyrodatta MS Gyro <8-3/4"> (100°-5680') : 100.00ft TVD, 0.17ft N, 0.17ft E
 BHI AT Curve <8-1/2"> (5680/5624-15561') : 5991.64ft TVD, 226.42ft S, 1089.18ft W
 Marcellus: 6704' MD / 6390.0' TVD : 6390.03ft TVD, 663.50ft S, 1134.07ft W



Location Information			
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude
Terry Snider Pad	1650540.845	14295334.535	39°22'04.880"N
Slot	Local N (ft)	Local E (ft)	Latitude
Slot #11	45.22	-21.62	39°22'05.327"N
Comment	Markle Unit 1H		80°57'51.315"W
Paterson 342 (RKB) to Well line (At Slot Slot #11)			25ft
Mean Sea Level to Well line (At Slot Slot #11)			-1147ft
Paterson 342 (RKB) to Mean Sea Level			1172ft

Well Data			
Slot	Well	Wellbore	Wellbore
Slot #11	Markle Unit 1H	Markle Unit 1H A1/B	Markle Unit 1H A1/B PWB
Slot #11	Markle Unit 1H	Markle Unit 1H PWB	Markle Unit 1H PWB PWB

API: 47-095-02372-0000
 BHI Job #: 8147841
 Rig: Patterson 342
 Duration: 9/12/2016-9/15/2016



RECEIVED
 Office of Oil and Gas
 AUG 23 2018
 WV Department of Environmental Protection

Vertical Section (ft)
 Azimuth 158.62° with reference 0.00 N, 0.00 E

User specified Dip: 66.71° Fact: 52050 nT
 Magnetic North is 7.76 degrees West of True North (at 9/6/2016)
 Grid North is 0.02 degrees East of True North
 To correct azimuth from True to Grid subtract 0.02 degrees
 To correct azimuth from Magnetic to Grid subtract 7.78 degrees



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586'

Page 1 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWP
Facility	Terry Snider Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Edsaryar
Scale	0.999600	Report Generated	9/20/2016 at 8:09:06 AM
Convergence at slot	0.03° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Markle_Unit_1H_AWP_Proj_15586_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	45.22	-21.62	1650519.24	14295979.72	39°22'05.327"N	80°57'51.315"W
Facility Reference Pt			1650540.85	14295934.53	39°22'04.880"N	80°57'51.040"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 342 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 342 (RKB) to Mean Sea Level	1172.00ft
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Mud Line at Slot (Slot #11)	25.00ft
MD Reference Pt	Patterson 342 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	158.62°

RECEIVED
 Office of Oil and Gas
 AUG 23 2018
 WV Department of
 Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586'

Page 2 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (181 stations) † = interpolated/extrapolated station												
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure	Dist Closure
(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	1650519.24	14295979.72	39°22'05.327"N	80°57'51.315"W	0.00	0.00
25.00	45.300	25.00	0.00	0.00	0.00	0.00	1650519.24	14295979.72	39°22'05.327"N	80°57'51.315"W	0.00	0.00
100.00	0.360	45.300	100.00	-0.09	0.17	0.17	1650519.41	14295979.89	39°22'05.329"N	80°57'51.313"W	0.24	45.300
200.00	0.710	32.500	200.00	-0.58	0.91	0.72	1650519.96	14295980.63	39°22'05.336"N	80°57'51.306"W	1.16	38.516
300.00	0.650	45.270	299.99	-1.17	1.83	1.46	1650520.70	14295982.11	39°22'05.345"N	80°57'51.286"W	2.34	38.560
400.00	0.520	70.390	399.98	-1.38	2.38	2.29	1650521.53	14295982.11	39°22'05.351"N	80°57'51.286"W	3.30	43.866
500.00	0.200	75.620	499.98	-1.35	2.58	2.89	1650522.12	14295982.30	39°22'05.352"N	80°57'51.278"W	3.87	48.230
600.00	0.210	318.170	599.98	-1.50	2.76	2.93	1650522.17	14295982.48	39°22'05.354"N	80°57'51.278"W	4.03	46.765
700.00	0.430	291.780	799.96	-1.93	3.03	2.46	1650521.70	14295982.76	39°22'05.357"N	80°57'51.304"W	3.44	14.468
800.00	1.450	276.950	799.96	-2.78	3.33	0.86	1650520.10	14295983.05	39°22'05.360"N	80°57'51.304"W	3.91	39.068
900.00	3.510	272.770	899.87	-4.64	3.63	-3.46	1650515.78	14295983.35	39°22'05.363"N	80°57'51.359"W	5.01	316.387
1000.00	5.810	262.170	999.53	-7.08	3.09	-11.53	1650507.71	14295982.81	39°22'05.358"N	80°57'51.462"W	11.93	284.983
1100.00	7.080	254.760	1098.90	-8.92	0.78	-22.49	1650496.76	14295980.50	39°22'05.335"N	80°57'51.601"W	22.50	271.976
1200.00	8.400	252.020	1198.03	-10.00	-3.00	-35.09	1650484.16	14295976.72	39°22'05.297"N	80°57'51.762"W	35.22	265.108
1300.00	9.750	255.410	1296.82	-11.41	-7.29	-49.94	1650469.32	14295972.43	39°22'05.255"N	80°57'51.951"W	50.47	261.689
1400.00	11.170	258.850	1395.16	-14.13	-11.30	-67.63	1650451.63	14295968.43	39°22'05.216"N	80°57'52.176"W	68.57	260.514
1500.00	13.050	257.610	1492.93	-17.62	-15.60	-88.17	1650431.11	14295964.13	39°22'05.173"N	80°57'52.438"W	89.54	259.968
1600.00	13.170	256.030	1590.32	-20.85	-20.77	-110.25	1650409.03	14295958.96	39°22'05.122"N	80°57'52.719"W	112.19	259.331
1700.00	13.520	255.610	1687.62	-23.74	-26.43	-132.63	1650386.67	14295953.31	39°22'05.066"N	80°57'53.004"W	135.23	258.732
1800.00	13.780	259.670	1784.80	-27.45	-31.47	-155.67	1650363.64	14295948.27	39°22'05.017"N	80°57'53.297"W	158.81	258.572
1900.00	12.630	258.360	1882.15	-31.58	-35.81	-178.09	1650341.22	14295943.93	39°22'04.974"N	80°57'53.583"W	181.66	258.632
2000.00	13.540	258.900	1979.56	-35.52	-40.27	-200.29	1650319.03	14295939.47	39°22'04.930"N	80°57'53.865"W	204.29	258.632
2100.00	15.700	261.670	2076.31	-40.66	-44.48	-225.16	1650294.16	14295935.26	39°22'04.888"N	80°57'54.182"W	229.52	258.825
2200.00	16.910	261.840	2172.29	-47.05	-48.51	-252.95	1650266.39	14295931.24	39°22'04.849"N	80°57'54.536"W	257.56	259.145
2300.00	14.540	256.460	2268.55	-52.08	-53.51	-279.55	1650239.80	14295926.24	39°22'04.799"N	80°57'54.875"W	284.63	259.164
2400.00	13.300	251.050	2365.61	-60.18	-60.18	-302.64	1650216.72	14295919.56	39°22'04.733"N	80°57'55.169"W	308.57	258.753
2500.00	13.250	253.220	2462.94	-65.69	-67.23	-324.49	1650194.88	14295912.52	39°22'04.664"N	80°57'55.447"W	331.38	258.295
2600.00	12.630	243.220	2560.41	-65.58	-75.46	-345.23	1650174.15	14295904.29	39°22'04.582"N	80°57'55.711"W	353.38	257.669
2700.00	11.130	239.660	2658.27	-65.05	-85.27	-363.32	1650156.07	14295894.49	39°22'04.486"N	80°57'55.941"W	373.19	256.792
2800.00	9.260	245.690	2756.69	-61.13	-93.45	-378.98	1650140.41	14295886.31	39°22'04.405"N	80°57'56.141"W	390.33	256.148

† = Interpolated/extrapolated station

MD (ft) Inclination Azimuth (ft) TVD (ft) Vert Sect (ft) North (ft) East (ft) Grid East (ft) Grid North (ft) Latitude (ft) Longitude (ft) Closure (ft) Dist Closure (ft)

DLS Build Rate Turn Rate Comments (°/100ft) (ft/100ft) (°/100ft)

RECEIVED
Office of Oil and Gas
AUG 23 2018
WV Department of
Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586'
Page 3 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (181 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
2900.00	9.650	255.720	2855.34	-51.76	-98.83	-394.44	1650124.96	14295880.93	39°22'04.352"N	80°57'56.338"W	406.63	255.933	1.69	0.39	10.03	
3000.00	10.000	267.270	2953.88	-55.57	-101.32	-411.23	1650108.17	14295878.45	39°22'04.327"N	80°57'56.552"W	423.53	256.160	2.00	0.35	11.55	
3100.00	12.820	268.910	3051.89	-62.20	-101.94	-431.00	1650088.41	14295877.82	39°22'04.321"N	80°57'56.803"W	442.89	256.693	2.84	2.82	1.64	
3200.00	14.910	269.190	3148.98	-70.57	-102.33	-454.96	1650064.46	14295877.43	39°22'04.317"N	80°57'57.108"W	466.33	257.324	2.09	2.09	0.28	
3300.00	15.420	264.560	3245.50	-78.74	-103.78	-481.06	1650038.37	14295875.99	39°22'04.303"N	80°57'57.441"W	492.13	257.827	1.31	0.51	-4.63	
3400.00	15.660	261.610	3341.84	-85.42	-107.01	-507.65	1650011.79	14295872.76	39°22'04.271"N	80°57'57.779"W	518.80	258.097	0.83	0.24	-2.95	
3500.00	15.680	260.990	3438.13	-91.35	-111.09	-534.35	1649985.11	14295868.68	39°22'04.231"N	80°57'58.119"W	545.77	258.255	0.17	0.02	-0.62	
3600.00	15.350	259.240	3534.48	-96.68	-115.68	-560.70	1649958.77	14295864.09	39°22'04.186"N	80°57'58.455"W	572.51	258.343	0.57	-0.33	-1.75	
3700.00	14.290	258.350	3631.15	-101.21	-120.64	-585.79	1649933.69	14295859.13	39°22'04.137"N	80°57'58.774"W	598.08	258.363	1.08	-1.06	-0.89	
3800.00	13.430	259.010	3728.24	-105.39	-125.35	-609.28	1649910.21	14295854.43	39°22'04.090"N	80°57'59.073"W	622.04	258.375	0.87	-0.86	0.66	
3900.00	14.320	256.340	3825.32	-109.15	-130.48	-632.69	1649886.80	14295849.29	39°22'04.040"N	80°57'59.372"W	646.01	258.347	1.10	0.89	-2.67	
4000.00	15.000	259.000	3922.07	-113.14	-135.87	-657.41	1649862.09	14295843.91	39°22'03.987"N	80°57'59.686"W	671.31	258.323	0.96	0.68	2.66	
4100.00	15.660	258.600	4018.51	-117.81	-141.01	-683.35	1649836.17	14295838.77	39°22'03.936"N	80°58'00.017"W	697.74	258.341	0.67	0.66	-0.40	
4200.00	14.640	252.520	4115.04	-121.01	-147.47	-708.63	1649810.89	14295832.31	39°22'03.872"N	80°58'00.339"W	723.82	258.244	1.89	-1.02	-6.08	
4300.00	13.390	257.120	4212.06	-123.58	-153.85	-731.98	1649787.56	14295825.94	39°22'03.809"N	80°58'00.636"W	747.97	258.130	1.67	-1.25	4.60	
4400.00	13.500	260.970	4309.33	-127.79	-158.26	-754.79	1649764.75	14295821.52	39°22'03.766"N	80°58'00.926"W	771.21	258.158	0.90	0.11	3.85	
4500.00	13.670	261.300	4406.53	-132.88	-161.88	-778.00	1649741.55	14295817.91	39°22'03.730"N	80°58'01.222"W	794.66	258.246	0.19	0.17	0.33	
4600.00	13.100	257.950	4503.81	-137.31	-166.04	-800.76	1649718.80	14295813.75	39°22'03.689"N	80°58'01.512"W	817.80	258.286	0.96	-0.57	-3.35	
4700.00	12.780	253.870	4601.27	-140.16	-171.48	-822.47	1649697.10	14295808.32	39°22'03.635"N	80°58'01.788"W	840.16	258.223	0.97	-0.32	-4.08	
4800.00	12.920	254.990	4698.77	-142.41	-177.44	-843.90	1649675.68	14295802.35	39°22'03.576"N	80°58'02.061"W	862.35	258.126	0.29	0.14	1.12	
4900.00	13.520	258.440	4796.12	-145.65	-182.68	-866.15	1649653.44	14295797.12	39°22'03.525"N	80°58'02.344"W	885.20	258.090	0.99	0.60	3.45	
5000.00	13.980	256.530	4893.26	-149.30	-187.84	-889.35	1649630.25	14295791.96	39°22'03.474"N	80°58'02.640"W	908.97	258.074	0.65	0.46	-1.91	
5100.00	14.710	255.770	4990.14	-152.54	-193.77	-913.40	1649606.21	14295786.03	39°22'03.415"N	80°58'02.946"W	933.73	258.023	0.75	0.73	-0.76	
5200.00	14.540	257.740	5086.90	-156.11	-199.56	-937.97	1649581.64	14295780.25	39°22'03.358"N	80°58'03.259"W	958.97	257.989	0.53	-0.17	1.97	
5300.00	14.450	258.310	5183.71	-160.20	-204.75	-962.46	1649557.17	14295775.05	39°22'03.307"N	80°58'03.571"W	984.00	257.990	0.17	-0.09	0.57	
5400.00	14.810	261.110	5280.47	-165.07	-209.26	-987.30	1649532.33	14295770.55	39°22'03.262"N	80°58'03.887"W	1009.23	258.033	0.79	0.36	2.80	
5500.00	14.520	265.600	5377.22	-171.49	-212.19	-1012.43	1649507.22	14295767.62	39°22'03.234"N	80°58'04.207"W	1034.43	258.163	1.17	-0.29	4.49	
5600.00	13.660	259.400	5474.22	-177.36	-215.33	-1036.54	1649483.12	14295764.48	39°22'03.203"N	80°58'04.514"W	1058.67	258.264	1.74	-0.86	-6.20	
5680.00	13.250	259.860	5552.02	-180.92	-218.68	-1054.85	1649464.81	14295761.13	39°22'03.170"N	80°58'04.747"W	1077.28	258.288	0.53	-0.51	0.57	
5824.00	15.070	255.040	5691.64	-186.23	-226.42	-1089.18	1649430.49	14295753.40	39°22'03.093"N	80°58'05.184"W	1112.47	258.257	1.50	1.26	-3.35	BHI AT Curve <8-1/2"> (5680')(5824'-15561')

RECEIVED
 Office of Oil and Gas
 AUG 23 2018
 WV Department of Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586
Page 4 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (181 stations) † = interpolated/extrapolated station																		
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure	Dist	Dir	DLS	Buidl	Rate	Turn	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]
5877.00	14.860	252.520	5742.85	-187.46	-230.24	-1102.32	1649417.36	14295749.58	39°22'03.056"N	80°58'05.352"W	1126.11	258.202	1.29	-0.40	-4.75	-27.00		
5928.00	15.710	238.750	5792.06	-186.72	-235.79	-1114.47	1649405.22	14295744.03	39°22'03.001"N	80°58'05.506"W	1139.13	258.054	7.29	1.67	-27.00			
5973.00	16.320	228.190	5835.32	-183.47	-243.16	-1124.39	1649395.30	14295736.66	39°22'02.928"N	80°58'05.633"W	1150.38	257.797	6.61	1.36	-23.47			
6020.00	17.460	217.750	5880.30	-177.54	-253.14	-1133.63	1649386.06	14295726.68	39°22'02.829"N	80°58'05.750"W	1161.55	257.412	6.88	2.43	-22.21			
6068.00	19.290	208.300	5925.86	-168.72	-255.82	-1141.80	1649377.90	14295714.01	39°22'02.704"N	80°58'06.854"W	1172.33	256.894	7.77	3.81	-19.69			
6113.00	21.310	200.050	5968.08	-157.77	-280.05	-1148.13	1649371.57	14295699.79	39°22'02.563"N	80°58'05.935"W	1181.79	256.292	7.77	4.49	-18.33			
6162.00	23.750	193.880	6013.34	-142.99	-298.02	-1153.47	1649366.24	14295681.82	39°22'02.386"N	80°58'06.003"W	1191.34	255.513	7.20	4.98	-13.61			
6207.00	26.760	188.840	6054.04	-126.78	-316.85	-1157.12	1649362.58	14295663.00	39°22'02.200"N	80°58'06.050"W	1199.72	254.686	7.95	6.69	-10.09			
6256.00	29.270	185.020	6097.30	-106.52	-339.69	-1159.87	1649359.84	14295640.17	39°22'01.974"N	80°58'06.085"W	1208.58	253.676	6.29	5.12	-7.80			
6303.00	32.120	182.050	6137.71	-84.75	-363.63	-1161.32	1649358.39	14295616.24	39°22'01.737"N	80°58'06.103"W	1216.92	252.614	6.87	6.06	-6.32			
6350.00	35.120	180.240	6176.84	-60.72	-389.64	-1161.82	1649357.88	14295590.24	39°22'01.480"N	80°58'06.110"W	1225.42	251.460	6.73	6.38	-3.85			
6352.00†	35.288	180.163	6178.48	-59.64	-390.80	-1161.83	1649357.88	14295589.09	39°22'01.469"N	80°58'06.110"W	1225.79	251.409	8.68	8.39	-3.83			Sycamore: 6352 MD / 6178.5' TVD
6398.00	39.160	178.560	6215.10	-33.62	-418.61	-1161.50	1649358.21	14295561.28	39°22'01.194"N	80°58'06.106"W	1234.63	250.180	8.68	8.42	-3.49			
6445.00	44.080	176.940	6250.86	-4.13	-449.79	-1160.25	1649359.45	14295530.11	39°22'00.886"N	80°58'06.090"W	1244.39	248.810	10.71	10.47	-3.45			
6492.00	48.780	175.360	6282.61	28.33	-483.76	-1157.95	1649361.76	14295496.16	39°22'00.550"N	80°58'06.061"W	1254.94	247.326	10.29	9.99	-3.47			Middlesex: 6473 MD / 6269.9' TVD
6539.00	53.380	173.980	6312.13	63.47	-520.15	-1154.54	1649365.16	14295459.78	39°22'00.190"N	80°58'06.018"W	1266.30	245.747	10.05	9.79	-2.94			
6585.00	58.430	172.890	6337.91	100.29	-557.98	-1150.17	1649369.53	14295421.97	39°21'59.816"N	80°58'05.962"W	1278.38	244.121	11.15	10.98	-2.37			
6633.00	62.600	171.600	6361.53	140.88	-599.37	-1144.53	1649375.17	14295380.59	39°21'59.407"N	80°58'05.891"W	1291.97	242.360	9.00	8.69	-2.69			
6635.00†	62.811	171.549	6362.45	142.62	-601.13	-1144.27	1649375.43	14295378.84	39°21'59.390"N	80°58'05.887"W	1292.56	242.285	10.79	10.56	-2.63			Burkett: 6635 MD / 6362.5' TVD
6679.00	67.460	170.480	6380.95	181.60	-640.55	-1138.03	1649381.67	14295339.43	39°21'59.000"N	80°58'05.808"W	1305.91	240.627	10.79	10.57	-2.43			
6704.00†	69.933	169.957	6390.03	204.41	-663.50	-1134.07	1649385.62	14295316.49	39°21'58.773"N	80°58'05.758"W	1313.90	239.670	10.08	9.89	-2.08			Marcellus: 6704 MD / 6390.0' TVD
6727.00	72.210	169.490	6397.49	225.76	-684.91	-1130.19	1649389.50	14295295.09	39°21'58.562"N	80°58'05.708"W	1321.52	238.784	10.08	9.90	-2.03			
6775.00	77.660	168.730	6409.96	271.32	-730.40	-1121.43	1649398.26	14295249.62	39°21'58.112"N	80°58'05.597"W	1338.32	236.923	11.46	11.35	-1.58			
6821.00	81.100	168.500	6418.44	315.84	-774.72	-1112.51	1649407.18	14295205.32	39°21'57.674"N	80°58'05.484"W	1355.68	235.148	7.48	7.48	-0.50			
6905.00	89.480	167.310	6425.33	398.38	-856.50	-1094.98	1649424.70	14295123.57	39°21'56.866"N	80°58'05.261"W	1390.17	231.967	10.08	9.98	-1.42			
6916.00	89.940	166.990	6425.38	409.26	-867.22	-1092.53	1649427.15	14295112.85	39°21'56.760"N	80°58'05.230"W	1394.88	231.558	5.09	4.18	-2.91			
7010.00	90.000	162.690	6425.43	502.69	-957.93	-1067.95	1649451.71	14295022.18	39°21'55.863"N	80°58'04.917"W	1434.63	228.109	4.57	0.06	-4.57			
7104.00	90.250	160.120	6425.23	596.57	-1047.02	-1037.98	1649481.67	14294933.13	39°21'54.983"N	80°58'04.636"W	1474.33	224.752	2.75	0.27	-2.73			

RECEIVED
Office of Oil and Gas
AUG 23 2018
WV Department of
Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586'

Page 5 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (181 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
7198.00	90.460	157.510	6424.64	690.56	-1134.66	-1004.02	1649515.63	14294845.52	39°21'54.116"N	80°58'04.104"W	1515.09	221.504	2.79	0.22	-2.78	
7293.00	90.460	158.140	6423.88	785.54	-1222.63	-968.16	1649551.47	14294757.59	39°21'53.247"N	80°58'03.648"W	1559.53	218.375	0.66	0.00	0.66	
7387.00	90.430	158.420	6423.15	879.54	-1309.95	-933.37	1649586.24	14294670.30	39°21'52.383"N	80°58'03.205"W	1608.46	215.471	0.30	-0.03	0.30	
7482.00	90.920	158.760	6422.03	974.53	-1398.39	-898.70	1649620.90	14294581.90	39°21'51.509"N	80°58'02.764"W	1662.27	212.728	0.63	0.52	0.36	
7576.00	91.050	160.450	6420.42	1068.50	-1486.48	-865.95	1649653.64	14294493.84	39°21'50.639"N	80°58'02.348"W	1720.31	210.223	1.80	0.14	1.80	
7670.00	91.260	158.390	6418.52	1162.47	-1574.46	-832.91	1649686.66	14294405.90	39°21'49.769"N	80°58'01.928"W	1781.20	207.880	2.20	0.22	-2.19	
7764.00	91.050	158.060	6416.63	1256.45	-1661.73	-798.05	1649721.51	14294318.66	39°21'48.906"N	80°58'01.484"W	1843.43	205.653	0.42	-0.22	-0.35	
7858.00	90.890	159.880	6415.04	1350.43	-1749.45	-764.32	1649755.22	14294230.97	39°21'48.039"N	80°58'01.055"W	1909.13	203.600	1.94	-0.17	1.94	
7953.00	88.980	160.020	6415.14	1445.40	-1838.69	-731.75	1649787.78	14294141.77	39°21'47.157"N	80°58'00.641"W	1978.95	201.701	2.02	-2.01	0.15	
8047.00	88.890	157.940	6416.89	1539.37	-1926.42	-698.04	1649821.47	14294054.08	39°21'46.290"N	80°58'00.212"W	2048.99	199.918	2.21	-0.10	-2.21	
8141.00	88.340	158.690	6419.16	1633.34	-2013.74	-663.32	1649856.18	14293966.80	39°21'45.427"N	80°57'59.770"W	2120.17	198.232	0.99	-0.59	0.80	
8236.00	88.370	157.190	6421.89	1728.30	-2101.74	-627.66	1649891.83	14293878.82	39°21'44.557"N	80°57'59.317"W	2193.46	196.628	1.58	0.03	-1.58	
8330.00	88.460	155.320	6424.49	1822.17	-2187.75	-589.82	1649929.65	14293792.85	39°21'43.706"N	80°57'58.835"W	2265.86	195.088	1.99	0.10	-1.99	
8425.00	88.430	155.660	6427.07	1917.00	-2274.16	-550.43	1649969.03	14293706.48	39°21'42.852"N	80°57'58.334"W	2339.82	193.606	0.36	-0.03	0.36	
8519.00	88.490	156.250	6429.59	2010.86	-2359.97	-512.14	1650007.30	14293620.70	39°21'42.004"N	80°57'57.847"W	2414.90	192.244	0.63	0.06	0.63	
8613.00	89.260	155.790	6431.44	2104.75	-2445.84	-473.94	1650045.48	14293534.87	39°21'41.155"N	80°57'57.361"W	2491.34	190.967	0.95	0.82	-0.49	
8708.00	89.260	156.090	6432.67	2199.63	-2532.58	-435.22	1650084.20	14293448.16	39°21'40.298"N	80°57'56.869"W	2569.70	189.751	0.32	0.00	0.32	
8802.00	89.110	156.120	6434.00	2293.53	-2618.51	-397.15	1650122.25	14293362.26	39°21'39.448"N	80°57'56.384"W	2648.46	188.624	0.16	-0.16	0.03	
8896.00	89.140	159.720	6435.44	2387.50	-2705.59	-361.82	1650157.56	14293275.22	39°21'38.587"N	80°57'55.935"W	2729.68	187.617	3.83	0.03	3.83	
8991.00	89.080	161.110	6436.92	2482.44	-2795.08	-329.98	1650189.39	14293185.76	39°21'37.703"N	80°57'55.530"W	2814.50	186.733	1.46	-0.06	1.46	
9085.00	89.480	163.130	6438.10	2576.25	-2884.53	-301.12	1650218.24	14293096.35	39°21'36.819"N	80°57'55.163"W	2900.21	185.960	2.19	0.43	2.15	
9180.00	88.800	162.090	6439.52	2671.01	-2975.18	-272.73	1650246.61	14293005.74	39°21'35.923"N	80°57'54.802"W	2987.65	185.238	1.31	-0.72	-1.09	
9274.00	92.460	162.570	6438.49	2764.79	-3064.72	-244.21	1650275.13	14292916.23	39°21'35.037"N	80°57'54.440"W	3074.44	184.556	3.93	3.89	0.51	
9368.00	91.420	159.630	6435.31	2858.64	-3153.59	-213.78	1650305.54	14292827.40	39°21'34.159"N	80°57'54.053"W	3160.83	183.878	3.32	-1.11	-3.13	
9463.00	90.340	159.530	6433.85	2953.61	-3242.61	-180.64	1650338.67	14292738.42	39°21'33.279"N	80°57'53.631"W	3247.64	183.189	1.14	-1.14	-0.11	
9557.00	90.310	159.390	6433.31	3047.60	-3330.63	-147.66	1650371.64	14292650.43	39°21'32.409"N	80°57'53.212"W	3333.91	182.538	0.15	-0.03	-0.15	
9652.00	90.280	159.340	6432.83	3142.59	-3419.54	-114.18	1650405.10	14292561.56	39°21'31.530"N	80°57'52.786"W	3421.44	181.912	0.06	-0.03	-0.05	
9746.00	90.310	159.140	6432.34	3236.58	-3507.43	-80.86	1650438.41	14292473.70	39°21'30.661"N	80°57'52.362"W	3508.37	181.321	0.22	0.03	-0.21	
9840.00	90.430	157.750	6431.73	3330.58	-3594.86	-46.33	1650472.93	14292386.31	39°21'29.797"N	80°57'51.923"W	3595.15	180.738	1.48	0.13	-1.48	
9935.00	90.460	154.310	6431.00	3425.47	-3681.65	-7.74	1650511.50	14292299.56	39°21'28.939"N	80°57'51.432"W	3681.65	180.120	3.62	0.03	-3.62	

RECEIVED
 Office of Oil and Gas
 AUG 23 2018
 WV Department of
 Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586

Page 6 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (181 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]	[ft]	[ft]	[ft]	[°]	[ft/100ft]	[ft/100ft]	[ft/100ft]	
10029.00	90.340	152.720	6430.34	3519.09	-3765.78	34.18	165053.40	14292215.46	39°21'28.107"N	80°57'50.899"W	3765.93	179.480	1.70	-0.13	-1.69	
10124.00	90.280	155.940	6429.83	3613.81	-3851.39	75.32	165059.45	14292129.88	39°21'27.261"N	80°57'50.375"W	3852.12	178.880	3.39	-0.06	-3.39	
10218.00	90.310	158.490	6429.34	3707.77	-3938.04	111.72	165060.92	14292043.26	39°21'26.405"N	80°57'49.913"W	3939.63	178.375	2.71	0.03	2.71	
10312.00	90.220	159.670	6428.91	3801.76	-4025.85	145.29	165066.47	14291955.50	39°21'25.537"N	80°57'49.486"W	4028.47	177.933	1.26	-0.10	1.26	
10406.00	90.220	157.270	6428.55	3885.76	-4113.28	179.78	165068.95	14291868.10	39°21'24.672"N	80°57'49.047"W	4117.21	177.497	2.55	0.00	-2.55	
10500.00	90.090	158.210	6428.29	3989.74	-4200.27	215.39	165073.44	14291781.14	39°21'23.812"N	80°57'48.594"W	4205.79	177.064	1.01	-0.14	1.00	
10594.00	90.220	157.690	6428.04	4083.74	-4287.40	250.68	165076.99	14291694.05	39°21'22.951"N	80°57'48.145"W	4294.72	176.654	0.57	0.14	-0.55	
10688.00	90.250	160.060	6427.65	4177.73	-4375.07	284.55	165080.68	14291606.41	39°21'22.084"N	80°57'47.715"W	4384.32	176.279	2.52	0.03	2.52	
10783.00	90.280	160.940	6427.21	4272.71	-4464.05	317.82	165083.93	14291517.46	39°21'21.205"N	80°57'47.291"W	4475.35	175.928	1.18	0.03	-1.18	
10877.00	90.460	161.100	6426.61	4366.68	-4552.39	349.94	165086.94	14291429.16	39°21'20.332"N	80°57'46.883"W	4565.82	175.604	2.31	0.19	2.30	
10971.00	90.250	160.980	6426.02	4460.59	-4641.29	380.48	165089.56	14291340.30	39°21'19.453"N	80°57'46.495"W	4666.86	175.314	0.26	-0.22	-0.13	
11066.00	90.310	158.550	6425.56	4555.57	-4730.42	413.33	165093.24	14291251.21	39°21'18.572"N	80°57'46.077"W	4748.44	175.006	2.56	0.06	-2.56	
11160.00	89.880	158.570	6425.40	4649.57	-4817.91	447.69	165096.75	14291163.75	39°21'17.707"N	80°57'45.640"W	4838.67	174.691	0.46	-0.46	0.02	
11254.00	89.690	158.360	6425.76	4743.56	-4905.35	482.20	165100.24	14291076.35	39°21'16.843"N	80°57'45.201"W	4928.99	174.386	0.20	-0.20	-2.28	
11349.00	89.660	160.620	6426.29	4838.55	-4994.32	515.48	165103.44	14290987.41	39°21'15.963"N	80°57'44.778"W	5020.85	174.107	2.38	-0.03	2.38	
11443.00	89.720	160.780	6426.80	4932.48	-5083.04	546.55	165106.55	14290898.73	39°21'15.086"N	80°57'44.383"W	5112.34	173.863	0.18	0.06	0.17	
11537.00	89.940	158.950	6427.08	5026.46	-5171.29	578.90	165109.79	14290810.52	39°21'14.214"N	80°57'43.972"W	5203.59	173.613	1.96	0.23	-1.95	
11631.00	89.720	160.230	6427.36	5120.44	-5259.38	611.68	1651130.68	14290722.45	39°21'13.343"N	80°57'43.555"W	5294.83	173.366	1.38	-0.23	1.36	
11726.00	89.510	160.900	6428.00	5215.38	-5348.97	643.29	1651162.27	14290632.91	39°21'12.457"N	80°57'43.153"W	5387.51	173.142	0.74	-0.22	0.71	
11820.00	89.750	162.660	6428.61	5309.23	-5438.25	672.68	1651191.65	14290543.66	39°21'11.575"N	80°57'42.779"W	5479.70	172.949	1.89	0.26	1.87	
11914.00	89.850	159.230	6428.93	5403.14	-5527.08	703.37	1651222.32	14290454.86	39°21'10.697"N	80°57'42.389"W	5571.66	172.748	3.65	0.11	-3.65	
12008.00	89.750	158.590	6429.26	5497.14	-5614.79	737.19	1651256.13	14290367.19	39°21'09.830"N	80°57'41.959"W	5662.98	172.520	0.69	-0.11	-0.68	
12102.00	89.260	155.780	6430.07	5591.10	-5701.42	773.63	1651292.56	14290280.59	39°21'08.973"N	80°57'41.495"W	5753.67	172.273	3.03	-0.52	-2.99	
12196.00	89.110	156.680	6431.41	5685.00	-5787.44	811.52	1651330.43	14290194.61	39°21'08.123"N	80°57'41.014"W	5844.06	172.018	0.97	-0.16	0.96	
12290.00	90.340	159.400	6431.86	5778.99	-5874.61	846.67	1651365.56	14290107.48	39°21'07.261"N	80°57'40.567"W	5935.30	171.799	3.18	1.31	2.89	
12385.00	89.970	156.760	6431.61	5873.97	-5962.73	882.13	1651401.01	14290019.39	39°21'06.390"N	80°57'40.116"W	6027.63	171.585	2.81	-0.39	-2.78	
12479.00	90.220	155.270	6431.45	5967.87	-6048.61	920.34	1651439.20	14289933.54	39°21'05.541"N	80°57'39.630"W	6118.23	171.348	1.61	0.27	-1.59	
12574.00	90.000	154.590	6431.27	6062.68	-6134.66	960.59	1651479.44	14289847.53	39°21'04.691"N	80°57'39.118"W	6209.41	171.101	0.75	-0.23	-0.72	
12668.00	89.880	154.110	6431.37	6156.42	-6219.40	1001.28	1651520.12	14289762.83	39°21'03.853"N	80°57'38.600"W	6299.48	170.854	0.53	-0.13	-0.51	
12763.00	89.940	158.220	6431.52	6251.31	-6306.28	1039.66	1651558.48	14289675.98	39°21'02.994"N	80°57'38.112"W	6391.40	170.638	4.33	0.06	4.33	

RECEIVED
Office of Oil and Gas
AUG 23 2018
WV Department of
Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586'

Page 7 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (181 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	
12857.00	90.030	163.200	6431.54	6345.22	-6394.97	1070.70	1651589.51	14289587.32	39°21'02.117"N	80°57'37.718"W	6483.98	170.495	5.30	0.10	5.30		
12952.00	90.090	165.420	6431.44	6439.74	-6486.42	1096.39	1651615.19	14289495.91	39°21'01.213"N	80°57'37.391"W	6578.43	170.406	2.34	0.06	2.34		
13046.00	90.150	166.990	6431.24	6532.92	-6577.71	1118.81	1651637.60	14289404.66	39°21'00.311"N	80°57'37.106"W	6672.18	170.347	1.67	0.06	1.67		
13140.00	90.460	162.420	6430.74	6626.36	-6668.36	1143.60	1651662.38	14289314.05	39°20'59.415"N	80°57'36.791"W	6765.71	170.269	4.87	0.33	-4.86		
13235.00	90.090	157.220	6430.29	6721.31	-6757.49	1176.36	1651695.12	14289224.95	39°20'58.534"N	80°57'36.375"W	6859.12	170.125	5.49	-0.39	-5.47		
13330.00	90.120	156.440	6430.11	6816.26	-6844.83	1213.74	1651732.49	14289137.65	39°20'57.670"N	80°57'35.899"W	6951.61	169.945	0.82	0.03	-0.82		
13424.00	90.000	155.730	6430.01	6910.17	-6930.76	1251.84	1651770.58	14289051.75	39°20'56.821"N	80°57'35.415"W	7042.91	169.762	0.77	-0.13	-0.76		
13518.00	89.970	155.700	6430.04	7004.04	-7016.44	1290.50	1651809.22	14288966.10	39°20'55.974"N	80°57'34.923"W	7134.13	169.578	0.05	-0.03	-0.03		
13612.00	90.220	156.150	6429.88	7097.94	-7102.26	1328.85	1651847.55	14288880.32	39°20'55.126"N	80°57'34.436"W	7225.51	169.402	0.55	0.27	0.48		
13707.00	89.910	158.200	6429.78	7192.91	-7189.82	1365.70	1651884.39	14288792.79	39°20'54.260"N	80°57'33.967"W	7318.38	169.245	2.18	-0.33	2.18		
13801.00	90.060	160.090	6429.80	7286.90	-7277.66	1399.16	1651917.84	14288704.99	39°20'53.392"N	80°57'33.542"W	7410.93	169.117	2.02	0.16	2.01		
13896.00	90.060	158.600	6429.70	7381.89	-7366.55	1432.67	1651951.33	14288616.14	39°20'52.513"N	80°57'33.116"W	7504.57	168.994	1.57	0.00	-1.57		
13990.00	89.850	156.780	6429.77	7475.87	-7453.51	1468.35	1651987.00	14288529.21	39°20'51.653"N	80°57'32.662"W	7596.76	168.855	1.95	-0.22	-1.94		
14085.00	89.820	158.070	6430.05	7570.85	-7541.23	1504.82	1652023.45	14288441.53	39°20'50.786"N	80°57'32.198"W	7689.90	168.715	1.36	-0.03	1.36		
14179.00	89.720	157.000	6430.43	7664.83	-7628.09	1540.74	1652059.36	14288354.70	39°20'49.927"N	80°57'31.741"W	7782.14	168.581	1.14	-0.11	-1.14		
14274.00	89.720	156.130	6430.89	7759.76	-7715.25	1578.52	1652097.12	14288267.57	39°20'49.066"N	80°57'31.261"W	7875.08	168.437	0.92	0.00	-0.92		
14368.00	89.750	158.000	6431.32	7853.73	-7801.82	1615.15	1652133.74	14288181.04	39°20'48.210"N	80°57'30.795"W	7967.25	168.304	1.99	0.03	1.99		
14463.00	89.600	160.810	6431.86	7948.71	-7890.73	1648.56	1652167.14	14288092.16	39°20'47.331"N	80°57'30.371"W	8061.11	168.199	2.96	-0.16	2.96		
14557.00	89.750	161.410	6432.40	8042.61	-7979.67	1678.99	1652197.56	14288003.26	39°20'46.452"N	80°57'29.984"W	8154.39	168.118	0.66	0.16	0.64		
14651.00	89.780	161.570	6432.78	8136.50	-8068.81	1708.84	1652227.39	14287914.16	39°20'45.571"N	80°57'29.604"W	8247.77	168.042	0.17	0.03	0.17		
14745.00	89.820	162.370	6433.11	8230.33	-8158.19	1737.93	1652256.47	14287824.81	39°20'44.687"N	80°57'29.235"W	8341.25	167.974	0.85	0.04	0.85		
14839.00	89.820	159.480	6433.41	8324.25	-8247.02	1768.65	1652287.17	14287736.02	39°20'43.809"N	80°57'28.844"W	8434.54	167.896	3.07	0.00	-3.07		
14934.00	89.880	156.500	6433.65	8419.23	-8335.08	1804.24	1652322.76	14287647.99	39°20'42.939"N	80°57'28.392"W	8528.13	167.786	3.14	0.06	-3.14		
15028.00	89.780	157.620	6433.93	8513.19	-8421.65	1840.88	1652359.38	14287561.46	39°20'42.083"N	80°57'27.926"W	8620.50	167.670	1.20	-0.11	1.19		
15122.00	89.570	159.450	6434.47	8607.19	-8509.12	1875.28	1652393.76	14287474.02	39°20'41.218"N	80°57'27.488"W	8713.31	167.572	1.96	-0.22	1.95		
15216.00	89.720	160.430	6435.05	8701.16	-8597.42	1907.52	1652425.99	14287385.76	39°20'40.345"N	80°57'27.079"W	8806.49	167.490	1.05	0.16	1.04		
15311.00	89.690	158.250	6435.54	8796.15	-8686.30	1941.03	1652459.49	14287296.91	39°20'39.467"N	80°57'26.652"W	8900.53	167.404	2.29	-0.03	-2.29		
15405.00	89.630	157.720	6436.10	8890.14	-8773.45	1976.27	1652494.71	14287209.80	39°20'38.605"N	80°57'26.205"W	8993.28	167.306	0.57	-0.06	-0.56		
15500.00	89.660	158.320	6436.68	8985.13	-8861.54	2011.83	1652530.26	14287121.75	39°20'37.734"N	80°57'25.752"W	9087.04	167.209	0.63	0.03	0.63		
15561.00	89.690	158.760	6437.03	9046.13	-8918.31	2034.14	1652552.56	14287065.00	39°20'37.173"N	80°57'25.469"W	9147.35	167.151	0.72	0.05	0.72		

RECEIVED
 Office of Oil and Gas
 AUG 29 2018
 WV Department of
 Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586'
Page 8 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (181 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
15586.00	89.690	158.760	6437.17	9071.13	-8941.61	2043.20	1652561.62	14287041.71	39°20'36.943"N	80°57'25.354"W	9172.08	167.129	0.00	0.00	0.00	Projected MD at TD: 15586'

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Markle Unit 1H POE Rev-1	6390.00	-648.52	-1130.11	1649389.58	14295331.47	39°21'58.921"N	80°58'05.707"W	point
Markle Unit 1H BHL Rev-1	6425.00	-8950.37	2053.15	1652571.56	14287032.95	39°20'36.856"N	80°57'25.227"W	point
Markle Unit 1H LP Rev-1	6425.00	-837.02	-1092.17	1649427.51	14295143.04	39°21'57.058"N	80°58'05.225"W	point

WELLPATH COMPOSITION - Ref Wellbore: Markle Unit 1H AWB Ref Wellpath: Markle Unit 1H AWP Proj: 15586'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
25.00	5680.00	Gyrodata standard - Drop gyro or Multi-shot	01_Gyrodata MS Gyro <8-3/4">(100'-5680')	Markle Unit 1H AWB	
5680.00	15561.00	BHI AutoTrak Curve (Short)	02_BHI AT Curve <8-1/2">(5680')(5824'- 15561')	Markle Unit 1H AWB	
15561.00	15586.00	Blind Drilling (std)	Projection to bit	Markle Unit 1H AWB	

RECEIVED
 Office of Oil and Gas
 AUG 23 2018
 WV Department of
 Environmental Protection



Actual Wellpath Report

Markle Unit 1H AWP Proj: 15586'

Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Markle Unit 1H
Field	Tyler	Wellbore	Markle Unit 1H AWB
Facility	Terry Snider Pad		

COMMENTS

Wellpath general comments

API: 47-095-02372-0000
 BHI Job #: 8147841
 Rig: Patterson 342
 Duration: 9/12/2016-9/15/2016
 Gyrodata MS Gyro <8-3/4"> (100'-5680')
 BHI AT Curve <8-1/2"> (5680')(5824'-15561')
 Sycamore: 6352' MD
 Middlesex: 6473' MD
 Burkett: 6635' MD
 Tully: 6686' MD
 Marcellus POE: 6704' MD
 Projected MD at TD: 15586'

RECEIVED
 Office of Oil and Gas
 AUG 23 2018
 WV Department of
 Environmental Protection