



ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: Ritchie Petroleum Pad

Slot: Slot #02
 Well: Tamarind Unit 1H
 Wellbore: Tamarind Unit 1H PWB



API: 47-095-02398-0000
 BHI Job #: 8807039
 Rig: Frontier 32
 Duration: 10/19/2017-10/21/2017

Plot reference wellpath is Tamarind Unit 1H PWB Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 32 (RKB)	North Reference: Grid north
Measured depths are referenced to Frontier 32 (RKB)	Scale: True distance
Frontier 32 (RKB) to Mean Sea Level: 1210 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: Slot #02): -1178 feet	Created by: delaset on 2018-01-09
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

- Gyrodata MS Gyro <17-1/2"> (100'-323') : 0.32° Inc, 117.00ft MD, 117.00ft TVD, -0.18ft VS
- Gyrodata MS Gyro <12-1/4"> (323')(354'-536') : 0.34° Inc, 371.00ft MD, 370.99ft TVD, -0.30ft VS
- Directional ONE MWD <12-1/4"> (536')(594'-2535') : 2.71° Inc, 611.00ft MD, 610.93ft TVD, -4.23ft VS

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Ritchie Petroleum Pad	1647374.770	14292738.540	39°21'33.290"N	80°58'31.380"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #02	30.37	25.91	1647400.672	14292768.893
Latitude	39°21'33.590"N			
Longitude	80°58'31.050"W			
Comment	Tamarind Unit 1H			
Frontier 32 (RKB) to Mud line (At Slot: Slot #02)	32ft			
Mean Sea Level to Mud line (At Slot: Slot #02)	-1178ft			
Frontier 32 (RKB) to Mean Sea Level	1210ft			

- Directional ONE MWD <8-3/4"> (2535')(2651'-6362') : 1.50° Inc, 2668.00ft MD, 2667.04ft TVD, -23.10ft VS

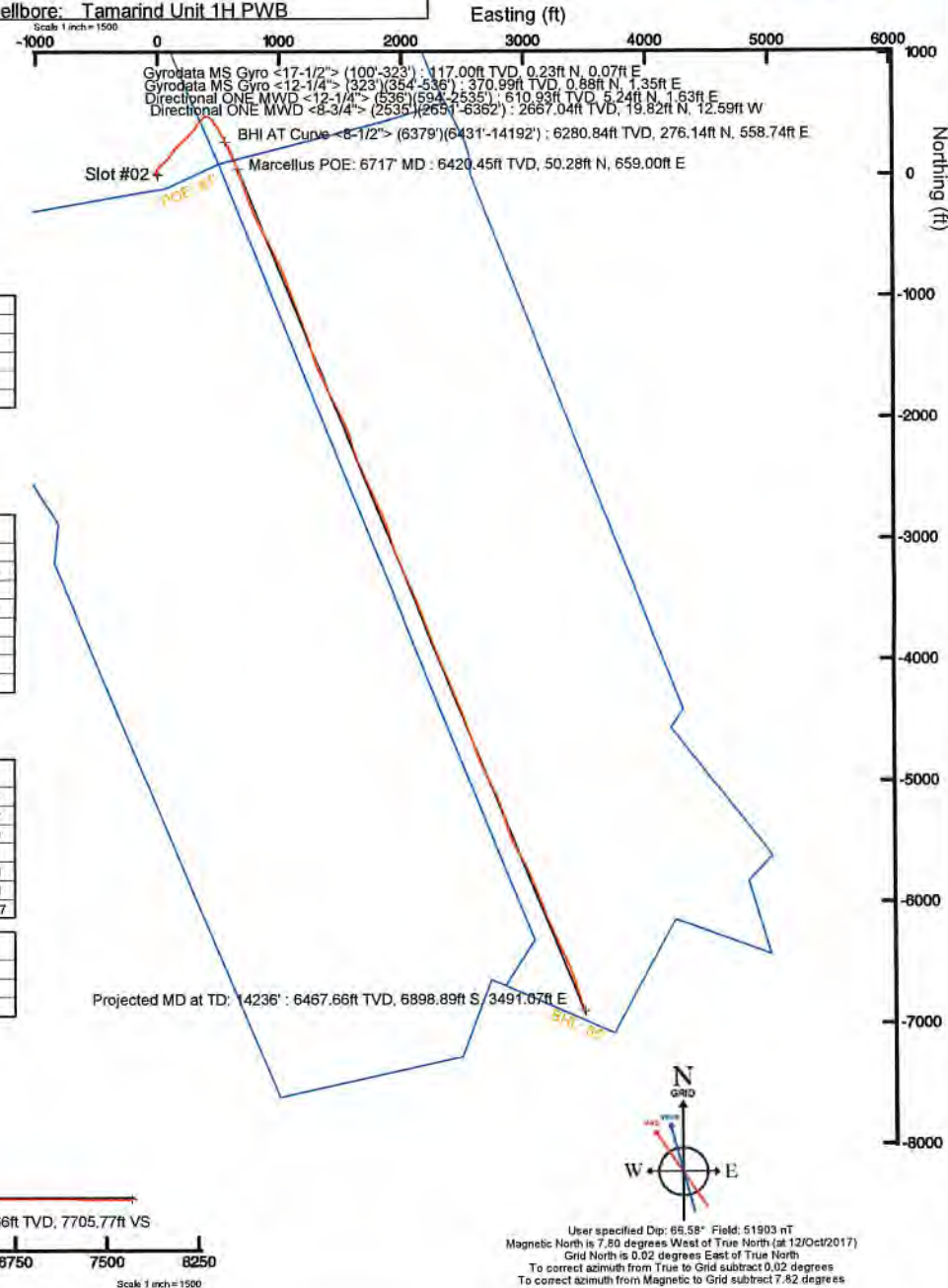
Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	6379.00	44.260	153.940	6245.11	310.34	542.74	6.44
Proj. To Bottom	6466.00	50.670	153.940	6303.89	252.78	570.89	7.37
End of 3D Arc	6597.72	61.408	155.615	6377.38	154.05	617.28	8.22
POE	6688.93	69.826	157.873	6415.00	77.78	650.00	9.50
Landing Pt.	6901.29	90.000	157.873	6452.00	-114.90	728.34	9.50
BHL	14241.95	90.000	157.873	6452.00	-6914.95	3493.23	0.00

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #02	Tamarind Unit 1H	Tamarind Unit 1H AWP	Tamarind Unit 1H AWP Proj: 14236'
Slot #02	Tamarind Unit 1H	Tamarind Unit 1H PWB	Tamarind Unit 1H PWB Rev-A.0

- BHI AT Curve <8-1/2"> (6379')(6431'-14192') : 48.92° Inc, 6431.00ft MD, 6280.84ft TVD, -45.31ft VS
- Marcellus POE: 6717' MD : 72.14° Inc, 6717.00ft MD, 6420.45ft TVD, 201.67ft VS

Projected MD at TD: 14236' : 90.06° Inc, 14236.00ft MD, 6467.66ft TVD, 7705.77ft VS

Vertical Section (ft)
 Azimuth 157.87° with reference 0.00 N, 0.00 E



User specified Dip: 65.58° Field: 51903 nT
 Magnetic North is 7.80 degrees West of True North (at 12/Oct/2017)
 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 7.82 degrees



Actual Wellpath Report

Tamarind Unit 1H AWP Proj: 14236'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Tamarind Unit 1H
Field	Tyler	Wellbore	Tamarind Unit 1H AWB
Facility	Ritchie Petroleum Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999600	Report Generated	09/Jan/2018 at 11:25
Convergence at slot	0.02° East	Database/Source file	WA_MPL_EasternUS_Defn/Tamarind_Unit_1H_AWP_Proj_14236_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	30.37	25.91	1647400.67	14292768.89	39°21'33.590"N	80°58'31.050"W
Facility Reference Pt			1647374.77	14292738.54	39°21'33.290"N	80°58'31.380"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	Frontier 32 (RKB) to Facility Vertical Datum	32.00ft
Horizontal Reference Pt	Slot	Frontier 32 (RKB) to Mean Sea Level	1210.00ft
Vertical Reference Pt	Frontier 32 (RKB)	Frontier 32 (RKB) to Mud Line at Slot (Slot #02)	32.00ft
MD Reference Pt	Frontier 32 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	157.87°



Actual Wellpath Report

Tamarind Unit 1H AWP Proj: 14236'

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Area	Tyler County, WV		Well	Tamarind Unit 1H
Field	Tyler		Wellbore	Tamarind Unit 1H AWB
Facility	Ritchie Petroleum Pad			

WELLPATH DATA (177 stations) † = interpolated/extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
0.00	0.000	17.940	0.00	0.00	0.00	0.00	1647400.67	14292768.89	39°21'33.590"N	80°58'31.050"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.000	17.940	32.00	0.00	0.00	0.00	1647400.67	14292768.89	39°21'33.590"N	80°58'31.050"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.320	17.940	117.00	-0.18	0.23	0.07	1647400.75	14292769.12	39°21'33.592"N	80°58'31.049"W	0.24	17.940	0.38	0.38	21.11	Gyrodata MS Gyro <17-1/2"> (100'-323')
217.00	0.410	61.550	217.00	-0.43	0.66	0.47	1647401.15	14292769.55	39°21'33.597"N	80°58'31.044"W	0.81	35.589	0.28	0.09	43.61	
317.00	0.320	89.260	317.00	-0.37	0.84	1.07	1647401.74	14292769.73	39°21'33.598"N	80°58'31.036"W	1.36	51.935	0.20	-0.09	27.71	
340.00	0.290	71.040	340.00	-0.35	0.86	1.19	1647401.86	14292769.75	39°21'33.598"N	80°58'31.035"W	1.46	54.206	0.44	-0.13	-79.22	
371.00	0.340	91.320	370.99	-0.30	0.88	1.35	1647402.02	14292769.77	39°21'33.599"N	80°58'31.033"W	1.61	56.985	0.39	0.16	65.42	Gyrodata MS Gyro <12-1/4"> (323')(354'-536')
462.00	0.550	39.880	461.99	-0.40	1.21	1.90	1647402.57	14292770.10	39°21'33.602"N	80°58'31.026"W	2.25	57.591	0.47	0.23	-56.53	
553.00	1.830	355.700	552.97	-1.99	2.07	2.07	1647402.75	14292771.88	39°21'33.620"N	80°58'31.024"W	3.64	34.727	1.63	1.41	-48.55	
611.00	2.710	344.350	610.93	-4.23	5.24	1.63	1647402.31	14292774.13	39°21'33.642"N	80°58'31.029"W	5.49	17.338	1.70	1.52	-19.57	Directional ONE MWD <12-1/4"> (536')(594'-2535')
700.00	3.140	332.780	699.81	-8.75	9.43	-0.05	1647400.62	14292778.32	39°21'33.683"N	80°58'31.051"W	9.43	359.709	0.82	0.48	-13.00	
790.00	2.270	324.220	789.71	-12.94	13.07	-2.22	1647398.46	14292781.96	39°21'33.719"N	80°58'31.078"W	13.25	350.369	1.06	-0.97	-9.51	
895.00	1.410	316.400	894.66	-16.16	15.69	-4.32	1647396.35	14292784.58	39°21'33.745"N	80°58'31.105"W	16.28	344.592	0.85	-0.82	-7.45	
984.00	1.650	306.350	983.62	-18.27	17.24	-6.11	1647394.56	14292786.13	39°21'33.760"N	80°58'31.128"W	18.29	340.484	0.40	0.27	-11.29	
1072.00	2.120	301.160	1071.58	-20.66	18.84	-8.52	1647392.15	14292787.72	39°21'33.776"N	80°58'31.158"W	20.68	335.650	0.57	0.53	-5.90	
1160.00	1.320	264.420	1159.54	-22.25	19.58	-10.93	1647389.75	14292788.46	39°21'33.784"N	80°58'31.189"W	22.42	330.836	1.50	-0.91	-41.75	
1248.00	1.090	225.140	1247.52	-22.22	18.89	-12.53	1647388.15	14292787.78	39°21'33.777"N	80°58'31.209"W	22.67	326.447	0.95	-0.26	-44.64	
1337.00	1.590	109.940	1336.51	-21.06	17.87	-11.97	1647388.71	14292786.76	39°21'33.767"N	80°58'31.202"W	21.51	326.193	2.56	0.56	-129.44	
1425.00	2.490	97.830	1424.45	-19.29	17.20	-8.93	1647391.75	14292786.08	39°21'33.760"N	80°58'31.164"W	19.37	332.566	1.13	1.02	-13.76	
1513.00	2.810	95.290	1512.36	-17.34	16.74	-4.88	1647395.79	14292785.62	39°21'33.755"N	80°58'31.112"W	17.43	343.730	0.39	0.36	-2.89	
1602.00	0.650	99.930	1601.31	-16.07	16.45	-2.21	1647398.46	14292785.33	39°21'33.753"N	80°58'31.078"W	16.60	352.331	2.43	-2.43	5.21	
1690.00	0.140	335.860	1689.31	-15.91	16.46	-1.77	1647398.91	14292785.35	39°21'33.753"N	80°58'31.072"W	16.55	353.873	0.84	-0.58	-140.99	
1778.00	0.180	303.740	1777.31	-16.13	16.63	-1.93	1647398.75	14292785.52	39°21'33.754"N	80°58'31.074"W	16.75	353.396	0.11	0.05	-36.50	
1867.00	0.170	108.050	1866.31	-16.17	16.67	-1.92	1647398.76	14292785.56	39°21'33.755"N	80°58'31.074"W	16.78	353.442	0.39	-0.01	184.62	
1955.00	0.580	76.870	1954.31	-16.01	16.73	-1.36	1647399.31	14292785.62	39°21'33.755"N	80°58'31.067"W	16.79	355.368	0.50	0.47	-35.43	
2043.00	1.250	3.590	2042.30	-16.81	17.79	-0.86	1647399.81	14292786.68	39°21'33.766"N	80°58'31.061"W	17.81	357.217	1.38	0.76	-83.27	
2132.00	1.600	352.900	2131.27	-18.88	19.99	-0.96	1647399.71	14292788.88	39°21'33.788"N	80°58'31.062"W	20.02	357.258	0.49	0.39	-12.01	
2220.00	1.920	328.070	2219.23	-21.52	22.46	-1.89	1647398.78	14292791.35	39°21'33.812"N	80°58'31.074"W	22.54	355.193	0.93	0.36	-28.22	
2308.00	1.380	291.350	2307.19	-23.70	24.10	-3.66	1647397.02	14292792.98	39°21'33.828"N	80°58'31.096"W	24.38	351.375	1.32	-0.61	-41.73	
2396.00	1.570	255.830	2395.17	-24.60	24.19	-5.81	1647394.86	14292793.07	39°21'33.829"N	80°58'31.124"W	24.88	346.491	1.04	0.22	-40.36	



Actual Wellpath Report

Tamarind Unit 1H AWP Proj: 14236'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #02
Area	Tyler County, WV		Well	Tamarind Unit 1H
Field	Tyler		Wellbore	Tamarind Unit 1H AWP
Facility	Ritchie Petroleum Pad			

WELLPATH DATA (177 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)	
2484.00	1.690	239.010	2483.13	-24.57	23.23	-8.09	1647392.58	14292792.11	39°21'33.820"N	80°58'31.153"W	24.60	340.791	0.56	0.14	-19.11	
2552.00	1.960	227.850	2551.10	-24.01	21.93	-9.81	1647390.86	14292790.82	39°21'33.807"N	80°58'31.175"W	24.03	335.891	0.65	0.40	-16.41	
2668.00	1.500	239.080	2667.04	-23.10	19.82	-12.59	1647388.09	14292788.70	39°21'33.786"N	80°58'31.210"W	23.48	327.580	0.49	-0.40	9.68	Directional ONE MWD <8-3/4"> (2535')(2651'-6362')
2757.00	0.480	310.340	2756.03	-23.25	19.46	-13.87	1647386.81	14292788.35	39°21'33.782"N	80°58'31.227"W	23.90	324.522	1.60	-1.15	80.07	
2845.00	3.230	27.070	2843.98	-25.20	21.91	-13.02	1647387.65	14292790.79	39°21'33.807"N	80°58'31.216"W	25.49	329.271	3.58	3.12	87.19	
2933.00	5.280	33.690	2931.74	-29.10	27.49	-9.65	1647391.03	14292796.37	39°21'33.862"N	80°58'31.173"W	29.13	340.656	2.39	2.33	7.52	
3022.00	6.500	30.440	3020.27	-34.46	35.24	-4.83	1647395.85	14292804.12	39°21'33.938"N	80°58'31.111"W	35.57	352.202	1.42	1.37	-3.65	
3110.00	6.750	34.360	3107.68	-40.34	43.80	0.62	1647401.29	14292812.68	39°21'34.023"N	80°58'31.042"W	43.81	0.807	0.59	0.28	4.45	
3198.00	8.350	40.200	3194.91	-46.16	52.95	7.66	1647408.33	14292821.82	39°21'34.113"N	80°58'30.952"W	53.50	8.232	2.01	1.82	6.64	
3287.00	10.700	37.970	3282.68	-53.29	64.40	16.92	1647417.58	14292833.27	39°21'34.226"N	80°58'30.834"W	66.59	14.717	2.67	2.64	-2.51	
3375.00	11.720	39.200	3369.00	-61.65	77.77	27.59	1647428.25	14292846.63	39°21'34.359"N	80°58'30.698"W	82.52	19.534	1.19	1.16	1.40	
3463.00	12.610	48.060	3455.03	-69.19	91.12	40.39	1647441.04	14292859.97	39°21'34.490"N	80°58'30.536"W	99.67	23.905	2.35	1.01	10.07	
3552.00	13.370	46.540	3541.75	-76.23	104.69	55.08	1647455.73	14292873.54	39°21'34.625"N	80°58'30.348"W	118.30	27.752	0.94	0.85	-1.71	
3640.00	12.810	42.120	3627.47	-84.17	118.92	69.01	1647469.66	14292887.77	39°21'34.765"N	80°58'30.171"W	137.50	30.127	1.30	-0.64	-5.02	
3728.00	14.310	44.720	3713.01	-92.68	133.89	83.21	1647483.85	14292902.73	39°21'34.913"N	80°58'29.990"W	157.64	31.860	1.84	1.70	2.95	
3817.00	14.250	42.350	3799.26	-101.72	149.80	98.33	1647498.96	14292918.63	39°21'35.070"N	80°58'29.798"W	179.19	33.281	0.66	-0.07	-2.66	
3905.00	14.910	37.330	3884.43	-112.14	166.81	112.49	1647513.12	14292935.63	39°21'35.238"N	80°58'29.617"W	201.19	33.994	1.62	0.75	-5.70	
3994.00	14.130	32.230	3970.59	-124.29	185.10	125.23	1647525.85	14292953.92	39°21'35.419"N	80°58'29.455"W	223.48	34.079	1.68	-0.88	-5.73	
4082.00	12.500	34.520	4056.23	-135.79	202.04	136.35	1647536.97	14292970.85	39°21'35.586"N	80°58'29.313"W	243.74	34.015	1.95	-1.85	2.60	
4170.00	11.670	40.230	4142.28	-145.15	216.68	147.50	1647548.11	14292985.48	39°21'35.731"N	80°58'29.171"W	262.12	34.244	1.65	-0.94	6.49	
4259.00	11.100	47.550	4229.53	-152.30	229.33	159.63	1647560.24	14292998.13	39°21'35.856"N	80°58'29.017"W	279.42	34.841	1.74	-0.64	8.22	
4347.00	12.410	50.290	4315.68	-158.10	241.09	173.16	1647573.76	14293009.89	39°21'35.972"N	80°58'28.845"W	296.83	35.687	1.62	1.49	3.11	
4435.00	14.780	47.310	4401.21	-164.90	254.75	188.69	1647589.28	14293023.54	39°21'36.107"N	80°58'28.647"W	317.01	36.527	2.81	2.69	-3.39	
4523.00	13.350	41.280	4486.58	-173.39	269.99	203.64	1647604.23	14293038.78	39°21'36.258"N	80°58'28.456"W	338.18	37.025	2.32	-1.62	-6.85	
4612.00	11.010	43.520	4573.57	-181.49	283.88	216.27	1647616.86	14293052.66	39°21'36.395"N	80°58'28.296"W	356.88	37.302	2.68	-2.63	2.52	
4700.00	13.280	53.300	4659.60	-187.50	296.02	230.17	1647630.75	14293064.79	39°21'36.515"N	80°58'28.119"W	374.97	37.867	3.47	2.58	11.11	
4789.00	14.470	51.280	4746.01	-193.25	309.08	247.04	1647647.61	14293077.85	39°21'36.644"N	80°58'27.904"W	395.68	38.634	1.44	1.34	-2.27	
4877.00	12.900	43.280	4831.51	-200.48	323.11	262.35	1647662.92	14293091.88	39°21'36.783"N	80°58'27.709"W	416.21	39.075	2.79	-1.78	-9.09	
4965.00	11.650	35.750	4917.50	-209.29	337.48	274.28	1647674.84	14293106.23	39°21'36.925"N	80°58'27.557"W	434.88	39.102	2.31	-1.42	-8.56	
5054.00	13.130	40.240	5004.43	-218.76	352.49	286.06	1647686.62	14293121.24	39°21'37.073"N	80°58'27.407"W	453.96	39.061	1.98	1.66	5.04	



Actual Wellpath Report

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[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
5142.00	13.930	39.480	5089.99	-228.43	368.29	299.25	1647699.81	14293137.04	39°21'37.229"N	80°58'27.239"W	474.54	39.095	0.93	0.91	-0.86	
5230.00	12.580	31.710	5175.65	-239.12	384.62	311.03	1647711.57	14293153.36	39°21'37.391"N	80°58'27.089"W	494.64	38.961	2.54	-1.53	-8.83	
5319.00	13.130	29.920	5262.42	-251.06	401.63	321.16	1647721.71	14293170.36	39°21'37.559"N	80°58'26.960"W	514.25	38.648	0.76	0.62	-2.01	
5407.00	13.170	38.120	5348.12	-262.18	418.18	332.34	1647732.88	14293186.91	39°21'37.722"N	80°58'26.817"W	534.16	38.475	2.12	0.05	9.32	
5495.00	12.950	41.480	5433.84	-271.54	433.45	345.06	1647745.59	14293202.17	39°21'37.873"N	80°58'26.655"W	554.03	38.522	0.90	-0.25	3.82	
5584.00	13.040	41.010	5520.56	-280.51	448.50	358.25	1647758.78	14293217.22	39°21'38.022"N	80°58'26.487"W	574.02	38.617	0.16	0.10	-0.53	
5628.00	13.110	38.760	5563.42	-285.18	456.14	364.63	1647765.16	14293224.85	39°21'38.097"N	80°58'26.406"W	583.97	38.639	1.17	0.16	-5.11	
5672.00	12.840	35.240	5606.30	-290.24	464.02	370.58	1647771.10	14293232.73	39°21'38.175"N	80°58'26.330"W	593.84	38.612	1.90	-0.61	-8.00	
5716.00	11.970	36.990	5649.27	-295.22	471.66	376.15	1647776.67	14293240.37	39°21'38.251"N	80°58'26.260"W	603.28	38.572	2.15	-1.98	3.98	
5760.00	11.660	54.150	5692.35	-298.61	477.91	382.50	1647783.02	14293246.61	39°21'38.312"N	80°58'26.179"W	612.13	38.672	7.99	-0.70	39.00	
5804.00	12.980	68.500	5735.35	-299.62	482.33	390.70	1647791.22	14293251.03	39°21'38.356"N	80°58'26.074"W	620.72	39.009	7.55	3.00	32.61	
5849.00	11.630	78.660	5779.32	-298.71	485.07	399.85	1647800.36	14293253.77	39°21'38.383"N	80°58'25.958"W	628.63	39.499	5.66	-3.00	22.58	
5893.00	13.310	97.530	5822.30	-295.37	485.28	409.23	1647809.73	14293253.98	39°21'38.385"N	80°58'25.838"W	634.79	40.140	9.96	3.82	42.89	
5937.00	15.050	114.290	5864.97	-288.72	482.27	419.46	1647819.96	14293250.97	39°21'38.355"N	80°58'25.708"W	639.16	41.016	10.09	3.95	38.09	
5981.00	16.350	125.240	5907.34	-279.37	476.34	429.73	1647830.23	14293245.04	39°21'38.297"N	80°58'25.577"W	641.53	42.055	7.34	2.95	24.89	
6025.00	18.960	131.170	5949.27	-267.76	468.06	440.17	1647840.66	14293236.77	39°21'38.215"N	80°58'25.444"W	642.52	43.241	7.20	5.93	13.48	
6070.00	22.680	139.050	5991.33	-253.01	456.69	451.36	1647851.85	14293225.40	39°21'38.102"N	80°58'25.302"W	642.10	44.664	10.33	8.27	17.51	
6114.00	25.290	145.380	6031.54	-235.80	442.54	462.27	1647862.75	14293211.26	39°21'37.963"N	80°58'25.163"W	639.95	46.249	8.32	5.93	14.39	
6158.00	30.140	144.400	6070.48	-215.87	425.82	474.04	1647874.52	14293194.54	39°21'37.797"N	80°58'25.013"W	637.21	48.068	11.07	11.02	-2.23	
6202.00	33.360	145.630	6107.89	-193.30	406.84	487.31	1647887.78	14293175.57	39°21'37.610"N	80°58'24.845"W	634.82	50.142	7.46	7.32	2.80	
6246.00	36.410	148.130	6143.98	-168.60	385.76	501.04	1647901.51	14293154.50	39°21'37.401"N	80°58'24.670"W	632.34	52.406	7.65	6.93	5.68	
6290.00	39.410	149.420	6178.69	-141.91	362.64	515.04	1647915.50	14293131.39	39°21'37.173"N	80°58'24.492"W	629.90	54.850	7.05	6.82	2.93	
6335.00	41.620	152.430	6212.90	-112.89	337.09	529.23	1647929.69	14293105.85	39°21'36.920"N	80°58'24.311"W	627.46	57.505	6.56	4.91	6.69	
6379.00	44.260	153.940	6245.11	-83.02	310.34	542.74	1647943.19	14293079.11	39°21'36.656"N	80°58'24.139"W	625.20	60.239	6.44	6.00	3.43	
6431.00	48.920	155.840	6280.84	-45.31	276.14	558.74	1647959.19	14293044.92	39°21'36.318"N	80°58'23.936"W	623.25	63.701	9.35	8.96	3.65	BHI AT Curve <8-1/2"> (6379')(6431'-14192')
6452.00†	50.188	155.401	6294.46	-29.34	261.58	565.34	1647965.78	14293030.37	39°21'36.174"N	80°58'23.852"W	622.92	65.170	6.25	6.04	-2.09	Middlesex: 6452' MD
6494.00	52.730	154.570	6320.63	3.46	231.82	579.23	1647979.67	14293000.62	39°21'35.880"N	80°58'23.675"W	623.90	68.188	6.25	6.05	-1.98	
6541.00	58.200	155.390	6347.26	42.12	196.74	595.59	1647996.02	14292965.56	39°21'35.533"N	80°58'23.467"W	627.24	71.720	11.73	11.64	1.74	
6589.00	62.460	156.210	6371.02	83.79	158.71	612.68	1648013.10	14292927.54	39°21'35.157"N	80°58'23.249"W	632.90	75.477	9.00	8.87	1.71	
6625.00†	65.218	156.457	6386.89	116.08	129.12	625.65	1648026.07	14292897.96	39°21'34.864"N	80°58'23.084"W	638.83	78.339	7.68	7.66	0.69	Burkett: 6625' MD



Actual Wellpath Report

Tamarind Unit 1H AWP Proj: 14236'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Tamarind Unit 1H
Field	Tyler	Wellbore	Tamarind Unit 1H AWP
Facility	Ritchie Petroleum Pad		

WELLPATH DATA (177 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]	
6639.00	66.290	156.550	6392.64	128.84	117.41	630.73	1648031.15	14292886.25	39°21'34.749"N	80°58'23.020"W	641.57	79.455	7.68	7.66	0.66	
6684.00	69.440	157.220	6409.59	170.52	79.08	647.09	1648047.51	14292847.94	39°21'34.370"N	80°58'22.811"W	651.91	83.033	7.13	7.00	1.49	
6692.00†	70.093	157.374	6412.36	178.02	72.15	649.99	1648050.40	14292841.02	39°21'34.301"N	80°58'22.775"W	653.98	83.666	8.36	8.17	1.93	Tully' 6692' MD
6717.00†	72.136	157.849	6420.45	201.67	50.28	659.00	1648059.41	14292819.15	39°21'34.085"N	80°58'22.660"W	660.91	85.637	8.36	8.17	1.90	Marcellus POE: 6717' MD
6731.00	73.280	158.110	6424.61	215.04	37.89	664.01	1648064.42	14292806.77	39°21'33.963"N	80°58'22.596"W	665.09	86.734	8.36	8.17	1.86	
6779.00	76.460	159.320	6437.14	261.37	-5.28	680.83	1648081.22	14292763.61	39°21'33.536"N	80°58'22.382"W	680.85	90.444	7.06	6.62	2.52	
6826.00	79.830	161.040	6446.79	307.32	-48.55	696.41	1648096.81	14292720.36	39°21'33.108"N	80°58'22.184"W	698.10	93.988	8.01	7.17	3.66	
6874.00	85.200	160.110	6453.04	354.84	-93.41	712.24	1648112.62	14292675.52	39°21'32.665"N	80°58'21.983"W	718.34	97.472	11.35	11.19	-1.94	
6921.00	90.220	159.080	6454.92	401.76	-137.41	728.61	1648128.99	14292631.54	39°21'32.230"N	80°58'21.775"W	741.45	100.680	10.90	10.68	-2.19	
6969.00	90.120	159.220	6454.78	449.75	-182.27	745.69	1648146.06	14292586.70	39°21'31.786"N	80°58'21.557"W	767.64	103.735	0.36	-0.21	0.29	
7064.00	89.970	158.910	6454.70	544.73	-271.00	779.64	1648179.99	14292498.00	39°21'30.909"N	80°58'21.125"W	825.39	109.167	0.36	-0.16	-0.33	
7159.00	89.940	155.720	6454.78	639.71	-358.64	816.27	1648216.61	14292410.40	39°21'30.043"N	80°58'20.659"W	891.58	113.719	3.36	-0.03	-3.36	
7254.00	90.120	153.430	6454.73	734.55	-444.43	857.05	1648257.38	14292324.64	39°21'29.195"N	80°58'20.140"W	965.43	117.409	2.42	0.19	-2.41	
7349.00	89.850	152.430	6454.75	829.20	-529.02	900.28	1648300.59	14292240.08	39°21'28.359"N	80°58'19.590"W	1044.21	120.439	1.09	-0.28	-1.05	
7444.00	89.820	152.660	6455.03	923.78	-613.32	944.08	1648344.38	14292155.82	39°21'27.525"N	80°58'19.033"W	1125.81	123.010	0.24	-0.03	0.24	
7539.00	89.720	152.860	6455.41	1018.41	-697.79	987.57	1648387.84	14292071.39	39°21'26.691"N	80°58'18.480"W	1209.21	125.244	0.24	-0.11	0.21	
7634.00	89.820	156.360	6455.79	1113.24	-783.60	1028.29	1648428.55	14291985.61	39°21'25.842"N	80°58'17.962"W	1292.83	127.309	3.69	0.11	3.68	
7729.00	89.940	160.940	6455.99	1208.20	-872.05	1062.87	1648463.12	14291897.19	39°21'24.968"N	80°58'17.522"W	1374.83	129.368	4.82	0.13	4.82	
7824.00	89.780	160.200	6456.22	1303.10	-961.64	1094.47	1648494.71	14291807.64	39°21'24.082"N	80°58'17.120"W	1456.92	131.304	0.80	-0.17	-0.78	
7919.00	89.510	158.790	6456.81	1398.05	-1050.62	1127.75	1648527.97	14291718.70	39°21'23.203"N	80°58'16.697"W	1541.30	132.972	1.51	-0.28	-1.48	
8014.00	89.570	159.290	6457.57	1493.03	-1139.33	1161.73	1648561.94	14291630.02	39°21'22.326"N	80°58'16.264"W	1627.17	134.442	0.53	0.06	0.53	
8109.00	89.660	159.540	6458.21	1587.99	-1228.26	1195.13	1648595.32	14291541.13	39°21'21.447"N	80°58'15.840"W	1713.76	135.783	0.28	0.09	0.26	
8204.00	89.630	160.170	6458.80	1682.93	-1317.45	1227.85	1648628.03	14291451.98	39°21'20.565"N	80°58'15.423"W	1800.91	137.016	0.66	-0.03	0.66	
8299.00	89.600	162.370	6459.44	1777.76	-1407.41	1258.35	1648658.52	14291362.05	39°21'19.676"N	80°58'15.036"W	1887.92	138.200	2.32	-0.03	2.32	
8395.00	89.690	162.590	6460.03	1873.45	-1498.95	1287.25	1648687.41	14291270.54	39°21'18.771"N	80°58'14.668"W	1975.82	139.345	0.25	0.09	0.23	
8490.00	89.880	158.620	6460.39	1968.32	-1588.54	1318.79	1648718.93	14291180.99	39°21'17.886"N	80°58'14.267"W	2064.63	140.301	4.18	0.20	-4.18	
8585.00	89.660	156.290	6460.77	2063.31	-1676.28	1355.21	1648755.34	14291093.29	39°21'17.018"N	80°58'13.804"W	2155.58	141.046	2.46	-0.23	-2.45	
8680.00	89.630	154.700	6461.36	2158.22	-1762.72	1394.61	1648794.73	14291006.89	39°21'16.164"N	80°58'13.302"W	2247.69	141.650	1.67	-0.03	-1.67	
8775.00	89.540	153.120	6462.05	2252.99	-1848.03	1436.39	1648836.49	14290921.61	39°21'15.321"N	80°58'12.771"W	2340.61	142.144	1.67	-0.09	-1.66	
8871.00	89.480	151.810	6462.87	2348.56	-1933.15	1480.77	1648880.84	14290836.52	39°21'14.479"N	80°58'12.206"W	2435.11	142.548	1.37	-0.06	-1.36	



Actual Wellpath Report

Tamarind Unit 1H AWP Proj: 14236'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Tamarind Unit 1H
Field	Tyler	Wellbore	Tamarind Unit 1H AWB
Facility	Ritchie Petroleum Pad		

WELLPATH DATA (177 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]	
8966.00	89.110	152.970	6464.04	2443.11	-2017.32	1524.79	1648924.85	14290752.38	39°21'13.647"N	80°58'11.646"W	2528.75	142.916	1.28	-0.39	1.22	
9061.00	88.180	159.560	6466.29	2538.00	-2104.22	1563.00	1648963.04	14290665.52	39°21'12.788"N	80°58'11.160"W	2621.20	143.395	7.00	-0.98	6.94	
9156.00	91.690	165.760	6466.39	2632.60	-2194.84	1591.29	1648991.33	14290574.94	39°21'11.892"N	80°58'10.800"W	2711.00	144.057	7.50	3.89	6.53	
9251.00	91.260	161.070	6463.95	2727.10	-2285.83	1618.39	1649018.42	14290483.98	39°21'10.993"N	80°58'10.456"W	2800.75	144.701	4.96	-0.45	-4.94	
9346.00	90.120	156.960	6462.80	2822.05	-2374.50	1652.41	1649052.41	14290395.34	39°21'10.116"N	80°58'10.023"W	2892.87	145.166	4.49	-1.20	-4.33	
9441.00	90.060	155.640	6462.65	2917.02	-2461.49	1690.59	1649090.58	14290308.39	39°21'09.256"N	80°58'09.538"W	2986.14	145.518	1.39	-0.06	-1.39	
9535.00	89.940	156.180	6462.65	3010.96	-2547.30	1728.96	1649128.94	14290222.61	39°21'08.408"N	80°58'09.049"W	3078.64	145.834	0.59	-0.13	0.57	
9630.00	89.970	154.650	6462.73	3105.87	-2633.69	1768.48	1649168.44	14290136.26	39°21'07.554"N	80°58'08.547"W	3172.36	146.119	1.61	0.03	-1.61	
9725.00	89.880	155.540	6462.85	3200.76	-2719.85	1808.49	1649208.43	14290050.13	39°21'06.703"N	80°58'08.038"W	3266.22	146.379	0.94	-0.09	0.94	
9820.00	88.980	155.860	6463.80	3295.68	-2806.43	1847.58	1649247.51	14289963.59	39°21'05.847"N	80°58'07.541"W	3360.00	146.642	1.01	-0.95	0.34	
9915.00	88.250	162.190	6466.10	3390.59	-2895.06	1881.56	1649281.47	14289874.99	39°21'04.971"N	80°58'07.108"W	3452.77	146.979	6.71	-0.77	6.66	
10009.00	90.090	164.640	6467.46	3484.13	-2985.13	1908.38	1649308.29	14289784.96	39°21'04.080"N	80°58'06.767"W	3543.01	147.409	3.26	1.96	2.61	
10105.00	90.090	160.630	6467.31	3579.78	-3076.74	1937.03	1649336.92	14289693.39	39°21'03.175"N	80°58'06.403"W	3635.71	147.807	4.18	0.00	-4.18	
10199.00	90.150	157.510	6467.11	3673.74	-3164.53	1970.60	1649370.48	14289605.64	39°21'02.307"N	80°58'05.976"W	3727.93	148.089	3.32	0.06	-3.32	
10294.00	90.120	157.530	6466.89	3768.74	-3252.31	2006.93	1649406.79	14289517.89	39°21'01.439"N	80°58'05.514"W	3821.68	148.322	0.04	-0.03	0.02	
10389.00	90.220	156.340	6466.60	3863.73	-3339.71	2044.15	1649444.00	14289430.53	39°21'00.575"N	80°58'05.041"W	3915.63	148.530	1.26	0.11	-1.25	
10484.00	90.220	156.060	6466.24	3958.69	-3426.63	2082.48	1649482.32	14289343.64	39°20'59.716"N	80°58'04.553"W	4009.80	148.711	0.29	0.00	-0.29	
10579.00	90.150	156.700	6465.93	4053.65	-3513.67	2120.55	1649520.36	14289256.63	39°20'58.856"N	80°58'04.069"W	4103.97	148.888	0.68	-0.07	0.67	
10673.00	90.370	157.740	6465.51	4147.64	-3600.34	2156.94	1649556.75	14289170.00	39°20'57.999"N	80°58'03.606"W	4197.00	149.074	1.13	0.23	1.11	
10768.00	90.060	158.620	6465.15	4242.64	-3688.53	2192.25	1649592.04	14289081.85	39°20'57.127"N	80°58'03.157"W	4290.83	149.275	0.98	-0.33	0.93	
10863.00	90.060	158.820	6465.05	4337.63	-3777.05	2226.73	1649626.51	14288993.36	39°20'56.252"N	80°58'02.719"W	4384.57	149.479	0.21	0.00	0.21	
10958.00	90.120	159.230	6464.90	4432.61	-3865.76	2260.73	1649660.50	14288904.69	39°20'55.375"N	80°58'02.286"W	4478.28	149.680	0.44	0.06	0.43	
11053.00	90.060	158.690	6464.75	4527.59	-3954.42	2294.84	1649694.59	14288816.06	39°20'54.499"N	80°58'01.852"W	4572.06	149.872	0.57	-0.06	-0.57	
11149.00	90.060	156.150	6464.65	4623.58	-4043.06	2331.70	1649731.43	14288727.46	39°20'53.623"N	80°58'01.384"W	4667.24	150.027	2.65	0.00	-2.65	
11244.00	90.060	156.660	6464.55	4718.55	-4130.11	2369.73	1649769.44	14288640.44	39°20'52.762"N	80°58'00.900"W	4761.86	150.154	0.54	0.00	0.54	
11339.00	90.030	157.680	6464.48	4813.54	-4217.67	2406.58	1649806.29	14288552.92	39°20'51.897"N	80°58'00.431"W	4855.96	150.291	1.07	-0.03	1.07	
11434.00	89.940	158.690	6464.50	4908.54	-4305.87	2441.89	1649841.58	14288464.76	39°20'51.025"N	80°57'59.982"W	4950.08	150.442	1.07	-0.09	1.06	
11529.00	89.970	158.800	6464.58	5003.53	-4394.40	2476.33	1649876.00	14288376.26	39°20'50.150"N	80°57'59.544"W	5044.10	150.598	0.12	0.03	0.12	
11624.00	90.060	159.030	6464.55	5098.51	-4483.04	2510.50	1649910.17	14288287.65	39°20'49.273"N	80°57'59.110"W	5138.12	150.751	0.26	0.09	0.24	
11719.00	90.060	159.530	6464.45	5193.48	-4571.90	2544.11	1649943.76	14288198.83	39°20'48.395"N	80°57'58.682"W	5232.09	150.905	0.53	0.00	0.53	



Actual Wellpath Report

Tamarind Unit 1H AWP Proj: 14236'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Tamarind Unit 1H
Field	Tyler	Wellbore	Tamarind Unit 1H AWB
Facility	Ritchie Petroleum Pad		

WELLPATH DATA (177 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]		
11814.00	90.090	160.780	6464.33	5288.41	-4661.25	2576.36	1649976.00	14288109.51	39°20'47.512"N	80°57'58.272"W	5325.87	151.070	1.32	0.03	1.32		
11909.00	90.150	160.700	6464.13	5383.29	-4750.94	2607.70	1650007.32	14288019.87	39°20'46.625"N	80°57'57.874"W	5419.55	151.238	0.11	0.06	-0.08		
12004.00	90.460	157.590	6463.62	5478.25	-4839.70	2641.52	1650041.13	14287931.14	39°20'45.748"N	80°57'57.444"W	5513.65	151.374	3.29	0.33	-3.27		
12099.00	89.970	154.010	6463.27	5573.17	-4926.34	2680.45	1650080.05	14287844.54	39°20'44.891"N	80°57'56.949"W	5608.35	151.449	3.80	-0.52	-3.77		
12195.00	90.090	154.290	6463.22	5668.97	-5012.73	2722.31	1650121.89	14287758.18	39°20'44.037"N	80°57'56.416"W	5704.25	151.495	0.32	0.13	0.29		
12290.00	90.000	155.120	6463.14	5763.82	-5098.62	2762.90	1650162.46	14287672.32	39°20'43.188"N	80°57'55.900"W	5799.10	151.547	0.88	-0.09	0.87		
12385.00	89.110	159.280	6463.88	5858.79	-5186.18	2799.70	1650199.25	14287584.80	39°20'42.323"N	80°57'55.432"W	5893.62	151.638	4.48	-0.94	4.38		
12480.00	90.090	163.560	6464.54	5953.59	-5276.20	2829.97	1650229.50	14287494.81	39°20'41.433"N	80°57'55.047"W	5987.24	151.792	4.62	1.03	4.51		
12575.00	90.250	164.170	6464.26	6048.06	-5367.46	2856.37	1650255.89	14287403.59	39°20'40.531"N	80°57'54.712"W	6080.17	151.980	0.66	0.17	0.64		
12671.00	90.650	158.700	6463.51	6143.84	-5458.42	2886.92	1650286.43	14287312.66	39°20'39.632"N	80°57'54.323"W	6174.84	152.126	5.71	0.42	-5.70		
12766.00	90.120	151.170	6462.87	6238.64	-5544.41	2927.13	1650326.63	14287226.71	39°20'38.782"N	80°57'53.812"W	6269.66	152.168	7.95	-0.56	-7.93		
12861.00	89.660	150.410	6463.05	6332.92	-5627.33	2973.50	1650372.97	14287143.82	39°20'37.962"N	80°57'53.222"W	6364.63	152.148	0.94	-0.48	-0.80		
12956.00	89.570	154.900	6463.69	6427.50	-5711.69	3017.12	1650416.58	14287059.50	39°20'37.128"N	80°57'52.667"W	6459.60	152.155	4.73	-0.09	4.73		
13051.00	89.970	155.570	6464.07	6522.40	-5797.95	3056.92	1650456.36	14286973.27	39°20'36.275"N	80°57'52.161"W	6554.47	152.200	0.82	0.42	0.71		
13146.00	90.000	157.810	6464.09	6617.37	-5885.20	3094.51	1650493.93	14286886.06	39°20'35.413"N	80°57'51.683"W	6649.17	152.264	2.36	0.03	2.36		
13241.00	90.120	161.510	6464.00	6712.31	-5974.26	3127.52	1650526.94	14286797.04	39°20'34.532"N	80°57'51.263"W	6743.38	152.368	3.90	0.13	3.89		
13336.00	90.000	158.580	6463.90	6807.23	-6063.54	3159.94	1650559.34	14286707.79	39°20'33.650"N	80°57'50.851"W	6837.53	152.474	3.09	-0.13	-3.08		
13430.00	89.720	157.300	6464.13	6901.23	-6150.66	3195.24	1650594.63	14286620.71	39°20'32.789"N	80°57'50.402"W	6931.10	152.548	1.39	-0.30	-1.36		
13526.00	89.780	156.370	6464.54	6997.21	-6238.92	3233.01	1650632.38	14286532.48	39°20'31.916"N	80°57'49.922"W	7026.84	152.607	0.97	0.06	-0.97		
13621.00	89.720	153.240	6464.96	7092.06	-6324.87	3273.44	1650672.80	14286446.57	39°20'31.067"N	80°57'49.408"W	7121.75	152.636	3.30	-0.06	-3.29		
13717.00	89.880	154.790	6465.29	7187.84	-6411.16	3315.50	1650714.84	14286360.31	39°20'30.213"N	80°57'48.873"W	7217.72	152.654	1.62	0.17	1.61		
13812.00	89.690	157.260	6465.65	7282.78	-6497.96	3354.10	1650753.42	14286273.55	39°20'29.355"N	80°57'48.382"W	7312.55	152.698	2.61	-0.20	2.60		
13907.00	89.350	158.940	6466.45	7377.77	-6586.09	3389.53	1650788.84	14286185.45	39°20'28.484"N	80°57'47.931"W	7407.13	152.767	1.80	-0.36	1.77		
14003.00	89.630	164.610	6467.30	7473.51	-6677.24	3419.54	1650818.84	14286094.34	39°20'27.583"N	80°57'47.550"W	7501.92	152.882	5.91	0.29	5.91		
14097.00	89.910	163.040	6467.68	7567.00	-6767.51	3445.73	1650845.01	14286004.10	39°20'26.891"N	80°57'47.217"W	7594.23	153.017	1.70	0.30	-1.67		
14192.00	90.060	159.880	6467.70	7661.80	-6857.57	3475.93	1650875.20	14285914.08	39°20'25.801"N	80°57'46.833"W	7688.20	153.121	3.33	0.16	-3.33		
14236.00	90.060	159.880	6467.66	7705.77	-6898.89	3491.07	1650890.33	14285872.78	39°20'25.392"N	80°57'46.641"W	7731.89	153.159	0.00	0.00	0.00	Projected MD at TD: 14236'	



Actual Wellpath Report

Tamarind Unit 1H AWP Proj: 14236'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Tamarind Unit 1H
Field	Tyler	Wellbore	Tamarind Unit 1H AWB
Facility	Ritchie Petroleum Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Tamarind Unit 1H AWB Ref Wellpath: Tamarind Unit 1H AWP Proj: 14236'									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	32.00	112.00	80.00	32.00	112.00	0.00	0.00	0.20	0.06
17.5in Open Hole	112.00	369.00	257.00	112.00	368.99	0.20	0.06	0.88	1.34
13.375in Casing Surface	32.00	369.00	337.00	32.00	368.99	0.00	0.00	0.88	1.34
12.25in Open Hole	369.00	2622.10	2253.10	368.99	2621.16	0.88	1.34	20.52	-11.53
9.625in Casing Intermediate	32.00	2622.10	2590.10	32.00	2621.16	0.00	0.00	20.52	-11.53
8.75in Open Hole	2622.10	6466.00	3843.90	2621.16	6303.34	20.52	-11.53	251.75	569.87
8.5in Open Hole	6466.00	14236.00	7770.00	6303.34	6467.66	251.75	569.87	-6898.89	3491.07
5.5in Casing Production	32.00	14236.00	14204.00	32.00	6467.66	0.00	0.00	-6898.89	3491.07

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Tamarind Unit 1H POE - Rev-3	6415.00	77.78	650.00	1648050.41	14292846.64	39°21'34.357"N	80°58'22.774"W	point
Tamarind Unit 1H BHL - Rev-3	6452.00	-6914.95	3493.23	1650892.50	14285856.72	39°20'25.233"N	80°57'46.613"W	point
Tamarind Unit 1H LP - Rev-1	6452.00	-114.90	728.34	1648128.72	14292654.04	39°21'32.452"N	80°58'21.778"W	point



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Tamarind Unit 1H AWP Proj: 14236'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Tamarind Unit 1H
Field	Tyler	Wellbore	Tamarind Unit 1H AWB
Facility	Ritchie Petroleum Pad		

WELLPATH COMPOSITION - Ref Wellbore: Tamarind Unit 1H AWB Ref Wellpath: Tamarind Unit 1H AWP Proj: 14236'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	340.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-323')	Tamarind Unit 1H AWB
340.00	553.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4">(323')(354'-536')	Tamarind Unit 1H AWB
553.00	2552.00	ISCWSA MWD, Rev. 4 (Standard)	03 Directional ONE MWD <12-1/4">(536')(594'-2535')	Tamarind Unit 1H AWB
2552.00	6379.00	ISCWSA MWD, Rev. 4 (Standard)	04 Directional ONE MWD <8-3/4">(2535')(2651'-6362')	Tamarind Unit 1H AWB
6379.00	14192.00	BHI AutoTrak Curve (Short)	05 BHI AT Curve <8-1/2"> (6379')(6431'-14192')	Tamarind Unit 1H AWB
14192.00	14236.00	Blind Drilling (std)	Projection to bit	Tamarind Unit 1H AWB



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Tamarind Unit 1H AWP Proj: 14236'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Tamarind Unit 1H
Field	Tyler	Wellbore	Tamarind Unit 1H AWB
Facility	Ritchie Petroleum Pad		

COMMENTS
<p>Wellpath general comments API: 47-095-02398-0000 BHI Job #: 8807039 Rig: Frontier 32 Duration: 10/19/2017-10/21/2017 Gyrodata MS Gyro <17-1/2"> (100'-323') Gyrodata MS Gyro <12-1/4"> (323')(354'-536') Directional ONE MWD <12-1/4"> (536')(594'-2535') Directional ONE MWD <8-3/4"> (2535')(2651'-6362') BHI AT Curve <8-1/2"> (6379')(6431'-14192') Middlesex: 6452' MD Burkett: 6625' MD Tully" 6692' MD Marcellus POE: 6717' MD Projected MD at TD: 14236'</p>

WV Department of
 Environmental Protection
 APR 07 2023

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