



Actual Wellpath Report

Bead Unit 2H AWP Proj: 18670'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Tyler County, WV	Well	Bead Unit 2H
Field	Tyler	Wellbore	Bead Unit 2H AWB
Facility	Edna Monroe Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Delaset
Scale	0.999601	Report Generated	23/Feb/2017 at 15:24
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EasternUS_Defn/Bead_Unit_2H_AWP_Proj_18670_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-49.57	6.34	1676188.50	14315805.89	39°25'21.130"N	80°52'23.990"W
Facility Reference Pt			1676182.16	14315855.44	39°25'21.620"N	80°52'24.070"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	1069.00ft
Vertical Reference Pt	Patterson 343 (RKB)	Patterson 343 (RKB) to Mud Line at Slot (Slot #10)	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	160.42°

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Area	Tyler County, WV
Field	Tyler
Facility	Edna Monroe Pad
Slot	Slot #10
Well	Bead Unit 2H
Wellbore	Bead Unit 2H AWB

WELLPATH DATA (216 stations) † = Interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (°/100ft)	Comments
0.00H	0.000	153.970	0.00	0.00	0.00	0.00	1676188.50	14315805.89	39°25'21.130"N	80°52'23.990"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	153.970	-25.00	0.00	0.00	0.00	1676188.50	14315805.89	39°25'21.130"N	80°52'23.990"W	0.00	0.000	0.00	0.00	0.00	
112.00	0.290	153.970	112.00	0.22	-0.20	0.10	1676188.60	14315805.69	39°25'21.128"N	80°52'23.989"W	0.22	153.970	0.33	0.33	176.88	Syrodala MS Gyro <8-3/4"> (100-.55669)
212.00	0.390	168.460	212.00	0.81	-0.76	0.28	1676188.78	14315805.13	39°25'21.123"N	80°52'23.987"W	0.81	160.025	0.13	0.10	14.49	
312.00	0.480	182.650	312.00	1.53	-1.51	0.32	1676188.82	14315804.38	39°25'21.115"N	80°52'23.986"W	1.55	167.877	0.14	0.09	14.19	
412.00	0.500	173.380	411.99	2.34	-2.36	0.36	1676188.86	14315803.53	39°25'21.107"N	80°52'23.986"W	2.39	171.444	0.08	0.02	-9.27	
512.00	0.520	168.310	511.99	3.22	-3.24	0.50	1676189.00	14315802.65	39°25'21.098"N	80°52'23.984"W	3.28	171.268	0.05	0.02	-5.07	
612.00	1.400	140.720	611.97	4.82	-4.63	1.36	1676189.86	14315801.26	39°25'21.084"N	80°52'23.973"W	4.83	163.597	0.97	0.88	-27.59	
712.00	4.030	141.460	711.85	9.29	-8.32	4.33	1676192.82	14315797.57	39°25'21.048"N	80°52'23.935"W	9.38	152.540	2.63	2.63	0.74	
812.00	4.300	140.010	811.59	16.13	-13.95	8.83	1676197.42	14315791.95	39°25'20.992"N	80°52'23.877"W	16.56	147.381	0.29	0.27	-1.45	
912.00	4.260	140.680	911.31	23.14	-19.69	13.69	1676202.18	14315786.21	39°25'20.935"N	80°52'23.816"W	23.98	145.196	0.06	-0.04	0.67	
1012.00	2.120	138.620	1011.15	28.35	-23.95	17.26	1676205.76	14315781.95	39°25'20.876"N	80°52'23.770"W	29.53	144.217	2.14	-2.14	-2.06	
1112.00	0.700	123.440	1111.12	30.56	-25.68	19.00	1676207.49	14315780.22	39°25'20.876"N	80°52'23.748"W	31.94	143.505	1.46	-1.42	-15.18	
1212.00	0.350	111.940	1211.11	31.25	-26.13	19.79	1676208.28	14315779.77	39°25'20.871"N	80°52'23.738"W	32.78	142.859	0.36	-0.35	-11.50	
1312.00	0.190	343.530	1311.11	31.29	-26.08	20.03	1676208.52	14315779.82	39°25'20.872"N	80°52'23.735"W	32.88	142.484	0.49	-0.16	-128.41	
1412.00	0.210	335.710	1411.11	30.94	-25.76	19.90	1676208.40	14315780.14	39°25'20.875"N	80°52'23.737"W	32.55	142.305	0.03	0.02	-7.82	
1512.00	0.190	301.130	1511.11	30.63	-25.50	19.69	1676208.18	14315780.40	39°25'20.878"N	80°52'23.740"W	32.22	142.336	0.12	-0.02	-34.58	
1612.00	0.210	237.710	1611.11	30.54	-25.52	19.39	1676207.88	14315780.38	39°25'20.878"N	80°52'23.743"W	32.05	142.770	0.21	0.02	-63.42	
1712.00	0.190	208.570	1711.11	31.11	-26.18	19.16	1676207.65	14315780.14	39°25'20.871"N	80°52'23.745"W	32.10	143.365	0.10	-0.02	-29.14	
1812.00	0.360	150.960	1811.11	31.11	-26.18	19.23	1676207.72	14315779.72	39°25'20.871"N	80°52'23.745"W	32.48	143.704	0.30	0.17	-57.61	
1912.00	0.760	116.110	1911.10	31.90	-26.75	19.98	1676208.47	14315779.15	39°25'20.865"N	80°52'23.736"W	33.38	143.245	0.51	0.40	-34.85	
2012.00	0.960	106.450	2011.09	32.87	-27.28	21.39	1676209.88	14315778.62	39°25'20.860"N	80°52'23.718"W	34.67	141.898	0.26	0.22	-9.66	
2112.00	0.970	101.510	2111.08	33.81	-27.69	23.04	1676211.53	14315778.21	39°25'20.856"N	80°52'23.697"W	36.02	140.237	0.08	-0.01	-4.94	
2212.00	0.830	44.780	2211.07	33.94	-27.35	24.38	1676212.87	14315778.55	39°25'20.859"N	80°52'23.680"W	36.64	138.281	0.86	-0.14	-56.73	
2312.00	0.810	11.940	2311.06	33.02	-26.14	25.04	1676213.53	14315779.76	39°25'20.871"N	80°52'23.671"W	36.20	136.235	0.46	-0.02	-32.84	
2412.00	1.430	291.630	2411.04	31.60	-24.99	24.02	1676212.51	14315780.91	39°25'20.883"N	80°52'23.684"W	34.66	136.129	1.52	0.62	-80.31	
2512.00	1.670	286.140	2511.00	29.92	-24.12	21.46	1676209.96	14315781.77	39°25'20.891"N	80°52'23.717"W	32.29	138.339	0.28	0.24	-5.49	
2612.00	1.820	279.830	2610.96	28.29	-23.45	18.50	1676206.99	14315782.45	39°25'20.898"N	80°52'23.755"W	29.87	141.728	0.24	0.15	-6.31	
2712.00	1.590	279.170	2710.91	26.85	-22.96	15.57	1676204.05	14315782.94	39°25'20.903"N	80°52'23.792"W	27.74	145.860	0.23	-0.23	-0.66	
2812.00	0.520	271.370	2810.90	26.02	-22.72	13.74	1676202.24	14315783.17	39°25'20.905"N	80°52'23.815"W	26.56	148.837	1.08	-1.07	-7.80	

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Area	Tyler County, WV	Well	Bead Unit 2H
Field	Tyler	Wellbore	Bead Unit 2H AWP
Facility	Edna Monroe Pad		

WELLPATH DATA (216 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)	
2912.00	0.520	271.570	2910.89	25.69	-22.70	12.84	1676201.33	14315783.20	39°25'20.905"N	80°52'23.827"W	26.08	150.516	0.00	0.00	0.20	
3012.00	0.550	270.430	3010.89	25.36	-22.69	11.90	1676200.40	14315783.21	39°25'20.906"N	80°52'23.839"W	25.62	152.316	0.03	0.03	-1.14	
3112.00	0.560	273.380	3110.88	25.01	-22.65	10.93	1676199.43	14315783.25	39°25'20.906"N	80°52'23.851"W	25.15	154.234	0.03	0.01	2.95	
3212.00	0.540	271.880	3210.88	24.64	-22.61	9.98	1676198.47	14315783.29	39°25'20.906"N	80°52'23.863"W	24.71	156.192	0.02	-0.02	-1.50	
3312.00	0.860	145.310	3310.87	25.20	-23.21	9.93	1676198.43	14315782.69	39°25'20.900"N	80°52'23.864"W	25.25	156.834	1.26	0.32	-126.57	
3412.00	0.860	138.250	3410.86	26.62	-24.39	10.86	1676199.35	14315781.51	39°25'20.889"N	80°52'23.852"W	26.70	155.999	0.11	0.00	-7.06	
3512.00	0.870	137.200	3510.85	28.01	-25.50	11.87	1676200.37	14315780.40	39°25'20.878"N	80°52'23.839"W	28.13	155.035	0.02	0.01	-1.05	
3612.00	2.000	16.420	3610.83	27.29	-24.39	12.88	1676201.38	14315781.51	39°25'20.889"N	80°52'23.826"W	27.58	152.154	2.56	1.13	-120.78	
3712.00	4.030	3.320	3710.69	22.64	-19.20	13.58	1676202.07	14315786.69	39°25'20.940"N	80°52'23.817"W	23.52	144.735	2.13	2.03	-13.10	
3812.00	5.150	0.030	3810.37	15.18	-11.21	13.79	1676202.28	14315794.69	39°25'21.019"N	80°52'23.815"W	17.77	129.112	1.15	1.12	-3.29	
3912.00	6.780	359.870	3909.82	5.39	-0.82	13.77	1676202.27	14315805.07	39°25'21.122"N	80°52'23.815"W	13.80	93.392	1.63	1.63	-0.16	
4012.00	7.690	356.580	4009.03	-6.61	11.77	13.36	1676201.86	14315817.65	39°25'21.246"N	80°52'23.820"W	17.80	48.636	1.00	0.91	-3.29	
4112.00	8.980	347.170	4107.97	-20.79	26.06	11.23	1676199.73	14315831.93	39°25'21.387"N	80°52'23.846"W	28.37	23.316	1.87	1.29	-9.41	
4212.00	10.460	345.080	4206.53	-37.58	42.44	7.16	1676195.66	14315848.31	39°25'21.549"N	80°52'23.898"W	43.04	9.576	1.52	1.48	-2.09	
4312.00	11.350	346.350	4304.73	-56.42	60.77	2.50	1676191.00	14315866.64	39°25'21.731"N	80°52'23.957"W	60.82	2.356	0.92	0.89	1.27	
4412.00	11.920	346.570	4402.67	-76.47	80.38	-2.22	1676186.28	14315886.24	39°25'21.924"N	80°52'24.017"W	80.41	358.417	0.57	0.57	0.22	
4512.00	12.550	347.930	4500.40	-97.51	101.05	-6.89	1676181.61	14315906.90	39°25'22.129"N	80°52'24.076"W	101.28	356.098	0.69	0.63	1.36	
4612.00	12.020	353.080	4598.11	-118.45	122.01	-10.42	1676178.09	14315927.85	39°25'22.336"N	80°52'24.121"W	122.45	355.120	1.22	-0.53	5.15	
4712.00	10.760	357.980	4696.14	-137.51	141.68	-12.00	1676176.50	14315947.51	39°25'22.530"N	80°52'24.140"W	142.18	355.158	1.59	-1.26	4.90	
4812.00	10.890	357.600	4794.36	-155.43	160.44	-12.73	1676175.78	14315966.27	39°25'22.716"N	80°52'24.149"W	160.95	355.465	0.15	0.13	-0.38	
4912.00	10.800	355.730	4892.58	-173.49	179.22	-13.82	1676174.69	14315985.04	39°25'22.902"N	80°52'24.163"W	179.76	355.591	0.36	-0.09	-1.87	
5012.00	11.340	355.730	4990.72	-192.01	198.37	-15.25	1676173.26	14316004.18	39°25'23.091"N	80°52'24.181"W	198.96	355.604	0.54	0.54	0.00	
5112.00	11.900	355.400	5088.67	-211.45	218.45	-16.81	1676171.70	14316024.26	39°25'23.289"N	80°52'24.200"W	219.10	355.600	0.56	0.56	-0.33	
5212.00	12.060	356.140	5186.49	-231.47	239.15	-18.34	1676170.17	14316044.95	39°25'23.494"N	80°52'24.219"W	239.86	355.615	0.22	0.16	0.74	
5312.00	11.100	358.240	5284.45	-250.69	259.20	-19.34	1676169.17	14316064.99	39°25'23.692"N	80°52'24.232"W	259.92	355.733	1.05	-0.96	2.10	
5412.00	11.010	358.300	5382.60	-268.94	278.37	-19.92	1676168.59	14316084.14	39°25'23.882"N	80°52'24.239"W	279.08	355.908	0.09	-0.09	0.06	
5512.00	9.930	356.690	5480.93	-286.31	296.52	-20.70	1676167.81	14316102.29	39°25'24.061"N	80°52'24.248"W	297.24	356.007	1.12	-1.08	-1.61	
5568.00†	9.906	356.187	5536.10	-295.58	306.15	-21.30	1676167.21	14316111.91	39°25'24.156"N	80°52'24.256"W	306.88	356.021	0.16	-0.04	-0.90	BHI AT Curve <8-1/2"> (5569')(5668'-18645')
5581.00	9.900	356.070	5548.90	-297.73	308.38	-21.45	1676167.06	14316114.14	39°25'24.178"N	80°52'24.258"W	309.12	356.022	0.16	-0.04	-0.90	
5668.00	11.360	352.330	5634.41	-313.32	324.33	-23.10	1676165.41	14316130.09	39°25'24.336"N	80°52'24.279"W	325.15	355.925	1.86	1.68	-4.30	

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Field	Tyler	Wellbore	Bead Unit 2H AWB
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[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
5715.00	12.160	351.080	5680.42	-322.71	333.81	-24.49	1676164.02	14316139.55	39°25'24.430"N	80°52'24.296"W	334.70	355.804	1.79	1.70	-2.66	
5762.00	10.060	348.850	5726.54	-331.64	342.73	-26.05	1676162.46	14316148.48	39°25'24.518"N	80°52'24.316"W	343.71	355.653	4.56	-4.47	-4.74	
5809.00	6.070	343.410	5773.06	-338.18	349.14	-27.55	1676160.96	14316154.89	39°25'24.581"N	80°52'24.335"W	350.22	355.488	8.63	-8.49	-11.57	
5903.00	0.990	205.660	5866.90	-342.58	353.17	-29.33	1676159.18	14316158.92	39°25'24.621"N	80°52'24.357"W	354.39	355.253	7.27	-5.40	-146.54	
5950.00	6.600	158.060	5913.79	-339.59	350.30	-28.49	1676160.02	14316156.05	39°25'24.593"N	80°52'24.347"W	351.46	355.350	12.72	11.94	-101.28	
5997.00	11.420	152.140	5960.20	-332.28	343.68	-25.31	1676163.20	14316149.43	39°25'24.527"N	80°52'24.306"W	344.61	355.789	10.43	10.26	-12.60	
6045.00	15.410	150.870	6008.88	-321.29	333.90	-19.98	1676168.53	14316139.66	39°25'24.430"N	80°52'24.239"W	334.50	356.576	8.33	8.31	-2.65	
6092.00	18.420	152.640	6051.84	-307.77	321.85	-13.53	1676174.98	14316127.61	39°25'24.311"N	80°52'24.157"W	322.13	357.593	6.50	6.40	3.77	
6139.00	21.570	154.780	6096.00	-291.81	307.43	-6.43	1676182.07	14316113.20	39°25'24.169"N	80°52'24.066"W	307.50	358.802	6.88	6.70	4.55	
6186.00	25.320	156.890	6139.11	-273.18	290.37	1.20	1676189.70	14316096.14	39°25'24.000"N	80°52'23.970"W	290.37	0.236	8.18	7.98	4.49	
6233.00	28.850	157.420	6180.95	-251.81	270.65	9.50	1676198.00	14316076.43	39°25'23.805"N	80°52'23.864"W	270.81	2.010	7.53	7.51	1.13	
6280.00	32.930	156.140	6221.28	-227.74	248.48	19.03	1676207.52	14316054.28	39°25'23.586"N	80°52'23.743"W	249.21	4.378	8.79	8.68	-2.72	
6328.00	37.550	155.590	6260.47	-200.14	223.22	30.35	1676218.84	14316029.02	39°25'23.336"N	80°52'23.599"W	225.27	7.744	9.65	9.62	-1.15	
6375.00	42.040	155.300	6296.57	-170.18	195.87	42.85	1676231.34	14316001.68	39°25'23.065"N	80°52'23.440"W	200.50	12.342	9.56	9.55	-0.62	
6422.00	46.580	155.210	6330.20	-137.49	166.06	56.59	1676245.07	14315971.88	39°25'22.770"N	80°52'23.286"W	175.44	18.820	9.66	9.66	-0.19	
6432.00†	47.607	155.318	6337.00	-130.19	159.41	59.66	1676248.14	14315965.23	39°25'22.705"N	80°52'23.227"W	170.20	20.519	10.31	10.27	1.08	Middlesex: 6432' MD / 6337' TVD
6469.00	51.410	155.690	6361.02	-102.16	133.80	71.32	1676259.79	14315939.64	39°25'22.451"N	80°52'23.079"W	151.63	28.059	10.31	10.28	1.00	
6516.00	55.600	155.800	6388.97	-64.52	99.36	86.84	1676275.30	14315905.21	39°25'22.111"N	80°52'22.882"W	131.96	41.152	8.92	8.91	0.23	
6563.00	56.250	155.440	6415.30	-25.72	63.90	102.91	1676291.37	14315869.77	39°25'21.760"N	80°52'22.678"W	121.14	58.161	1.52	1.38	-0.77	
6609.00†	56.113	155.450	6440.91	12.35	29.14	118.79	1676307.24	14315835.02	39°25'21.416"N	80°52'22.476"W	122.31	76.216	0.30	-0.30	0.02	Burket: 6609' MD / 6441' TVD
6610.00	56.110	155.450	6441.46	13.18	28.39	119.14	1676307.59	14315834.27	39°25'21.409"N	80°52'22.471"W	122.47	76.597	0.30	-0.30	0.00	
6657.00	61.030	155.390	6465.97	53.12	-8.07	135.81	1676324.26	14315797.82	39°25'21.048"N	80°52'22.260"W	136.05	93.401	10.47	10.47	-0.13	
6670.00†	62.363	155.416	6472.13	64.52	-18.48	140.58	1676329.02	14315787.42	39°25'20.945"N	80°52'22.199"W	141.79	97.488	10.26	10.26	0.20	Tully: 6670' MD / 6472' TVD
6704.00	65.850	155.480	6486.97	94.99	-46.29	153.28	1676341.72	14315759.61	39°25'20.670"N	80°52'22.038"W	160.12	106.805	10.26	10.26	0.19	
6751.00	72.920	155.810	6503.51	138.80	-86.35	171.41	1676359.84	14315719.58	39°25'20.274"N	80°52'21.807"W	191.93	116.736	15.06	15.04	0.70	
6753.00†	73.094	155.853	6504.10	140.70	-88.09	172.19	1676360.63	14315717.83	39°25'20.257"N	80°52'21.797"W	193.42	117.093	8.93	8.68	2.17	Marcellus POE: 6753' MD / 6504' TVD
6799.00	77.090	156.830	6515.93	185.03	-128.80	190.03	1676378.45	14315677.14	39°25'19.854"N	80°52'21.571"W	229.56	124.129	8.93	8.69	2.12	
6846.00	80.700	157.810	6524.98	231.08	-171.35	207.80	1676396.22	14315634.61	39°25'19.434"N	80°52'21.345"W	269.34	129.508	7.95	7.68	2.09	
6893.00	84.980	158.740	6530.84	277.67	-214.66	225.06	1676413.47	14315591.32	39°25'19.005"N	80°52'21.126"W	311.01	133.645	9.32	9.11	1.98	
6940.00	89.630	160.720	6533.05	324.60	-258.68	241.32	1676429.72	14315547.31	39°25'18.570"N	80°52'20.920"W	353.77	136.989	10.75	9.89	4.21	



Actual Wellpath Report

Bead Unit 2H AWP Proj.: 18670



Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Edna Monroe Pad
Slot	Slot #10
Well	Well
Bead Unit 2H	Bead Unit 2H AWB
Wellbore	

WELLPATH DATA (216 stations)												
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	DLS
(m)	(°)	(°)	(m)	(m)	(m)	(m)	(m)	(m)	(°)	(°)	(m)	(°)
6987.00	162.070	6533.35	371.59	-303.23	256.31	1676444.71	14315502.79	39°25'18.130"N	80°52'20.729"W	397.04	139.793	2.87
7082.00	164.430	6533.96	466.46	-394.19	283.69	1676472.07	14315411.86	39°25'17.230"N	80°52'20.382"W	485.66	144.258	2.48
7176.00	166.290	6534.55	560.11	-485.13	307.44	1676495.82	14315320.96	39°25'16.331"N	80°52'20.081"W	574.34	147.636	1.98
7270.00	167.840	6535.15	653.47	-576.74	328.48	1676516.85	14315229.38	39°25'15.425"N	80°52'19.815"W	663.72	150.336	1.65
7364.00	165.940	6535.63	746.87	-668.28	349.80	1676538.16	14315137.87	39°25'14.520"N	80°52'19.545"W	754.30	152.371	2.03
7459.00	164.810	6536.04	841.51	-760.20	373.79	1676562.14	14315045.99	39°25'13.611"N	80°52'19.241"W	847.13	153.817	2.20
7553.00	161.560	6536.57	935.39	-850.17	400.98	1676589.32	14314956.06	39°25'12.722"N	80°52'18.996"W	939.99	154.749	2.46
7647.00	158.100	6537.08	1029.37	-938.39	433.38	1676621.71	14314867.87	39°25'11.849"N	80°52'18.485"W	1033.63	155.211	2.68
7740.00	156.150	6537.65	1122.21	-1024.07	469.53	1676657.85	14314782.23	39°25'10.141"N	80°52'18.026"W	1126.58	155.369	2.90
7836.00	156.600	6538.32	1216.97	-1111.11	507.60	1676695.90	14314695.23	39°25'09.282"N	80°52'17.542"W	1221.56	155.447	3.12
7929.00	158.480	6538.92	1310.84	-1197.97	543.51	1676731.80	14314608.40	39°25'08.423"N	80°52'17.086"W	1315.50	155.596	3.34
8023.00	156.830	6539.43	1404.73	-1284.91	579.25	1676767.52	14314521.50	39°25'07.563"N	80°52'16.146"W	1409.44	155.734	3.56
8118.00	155.620	6539.76	1499.47	-1371.84	617.55	1676805.80	14314434.60	39°25'06.713"N	80°52'15.663"W	1504.43	155.765	3.78
8212.00	156.670	6539.91	1593.21	-1457.81	655.56	1676843.80	14314348.66	39°25'05.004"N	80°52'15.175"W	1598.43	155.796	3.99
8306.00	155.230	6540.28	1686.92	-1543.65	693.87	1676882.09	14314262.86	39°25'04.138"N	80°52'14.690"W	1692.43	155.819	4.21
8401.00	157.240	6541.05	1781.66	-1630.59	732.15	1676920.36	14314175.96	39°25'03.257"N	80°52'14.256"W	1787.42	155.842	4.43
8495.00	160.090	6541.73	1875.60	-1718.13	766.34	1676954.54	14314088.44	39°25'02.345"N	80°52'13.878"W	1881.29	155.862	4.65
8589.00	162.880	6542.22	1969.57	-1807.26	796.18	1676984.36	14313999.35	39°25'01.432"N	80°52'13.432"W	1974.87	155.881	4.87
8684.00	169.540	6542.78	2064.03	-1899.47	818.81	1677006.98	14313907.18	39°25'00.518"N	80°52'13.096"W	2068.44	155.896	5.09
8778.00	168.170	6543.39	2156.89	-1991.85	836.17	1677024.32	14313814.84	39°25'00.000"N	80°52'12.740"W	2160.24	155.906	5.31
8873.00	164.340	6543.52	2251.28	-2084.30	857.93	1677046.09	14313722.43	39°24'59.631"N	80°52'12.343"W	2253.96	155.916	5.53
8967.00	160.890	6544.74	2439.19	-2262.62	917.29	1677105.43	14313544.17	39°24'58.755"N	80°52'11.950"W	2347.60	155.926	5.75
9061.00	160.230	6544.74	2439.19	-2262.62	917.29	1677105.43	14313544.17	39°24'57.666"N	80°52'11.590"W	2441.49	155.936	5.97
9156.00	161.720	6545.68	2534.18	-2352.43	948.26	1677136.38	14313454.40	39°24'56.980"N	80°52'11.263"W	2536.36	155.946	6.19
9250.00	163.160	6546.41	2628.12	-2442.04	976.62	1677164.73	14313364.83	39°24'56.880"N	80°52'10.891"W	2630.09	155.956	6.41
9344.00	164.960	6546.99	2721.92	-2532.43	1002.42	1677219.87	14313274.48	39°24'56.087"N	80°52'10.406"W	2723.60	155.966	6.63
9438.00	158.590	6547.48	2815.84	-2621.67	1031.78	1677258.04	14313099.45	39°24'54.355"N	80°52'10.406"W	2817.40	155.976	6.85
9532.00	153.450	6547.94	2909.53	-2707.53	1069.97	1677299.73	14313015.24	39°24'53.522"N	80°52'09.876"W	3004.96	155.986	7.07
9626.00	153.880	6548.52	3002.88	-2791.77	1111.67	1677338.25	14312929.56	39°24'52.674"N	80°52'09.386"W	3098.86	155.996	7.29
9720.00	157.700	6548.92	3096.55	-2877.48	1150.21	1677388.25	14312829.56	39°24'52.674"N	80°52'09.386"W	3098.86	155.996	7.51

Turn Rate	Closure Dist	Latitude	Longitude	Closure Dist	DLS	Build Rate	Turn Rate	Comments
(°/100m)	(m)	(°)	(°)	(m)	(°)	(°/100m)	(°/100m)	
4.06	3098.86	80°52'09.386"W	39°24'52.674"N	3098.86	158.212	4.08	0.39	
0.46	3004.96	80°52'09.876"W	39°24'53.522"N	3004.96	158.288	4.08	-0.16	
-5.47	2911.28	80°52'10.406"W	39°24'54.355"N	2911.28	158.437	5.47	0.00	
-6.80	2817.40	80°52'10.891"W	39°24'54.355"N	2817.40	158.517	6.80	0.03	
1.94	2723.60	80°52'11.263"W	39°24'56.087"N	2723.60	158.405	1.94	0.10	
1.53	2630.09	80°52'11.590"W	39°24'56.980"N	2630.09	158.203	1.53	0.10	
1.57	2536.36	80°52'11.950"W	39°24'57.666"N	2536.36	158.046	1.58	0.17	
-0.70	2441.49	80°52'12.343"W	39°24'57.666"N	2441.49	157.932	0.72	-0.17	
-3.67	2347.60	80°52'12.740"W	39°24'59.631"N	2347.60	157.827	3.73	-0.68	
-5.08	2253.96	80°52'13.096"W	39°25'00.518"N	2253.96	157.627	5.11	-0.48	
-0.39	2160.24	80°52'13.432"W	39°25'01.432"N	2160.24	157.228	0.41	0.13	
7.00	2068.44	80°52'13.878"W	39°25'02.345"N	2068.44	156.881	7.00	-0.19	
2.98	1974.87	80°52'14.256"W	39°25'03.257"N	1974.87	156.224	2.98	0.10	
3.03	1881.29	80°52'14.690"W	39°25'04.138"N	1881.29	155.962	3.04	0.16	
2.12	1787.42	80°52'15.175"W	39°25'05.004"N	1787.42	155.819	2.12	-0.06	
-1.53	1692.43	80°52'15.663"W	39°25'05.664"N	1692.43	155.796	1.59	-0.43	
1.12	1598.43	80°52'16.146"W	39°25'06.713"N	1598.43	155.787	1.12	0.13	
-1.27	1504.43	80°52'16.632"W	39°25'07.563"N	1504.43	155.765	1.28	0.11	
-1.76	1409.44	80°52'17.086"W	39°25'08.423"N	1409.44	155.734	1.76	0.13	
2.00	1315.50	80°52'17.542"W	39°25'09.282"N	1315.50	155.596	2.00	0.00	
0.47	1221.56	80°52'18.026"W	39°25'10.141"N	1221.56	155.447	0.48	0.06	
-2.10	1126.58	80°52'18.485"W	39°25'11.849"N	1126.58	155.369	2.10	-0.16	
-3.68	1033.63	80°52'18.996"W	39°25'12.722"N	1033.63	155.211	3.68	0.06	
-3.46	939.99	80°52'19.241"W	39°25'13.611"N	939.99	154.749	3.46	-0.03	
-1.19	847.13	80°52'19.545"W	39°25'14.520"N	847.13	154.817	1.20	-0.14	
-2.02	754.30	80°52'19.815"W	39°25'15.425"N	754.30	154.793	2.03	0.23	
1.65	663.72	80°52'19.981"W	39°25'16.331"N	663.72	154.636	1.65	-0.06	
1.98	574.34	80°52'20.081"W	39°25'17.230"N	574.34	147.636	1.98	0.03	
2.48	485.66	80°52'20.382"W	39°25'18.130"N	485.66	144.258	2.48	0.00	
2.87	397.04	80°52'20.729"W	39°25'18.130"N	397.04	139.793	2.87	0.00	



Actual Wellpath Report

Bead Unit 2H AWP Proj: 18670'
Page 6 of 11



REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Edna Monroe Pad
Slot	Slot #10
Well	Bead Unit 2H
Wellbore	Bead Unit 2H AWB

WELLPATH DATA (216 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 (ft/100ft)	Bulld Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
9815.00	90.000	158.760	6548.97	3191.48	-2965.71	1185.45	1677373.47	1431284.37	39°24'51.802"N	80°52'08.939"W	3193.85	158.213	1.12	0.06	1.12	
9909.00	90.090	156.340	6548.90	3285.36	-3052.58	1221.34	1677409.35	14312754.54	39°24'50.943"N	80°52'08.483"W	3287.84	158.194	2.58	0.10	-2.57	
10003.00	90.060	160.560	6548.77	3379.28	-3139.99	1255.86	1677443.86	14312667.16	39°24'50.078"N	80°52'08.045"W	3381.82	158.201	4.49	-0.03	4.49	
10098.00	90.090	159.400	6548.65	3474.28	-3229.24	1288.38	1677476.37	14312577.94	39°24'49.196"N	80°52'07.633"W	3476.77	158.249	1.22	0.03	-1.22	
10192.00	89.660	153.540	6548.86	3568.01	-3315.39	1325.89	1677513.86	14312481.83	39°24'48.344"N	80°52'07.156"W	3570.69	158.203	6.25	-0.46	-6.23	
10380.00	90.000	167.380	6549.13	3661.59	-3400.63	1365.48	1677553.43	14312406.62	39°24'47.501"N	80°52'06.653"W	3664.54	158.123	3.32	0.36	3.30	
10475.00	90.030	169.200	6549.11	3755.42	-3489.91	1394.47	1677582.41	14312317.38	39°24'46.618"N	80°52'06.286"W	3758.19	158.220	11.43	0.00	11.43	
10569.00	90.060	166.080	6549.04	3849.52	-3582.93	1413.75	1677610.68	14312224.40	39°24'45.698"N	80°52'06.042"W	3851.76	158.467	1.92	0.03	1.92	
10663.00	90.090	165.230	6548.91	4036.37	-3674.74	1433.87	1677645.07	14312132.93	39°24'44.790"N	80°52'05.787"W	3944.57	158.684	3.32	0.03	-3.32	
10757.00	90.030	166.870	6548.81	4129.92	-3857.03	1479.82	1677667.73	14311950.41	39°24'42.988"N	80°52'05.205"W	4037.90	158.846	0.90	0.03	-0.90	
10851.00	90.120	168.270	6548.69	4223.18	-3948.82	1500.05	1677687.95	14311858.65	39°24'42.081"N	80°52'04.949"W	4224.14	159.200	1.49	0.10	1.49	
10946.00	90.180	161.970	6548.44	4317.81	-4040.59	1524.43	1677712.32	14311766.82	39°24'41.173"N	80°52'04.640"W	4318.60	159.330	6.63	0.06	-6.63	
11040.00	89.970	155.510	6548.32	4411.72	-4128.15	1559.50	1677746.38	14311679.40	39°24'40.307"N	80°52'04.208"W	4412.54	159.317	6.88	-0.22	-6.87	
11134.00	89.910	154.570	6548.42	4505.31	-4213.37	1598.17	1677785.03	14311584.21	39°24'39.465"N	80°52'03.704"W	4506.28	159.228	1.00	-0.06	-1.00	
11228.00	90.030	155.370	6548.47	4598.88	-4298.54	1637.94	1677823.78	14311509.07	39°24'38.622"N	80°52'03.199"W	4600.03	159.141	0.86	0.13	0.85	
11322.00	89.970	156.830	6548.47	4692.61	-4384.48	1676.02	1677863.85	14311423.17	39°24'37.772"N	80°52'02.715"W	4693.90	159.080	1.55	-0.06	1.55	
11416.00	89.660	160.830	6548.77	4786.56	-4472.11	1709.96	1677897.77	14311335.57	39°24'36.906"N	80°52'02.285"W	4787.88	159.075	4.27	-0.33	4.26	
11511.00	89.510	164.120	6549.46	4881.48	-4562.69	1738.56	1677926.36	14311245.03	39°24'36.010"N	80°52'01.922"W	4882.70	159.141	3.47	-0.16	3.46	
11605.00	89.540	159.480	6550.24	4975.43	-4651.96	1767.91	1677955.70	14311155.79	39°24'35.127"N	80°52'01.550"W	4976.57	159.191	4.94	0.03	-4.94	
11699.00	89.510	155.430	6551.02	5069.28	-4738.76	1803.94	1677991.72	14311069.03	39°24'34.289"N	80°52'01.092"W	5070.50	159.159	4.31	-0.03	-4.31	
11794.00	89.380	156.620	6551.94	5163.99	-4825.55	1842.54	1678030.30	14310982.27	39°24'33.410"N	80°52'00.602"W	5165.36	159.102	1.26	-0.14	1.25	
11888.00	89.480	158.340	6552.87	5257.86	-4912.38	1878.54	1678066.29	14310895.48	39°24'32.552"N	80°52'00.145"W	5259.31	159.073	1.83	0.11	1.83	
11983.00	89.880	160.600	6553.75	5352.84	-5001.32	1911.91	1678099.64	14310806.58	39°24'31.672"N	80°51'59.722"W	5354.30	159.079	2.36	0.48	2.31	
12077.00	89.850	162.110	6553.53	5446.82	-5090.36	1942.02	1678129.74	14310717.57	39°24'30.792"N	80°51'59.340"W	5448.23	159.118	1.68	-0.10	1.68	
12172.00	89.880	160.600	6553.75	5541.81	-5180.37	1972.39	1678160.10	14310627.59	39°24'29.902"N	80°51'58.954"W	5543.16	159.156	1.59	0.03	-1.59	
12266.00	90.000	158.050	6553.85	5635.78	-5268.31	2005.57	1678193.27	14310539.69	39°24'29.032"N	80°51'58.533"W	5637.15	159.158	2.72	0.13	-2.71	
12360.00	89.910	157.310	6553.92	5729.67	-5355.27	2041.27	1678228.95	14310452.77	39°24'28.172"N	80°51'58.080"W	5731.12	159.135	0.79	-0.10	-0.79	
12455.00	90.220	160.390	6553.81	5824.63	-5443.86	2075.54	1678263.21	14310364.21	39°24'27.296"N	80°51'57.645"W	5826.10	159.130	3.26	0.33	3.24	
12549.00	90.310	163.970	6553.38	5918.57	-5533.33	2104.31	1678291.96	14310274.77	39°24'26.411"N	80°51'57.280"W	5919.96	159.178	3.81	0.10	3.81	



Actual Wellpath Report

Bead Unit 2H AWP Proj: 18670



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Edna Monroe Pad
Well	Bead Unit 2H
Wellbore	Bead Unit 2H AWB

WELLPATH DATA (216 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)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%/100ft)	(%/100ft)	(%/100ft)
12643.00	90.250	6552.92	6012.36	-5622.77	2129.93	1678317.58	14310184.37	39°24'25.51"N	80°51'56.95"W	6013.60	159.266	0.45	-0.06	-0.10	2.07	
12738.00	90.000	6552.71	6107.22	-5714.85	2156.94	1678344.58	14310093.33	39°24'24.617"N	80°51'56.613"W	6108.34	159.322	1.93	-0.26	-1.92		
12832.00	89.850	6552.84	6201.16	-5804.53	2185.08	1678372.71	14310003.68	39°24'23.730"N	80°51'56.257"W	6202.19	159.371	0.16	-0.16	0.02		
12926.00	89.850	6553.08	6295.07	-5894.35	2212.83	1678400.44	14309913.90	39°24'22.842"N	80°51'55.905"W	6296.02	159.423	0.52	0.00	0.52		
13020.00	89.970	6553.23	6388.98	-5984.19	2240.46	1678428.07	14309824.10	39°24'21.953"N	80°51'55.554"W	6389.85	159.474	0.40	0.13	-0.38		
13114.00	89.750	6553.46	6482.93	-6073.79	2268.88	1678456.47	14309734.53	39°24'21.067"N	80°51'54.818"W	6483.73	159.517	0.71	-0.23	-0.67		
13208.00	89.820	6553.81	6576.90	-6162.98	2298.57	1678486.14	14309645.38	39°24'20.165"N	80°51'54.181"W	6577.67	159.546	1.07	0.07	-1.06		
13302.00	89.910	6554.03	6670.90	-6251.63	2329.82	1678517.39	14309556.76	39°24'19.309"N	80°51'54.421"W	6671.65	159.561	1.09	0.10	-1.09		
13396.00	89.940	6554.16	6764.90	-6340.16	2361.43	1678548.98	14309468.27	39°24'18.433"N	80°51'54.020"W	6765.64	159.572	0.60	0.03	0.60		
13491.00	89.850	6554.33	6859.90	-6429.77	2392.97	1678580.51	14309378.70	39°24'17.547"N	80°51'53.620"W	6860.63	159.586	0.10	-0.04	0.60		
13585.00	89.970	6554.48	6953.90	-6518.13	2425.04	1678612.57	14309290.37	39°24'16.673"N	80°51'53.213"W	6954.62	159.592	1.16	0.13	-1.15		
13679.00	89.880	6554.80	7047.88	-6606.00	2458.41	1678645.92	14309202.53	39°24'15.804"N	80°51'52.790"W	7048.62	159.587	0.65	-0.10	-0.64		
13773.00	89.880	6554.80	7141.78	-6693.08	2493.80	1678681.30	14309115.49	39°24'15.804"N	80°51'52.790"W	7048.62	159.587	0.65	-0.10	-0.64		
13867.00	89.820	6555.04	7235.56	-6779.29	2531.26	1678718.74	14309029.31	39°24'14.091"N	80°51'51.865"W	7236.44	159.525	0.72	-0.06	-0.71		
13962.00	90.120	6555.09	7330.42	-6866.95	2567.87	1678755.34	14308941.69	39°24'13.224"N	80°51'51.400"W	7331.37	159.497	2.44	0.32	2.42		
14056.00	90.220	6554.82	7424.40	-6955.15	2600.36	1678787.82	14308853.53	39°24'12.351"N	80°51'50.988"W	7425.36	159.500	2.77	0.11	2.77		
14150.00	90.050	6554.59	7518.34	-7044.71	2628.89	1678816.33	14308764.01	39°24'11.466"N	80°51'50.626"W	7519.24	159.536	3.17	-0.17	2.66		
14245.00	89.940	6554.59	7613.29	-7135.08	2658.12	1678845.56	14308673.66	39°24'10.572"N	80°51'50.256"W	7614.13	159.568	3.17	-0.13	-3.17		
14339.00	89.850	6554.76	7707.29	-7223.50	2690.02	1678877.45	14308585.28	39°24'09.698"N	80°51'49.851"W	7708.13	159.575	0.88	-0.10	-0.87		
14433.00	89.880	6554.98	7801.24	-7311.10	2724.12	1678911.53	14308497.72	39°24'08.832"N	80°51'49.418"W	7802.11	159.565	2.17	0.03	-2.17		
14528.00	89.940	6555.13	7896.05	-7398.44	2761.48	1678948.87	14308410.41	39°24'07.968"N	80°51'48.944"W	7897.00	159.532	1.82	0.06	-1.82		
14622.00	89.780	6555.36	7989.62	-7483.57	2801.32	1678988.70	14308325.32	39°24'07.126"N	80°51'48.438"W	7990.70	159.478	2.26	-0.17	-2.26		
14716.00	89.880	6555.64	8083.26	-7569.13	2840.21	1679027.57	14308239.79	39°24'06.280"N	80°51'47.944"W	8084.46	159.432	3.61	0.11	3.61		
14810.00	89.850	6555.86	8177.22	-7656.93	2873.75	1679061.10	14308152.03	39°24'05.411"N	80°51'47.519"W	8178.45	159.428	3.93	-0.03	3.93		
14905.00	89.940	6556.03	8272.21	-7746.82	2904.47	1679091.81	14308062.17	39°24'04.522"N	80°51'47.128"W	8273.40	159.448	0.41	0.09	0.40		
14999.00	89.850	6556.19	8366.19	-7836.09	2933.93	1679121.25	14307972.94	39°24'03.640"N	80°51'46.756"W	8367.33	159.473	0.90	-0.10	0.89		
15093.00	89.940	6556.38	8460.06	-7926.15	2960.83	1679148.15	14307882.92	39°24'02.749"N	80°51'46.415"W	8461.11	159.517	2.57	0.10	2.56		
15187.00	89.850	6556.55	8553.72	-8017.05	2984.76	1679172.06	14307792.05	39°24'01.850"N	80°51'46.112"W	8554.64	159.580	1.46	-0.10	1.46		
15281.00	90.060	6556.62	8647.44	-8107.75	3009.43	1679196.73	14307701.39	39°24'00.954"N	80°51'45.799"W	8648.25	159.636	2.48	0.22	-2.47		
15375.00	89.970	6556.60	8741.19	-8198.36	3034.40	1679221.69	14307610.81	39°24'00.058"N	80°51'45.483"W	8741.90	159.689	2.08	-0.10	2.07		



Actual Wellpath Report

Bead Unit 2H AWP Proj: 18670'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Tyler County, WV	Well	Bead Unit 2H
Field	Tyler	Wellbore	Bead Unit 2H AWP
Facility	Edna Monroe Pad		

WELLPATH DATA (216 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
15470.00	89.880	168.870	6556.72	8835.51	-8291.00	3055.41	1679242.69	14307518.21	39°23'59.142"N	80°51'45.217"W	8836.07	159.770	3.47	-0.09	3.47	
15564.00	89.780	167.300	6557.00	8928.66	-8382.97	3074.82	1679262.09	14307426.28	39°23'58.232"N	80°51'44.972"W	8929.09	159.857	1.67	-0.11	-1.67	
15658.00	89.780	163.100	6557.36	9022.31	-8473.83	3098.83	1679286.09	14307335.45	39°23'57.334"N	80°51'44.668"W	9022.67	159.913	4.47	0.00	-4.47	
15752.00	89.910	158.950	6557.62	9116.29	-8562.70	3129.38	1679316.63	14307246.62	39°23'56.455"N	80°51'44.280"W	9116.63	159.924	4.42	0.14	-4.41	
15846.00	89.880	153.440	6557.79	9210.00	-8648.67	3167.31	1679354.54	14307160.68	39°23'55.605"N	80°51'43.799"W	9210.40	159.886	5.86	-0.03	-5.86	
15940.00	89.660	154.780	6558.17	9303.42	-8733.23	3208.35	1679395.57	14307076.15	39°23'54.769"N	80°51'43.277"W	9303.92	159.828	1.44	-0.23	1.43	
16034.00	89.350	158.040	6558.98	9397.18	-8819.36	3245.96	1679433.16	14306990.06	39°23'54.280"N	80°51'42.800"W	9397.74	159.794	3.48	-0.33	3.47	
16129.00	89.600	160.170	6559.85	9492.14	-8908.11	3279.84	1679467.03	14306901.35	39°23'53.039"N	80°51'42.370"W	9492.72	159.787	2.26	0.26	2.24	
16223.00	89.140	160.930	6560.88	9586.14	-8996.74	3311.14	1679498.32	14306812.76	39°23'52.163"N	80°51'41.973"W	9586.71	159.794	0.95	-0.49	0.81	
16317.00	89.690	159.290	6561.84	9680.13	-9085.12	3343.12	1679530.28	14306724.41	39°23'51.289"N	80°51'41.568"W	9680.70	159.798	1.84	0.59	-1.74	
16411.00	89.720	158.740	6562.33	9774.10	-9172.89	3376.78	1679563.93	14306636.68	39°23'50.421"N	80°51'41.141"W	9774.69	159.790	0.59	0.03	-0.59	
16505.00	89.720	162.660	6562.79	9868.08	-9261.59	3407.84	1679594.98	14306548.01	39°23'49.544"N	80°51'40.747"W	9868.66	159.799	4.17	0.00	4.17	
16599.00	89.780	163.900	6563.20	9961.96	-9351.61	3434.89	1679622.01	14306458.03	39°23'48.653"N	80°51'40.404"W	9962.48	159.831	1.32	0.06	1.32	
16693.00	89.570	160.800	6563.73	10055.89	-9441.17	3463.38	1679650.50	14306368.50	39°23'47.768"N	80°51'40.043"W	10056.38	159.855	3.31	-0.22	-3.30	
16787.00	89.570	156.510	6564.44	10149.82	-9528.70	3497.59	1679684.69	14306281.01	39°23'46.902"N	80°51'39.609"W	10150.33	159.844	4.56	0.00	-4.56	
16881.00	90.000	155.600	6564.79	10243.55	-9614.61	3535.74	1679722.82	14306195.13	39°23'46.053"N	80°51'39.124"W	10244.13	159.809	1.07	0.46	-0.97	
16976.00	89.750	157.360	6565.00	10338.32	-9701.71	3573.65	1679760.72	14306108.06	39°23'45.191"N	80°51'38.643"W	10338.96	159.779	1.87	-0.26	1.85	
17069.00	89.970	156.630	6565.22	10431.15	-9787.32	3609.99	1679797.05	14306022.50	39°23'44.344"N	80°51'38.182"W	10431.85	159.754	0.82	0.24	-0.78	
17164.00	89.910	157.230	6565.32	10525.97	-9874.72	3647.22	1679834.26	14305935.13	39°23'43.480"N	80°51'37.709"W	10526.74	159.728	0.63	-0.06	0.63	
17258.00	89.970	158.360	6565.42	10619.87	-9961.74	3682.74	1679869.77	14305848.14	39°23'42.619"N	80°51'37.259"W	10620.69	159.711	1.20	0.06	1.20	
17352.00	89.910	158.060	6565.52	10713.80	-10049.03	3717.64	1679904.65	14305760.89	39°23'41.756"N	80°51'36.816"W	10714.65	159.698	0.33	-0.06	-0.32	
17446.00	89.940	162.770	6565.64	10807.78	-10137.56	3749.14	1679936.14	14305672.39	39°23'40.881"N	80°51'36.416"W	10808.62	159.704	5.01	0.03	5.01	
17540.00	89.910	160.830	6565.77	10901.74	-10226.86	3778.50	1679965.48	14305583.13	39°23'39.998"N	80°51'36.044"W	10902.55	159.722	2.06	-0.03	-2.06	
17634.00	89.940	162.610	6565.89	10995.72	-10316.11	3807.98	1679994.95	14305493.91	39°23'39.115"N	80°51'35.671"W	10996.49	159.739	1.89	0.03	1.89	
17728.00	89.940	166.330	6565.99	11089.47	-10406.66	3833.14	1680020.11	14305403.40	39°23'38.220"N	80°51'35.352"W	11090.16	159.779	3.96	0.00	3.96	
17823.00	89.940	167.320	6566.09	11183.87	-10499.16	3854.80	1680041.75	14305310.93	39°23'37.305"N	80°51'35.078"W	11184.45	159.839	1.04	0.00	1.04	
17917.00	90.060	162.920	6566.09	11277.53	-10589.99	3878.93	1680065.87	14305220.15	39°23'36.407"N	80°51'34.772"W	11278.03	159.883	4.68	0.13	-4.68	
18011.00	90.060	157.210	6565.99	11371.49	-10678.32	3910.96	1680097.90	14305131.85	39°23'35.534"N	80°51'34.366"W	11371.99	159.885	6.07	0.00	-6.07	
18106.00	89.820	156.010	6566.09	11466.28	-10765.51	3948.68	1680135.60	14305044.69	39°23'34.671"N	80°51'33.887"W	11466.83	159.857	1.29	-0.25	-1.26	
18200.00	89.940	160.300	6566.29	11560.18	-10852.74	3983.65	1680170.55	14304957.50	39°23'33.809"N	80°51'33.444"W	11560.77	159.844	4.57	0.13	4.56	



Actual Wellpath Report

Bead Unit 2H AWP Proj: 18670'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Tyler County, WV	Well	Bead Unit 2H
Field	Tyler	Wellbore	Bead Unit 2H AWB
Facility	Edna Monroe Pad		

WELLPATH DATA (216 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert.Sect [ft]	North [ft]	East [ft]	Grid East [ft]	Grid North [ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [F/100ft]	Build Rate [F/100ft]	Turn Rate [F/100ft]	Comments
18294.00	90.150	161.230	6565.21	11654.18	-10941.49	4014.61	1680201.51	14304868.78	39°23'32.931"N	80°51'33.051"W	11654.76	159.851	1.01	0.22	0.99	
18389.00	90.120	161.680	6565.99	11749.16	-11031.56	4044.83	1680231.71	14304778.75	39°23'32.040"N	80°51'32.668"W	11749.72	159.864	0.47	-0.03	0.47	
18483.00	90.150	164.320	6565.77	11843.08	-11121.44	4072.31	1680259.18	14304688.90	39°23'31.151"N	80°51'32.320"W	11843.57	159.889	2.81	0.03	2.81	
18578.00	90.250	166.390	6565.43	11937.70	-11213.35	4086.33	1680283.19	14304597.03	39°23'30.243"N	80°51'32.016"W	11938.14	159.932	2.18	0.11	2.18	
18645.00	90.060	164.150	6565.25	12004.46	-11278.14	4113.36	1680300.21	14304532.26	39°23'29.602"N	80°51'31.800"W	12004.84	159.962	3.36	-0.28	-3.34	
18670.00	90.060	164.150	6565.23	12029.41	-11302.19	4120.19	1680307.04	14304508.23	39°23'29.364"N	80°51'31.713"W	12029.78	159.971	0.00	0.00	0.00	Projected MD at TD: 18670'

HOLE & CASING SECTIONS - Ref Wellbore: Bead Unit 2H AWB Ref Wellpath: Bead Unit 2H AWP Proj: 18670'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in. Conductor	25.00	105.00	80.00	25.00	105.00	0.00	0.00	-0.17	0.08
17.5in Open Hole	105.00	532.00	427.00	105.00	531.99	-0.17	0.08	-3.44	0.56
13.375in Casing Surface	25.00	532.00	507.00	25.00	531.99	0.00	0.00	-3.44	0.56
12.25in Open Hole	532.00	2530.00	1998.00	531.99	2529.00	-3.44	0.56	-23.98	20.96
9.625in Casing Intermediate	25.00	2530.00	2505.00	25.00	2529.00	0.00	0.00	-23.98	20.96



Actual Wellpath Report

Bead Unit 2H AWP Proj: 18670'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Tyler County, WV	Well	Bead Unit 2H
Field	Tyler	Wellbore	Bead Unit 2H AWB
Facility	Edna Monroe Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Bead Unit 2H POE Rev-1	6503.00	-83.17	148.94	1676337.38	14315722.76	39°25'20.306"N	80°52'22.094"W	point
Bead Unit 2H LP Rev-1	6529.00	-239.30	204.48	1676392.90	14315566.69	39°25'18.762"N	80°52'21.389"W	point
Bead Unit 2H BHL Rev-2	6631.80	-11337.59	4152.37	1680339.21	14304472.85	39°23'29.014"N	80°51'31.304"W	point

WELLPATH COMPOSITION - Ref Wellbore: Bead Unit 2H AWB Ref Wellpath: Bead Unit 2H AWP Proj: 18670'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	5581.00	Gyrodata standard - Drop gyro or Multi-shot	03 Gyrodata MS Gyro <8-3/4"> (100'-5569')	Bead Unit 2H AWB
5581.00	18645.00	BHI AutoTrak Curve (Short)	04 BHI AT Curve <8-1/2"> (5581')(5668'-18645')	Bead Unit 2H AWB
18645.00	18670.00	Blind Drilling (std)	Projection to bit	Bead Unit 2H AWB



Actual Wellpath Report

Bead Unit 2H AWP Proj: 18670'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Slot	Slot #10	
ANTERO RESOURCES CORPORATION	Well	Bead Unit 2H	
Tyler County, WV	Wellbore	Bead Unit 2H AWB	
Tyler			
Edna Monroe Pad			

COMMENTS
<p>Wellpath general comments API: 47-095-02362-0000 BHI Job #: 8397836 Rig: Patterson 343 Duration: 02/12/2017-02/16/2017 Gyrodota MS Gyro <8-3/4"> (100'-5569') BHI AT Curve <8-1/2"> (5569')(5668'-18645') Middlesex: 6432' MD / 6337' TVD Burket: 6609' MD / 6441' TVD Tully: 6670' MD / 6472' TVD Marcellus POE: 6753' MD / 6504' TVD Projected MD at TD: 18670'</p>