



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 2H
Field	Tyler	API	47-095-02525-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Delaset
Scale	0.999604	Report Generated	1/3/2020 at 5:28:12 PM
Convergence at slot	0.13° East	Database	WA_MPL_EasternUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	8.47	-5.33	1700251.35	14308709.03	39°24'10.5140"N	80°47'17.4570"W
Facility Reference Pt			1700256.68	14308700.56	39°24'10.4301"N	80°47'17.3894"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 342 (RKB) to Facility Vertical Datum	768.00ft
Horizontal Reference Pt	Slot	Patterson 342 (RKB) to Mean Sea Level	768.00ft
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Ground Level at Slot (Slot #04)	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	161.76°



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WELLPATH DATA (215 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00†	0.000	44.660	0.00	0.00	0.00	0.00	1700251.35	14308709.03	39°24'10.5140"N	80°47'17.4570"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	44.660	25.00	0.00	0.00	0.00	1700251.35	14308709.03	39°24'10.5140"N	80°47'17.4570"W	0.00	0.000	0.00	0.00	0.00	
50.00	0.340	44.660	50.00	-0.03	0.05	0.05	1700251.40	14308709.08	39°24'10.5145"N	80°47'17.4564"W	0.07	44.660	1.36	1.36	0.00	Gyrodata MS Gyro <17-1/2">(50'-352')
75.00	0.340	49.190	75.00	-0.10	0.15	0.16	1700251.51	14308709.18	39°24'10.5155"N	80°47'17.4550"W	0.22	46.170	0.11	0.00	0.00	18.12
100.00	0.370	39.220	100.00	-0.17	0.27	0.27	1700251.62	14308709.29	39°24'10.5166"N	80°47'17.4536"W	0.38	45.278	0.27	0.12	-0.12	-39.88
125.00	0.330	53.630	125.00	-0.23	0.37	0.38	1700251.73	14308709.40	39°24'10.5177"N	80°47'17.4522"W	0.53	45.489	0.39	-0.16	0.00	57.64
150.00	0.390	54.740	150.00	-0.28	0.46	0.50	1700251.85	14308709.49	39°24'10.5186"N	80°47'17.4506"W	0.68	47.489	0.24	0.24	0.00	4.44
175.00	0.320	53.910	175.00	-0.33	0.55	0.63	1700251.98	14308709.58	39°24'10.5195"N	80°47'17.4490"W	0.84	48.758	0.28	-0.28	0.00	-3.32
200.00	0.320	61.210	200.00	-0.36	0.63	0.75	1700252.10	14308709.66	39°24'10.5202"N	80°47'17.4475"W	0.98	50.010	0.16	0.00	0.00	29.20
225.00	0.280	57.970	225.00	-0.39	0.69	0.86	1700252.21	14308709.72	39°24'10.5208"N	80°47'17.4461"W	1.10	51.152	0.17	-0.16	0.00	-12.96
250.00	0.280	92.520	250.00	-0.38	0.72	0.97	1700252.32	14308709.75	39°24'10.5211"N	80°47'17.4446"W	1.21	53.403	0.67	0.00	0.00	138.20
275.00	0.320	95.320	275.00	-0.33	0.71	1.10	1700252.45	14308709.74	39°24'10.5210"N	80°47'17.4430"W	1.31	57.119	0.17	0.16	0.00	11.20
300.00	0.290	96.780	300.00	-0.28	0.70	1.24	1700252.59	14308709.73	39°24'10.5209"N	80°47'17.4413"W	1.42	60.491	0.12	-0.12	0.00	5.84
325.00	0.300	96.330	325.00	-0.22	0.68	1.36	1700252.71	14308709.71	39°24'10.5208"N	80°47'17.4396"W	1.53	63.336	0.04	0.04	0.00	-1.80
352.00	0.360	89.070	352.00	-0.17	0.68	1.52	1700252.87	14308709.71	39°24'10.5207"N	80°47'17.4377"W	1.66	65.931	0.27	0.22	0.00	-26.89
472.00	0.550	141.370	471.99	0.48	0.23	2.26	1700253.60	14308709.26	39°24'10.5163"N	80°47'17.4283"W	2.27	84.058	0.36	0.16	0.00	43.58 Gyrodata MS Gyro <12-1/4">(352')(472'-1115')
562.00	0.830	160.920	561.99	1.54	-0.72	2.74	1700254.09	14308708.31	39°24'10.5069"N	80°47'17.4222"W	2.83	104.706	0.40	0.31	0.00	21.72
654.00	0.940	159.130	653.97	2.96	-2.05	3.23	1700254.57	14308706.98	39°24'10.4936"N	80°47'17.4160"W	3.82	122.488	0.12	0.12	0.00	-1.95
744.00	1.070	155.090	743.96	4.53	-3.51	3.84	1700255.19	14308705.53	39°24'10.4793"N	80°47'17.4082"W	5.20	132.378	0.16	0.14	0.00	-4.49
834.00	1.700	151.270	833.93	6.68	-5.44	4.84	1700256.19	14308703.59	39°24'10.4602"N	80°47'17.3956"W	7.28	138.346	0.71	0.70	0.00	-4.24
925.00	2.120	147.780	924.88	9.64	-8.05	6.38	1700257.73	14308700.99	39°24'10.4343"N	80°47'17.3760"W	10.27	141.571	0.48	0.46	0.00	-3.84
1021.00	1.060	132.300	1020.84	12.14	-10.15	7.99	1700259.33	14308698.89	39°24'10.4136"N	80°47'17.3556"W	12.91	141.788	1.18	-1.10	0.00	-16.12
1115.00	0.860	340.320	1114.84	12.19	-10.07	8.39	1700259.74	14308698.97	39°24'10.4143"N	80°47'17.3504"W	13.11	140.181	1.98	-0.21	0.00	-161.68
1245.00	1.150	327.260	1244.82	9.95	-8.05	7.36	1700258.71	14308700.98	39°24'10.4343"N	80°47'17.3635"W	10.91	137.571	0.28	0.22	0.00	-10.05 APS EM <12-1/4">(1115')(1245'-2520')
1339.00	0.200	270.630	1338.81	8.98	-7.26	6.68	1700258.03	14308701.78	39°24'10.4422"N	80°47'17.3721"W	9.87	137.345	1.12	-1.01	0.00	-60.24
1434.00	0.560	171.860	1433.81	9.39	-7.71	6.59	1700257.93	14308701.32	39°24'10.4376"N	80°47'17.3734"W	10.14	139.506	0.66	0.38	0.00	-104.18
1528.00	0.510	112.650	1527.81	10.11	-8.33	7.04	1700258.39	14308700.70	39°24'10.4315"N	80°47'17.3676"W	10.90	139.798	0.56	-0.05	0.00	-62.78
1623.00	0.940	108.560	1622.80	10.86	-8.74	8.17	1700259.51	14308700.29	39°24'10.4275"N	80°47'17.3533"W	11.96	136.937	0.46	0.45	0.00	-4.31
1717.00	0.590	355.650	1716.80	10.85	-8.50	8.86	1700260.21	14308700.53	39°24'10.4298"N	80°47'17.3444"W	12.28	133.813	1.37	-0.37	0.00	-120.12
1812.00	1.550	326.580	1811.78	9.13	-6.94	8.12	1700259.46	14308702.09	39°24'10.4452"N	80°47'17.3538"W	10.68	130.538	1.13	1.01	0.00	-30.60



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Slot	Slot #04		

WELLPATH DATA (215 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
1907.00	0.720	289.380	1906.76	7.53	-5.67	6.85	1700258.19	14308703.36	39°24'10.4578"N	80°47'17.3700"W	8.89	129.639	1.13	-0.87	-39.16	
2002.00	0.830	244.620	2001.75	7.25	-5.77	5.66	1700257.01	14308703.26	39°24'10.4569"N	80°47'17.3851"W	8.08	135.535	0.63	0.12	-47.12	
2096.00	1.040	224.270	2095.74	7.73	-6.67	4.45	1700255.80	14308702.36	39°24'10.4480"N	80°47'17.4005"W	8.02	146.288	0.41	0.22	-21.65	
2191.00	0.030	159.870	2190.73	8.15	-7.31	3.86	1700255.21	14308701.72	39°24'10.4417"N	80°47'17.4081"W	8.27	152.183	1.08	-1.06	-67.79	
2286.00	0.270	344.960	2285.73	7.95	-7.12	3.81	1700255.16	14308701.91	39°24'10.4436"N	80°47'17.4087"W	8.07	151.855	0.32	0.25	-184.12	
2380.00	0.530	27.310	2379.73	7.43	-6.52	3.95	1700255.30	14308702.51	39°24'10.4495"N	80°47'17.4069"W	7.62	148.785	0.40	0.28	45.05	
2475.00	0.450	1.030	2474.73	6.77	-5.76	4.16	1700255.51	14308703.28	39°24'10.4570"N	80°47'17.4042"W	7.10	144.150	0.25	-0.08	-27.66	
2520.00	0.440	356.500	2519.73	6.43	-5.41	4.15	1700255.50	14308703.63	39°24'10.4605"N	80°47'17.4043"W	6.82	142.481	0.08	-0.02	-10.07	
2588.00	0.650	345.760	2587.72	5.80	-4.77	4.04	1700255.39	14308704.26	39°24'10.4668"N	80°47'17.4057"W	6.25	139.745	0.34	0.31	-15.79	BHI Navitrak <8-3/4>(2520')(2588'-4100')
2648.00	1.020	358.100	2647.72	4.94	-3.91	3.94	1700255.29	14308705.12	39°24'10.4753"N	80°47'17.4070"W	5.55	134.775	0.68	0.62	20.57	
2742.00	5.180	20.530	2741.56	0.83	0.90	5.40	1700256.75	14308709.93	39°24'10.5228"N	80°47'17.3882"W	5.48	80.498	4.53	4.43	23.86	
2836.00	6.100	29.830	2835.11	-5.81	9.21	9.37	1700260.72	14308718.24	39°24'10.6048"N	80°47'17.3374"W	13.14	45.500	1.38	0.98	9.89	
2931.00	6.670	21.970	2929.52	-13.40	18.71	13.95	1700265.29	14308727.73	39°24'10.6986"N	80°47'17.2788"W	23.33	36.709	1.10	0.60	-8.27	
3026.00	8.540	15.070	3023.68	-23.51	30.64	17.85	1700269.19	14308739.65	39°24'10.8164"N	80°47'17.2288"W	35.45	30.223	2.19	1.97	-7.26	
3121.00	9.120	16.560	3117.56	-35.59	44.66	21.83	1700273.17	14308753.68	39°24'10.9549"N	80°47'17.1777"W	49.71	26.044	0.66	0.61	1.57	
3216.00	9.830	20.560	3211.26	-48.09	59.47	26.82	1700278.16	14308768.48	39°24'11.1012"N	80°47'17.1136"W	65.24	24.274	1.02	0.75	4.21	
3311.00	11.690	22.070	3304.59	-61.75	75.99	33.28	1700284.62	14308784.99	39°24'11.2643"N	80°47'17.0307"W	82.96	23.655	1.98	1.96	1.59	
3405.00	13.340	24.560	3396.35	-76.97	94.68	41.37	1700292.70	14308803.67	39°24'11.4488"N	80°47'16.9272"W	103.32	23.604	1.85	1.76	2.65	
3500.00	15.080	23.580	3488.44	-94.22	115.97	50.87	1700302.20	14308824.96	39°24'11.6590"N	80°47'16.8055"W	126.64	23.684	1.85	1.83	-1.03	
3594.00	15.600	23.090	3579.09	-112.83	138.81	60.72	1700312.04	14308847.78	39°24'11.8845"N	80°47'16.6794"W	151.51	23.626	0.57	0.55	-0.52	
3688.00	16.480	25.660	3669.43	-131.93	162.45	71.45	1700322.77	14308871.42	39°24'12.1179"N	80°47'16.5420"W	177.47	23.741	1.20	0.94	2.73	
3783.00	17.250	24.570	3760.34	-151.97	187.41	83.14	1700334.46	14308896.36	39°24'12.3643"N	80°47'16.3923"W	205.02	23.924	0.88	0.81	-1.15	
3877.00	17.620	20.830	3850.03	-173.24	213.38	94.00	1700345.31	14308922.33	39°24'12.6208"N	80°47'16.2532"W	233.17	23.774	1.26	0.39	-3.98	
3971.00	15.620	18.780	3940.10	-194.39	238.66	103.13	1700354.44	14308947.60	39°24'12.8704"N	80°47'16.1361"W	259.99	23.370	2.22	-2.13	-2.18	
4065.00	14.690	20.550	4030.83	-213.79	261.81	111.39	1700362.69	14308970.73	39°24'13.0990"N	80°47'16.0302"W	284.52	23.048	1.10	-0.99	1.88	
4100.00	14.980	20.950	4064.66	-220.75	270.18	114.56	1700365.87	14308979.11	39°24'13.1817"N	80°47'15.9895"W	293.47	22.978	0.88	0.83	1.14	
4173.00	15.570	20.630	4135.08	-235.69	288.16	121.39	1700372.69	14308997.08	39°24'13.3593"N	80°47'15.9020"W	312.69	22.843	0.82	0.81	-0.44	BH AT Curve <8-1/2> (4100')(4173'-18010')
4267.00	17.150	23.100	4225.27	-255.92	312.72	131.27	1700382.57	14309021.63	39°24'13.6018"N	80°47'15.7754"W	339.16	22.771	1.84	1.68	2.63	
4362.00	16.830	21.230	4316.13	-277.05	338.42	141.75	1700393.04	14309047.32	39°24'13.8555"N	80°47'15.6412"W	366.91	22.726	0.67	-0.34	-1.97	
4457.00	16.780	19.190	4407.07	-298.56	364.20	151.24	1700402.53	14309073.08	39°24'14.1100"N	80°47'15.5195"W	394.35	22.551	0.62	-0.05	-2.15	



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Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
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4552.00	15.360	17.980	4498.36	-319.60	389.12	159.63	1700410.91	14309097.99	39°24'14.3561"N	80°47'15.4119"W	420.58	22.305	1.54	-1.49	-1.27	
4646.00	16.170	17.830	4588.82	-340.22	413.42	167.48	1700418.76	14309122.28	39°24'14.5961"N	80°47'15.3111"W	446.05	22.053	0.86	0.86	-0.16	
4741.00	16.490	17.490	4679.99	-361.86	438.87	175.58	1700426.86	14309147.73	39°24'14.8475"N	80°47'15.2072"W	472.69	21.805	0.35	0.34	-0.36	
4835.00	18.130	16.850	4769.73	-384.66	465.59	183.83	1700435.11	14309174.44	39°24'15.1114"N	80°47'15.1013"W	500.57	21.546	1.76	1.74	-0.68	
4930.00	17.310	16.620	4860.22	-408.35	493.28	192.16	1700443.43	14309202.12	39°24'15.3849"N	80°47'14.9944"W	529.39	21.283	0.87	-0.86	-0.24	
5024.00	16.760	16.390	4950.10	-430.98	519.69	199.98	1700451.25	14309228.51	39°24'15.6457"N	80°47'14.8939"W	556.84	21.047	0.59	-0.59	-0.24	
5119.00	17.140	18.090	5040.97	-453.53	546.13	208.19	1700459.46	14309254.95	39°24'15.9069"N	80°47'14.7885"W	584.47	20.868	0.66	0.40	1.79	
5214.00	17.790	21.540	5131.59	-475.96	572.94	217.87	1700469.13	14309281.74	39°24'16.1716"N	80°47'14.6644"W	612.97	20.820	1.29	0.68	3.63	
5308.00	17.350	25.620	5221.21	-497.10	598.94	229.20	1700480.46	14309307.73	39°24'16.4283"N	80°47'14.5193"W	641.29	20.941	1.39	-0.47	4.34	
5403.00	17.440	26.130	5311.87	-517.49	624.49	241.60	1700492.85	14309333.27	39°24'16.6805"N	80°47'14.3606"W	669.59	21.150	0.19	0.09	0.54	
5498.00	17.410	26.660	5402.51	-537.74	649.97	254.24	1700505.49	14309358.74	39°24'16.9321"N	80°47'14.1987"W	697.93	21.363	0.17	-0.03	0.56	
5592.00	16.360	26.820	5492.45	-557.05	674.35	266.53	1700517.77	14309383.12	39°24'17.1728"N	80°47'14.0415"W	725.11	21.566	1.12	-1.12	0.17	
5687.00	14.640	37.570	5584.01	-573.25	695.82	279.89	1700531.13	14309404.57	39°24'17.3846"N	80°47'13.8707"W	750.00	21.912	3.52	-1.81	11.32	
5782.00	11.880	73.550	5676.62	-579.70	708.12	296.62	1700547.85	14309416.87	39°24'17.5059"N	80°47'13.6572"W	767.74	22.728	8.99	-2.91	37.87	
5876.00	10.990	106.530	5768.86	-574.28	708.31	314.50	1700565.73	14309417.06	39°24'17.5073"N	80°47'13.4293"W	775.00	23.942	6.92	-0.95	35.09	
5971.00	12.590	131.010	5861.91	-560.21	698.94	331.01	1700582.23	14309407.69	39°24'17.4143"N	80°47'13.2193"W	773.36	25.342	5.48	1.68	25.77	
6065.00	18.370	145.020	5952.49	-537.20	680.06	347.25	1700598.46	14309388.82	39°24'17.2273"N	80°47'13.0130"W	763.58	27.050	7.28	6.15	14.90	
6159.00	26.740	147.800	6039.22	-502.43	649.97	367.05	1700618.25	14309358.74	39°24'16.9295"N	80°47'12.7617"W	746.45	29.454	8.97	8.90	2.96	
6254.00	34.480	148.630	6120.92	-455.43	608.86	392.47	1700643.67	14309317.65	39°24'16.5226"N	80°47'12.4390"W	724.40	32.806	8.16	8.15	0.87	
6336.00†	40.867	152.134	6185.80	-406.32	565.28	417.12	1700668.31	14309274.08	39°24'16.0912"N	80°47'12.1263"W	702.52	36.424	8.21	7.79	4.27	Middlesex: 6336' MD
6348.00	41.810	152.570	6194.81	-398.50	558.26	420.80	1700671.98	14309267.07	39°24'16.0218"N	80°47'12.0796"W	699.09	37.008	8.21	7.85	3.63	
6443.00	51.900	153.880	6259.69	-330.03	496.43	451.93	1700703.10	14309205.26	39°24'15.4099"N	80°47'11.6850"W	671.33	42.313	10.67	10.62	1.38	
6537.00	61.560	154.580	6311.20	-252.21	425.72	486.03	1700737.19	14309134.59	39°24'14.7103"N	80°47'11.2527"W	646.12	48.784	10.30	10.28	0.74	
6556.00†	63.110	155.203	6320.02	-235.50	410.49	493.17	1700744.32	14309119.35	39°24'14.5596"N	80°47'11.1622"W	641.65	50.228	8.66	8.16	3.28	Burkett: 6556' MD
6584.00	65.400	156.090	6332.18	-210.42	387.51	503.57	1700754.72	14309096.39	39°24'14.3323"N	80°47'11.0304"W	635.41	52.421	8.66	8.18	3.17	
6627.00†	68.031	158.685	6349.18	-171.05	351.05	518.74	1700769.89	14309059.94	39°24'13.9716"N	80°47'10.8382"W	626.37	55.912	8.26	6.12	6.03	Tully: 6627' MD
6632.00	68.340	158.980	6351.04	-166.41	346.73	520.42	1700771.56	14309055.62	39°24'13.9288"N	80°47'10.8169"W	625.34	56.327	8.26	6.17	5.91	
6679.00	71.420	160.560	6367.21	-122.31	305.32	535.67	1700786.81	14309014.23	39°24'13.5192"N	80°47'10.6239"W	616.58	60.318	7.27	6.55	3.36	
6726.00	74.610	161.750	6380.94	-77.37	262.79	550.19	1700801.32	14308971.71	39°24'13.0984"N	80°47'10.4403"W	609.72	64.469	7.21	6.79	2.53	
6744.00†	73.982	161.548	6385.81	-60.05	246.34	555.64	1700806.77	14308955.27	39°24'12.9358"N	80°47'10.3713"W	607.80	66.090	3.65	-3.49	-1.12	Hamilton: 6744' MD



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 2H
Field	Tyler	API	47-095-02525-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (215 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
6773.00	72.970	161.220	6394.06	-32.24	219.99	564.52	1700815.64	14308928.93	39°24'12.6751"N	80°47'10.2590"W	605.87	68.709	3.65	-3.49	-1.13	
6786.00†	73.603	161.589	6397.79	-19.79	208.19	568.49	1700819.61	14308917.14	39°24'12.5584"N	80°47'10.2088"W	605.41	69.886	5.58	4.87	2.84	Marcellus POE: 6786' MD
6821.00	75.310	162.570	6407.17	13.92	176.11	578.86	1700829.98	14308885.07	39°24'12.2411"N	80°47'10.0776"W	605.06	73.079	5.58	4.88	2.80	
6868.00	79.890	163.130	6417.26	59.81	132.26	592.39	1700843.50	14308841.23	39°24'11.8074"N	80°47'9.9066"W	606.97	77.415	9.81	9.74	1.19	
6916.00	84.880	163.660	6423.62	107.35	86.68	605.98	1700857.09	14308795.67	39°24'11.3566"N	80°47'9.7348"W	612.15	81.860	10.45	10.40	1.10	
6963.00	89.080	164.320	6426.10	154.24	41.57	618.92	1700870.03	14308750.59	39°24'10.9105"N	80°47'9.5713"W	620.32	86.157	9.05	8.94	1.40	
7010.00	90.280	165.210	6426.36	201.17	-3.77	631.27	1700882.37	14308705.26	39°24'10.4620"N	80°47'9.4154"W	631.28	90.342	3.18	2.55	1.89	
7104.00	90.030	163.910	6426.11	295.06	-94.38	656.30	1700907.39	14308614.69	39°24'9.5659"N	80°47'9.0993"W	663.05	98.183	1.41	-0.27	-1.38	
7199.00	90.740	162.850	6425.47	390.01	-185.40	683.47	1700934.55	14308523.70	39°24'8.6656"N	80°47'8.7559"W	708.17	105.177	1.34	0.75	-1.12	
7294.00	91.910	158.720	6423.27	484.95	-275.07	714.72	1700965.78	14308434.07	39°24'7.7787"N	80°47'8.3606"W	765.82	111.050	4.52	1.23	-4.35	
7389.00	90.400	157.150	6421.35	579.72	-363.09	750.40	1701001.45	14308346.09	39°24'6.9079"N	80°47'7.9087"W	833.62	115.820	2.29	-1.59	-1.65	
7483.00	90.400	158.040	6420.70	673.46	-449.99	786.22	1701037.26	14308259.22	39°24'6.0482"N	80°47'7.4550"W	905.89	119.784	0.95	0.00	0.95	
7578.00	90.550	158.250	6419.91	768.27	-538.16	821.59	1701072.61	14308171.09	39°24'5.1760"N	80°47'7.0072"W	982.15	123.226	0.27	0.16	0.22	
7673.00	90.310	155.840	6419.20	862.94	-625.62	858.63	1701109.64	14308083.65	39°24'4.3106"N	80°47'6.5379"W	1062.38	126.078	2.55	-0.25	-2.54	
7768.00	90.220	156.450	6418.76	957.48	-712.51	897.05	1701148.05	14307996.81	39°24'3.4510"N	80°47'6.0511"W	1145.59	128.459	0.65	-0.09	0.64	
7862.00	90.030	159.910	6418.55	1051.28	-799.76	931.99	1701182.97	14307909.59	39°24'2.5878"N	80°47'5.6087"W	1228.09	130.634	3.69	-0.20	3.68	
7957.00	89.630	159.790	6418.83	1146.23	-888.94	964.71	1701215.68	14307820.44	39°24'1.7056"N	80°47'5.1946"W	1311.83	132.659	0.44	-0.42	-0.13	
8052.00	89.630	161.720	6419.45	1241.21	-978.63	996.02	1701246.98	14307730.79	39°24'0.8184"N	80°47'4.7984"W	1396.34	134.495	2.03	0.00	2.03	
8147.00	89.080	161.710	6420.52	1336.20	-1068.83	1025.83	1701276.77	14307640.63	39°23'59.9263"N	80°47'4.4215"W	1481.46	136.176	0.58	-0.58	-0.01	
8242.00	89.480	161.980	6421.71	1431.20	-1159.09	1055.42	1701306.35	14307550.40	39°23'59.0335"N	80°47'4.0472"W	1567.61	137.680	0.51	0.42	0.28	
8336.00	89.600	162.920	6422.47	1525.19	-1248.71	1083.77	1701334.69	14307460.82	39°23'58.1470"N	80°47'3.6889"W	1653.43	139.045	1.01	0.13	1.00	
8431.00	88.280	164.480	6424.22	1620.11	-1339.87	1110.43	1701361.33	14307369.69	39°23'57.2454"N	80°47'3.3521"W	1740.20	140.350	2.15	-1.39	1.64	
8525.00	89.230	166.660	6426.27	1713.87	-1430.88	1133.84	1701384.74	14307278.72	39°23'56.3454"N	80°47'3.0566"W	1825.65	141.606	2.53	1.01	2.32	
8619.00	88.800	169.800	6427.88	1807.25	-1522.88	1153.01	1701403.90	14307186.76	39°23'55.4357"N	80°47'2.8152"W	1910.13	142.870	3.37	-0.46	3.34	
8714.00	89.350	169.930	6429.42	1901.29	-1616.38	1169.73	1701420.61	14307093.29	39°23'54.5111"N	80°47'2.6051"W	1995.23	144.108	0.59	0.58	0.14	
8809.00	90.650	165.970	6429.42	1995.71	-1709.27	1189.56	1701440.43	14307000.44	39°23'53.5926"N	80°47'2.3554"W	2082.46	145.164	4.39	1.37	-4.17	
8904.00	89.450	162.930	6429.33	2090.59	-1800.78	1215.02	1701465.89	14306908.97	39°23'52.6876"N	80°47'2.0338"W	2172.34	145.992	3.44	-1.26	-3.20	
8999.00	89.420	161.690	6430.27	2185.58	-1891.28	1243.88	1701494.74	14306818.50	39°23'51.7924"N	80°47'1.6689"W	2263.67	146.667	1.31	-0.03	-1.31	
9093.00	89.940	161.490	6430.80	2279.58	-1980.47	1273.57	1701524.41	14306729.35	39°23'50.9102"N	80°47'1.2935"W	2354.62	147.256	0.59	0.55	-0.21	
9188.00	89.600	160.550	6431.18	2374.57	-2070.30	1304.47	1701555.30	14306639.55	39°23'50.0216"N	80°47'0.9026"W	2446.99	147.786	1.05	-0.36	-0.99	



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Avalanche Unit 2H
Field	Tyler		API	47-095-02525-0000
Facility	Colorado East Pad		Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04			

WELLPATH DATA (215 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
9283.00	89.690	159.290	6431.77	2469.52	-2159.52	1337.08	1701587.90	14306550.37	39°23'49.1390"N	80°47'0.4899"W	2539.95	148.236	1.33	0.09	-1.33	
9377.00	89.510	159.260	6432.42	2563.43	-2247.44	1370.35	1701621.15	14306462.49	39°23'48.2693"N	80°47'0.0689"W	2632.27	148.628	0.19	-0.19	-0.03	
9472.00	89.630	158.550	6433.13	2658.31	-2336.07	1404.54	1701655.33	14306373.89	39°23'47.3925"N	80°46'59.6361"W	2725.79	148.984	0.76	0.13	-0.75	
9566.00	88.520	158.960	6434.65	2752.16	-2423.67	1438.59	1701689.37	14306286.33	39°23'46.5259"N	80°46'59.2050"W	2818.46	149.308	1.26	-1.18	0.44	
9662.00	88.980	161.990	6436.75	2848.11	-2514.11	1470.67	1701721.43	14306195.92	39°23'45.6312"N	80°46'58.7992"W	2912.67	149.674	3.19	0.48	3.16	
9757.00	89.510	164.800	6438.00	2943.05	-2605.14	1497.81	1701748.56	14306104.93	39°23'44.7310"N	80°46'58.4562"W	3005.02	150.103	3.01	0.56	2.96	
9851.00	89.750	163.970	6438.61	3036.95	-2695.66	1523.11	1701773.86	14306014.44	39°23'43.8356"N	80°46'58.1367"W	3096.20	150.533	0.92	0.26	-0.88	
9946.00	90.400	164.230	6438.48	3131.87	-2787.03	1549.14	1701799.87	14305923.11	39°23'42.9320"N	80°46'57.8080"W	3188.63	150.933	0.74	0.68	0.27	
10041.00	89.510	161.910	6438.56	3226.83	-2877.90	1576.80	1701827.52	14305832.27	39°23'42.0332"N	80°46'57.4585"W	3281.56	151.282	2.62	-0.94	-2.44	
10136.00	90.800	157.700	6438.30	3321.76	-2967.04	1609.59	1701860.30	14305743.17	39°23'41.1514"N	80°46'57.0436"W	3375.52	151.521	4.63	1.36	-4.43	
10231.00	88.770	156.320	6438.66	3416.42	-3054.49	1646.69	1701897.38	14305655.76	39°23'40.2863"N	80°46'56.5737"W	3470.08	151.671	2.58	-2.14	-1.45	
10325.00	88.430	160.270	6440.95	3510.20	-3141.78	1681.44	1701932.12	14305568.50	39°23'39.4227"N	80°46'56.1338"W	3563.43	151.845	4.22	-0.36	4.20	
10420.00	90.550	159.030	6441.80	3605.13	-3230.84	1714.47	1701965.14	14305479.48	39°23'38.5417"N	80°46'55.7157"W	3657.56	152.047	2.59	2.23	-1.31	
10514.00	91.230	156.910	6440.34	3698.90	-3317.96	1749.72	1702000.37	14305392.39	39°23'37.6798"N	80°46'55.2694"W	3751.05	152.195	2.37	0.72	-2.26	
10609.00	89.910	155.170	6439.39	3793.42	-3404.77	1788.30	1702038.93	14305305.62	39°23'36.8209"N	80°46'54.7807"W	3845.83	152.290	2.30	-1.39	-1.83	
10703.00	90.180	156.780	6439.32	3886.94	-3490.62	1826.56	1702077.19	14305219.80	39°23'35.9715"N	80°46'54.2959"W	3939.64	152.378	1.74	0.29	1.71	
10798.00	89.970	159.600	6439.19	3981.75	-3578.81	1861.86	1702112.47	14305131.64	39°23'35.0990"N	80°46'53.8491"W	4034.15	152.515	2.98	-0.22	2.97	
10892.00	89.880	162.710	6439.32	4075.73	-3667.76	1892.22	1702142.81	14305042.73	39°23'34.2191"N	80°46'53.4652"W	4127.10	152.711	3.31	-0.10	3.31	
10987.00	89.630	164.610	6439.72	4170.67	-3758.92	1918.94	1702169.53	14304951.61	39°23'33.3175"N	80°46'53.1276"W	4220.40	152.956	2.02	-0.26	2.00	
11082.00	90.400	168.570	6439.70	4265.31	-3851.31	1940.97	1702191.55	14304859.25	39°23'32.4038"N	80°46'52.8499"W	4312.76	153.253	4.25	0.81	4.17	
11177.00	90.620	169.750	6438.85	4359.52	-3944.61	1958.83	1702209.40	14304765.99	39°23'31.4813"N	80°46'52.6252"W	4404.20	153.592	1.26	0.23	1.24	
11271.00	90.400	167.530	6438.02	4452.83	-4036.76	1977.35	1702227.91	14304673.88	39°23'30.5701"N	80°46'52.3922"W	4495.03	153.903	2.37	-0.23	-2.36	
11366.00	90.250	164.740	6437.48	4547.54	-4128.98	2000.11	1702250.66	14304581.69	39°23'29.6581"N	80°46'52.1051"W	4587.91	154.154	2.94	-0.16	-2.94	
11461.00	90.800	163.020	6436.61	4642.47	-4220.24	2026.48	1702277.03	14304490.47	39°23'28.7555"N	80°46'51.7720"W	4681.56	154.350	1.90	0.58	-1.81	
11556.00	90.740	158.610	6435.33	4737.43	-4309.93	2057.69	1702308.22	14304400.82	39°23'27.8683"N	80°46'51.3773"W	4775.94	154.479	4.64	-0.06	-4.64	
11651.00	89.780	152.220	6434.90	4831.79	-4396.27	2097.20	1702347.71	14304314.51	39°23'27.0140"N	80°46'50.8768"W	4870.88	154.497	6.80	-1.01	-6.73	
11745.00	90.220	154.690	6434.90	4924.80	-4480.35	2139.20	1702389.70	14304230.46	39°23'26.1819"N	80°46'50.3444"W	4964.85	154.477	2.67	0.47	2.63	
11839.00	90.280	155.780	6434.49	5018.19	-4565.71	2178.58	1702429.06	14304145.14	39°23'25.3374"N	80°46'49.8456"W	5058.84	154.491	1.16	0.06	1.16	
11933.00	90.060	158.140	6434.21	5111.85	-4652.20	2215.36	1702465.83	14304058.68	39°23'24.4816"N	80°46'49.3797"W	5152.75	154.536	2.52	-0.23	2.51	
12028.00	90.120	160.430	6434.06	5206.76	-4741.06	2248.96	1702499.42	14303969.86	39°23'23.6026"N	80°46'48.9545"W	5247.42	154.622	2.41	0.06	2.41	



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 2H
Field	Tyler	API	47-095-02525-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (215 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
12123.00	89.380	162.730	6434.47	5301.75	-4831.18	2278.98	1702529.42	14303879.77	39°23'22.7111"N	80°46'48.5750"W	5341.73	154.746	2.54	-0.78	2.42	
12218.00	90.000	165.600	6434.99	5396.65	-4922.56	2304.90	1702555.33	14303788.42	39°23'21.8073"N	80°46'48.2477"W	5435.46	154.910	3.09	0.65	3.02	
12313.00	90.250	164.800	6434.78	5491.48	-5014.41	2329.17	1702579.59	14303696.61	39°23'20.8990"N	80°46'47.9415"W	5528.95	155.085	0.88	0.26	-0.84	
12408.00	90.180	164.130	6434.43	5586.37	-5105.94	2354.61	1702605.02	14303605.12	39°23'19.9937"N	80°46'47.6202"W	5622.70	155.243	0.71	-0.07	-0.71	
12503.00	90.490	165.080	6433.87	5681.25	-5197.53	2379.83	1702630.23	14303513.57	39°23'19.0879"N	80°46'47.3019"W	5716.46	155.398	1.05	0.33	1.00	
12598.00	89.880	163.290	6433.56	5776.16	-5288.93	2405.72	1702656.11	14303422.21	39°23'18.1839"N	80°46'46.9750"W	5810.36	155.541	1.99	-0.64	-1.88	
12692.00	89.510	164.370	6434.06	5870.10	-5379.21	2431.89	1702682.28	14303331.96	39°23'17.2910"N	80°46'46.6444"W	5903.39	155.673	1.21	-0.39	1.15	
12786.00	89.910	167.990	6434.54	5963.80	-5470.47	2454.34	1702704.72	14303240.74	39°23'16.3885"N	80°46'46.3613"W	5995.82	155.836	3.87	0.43	3.85	
12881.00	90.220	168.320	6434.43	6058.21	-5563.44	2473.84	1702724.21	14303147.80	39°23'15.4691"N	80°46'46.1158"W	6088.66	156.027	0.48	0.33	0.35	
12976.00	90.580	164.410	6433.77	6152.88	-5655.75	2496.23	1702746.59	14303055.53	39°23'14.5563"N	80°46'45.8336"W	6182.12	156.185	4.13	0.38	-4.12	
13070.00	90.220	161.690	6433.11	6246.85	-5745.65	2523.64	1702773.98	14302965.66	39°23'13.6670"N	80°46'45.4874"W	6275.45	156.288	2.92	-0.38	-2.89	
13165.00	89.820	163.570	6433.08	6341.83	-5836.32	2552.00	1702802.33	14302875.04	39°23'12.7703"N	80°46'45.1290"W	6369.87	156.382	2.02	-0.42	1.98	
13260.00	90.090	164.180	6433.15	6436.77	-5927.58	2578.38	1702828.70	14302783.81	39°23'11.8677"N	80°46'44.7958"W	6464.07	156.492	0.70	0.28	0.64	
13355.00	90.180	162.860	6432.93	6531.72	-6018.67	2605.33	1702855.64	14302692.75	39°23'10.9667"N	80°46'44.4554"W	6558.37	156.593	1.39	0.09	-1.39	
13450.00	90.090	163.360	6432.71	6626.69	-6109.57	2632.93	1702883.23	14302601.89	39°23'10.0676"N	80°46'44.1067"W	6652.76	156.686	0.53	-0.09	0.53	
13544.00	90.250	162.170	6432.43	6720.68	-6199.35	2660.78	1702911.07	14302512.14	39°23'9.1796"N	80°46'43.7548"W	6746.24	156.771	1.28	0.17	-1.27	
13639.00	90.120	159.410	6432.12	6815.65	-6289.05	2692.04	1702942.31	14302422.48	39°23'8.2923"N	80°46'43.3596"W	6841.00	156.827	2.91	-0.14	-2.91	
13734.00	90.000	156.950	6432.02	6910.46	-6377.24	2727.34	1702977.61	14302334.33	39°23'7.4198"N	80°46'42.9126"W	6935.96	156.845	2.59	-0.13	-2.59	
13828.00	90.000	156.890	6432.02	7004.13	-6463.72	2764.19	1703014.44	14302247.89	39°23'6.5642"N	80°46'42.4460"W	7029.96	156.846	0.06	0.00	-0.06	
13923.00	90.090	158.400	6431.95	7098.88	-6551.57	2800.32	1703050.56	14302160.06	39°23'5.6950"N	80°46'41.9886"W	7124.95	156.857	1.59	0.09	1.59	
14018.00	89.850	158.680	6432.00	7193.73	-6639.99	2835.08	1703085.30	14302071.68	39°23'4.8203"N	80°46'41.5487"W	7219.91	156.879	0.39	-0.25	0.29	
14112.00	90.340	159.720	6431.84	7287.63	-6727.86	2868.46	1703118.67	14301983.85	39°23'3.9510"N	80°46'41.1264"W	7313.83	156.909	1.22	0.52	1.11	
14206.00	90.150	161.810	6431.44	7381.61	-6816.61	2899.43	1703149.62	14301895.14	39°23'3.0731"N	80°46'40.7348"W	7407.62	156.958	2.23	-0.20	2.22	
14301.00	90.340	163.570	6431.03	7476.60	-6907.30	2927.69	1703177.88	14301804.48	39°23'2.1761"N	80°46'40.3777"W	7502.14	157.030	1.86	0.20	1.85	
14396.00	90.060	165.980	6430.70	7571.46	-6998.96	2952.64	1703202.81	14301712.86	39°23'1.2696"N	80°46'40.0628"W	7596.28	157.127	2.55	-0.29	2.54	
14490.00	89.750	167.060	6430.86	7665.13	-7090.37	2974.55	1703224.71	14301621.48	39°23'0.3656"N	80°46'39.7866"W	7689.03	157.241	1.20	-0.33	1.15	
14585.00	89.850	167.460	6431.19	7759.69	-7183.03	2995.50	1703245.66	14301528.86	39°22'59.4493"N	80°46'39.5227"W	7782.60	157.363	0.43	0.11	0.42	
14679.00	89.910	167.210	6431.38	7853.25	-7274.74	3016.11	1703266.26	14301437.19	39°22'58.5423"N	80°46'39.2631"W	7875.20	157.481	0.27	0.06	-0.27	
14773.00	89.850	165.120	6431.58	7946.96	-7366.01	3038.58	1703288.73	14301345.95	39°22'57.6397"N	80°46'38.9798"W	7968.13	157.583	2.22	-0.06	-2.22	
14867.00	90.950	163.060	6430.92	8040.88	-7456.40	3064.35	1703314.48	14301255.60	39°22'56.7457"N	80°46'38.6545"W	8061.52	157.659	2.48	1.17	-2.19	



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 2H
Field	Tyler	API	47-095-02525-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (215 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
14962.00	90.220	158.050	6429.95	8135.82	-7545.95	3095.96	1703346.08	14301166.09	39°22'55.8599"N	80°46'38.2547"W	8156.36	157.693	5.33	-0.77	-5.27	
15056.00	88.890	154.560	6430.68	8229.38	-7632.00	3133.73	1703383.83	14301080.06	39°22'55.0084"N	80°46'37.7764"W	8250.32	157.677	3.97	-1.41	-3.71	
15151.00	89.750	158.180	6431.81	8323.93	-7719.02	3171.80	1703421.89	14300993.09	39°22'54.1475"N	80°46'37.2943"W	8345.27	157.662	3.92	0.91	3.81	
15245.00	89.850	161.020	6432.14	8417.86	-7807.11	3204.56	1703454.64	14300905.03	39°22'53.2760"N	80°46'36.8799"W	8439.21	157.683	3.02	0.11	3.02	
15340.00	89.880	163.760	6432.36	8512.84	-7897.65	3233.30	1703483.36	14300814.52	39°22'52.3805"N	80°46'36.5167"W	8533.88	157.736	2.88	0.03	2.88	
15435.00	89.820	166.560	6432.61	8607.66	-7989.47	3257.63	1703507.68	14300722.74	39°22'51.4724"N	80°46'36.2098"W	8628.08	157.817	2.95	-0.06	2.95	
15529.00	89.750	164.350	6432.97	8701.46	-8080.45	3281.24	1703531.28	14300631.79	39°22'50.5726"N	80°46'35.9120"W	8721.25	157.899	2.35	-0.07	-2.35	
15624.00	89.780	161.050	6433.36	8796.43	-8171.14	3309.48	1703559.52	14300541.14	39°22'49.6756"N	80°46'35.5552"W	8815.91	157.951	3.47	0.03	-3.47	
15718.00	89.880	160.670	6433.63	8890.42	-8259.95	3340.30	1703590.32	14300452.37	39°22'48.7971"N	80°46'35.1655"W	8909.79	157.982	0.42	0.11	-0.40	
15813.00	89.820	160.040	6433.88	8985.39	-8349.42	3372.24	1703622.25	14300362.94	39°22'47.9120"N	80°46'34.7616"W	9004.71	158.007	0.67	-0.06	-0.66	
15908.00	89.750	158.460	6434.24	9080.30	-8438.25	3405.90	1703655.89	14300274.14	39°22'47.0332"N	80°46'34.3358"W	9099.68	158.020	1.66	-0.07	-1.66	
16002.00	89.720	158.010	6434.67	9174.12	-8525.55	3440.75	1703690.73	14300186.88	39°22'46.1696"N	80°46'33.8947"W	9193.68	158.022	0.48	-0.03	-0.48	
16096.00	89.880	158.290	6435.00	9267.93	-8612.79	3475.74	1703725.70	14300099.66	39°22'45.3064"N	80°46'33.4519"W	9287.68	158.023	0.34	0.17	0.30	
16191.00	89.850	159.050	6435.23	9362.79	-8701.29	3510.29	1703760.24	14300011.21	39°22'44.4309"N	80°46'33.0147"W	9382.67	158.030	0.80	-0.03	0.80	
16285.00	89.820	158.510	6435.50	9456.66	-8788.91	3544.31	1703794.25	14299923.62	39°22'43.5641"N	80°46'32.5841"W	9476.66	158.037	0.58	-0.03	-0.57	
16380.00	89.660	159.320	6435.93	9551.55	-8877.55	3578.49	1703828.42	14299835.01	39°22'42.6872"N	80°46'32.1517"W	9571.65	158.046	0.87	-0.17	0.85	
16475.00	89.750	162.180	6436.42	9646.52	-8967.23	3609.81	1703859.72	14299745.37	39°22'41.8001"N	80°46'31.7558"W	9666.53	158.072	3.01	0.09	3.01	
16569.00	90.340	163.480	6436.34	9740.50	-9057.04	3637.56	1703887.46	14299655.60	39°22'40.9118"N	80°46'31.4052"W	9760.21	158.118	1.52	0.63	1.38	
16664.00	90.310	161.800	6435.80	9835.49	-9147.70	3665.90	1703915.79	14299564.97	39°22'40.0149"N	80°46'31.0472"W	9854.91	158.162	1.77	-0.03	-1.77	
16758.00	90.180	162.790	6435.40	9929.48	-9237.25	3694.49	1703944.37	14299475.46	39°22'39.1292"N	80°46'30.6860"W	9948.67	158.201	1.06	-0.14	1.05	
16853.00	90.280	163.920	6435.02	10024.44	-9328.27	3721.70	1703971.57	14299384.48	39°22'38.2290"N	80°46'30.3423"W	10043.29	158.249	1.19	0.11	1.19	
16947.00	90.370	165.330	6434.49	10118.32	-9418.90	3746.62	1703996.48	14299293.88	39°22'37.3326"N	80°46'30.0279"W	10136.71	158.308	1.50	0.10	1.50	
17042.00	90.280	163.640	6433.95	10213.21	-9510.43	3772.03	1704021.88	14299202.38	39°22'36.4273"N	80°46'29.7072"W	10231.15	158.366	1.78	-0.09	-1.78	
17136.00	90.710	163.830	6433.14	10307.15	-9600.67	3798.36	1704048.19	14299112.18	39°22'35.5348"N	80°46'29.3748"W	10324.74	158.415	0.50	0.46	0.20	
17230.00	90.860	163.450	6431.85	10401.09	-9690.85	3824.83	1704074.66	14299022.03	39°22'34.6428"N	80°46'29.0405"W	10418.35	158.462	0.43	0.16	-0.40	
17324.00	91.570	161.540	6429.86	10495.05	-9780.47	3853.10	1704102.91	14298932.45	39°22'33.7563"N	80°46'28.6834"W	10512.09	158.498	2.17	0.76	-2.03	
17419.00	89.910	161.000	6428.63	10590.04	-9870.43	3883.60	1704133.40	14298842.53	39°22'32.8665"N	80°46'28.2979"W	10606.97	158.522	1.84	-1.75	-0.57	
17513.00	90.650	164.030	6428.17	10684.02	-9960.08	3911.84	1704161.63	14298752.92	39°22'31.9798"N	80°46'27.9411"W	10700.73	158.557	3.32	0.79	3.22	
17608.00	90.520	163.030	6427.20	10778.97	-10051.17	3938.77	1704188.55	14298661.86	39°22'31.0787"N	80°46'27.6011"W	10795.37	158.601	1.06	-0.14	-1.05	
17702.00	90.550	160.140	6426.32	10872.95	-10140.35	3968.46	1704218.23	14298572.72	39°22'30.1967"N	80°46'27.2259"W	10889.23	158.627	3.07	0.03	-3.07	



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 2H
Field	Tyler	API	47-095-02525-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (215 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
17796.00	90.180	158.630	6425.72	10966.87	-10228.32	4001.55	1704251.31	14298484.78	39°22'29.3263"N	80°46'26.8072"W	10983.21	158.633	1.65	-0.39	-1.61	
17891.00	90.280	159.580	6425.34	11061.76	-10317.07	4035.43	1704285.18	14298396.06	39°22'28.4483"N	80°46'26.3786"W	11078.21	158.637	1.01	0.11	1.00	
17985.00	90.340	162.000	6424.83	11155.74	-10405.83	4066.36	1704316.09	14298307.34	39°22'27.5703"N	80°46'25.9876"W	11172.14	158.656	2.58	0.06	2.57	
18010.00	90.340	162.850	6424.68	11180.74	-10429.66	4073.91	1704323.64	14298283.52	39°22'27.3346"N	80°46'25.8923"W	11197.08	158.664	3.40	0.00	3.40	
18035.00†	90.340	162.850	6424.54	11205.73	-10453.55	4081.28	1704331.01	14298259.64	39°22'27.0983"N	80°46'25.7992"W	11222.01	158.673	0.00	0.00	0.00	Projected MD at TD: 18035'

HOLE & CASING SECTIONS - Ref Wellbore: Avalanche Unit 2H AWB Ref Wellpath: Avalanche Unit 2H AWP Proj: 18035'										
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	0.29	0.29	
17.5in Open Hole	105.00	430.70	325.70	105.00	430.69	0.29	0.29	0.49	2.01	
13.375in Casing Surface	25.00	430.70	405.70	25.00	430.69	0.00	0.00	0.49	2.01	
12.25in Open Hole	430.70	2590.00	2159.30	430.69	2589.72	0.49	2.01	-4.75	4.04	
9.625in Casing Intermediate	25.00	2570.00	2545.00	25.00	2569.72	0.00	0.00	-4.96	4.09	
8.75in Open Hole	2590.00	4162.00	1572.00	2589.72	4124.48	-4.75	4.04	285.41	120.35	
8.5in Open Hole	4162.00	18035.00	13873.00	4124.48	6424.54	285.41	120.35	-10453.55	4081.28	
5.5in Casing Production	25.00	18035.00	18010.00	25.00	6424.54	0.00	0.00	-10453.55	4081.28	



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 2H
Field	Tyler	API	47-095-02525-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Avalanche Unit 2H - POE - Rev-2	6410.00	248.73	554.27	1700805.40	14308957.66	39°24'12.9594"N	80°47'10.3887"W	point
Avalanche Unit 2H - BHL - Rev-2	6436.00	-10485.11	4092.57	1704342.29	14298228.09	39°22'26.7861"N	80°46'25.6565"W	point
Avalanche Unit 2H - LP - Rev-2	6436.00	67.12	614.14	1700865.24	14308776.12	39°24'11.1631"N	80°47'9.6315"W	point
Avalanche Unit 2H - 50' L/R Hardline	6500.00	-5118.19	2323.42	1702573.84	14303592.88	39°23'19.8734"N	80°46'48.0179"W	rectangle
2D Rectangle 11304.3 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Avalanche Unit 2H AWB Ref Wellpath: Avalanche Unit 2H AWP Proj: 18035'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.00	352.00	Gyrodatta 2015 - GC+WIR+DPIPE	01 Gyrodatta MS Gyro <17-1/2">(50'-352')	Avalanche Unit 2H AWB	
352.00	1115.00	Gyrodatta 2015 - GC+WIR+DPIPE	02 Gyrodatta MS Gyro <12-1/4">(352')(472'-1115')	Avalanche Unit 2H AWB	
1115.00	2520.00	BH NaviTrak (Axial)	03 APS EM <12-1/4">(1115')(1245'-2520')	Avalanche Unit 2H AWB	
2520.00	4100.00	BH NaviTrak (2019) (Axial)	04 BHI NaviTrak <8-3/4">(2520')(2588'-4100')	Avalanche Unit 2H AWB	12/23/2019
4100.00	18035.00	BH AutoTrak Curve (Short)	05 BH AT Curve <8-1/2">(4100')(4173'-18010')	Avalanche Unit 2H AWB	



Actual Wellpath Report

Avalanche Unit 2H AWP Proj: 18035'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 2H
Field	Tyler	API	47-095-02525-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 2H AWB
Slot	Slot #04		

COMMENTS

Wellpath general comments

API: 47-095-02525-0000

BHI Job #: 110086792B

Rig: Patterson 342

Duration: 11/08/2019-12/30/2019

Gyrodata MS Gyro <17-1/2">(50'-352')

Gyrodata MS Gyro <12-1/4">(352')(472'-1115')

APS EM <12-1/4">(1115')(1245'-2520')

BHI NaviTrak <8-3/4">(2520')(2588'-4100')

BH AT Curve <8-1/2"> (4100')(4173'-18010')

Middlesex: 6336' MD

Burkett: 6556' MD

Tully: 6627' MD

Hamilton: 6744' MD

Marcellus POE: 6786' MD

Projected MD at TD: 18035'