



Actual Wellpath Report

Buzzard Run Unit 1H AWP Proj: 18026'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp 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	5/16/2019 at 3:27:08 PM
Convergence at slot	0.03° East	Database/Source file	WA_MPL_EasternUS_Defn/Buzzard_Run_Unit_1H_AWP_Proj_18026_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-38.46	-23.59	1655900.64	14239787.60	39°12'49.690"N	80°56'43.200"W
Facility Reference Pt			1655924.22	14239826.05	39°12'50.070"N	80°56'42.900"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 342 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 342 (RKB) to Mean Sea Level	1174.00ft
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Ground Level at Slot (Slot #01)	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	341.14°

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Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad		

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	0.00	111.330	0.00	0.00	0.00	0.00	1655900.64	14239787.60	39°12'49.690"N	80°56'43.200"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.00	111.330	25.00	0.00	0.00	0.00	1655900.64	14239787.60	39°12'49.690"N	80°56'43.200"W	0.00	0.000	0.00	0.00	0.00	
110.00	0.100	111.330	110.00	0.05	-0.03	0.07	1655900.71	14239787.58	39°12'49.690"N	80°56'43.199"W	0.07	111.330	0.12	0.12	130.98	Gyrodata MS Gyro <17-1/2">(100'-543')
210.00	0.250	95.680	210.00	-0.19	-0.08	0.37	1655901.01	14239787.52	39°12'49.689"N	80°56'43.195"W	0.38	102.329	0.16	0.15	-15.65	
310.00	0.570	106.940	310.00	-0.58	-0.25	1.06	1655901.70	14239787.36	39°12'49.688"N	80°56'43.187"W	1.09	103.104	0.33	0.32	11.26	
410.00	0.280	152.750	409.99	-1.11	-0.61	1.65	1655902.29	14239786.99	39°12'49.684"N	80°56'43.179"W	1.76	110.280	0.43	-0.29	45.81	
510.00	0.340	174.930	509.99	-1.64	-1.12	1.79	1655902.43	14239786.48	39°12'49.679"N	80°56'43.177"W	2.11	122.129	0.13	0.06	22.18	
553.00	0.450	211.510	552.99	-1.87	-1.39	1.71	1655902.35	14239786.21	39°12'49.676"N	80°56'43.178"W	2.20	129.176	0.63	0.26	85.07	
652.00	0.160	244.270	651.99	-2.14	-1.78	1.38	1655902.02	14239785.82	39°12'49.672"N	80°56'43.182"W	2.26	142.250	0.33	-0.29	33.09	WFT EM <12-1/4">(543')(642'-2509')
744.00	0.770	83.760	743.99	-2.29	-1.77	1.88	1655902.52	14239785.83	39°12'49.672"N	80°56'43.176"W	2.58	133.315	1.00	0.66	-174.47	
837.00	3.090	98.630	836.93	-3.58	-2.08	4.98	1655905.62	14239785.52	39°12'49.669"N	80°56'43.137"W	5.40	112.679	2.53	2.49	15.99	
935.00	5.720	99.720	934.63	-7.14	-3.30	12.41	1655913.04	14239784.30	39°12'49.657"N	80°56'43.042"W	12.84	104.905	2.68	2.68	1.11	
1030.00	7.650	100.850	1028.98	-12.53	-5.29	23.28	1655923.92	14239782.31	39°12'49.638"N	80°56'42.904"W	23.88	102.805	2.04	2.03	1.19	
1125.00	9.400	102.230	1122.93	-19.68	-8.13	37.08	1655937.70	14239779.48	39°12'49.609"N	80°56'42.729"W	37.96	102.362	1.85	1.84	1.45	
1220.00	10.100	101.270	1216.56	-27.86	-11.40	52.83	1655953.45	14239776.21	39°12'49.577"N	80°56'42.529"W	54.04	102.174	0.76	0.74	-1.01	
1315.00	11.400	102.820	1309.89	-36.97	-15.11	70.15	1655970.77	14239772.50	39°12'49.540"N	80°56'42.309"W	71.76	102.154	1.40	1.37	1.63	
1409.00	11.470	110.620	1402.03	-47.80	-20.46	87.96	1655988.57	14239767.15	39°12'49.487"N	80°56'42.083"W	90.31	103.096	1.65	0.07	8.30	
1504.00	11.220	112.110	1495.17	-59.86	-27.27	105.36	1656005.96	14239760.35	39°12'49.420"N	80°56'41.862"W	108.83	104.509	0.41	-0.26	1.57	
1599.00	12.410	109.640	1588.16	-72.28	-34.18	123.54	1656024.13	14239753.44	39°12'49.351"N	80°56'41.631"W	128.18	105.464	1.36	1.25	-2.60	
1694.00	12.770	106.450	1680.87	-84.70	-40.58	143.23	1656043.81	14239747.04	39°12'49.288"N	80°56'41.381"W	148.86	105.819	0.82	0.38	-3.36	
1789.00	12.140	100.260	1773.64	-95.63	-45.33	163.13	1656063.70	14239742.29	39°12'49.241"N	80°56'41.128"W	169.31	105.531	1.55	-0.66	-6.52	
1884.00	12.340	98.930	1866.48	-105.23	-48.69	182.98	1656083.55	14239738.93	39°12'49.208"N	80°56'40.876"W	189.35	104.900	0.36	0.21	-1.40	
1979.00	11.580	104.850	1959.42	-115.25	-52.71	202.23	1656102.79	14239734.92	39°12'49.168"N	80°56'40.631"W	208.99	104.608	1.52	-0.80	6.23	
2073.00	11.920	108.360	2051.45	-126.36	-58.18	220.56	1656121.12	14239729.44	39°12'49.114"N	80°56'40.398"W	228.11	104.778	0.84	0.36	3.73	
2168.00	13.150	107.570	2144.19	-138.71	-64.54	240.18	1656140.72	14239723.09	39°12'49.051"N	80°56'40.149"W	248.70	105.040	1.31	1.29	-0.83	
2263.00	12.530	106.190	2236.81	-151.05	-70.67	260.38	1656160.91	14239716.96	39°12'48.990"N	80°56'39.893"W	269.80	105.186	0.73	-0.65	-1.45	
2358.00	12.390	105.600	2329.57	-162.73	-76.29	280.09	1656180.62	14239711.35	39°12'48.934"N	80°56'39.642"W	290.29	105.236	0.20	-0.15	-0.62	
2452.00	12.990	105.030	2421.28	-174.33	-81.74	300.01	1656200.53	14239705.90	39°12'48.880"N	80°56'39.389"W	310.94	105.241	0.65	0.64	-0.61	
2519.00	12.600	104.090	2486.63	-182.47	-85.46	314.31	1656214.83	14239702.18	39°12'48.843"N	80°56'39.207"W	325.72	105.210	0.79	-0.73	-1.40	
2686.00	11.730	98.280	2649.91	-200.05	-92.30	348.64	1656249.14	14239695.34	39°12'48.776"N	80°56'38.771"W	360.65	104.829	0.86	-0.46	-3.48	WFT EM <8-3/4">(2509')(2676'-6088')

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Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
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Facility	Lynn Camp Pad		

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
2780.00	11.820	102.440	2741.94	-209.41	-95.75	367.50	1656267.99	14239691.89	39°12'48.741"N	80°56'38.532"W	379.77	104.604	0.91	0.10	4.43	
2875.00	11.460	100.900	2834.98	-219.15	-99.63	386.27	1656286.75	14239688.01	39°12'48.703"N	80°56'38.293"W	398.91	104.463	0.50	-0.38	-1.62	
2972.00	10.940	99.190	2930.13	-228.26	-102.92	404.81	1656305.29	14239684.72	39°12'48.670"N	80°56'38.058"W	417.69	104.265	0.64	-0.54	-1.76	
3066.00	11.400	104.540	3022.36	-237.57	-106.68	422.61	1656323.08	14239680.97	39°12'48.633"N	80°56'37.832"W	435.87	104.167	1.21	0.49	5.69	
3161.00	10.900	103.380	3115.56	-247.53	-111.12	440.44	1656340.90	14239676.53	39°12'48.589"N	80°56'37.605"W	454.24	104.159	0.58	-0.53	-1.22	
3255.00	11.970	102.920	3207.70	-257.40	-115.35	458.59	1656359.04	14239672.30	39°12'48.547"N	80°56'37.375"W	472.87	104.119	1.14	1.14	-0.49	
3350.00	11.710	100.970	3300.67	-267.38	-119.39	477.65	1656378.10	14239668.26	39°12'48.507"N	80°56'37.132"W	492.35	104.034	0.50	-0.27	-2.05	
3445.00	12.640	101.140	3393.54	-277.38	-123.23	497.32	1656397.76	14239664.42	39°12'48.469"N	80°56'36.883"W	512.36	103.917	0.98	0.98	0.18	
3539.00	13.370	105.680	3485.13	-288.68	-128.16	517.87	1656418.31	14239659.50	39°12'48.420"N	80°56'36.622"W	533.49	103.900	1.34	0.78	4.83	
3634.00	12.530	104.430	3577.71	-300.57	-133.69	538.43	1656438.85	14239653.96	39°12'48.365"N	80°56'36.360"W	554.78	103.945	0.93	-0.88	-1.32	
3728.00	11.590	101.830	3669.64	-310.98	-138.17	557.55	1656457.96	14239649.49	39°12'48.321"N	80°56'36.118"W	574.41	103.919	1.15	-1.00	-2.77	
3822.00	11.500	103.000	3761.73	-320.75	-142.21	575.92	1656476.33	14239645.45	39°12'48.281"N	80°56'35.884"W	593.22	103.871	0.27	-1.10	1.24	
3917.00	12.010	103.810	3854.74	-331.08	-146.70	594.74	1656495.15	14239640.96	39°12'48.236"N	80°56'35.645"W	612.57	103.856	0.56	0.54	0.85	
4011.00	12.900	102.520	3946.53	-341.83	-151.31	614.48	1656514.88	14239636.35	39°12'48.191"N	80°56'35.394"W	632.84	103.834	0.99	0.95	-1.37	
4106.00	12.350	100.860	4039.23	-352.38	-155.53	634.81	1656535.20	14239632.14	39°12'48.149"N	80°56'35.136"W	653.59	103.766	0.69	-0.58	-1.75	
4201.00	12.910	100.850	4131.93	-362.68	-159.44	655.21	1656555.59	14239628.23	39°12'48.110"N	80°56'34.877"W	674.33	103.676	0.59	0.59	-0.01	
4295.00	12.290	99.220	4223.67	-372.59	-163.02	675.40	1656575.77	14239624.65	39°12'48.075"N	80°56'34.620"W	694.80	103.570	0.76	-0.66	-1.73	
4390.00	12.400	103.480	4316.47	-382.81	-167.02	695.30	1656595.66	14239620.65	39°12'48.035"N	80°56'34.368"W	715.08	103.507	0.97	0.12	4.48	
4487.00	13.220	104.510	4411.06	-394.48	-172.22	716.17	1656616.52	14239615.45	39°12'47.983"N	80°56'34.103"W	736.58	103.522	0.88	0.85	1.06	
4582.00	12.920	103.380	4503.60	-406.12	-177.40	737.02	1656637.36	14239610.27	39°12'47.932"N	80°56'33.838"W	758.07	103.534	0.41	-0.32	-1.19	
4676.00	12.620	101.560	4595.27	-416.93	-181.89	757.30	1656657.64	14239605.78	39°12'47.888"N	80°56'33.580"W	778.84	103.506	0.53	-0.32	-1.94	
4771.00	12.780	101.600	4687.95	-427.51	-186.08	777.76	1656678.09	14239601.59	39°12'47.846"N	80°56'33.320"W	799.71	103.455	0.17	0.17	0.04	
4865.00	12.460	99.950	4779.68	-437.67	-189.93	797.93	1656698.26	14239597.75	39°12'47.808"N	80°56'33.064"W	820.23	103.389	0.51	-0.34	-1.76	
4960.00	12.420	103.980	4872.45	-448.15	-194.17	817.94	1656718.26	14239593.52	39°12'47.766"N	80°56'32.810"W	840.67	103.354	0.91	-0.04	4.24	
5055.00	12.470	103.040	4965.22	-459.11	-198.95	837.85	1656738.15	14239588.74	39°12'47.718"N	80°56'32.557"W	861.14	103.358	0.22	0.05	-0.99	
5150.00	11.960	100.470	5058.07	-469.35	-203.05	857.52	1656757.82	14239584.63	39°12'47.678"N	80°56'32.307"W	881.23	103.322	0.78	-0.54	-2.71	
5244.00	12.450	105.630	5149.94	-479.86	-207.55	876.86	1656777.15	14239580.14	39°12'47.633"N	80°56'32.061"W	901.08	103.317	1.27	0.52	5.49	
5339.00	12.410	104.790	5242.72	-491.31	-212.92	896.59	1656796.87	14239574.77	39°12'47.580"N	80°56'31.811"W	921.52	103.359	0.19	-0.04	-0.88	
5434.00	12.300	103.150	5335.52	-502.33	-217.82	916.31	1656816.58	14239569.87	39°12'47.531"N	80°56'31.560"W	941.85	103.372	0.39	-0.12	-1.73	
5529.00	12.420	102.220	5428.32	-512.97	-222.29	936.15	1656836.41	14239565.40	39°12'47.487"N	80°56'31.308"W	962.18	103.358	0.24	0.13	-0.98	

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5624.00	12.460	100.950	5521.09	-523.34	-226.40	956.20	1656856.45	14239561.30	39°12'47.446"N	80°56'31.054"W	982.63	103.321	0.29	0.04	-1.34	
5719.00	12.360	97.310	5613.87	-532.92	-229.64	976.34	1656876.59	14239558.06	39°12'47.414"N	80°56'30.798"W	1002.98	103.236	0.83	-0.11	-3.83	
5750.00	12.200	86.630	5644.16	-535.26	-229.87	982.90	1656883.15	14239557.83	39°12'47.412"N	80°56'30.714"W	1009.43	103.163	7.34	-0.52	-34.45	
5782.00	11.910	73.990	5675.46	-536.32	-228.76	989.45	1656889.70	14239558.94	39°12'47.423"N	80°56'30.631"W	1015.55	103.018	8.28	-0.91	-39.50	
5813.00	12.150	59.690	5705.79	-535.84	-226.23	995.35	1656895.59	14239561.47	39°12'47.448"N	80°56'30.556"W	1020.73	102.805	9.62	0.77	-46.13	
5845.00	12.880	46.530	5737.03	-533.68	-222.07	1000.84	1656901.08	14239565.62	39°12'47.489"N	80°56'30.486"W	1025.19	102.511	9.18	2.28	-41.12	
5877.00	14.160	37.110	5768.15	-530.01	-216.50	1005.79	1656906.03	14239571.19	39°12'47.544"N	80°56'30.423"W	1028.83	102.148	7.95	4.00	-29.44	
5908.00	15.720	30.900	5798.10	-525.17	-209.87	1010.24	1656910.48	14239577.82	39°12'47.609"N	80°56'30.367"W	1031.81	101.736	7.20	5.03	-20.03	
5940.00	17.450	24.960	5828.77	-518.91	-201.80	1014.49	1656914.73	14239585.88	39°12'47.689"N	80°56'30.313"W	1034.37	101.250	7.56	5.41	-18.56	
5971.00	18.900	17.820	5858.23	-511.53	-192.80	1017.99	1656918.22	14239594.88	39°12'47.778"N	80°56'30.268"W	1036.09	100.725	8.56	4.68	-23.03	
6003.00	21.020	11.600	5888.31	-502.42	-182.25	1020.73	1656920.96	14239605.43	39°12'47.882"N	80°56'30.233"W	1036.87	100.123	9.37	6.63	-19.44	
6035.00	23.060	9.100	5917.97	-491.94	-170.43	1022.88	1656923.11	14239617.24	39°12'47.999"N	80°56'30.206"W	1036.98	99.460	7.02	6.37	-7.81	
6066.00	25.030	6.320	5946.28	-480.64	-157.92	1024.56	1656924.79	14239629.75	39°12'48.123"N	80°56'30.184"W	1036.66	98.762	7.33	6.35	-8.97	
6098.00	26.550	2.400	5975.09	-467.84	-144.04	1025.60	1656925.83	14239643.62	39°12'48.260"N	80°56'30.171"W	1035.67	97.995	7.14	4.75	-12.25	
6159.00	27.960	356.200	6029.33	-441.32	-116.15	1025.23	1656925.46	14239671.50	39°12'48.536"N	80°56'30.176"W	1031.78	96.463	5.19	2.31	-10.16	SH AT Curve <8-1/2">(6098')(6159'-18001')
6188.00	28.540	354.090	6054.88	-428.01	-102.47	1024.06	1656924.29	14239685.17	39°12'48.671"N	80°56'30.190"W	1029.18	95.714	3.98	2.00	-7.28	
6235.00	31.670	352.380	6095.53	-404.96	-79.07	1021.27	1656921.50	14239708.57	39°12'48.902"N	80°56'30.226"W	1024.33	94.427	6.90	6.66	-3.64	
6283.00	36.180	351.570	6135.35	-378.65	-52.55	1017.52	1656917.75	14239735.07	39°12'49.164"N	80°56'30.273"W	1018.88	92.957	9.44	9.40	-1.69	
6330.00	40.720	351.320	6172.15	-349.90	-23.66	1013.17	1656913.40	14239763.95	39°12'49.450"N	80°56'30.328"W	1013.45	91.338	9.67	9.66	-0.53	
6377.00	45.280	350.870	6206.51	-318.34	8.00	1008.20	1656908.44	14239795.60	39°12'49.763"N	80°56'30.391"W	1008.24	89.545	9.72	9.70	-0.96	
6423.00†	49.930	350.100	6237.52	-284.82	41.50	1002.58	1656902.82	14239829.08	39°12'50.094"N	80°56'30.462"W	1003.44	87.630	10.20	10.13	-1.66	Middlesex: 6423' MD
6424.00	50.040	350.090	6238.16	-284.07	42.25	1002.45	1656902.69	14239829.84	39°12'50.101"N	80°56'30.464"W	1003.34	87.587	10.20	10.13	-1.54	
6472.00	54.640	349.770	6267.48	-246.52	79.65	995.81	1656896.05	14239867.22	39°12'50.471"N	80°56'30.548"W	998.99	85.427	9.60	9.58	-0.67	
6519.00	59.510	349.290	6293.02	-207.51	118.43	988.63	1656888.88	14239905.99	39°12'50.855"N	80°56'30.639"W	995.70	83.169	10.40	10.36	-1.02	
6566.00	63.880	348.040	6315.30	-166.49	158.99	980.49	1656880.74	14239946.53	39°12'51.255"N	80°56'30.742"W	993.30	80.789	9.59	9.30	-2.68	
6613.00	67.460	347.000	6334.66	-123.94	200.80	971.24	1656871.49	14239988.32	39°12'51.669"N	80°56'30.859"W	991.78	78.319	7.88	7.62	-2.21	
6625.00†	68.254	346.726	6339.18	-112.88	211.62	968.71	1656868.96	14239999.14	39°12'51.776"N	80°56'30.891"W	991.56	77.677	6.95	6.62	-2.29	Burkett: 6625' MD
6661.00	70.640	345.920	6351.82	-79.31	244.37	960.74	1656860.99	14240031.88	39°12'52.099"N	80°56'30.992"W	991.33	75.729	6.95	6.63	-2.24	
6708.00	73.940	344.980	6366.12	-34.67	287.70	949.49	1656849.75	14240075.19	39°12'52.528"N	80°56'31.135"W	992.12	73.143	7.28	7.02	-2.00	
6717.00†	74.410	344.560	6368.57	-26.03	296.06	947.21	1656847.48	14240083.54	39°12'52.610"N	80°56'31.163"W	992.40	72.643	6.95	5.32	-4.64	Tully: 6717' MD

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Buzzard Run Unit 1H AWP Proj: 18026'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad		

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
6755.00	76.450	342.820	6378.13	10.71	331.35	936.88	1656837.15	14240118.82	39°12'52.959"N	80°56'31.294"W	993.75	70.523	6.95	5.34	-4.59	
6802.00	77.400	341.120	6388.76	56.48	374.88	922.71	1656822.99	14240162.34	39°12'53.390"N	80°56'31.474"W	995.96	67.889	4.06	2.02	-3.62	
6834.00†	77.126	340.647	6395.82	87.69	404.37	912.49	1656812.77	14240191.82	39°12'53.681"N	80°56'31.604"W	998.08	66.099	1.68	-0.85	-1.48	Marcellus POE: 6834' MD
6850.00	76.990	340.410	6399.40	103.29	419.08	907.29	1656807.57	14240206.51	39°12'53.827"N	80°56'31.670"W	999.40	65.208	1.68	-0.85	-1.48	
6897.00	80.950	341.270	6408.39	149.41	462.64	892.16	1656792.44	14240250.06	39°12'54.257"N	80°56'31.862"W	1004.98	62.590	8.61	8.43	1.83	
6945.00	86.520	341.690	6413.63	197.10	507.87	877.01	1656777.30	14240295.27	39°12'54.704"N	80°56'32.054"W	1013.45	59.925	11.64	11.60	0.88	
6997.00	90.620	341.820	6414.92	249.07	557.23	860.74	1656761.03	14240344.61	39°12'55.192"N	80°56'32.260"W	1025.37	57.082	7.89	7.88	0.25	
7040.00	90.550	341.830	6414.48	292.07	598.08	847.33	1656747.63	14240385.44	39°12'55.596"N	80°56'32.430"W	1037.14	54.784	0.16	-0.16	0.02	
7135.00	90.710	339.200	6413.44	387.05	687.63	815.64	1656715.96	14240474.95	39°12'56.481"N	80°56'32.832"W	1066.82	49.867	2.77	0.17	-2.77	
7229.00	90.980	335.450	6412.05	480.81	774.34	779.42	1656679.75	14240561.63	39°12'57.339"N	80°56'33.291"W	1098.68	45.187	4.00	0.29	-3.99	
7324.00	91.540	331.970	6409.96	574.98	859.48	737.36	1656637.70	14240646.73	39°12'58.180"N	80°56'33.825"W	1132.43	40.627	3.71	0.59	-3.66	
7418.00	90.000	328.050	6408.70	667.18	940.86	690.39	1656590.75	14240728.09	39°12'58.985"N	80°56'34.421"W	1166.99	36.270	4.48	-1.64	-4.17	
7513.00	90.310	331.680	6408.44	760.33	1023.01	642.70	1656543.08	14240810.20	39°12'59.797"N	80°56'35.026"W	1208.15	32.139	3.83	0.33	3.82	
7607.00	89.570	337.240	6408.54	853.65	1107.79	602.19	1656502.59	14240894.95	39°13'00.636"N	80°56'35.540"W	1260.89	28.528	5.97	-0.79	5.91	
7702.00	89.290	343.240	6409.49	948.59	1197.15	570.09	1656470.50	14240984.28	39°13'01.519"N	80°56'35.948"W	1325.96	25.464	6.32	-0.29	6.32	
7797.00	91.630	348.030	6408.72	1043.27	1289.15	546.53	1656446.95	14241076.23	39°13'02.428"N	80°56'36.246"W	1400.21	22.974	5.61	2.46	5.04	
7892.00	91.600	345.230	6406.05	1137.78	1381.53	524.57	1656425.00	14241168.57	39°13'03.342"N	80°56'36.525"W	1477.76	20.792	2.95	-0.03	-2.95	
7986.00	89.690	344.670	6404.99	1231.56	1472.29	500.16	1656400.61	14241259.30	39°13'04.239"N	80°56'36.834"W	1554.93	18.764	2.12	-2.03	-0.60	
8080.00	90.150	343.200	6405.12	1325.45	1562.62	474.15	1656374.60	14241349.59	39°13'05.132"N	80°56'37.164"W	1632.97	16.880	1.64	0.49	-1.56	
8174.00	90.550	341.310	6404.55	1419.43	1652.14	445.50	1656345.97	14241439.08	39°13'06.017"N	80°56'37.527"W	1711.15	15.091	2.06	0.43	-2.01	
8269.00	89.660	340.110	6404.37	1514.42	1741.80	414.12	1656314.60	14241528.71	39°13'06.903"N	80°56'37.925"W	1790.36	13.374	1.57	-0.94	-1.26	
8363.00	89.110	341.260	6405.38	1608.41	1830.51	383.03	1656283.52	14241617.37	39°13'07.780"N	80°56'38.319"W	1870.15	11.819	1.36	-0.59	1.22	
8458.00	89.450	345.800	6406.57	1703.29	1921.58	356.11	1656256.61	14241708.41	39°13'08.680"N	80°56'38.661"W	1954.29	10.499	4.79	0.36	4.78	
8553.00	90.120	346.830	6406.93	1797.90	2013.88	333.63	1656234.14	14241800.67	39°13'09.593"N	80°56'38.945"W	2041.33	9.407	1.29	0.71	1.08	
8648.00	90.430	341.900	6406.47	1892.72	2105.33	308.04	1656208.56	14241892.09	39°13'10.497"N	80°56'39.270"W	2127.75	8.324	5.20	0.33	-5.19	
8742.00	91.050	339.730	6405.26	1986.71	2194.10	277.15	1656177.68	14241980.82	39°13'11.374"N	80°56'39.662"W	2211.53	7.199	2.40	0.66	-2.31	
8836.00	90.150	338.420	6404.28	2080.64	2281.89	243.58	1656144.13	14242068.58	39°13'12.242"N	80°56'40.088"W	2294.86	6.093	1.69	-0.96	-1.39	
8931.00	92.000	340.910	6402.49	2175.58	2370.94	210.58	1656111.14	14242157.59	39°13'13.123"N	80°56'40.506"W	2380.28	5.076	3.26	1.95	2.62	
9025.00	91.200	342.600	6399.87	2269.53	2460.18	181.16	1656081.73	14242246.79	39°13'14.005"N	80°56'40.879"W	2466.84	4.212	1.99	-0.85	1.80	
9119.00	91.320	346.500	6397.80	2363.33	2550.74	156.13	1656056.71	14242337.32	39°13'14.900"N	80°56'41.197"W	2555.52	3.503	4.15	0.13	4.15	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad		

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
9214.00	90.220	345.520	6396.52	2457.97	2642.91	133.17	1656033.76	14242429.46	39°13'15.811"N	80°56'41.488"W	2646.27	2.885	1.55	-1.16	-1.03	
9309.00	90.430	342.870	6395.99	2552.83	2734.31	107.30	1656007.90	14242520.82	39°13'16.715"N	80°56'41.816"W	2736.42	2.247	2.80	0.22	-2.79	
9402.00	90.980	338.630	6394.84	2645.80	2822.09	76.65	1655977.26	14242608.56	39°13'17.583"N	80°56'42.204"W	2823.13	1.556	4.60	0.59	-4.56	
9496.00	90.090	335.520	6393.96	2739.54	2908.65	40.04	1655940.66	14242695.08	39°13'18.438"N	80°56'42.669"W	2908.92	0.789	3.44	-0.95	-3.31	
9592.00	90.000	338.080	6393.89	2835.26	2996.88	2.22	1655902.86	14242783.28	39°13'19.311"N	80°56'43.149"W	2996.88	0.042	2.67	-0.09	2.67	
9686.00	90.280	338.660	6393.66	2929.15	3084.26	-32.43	1655868.23	14242870.62	39°13'20.175"N	80°56'43.588"W	3084.43	359.398	0.69	0.30	0.62	
9780.00	90.340	337.910	6393.15	3023.03	3171.58	-67.21	1655833.46	14242957.91	39°13'21.038"N	80°56'44.030"W	3172.30	358.786	0.80	0.06	-0.80	
9875.00	90.620	340.370	6392.35	3117.96	3260.35	-101.03	1655799.65	14243046.64	39°13'21.915"N	80°56'44.459"W	3261.91	358.225	2.61	0.29	2.59	
9969.00	90.340	342.000	6391.57	3211.95	3349.32	-131.34	1655769.35	14243135.58	39°13'22.795"N	80°56'44.843"W	3351.89	357.754	1.76	-0.30	1.73	
10063.00	90.620	343.210	6390.78	3305.92	3439.01	-159.44	1655741.26	14243225.24	39°13'23.682"N	80°56'45.200"W	3442.71	357.345	1.32	0.30	1.29	
10157.00	91.450	341.110	6389.08	3399.88	3528.47	-188.24	1655712.48	14243314.66	39°13'24.566"N	80°56'45.565"W	3533.49	356.946	2.40	0.88	-2.23	
10252.00	90.550	339.880	6387.42	3494.86	3618.01	-219.95	1655680.78	14243404.16	39°13'25.451"N	80°56'45.967"W	3624.68	356.521	1.60	-0.95	-1.29	
10346.00	90.310	340.300	6386.72	3588.84	3706.38	-251.96	1655648.78	14243492.50	39°13'26.325"N	80°56'46.373"W	3714.94	356.111	0.51	-0.26	0.45	
10441.00	90.340	340.590	6386.18	3683.83	3795.90	-283.76	1655617.00	14243581.98	39°13'27.210"N	80°56'46.777"W	3806.49	355.725	0.31	0.03	0.31	
10536.00	90.400	340.480	6385.56	3778.82	3885.47	-315.41	1655585.36	14243671.51	39°13'28.095"N	80°56'47.178"W	3898.25	355.359	0.13	0.06	-0.12	
10631.00	90.460	340.380	6384.85	3873.81	3974.98	-347.23	1655553.55	14243760.99	39°13'28.980"N	80°56'47.582"W	3990.12	355.008	0.12	0.06	-0.11	
10726.00	90.340	340.010	6384.19	3968.80	4064.36	-379.42	1655521.37	14243850.33	39°13'29.864"N	80°56'47.990"W	4082.03	354.667	0.41	-0.13	-0.39	
10820.00	90.220	341.390	6383.73	4062.79	4153.07	-410.49	1655490.32	14243939.01	39°13'30.741"N	80°56'48.384"W	4173.31	354.355	1.47	-0.13	1.47	
10916.00	90.250	343.970	6383.33	4158.75	4244.71	-439.06	1655461.75	14244030.61	39°13'31.647"N	80°56'48.747"W	4267.36	354.094	2.69	0.03	2.69	
11010.00	90.340	345.240	6382.85	4252.57	4335.34	-464.02	1655436.81	14244121.20	39°13'32.543"N	80°56'49.063"W	4360.10	353.891	1.35	0.10	1.35	
11104.00	90.490	342.360	6382.17	4346.46	4425.59	-490.24	1655410.60	14244211.42	39°13'33.435"N	80°56'49.396"W	4452.66	353.679	3.07	0.16	-3.06	
11199.00	90.180	342.670	6381.61	4441.43	4516.20	-518.78	1655382.07	14244301.99	39°13'34.330"N	80°56'49.758"W	4545.90	353.447	0.46	-0.33	0.33	
11295.00	90.220	343.800	6381.28	4537.37	4608.12	-546.47	1655354.39	14244393.87	39°13'35.239"N	80°56'50.109"W	4640.41	353.237	1.18	0.04	1.18	
11389.00	90.280	342.910	6380.87	4631.29	4698.18	-573.40	1655327.47	14244483.89	39°13'36.129"N	80°56'50.450"W	4733.04	353.042	0.95	0.06	-0.95	
11484.00	88.400	340.670	6381.96	4726.27	4788.40	-603.08	1655297.80	14244574.08	39°13'37.021"N	80°56'50.827"W	4826.23	352.822	3.08	-1.98	-2.36	
11578.00	90.090	343.850	6383.20	4820.23	4877.91	-631.71	1655269.18	14244663.56	39°13'37.906"N	80°56'51.190"W	4918.65	352.621	3.83	1.80	3.38	
11673.00	90.090	344.100	6383.05	4915.11	4969.22	-657.94	1655242.97	14244754.83	39°13'38.809"N	80°56'51.523"W	5012.59	352.458	0.26	0.00	0.26	
11767.00	90.060	343.050	6382.93	5009.03	5059.38	-684.52	1655216.40	14244844.95	39°13'39.700"N	80°56'51.860"W	5105.48	352.295	1.12	-0.03	-1.12	
11862.00	89.630	342.090	6383.19	5104.00	5150.02	-712.97	1655187.95	14244935.55	39°13'40.596"N	80°56'52.221"W	5199.14	352.118	1.11	-0.45	-1.01	
11958.00	89.880	342.160	6383.60	5199.98	5241.38	-742.44	1655158.50	14245026.88	39°13'41.499"N	80°56'52.594"W	5293.71	351.938	0.27	0.26	0.07	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #01
Area	Ritchie County, WV		Well	Buzzard Run Unit 1H
Field	Ritchie		Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad			

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
12052.00	89.660	340.970	6383.97	5293.97	5330.56	-772.16	1655128.79	14245116.02	39°13'42.381"N	80°56'52.971"W	5386.19	351.758	1.29	-0.23	-1.27	
12147.00	89.570	341.560	6384.61	5388.97	5420.52	-802.68	1655098.29	14245205.95	39°13'43.270"N	80°56'53.358"W	5479.63	351.577	0.63	-0.09	0.62	
12242.00	89.570	341.580	6385.33	5483.97	5510.65	-832.71	1655068.27	14245296.04	39°13'44.161"N	80°56'53.739"W	5573.21	351.407	0.02	0.00	0.02	
12337.00	89.690	342.180	6385.94	5578.96	5600.93	-862.26	1655038.73	14245386.29	39°13'45.054"N	80°56'54.114"W	5666.92	351.248	0.64	0.13	0.63	
12432.00	89.690	342.790	6386.45	5673.93	5691.53	-890.85	1655010.15	14245476.84	39°13'45.949"N	80°56'54.477"W	5760.82	351.104	0.64	0.00	0.64	
12526.00	89.880	341.130	6386.81	5767.91	5780.90	-919.95	1654981.06	14245566.18	39°13'46.833"N	80°56'54.846"W	5853.64	350.958	1.78	0.20	-1.77	
12621.00	90.490	337.070	6386.50	5862.83	5869.63	-953.84	1654947.19	14245654.88	39°13'47.710"N	80°56'55.276"W	5946.63	350.770	4.32	0.64	-4.27	
12716.00	89.850	335.430	6386.22	5957.48	5956.58	-992.10	1654908.94	14245741.79	39°13'48.570"N	80°56'55.762"W	6038.64	350.544	1.85	-0.67	-1.73	
12810.00	89.320	334.450	6386.90	6050.93	6041.73	-1031.91	1654869.15	14245826.91	39°13'49.411"N	80°56'56.267"W	6129.22	350.308	1.19	-0.56	-1.04	
12904.00	89.350	334.850	6387.99	6144.32	6126.67	-1072.15	1654828.92	14245911.82	39°13'50.251"N	80°56'56.778"W	6219.78	350.074	0.43	0.03	0.43	
12999.00	89.260	334.180	6389.14	6238.68	6212.42	-1113.03	1654788.06	14245997.53	39°13'51.099"N	80°56'57.297"W	6311.34	349.843	0.71	-0.09	-0.71	
13093.00	89.350	335.940	6390.28	6332.14	6297.65	-1152.66	1654748.45	14246082.72	39°13'51.942"N	80°56'57.800"W	6402.26	349.628	1.87	0.10	1.87	
13188.00	89.420	336.680	6391.30	6426.80	6384.64	-1190.83	1654710.30	14246169.68	39°13'52.802"N	80°56'58.284"W	6494.74	349.435	0.78	0.07	0.78	
13282.00	89.720	337.320	6392.01	6520.55	6471.16	-1227.55	1654673.58	14246256.17	39°13'53.657"N	80°56'58.750"W	6586.56	349.259	0.75	0.32	0.68	
13376.00	89.660	340.380	6392.52	6614.46	6558.82	-1261.46	1654639.68	14246343.79	39°13'54.524"N	80°56'59.180"W	6679.03	349.113	3.26	-0.06	3.26	
13471.00	89.540	346.880	6393.18	6709.32	6649.92	-1288.22	1654612.94	14246434.85	39°13'55.424"N	80°56'59.520"W	6773.54	349.036	6.84	-0.13	6.84	
13566.00	89.720	347.950	6393.79	6803.74	6742.63	-1308.92	1654592.25	14246527.52	39°13'56.341"N	80°56'59.782"W	6868.50	349.014	1.14	0.19	1.13	
13660.00	89.970	348.930	6394.05	6896.98	6834.72	-1327.76	1654573.42	14246619.58	39°13'57.251"N	80°57'00.021"W	6962.50	349.006	1.08	0.27	1.04	
13754.00	89.720	347.950	6394.30	6990.22	6926.81	-1346.60	1654554.59	14246711.63	39°13'58.161"N	80°57'00.260"W	7056.49	348.999	1.08	-0.27	-1.04	
13848.00	89.750	344.880	6394.74	7083.81	7018.17	-1368.67	1654532.52	14246802.96	39°13'59.064"N	80°57'00.540"W	7150.38	348.965	3.27	0.03	-3.27	
13943.00	89.780	344.230	6395.13	7178.64	7109.74	-1393.97	1654507.23	14246894.49	39°13'59.969"N	80°57'00.861"W	7245.11	348.907	0.68	0.03	-0.68	
14038.00	89.910	341.210	6395.38	7273.59	7200.44	-1422.19	1654479.03	14246985.15	39°14'00.866"N	80°57'01.218"W	7339.55	348.827	3.18	0.14	-3.18	
14133.00	90.150	338.580	6395.33	7368.56	7289.64	-1454.84	1654446.39	14247074.32	39°14'01.748"N	80°57'01.633"W	7433.40	348.713	2.78	0.25	-2.77	
14227.00	89.690	338.240	6395.46	7462.45	7377.05	-1489.43	1654411.81	14247161.69	39°14'02.612"N	80°57'02.072"W	7525.90	348.585	0.61	-0.49	-0.36	
14322.00	89.050	340.560	6396.51	7557.40	7465.96	-1522.85	1654378.40	14247250.57	39°14'03.491"N	80°57'02.496"W	7619.89	348.471	2.53	-0.67	2.44	
14417.00	89.140	343.970	6398.01	7652.35	7556.42	-1551.78	1654349.49	14247340.99	39°14'04.385"N	80°57'02.863"W	7714.11	348.395	3.59	0.09	3.59	
14511.00	89.350	346.230	6399.25	7746.11	7647.25	-1575.95	1654325.33	14247431.78	39°14'05.283"N	80°57'03.169"W	7807.95	348.355	2.41	0.22	2.40	
14606.00	89.480	346.350	6400.22	7840.72	7739.54	-1598.46	1654302.82	14247524.03	39°14'06.195"N	80°57'03.455"W	7902.88	348.331	0.19	0.14	0.13	
14700.00	89.480	348.700	6401.07	7934.13	7831.31	-1618.76	1654282.53	14247615.76	39°14'07.102"N	80°57'03.712"W	7996.86	348.321	2.50	0.00	2.50	
14794.00	89.380	347.540	6402.01	8027.43	7923.29	-1638.11	1654263.19	14247707.71	39°14'08.012"N	80°57'03.958"W	8090.85	348.319	1.24	-0.11	-1.23	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad		

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
14889.00	89.540	343.950	6402.90	8122.10	8015.34	-1661.50	1654239.81	14247799.73	39°14'08.922"N	80°57'04.254"W	8185.74	348.289	3.78	0.17	-3.78	
14984.00	89.480	341.420	6403.72	8217.06	8106.03	-1689.77	1654211.55	14247890.37	39°14'09.818"N	80°57'04.613"W	8280.28	348.225	2.66	-0.06	-2.66	
15079.00	89.450	340.320	6404.60	8312.05	8195.78	-1720.90	1654180.43	14247980.09	39°14'10.705"N	80°57'05.008"W	8374.50	348.142	1.16	-0.03	-1.16	
15173.00	90.280	336.810	6404.82	8405.94	8283.26	-1755.25	1654146.10	14248067.54	39°14'11.570"N	80°57'05.444"W	8467.19	348.036	3.84	0.88	-3.73	
15268.00	89.420	336.410	6405.07	8500.64	8370.45	-1792.96	1654108.40	14248154.69	39°14'12.432"N	80°57'05.922"W	8560.33	347.910	1.00	-0.91	-0.42	
15362.00	89.450	340.330	6406.00	8594.51	8457.81	-1827.60	1654073.77	14248242.02	39°14'13.296"N	80°57'06.362"W	8653.02	347.807	4.17	0.03	4.17	
15456.00	89.570	340.300	6406.80	8688.49	8546.31	-1859.27	1654042.12	14248330.48	39°14'14.171"N	80°57'06.764"W	8746.22	347.726	0.13	0.13	-0.03	
15551.00	90.150	341.950	6407.04	8783.49	8636.20	-1890.00	1654011.40	14248420.34	39°14'15.059"N	80°57'07.154"W	8840.59	347.656	1.84	0.61	1.74	
15645.00	89.720	338.910	6407.14	8877.47	8724.76	-1921.48	1653979.93	14248508.86	39°14'15.935"N	80°57'07.553"W	8933.84	347.580	3.27	-0.46	-3.23	
15740.00	89.510	336.970	6407.78	8972.32	8812.80	-1957.16	1653944.27	14248596.86	39°14'16.805"N	80°57'08.006"W	9027.51	347.479	2.05	-0.22	-2.04	
15835.00	89.630	338.180	6408.49	9067.13	8900.61	-1993.40	1653908.05	14248684.64	39°14'17.673"N	80°57'08.466"W	9121.10	347.376	1.28	0.13	1.27	
15929.00	89.480	343.840	6409.23	9161.09	8989.46	-2023.97	1653877.48	14248773.45	39°14'18.552"N	80°57'08.854"W	9214.49	347.311	6.02	-0.16	6.02	
16024.00	89.380	343.760	6410.17	9255.98	9080.68	-2050.47	1653850.99	14248864.64	39°14'19.453"N	80°57'09.190"W	9309.31	347.276	0.13	-0.11	-0.08	
16117.00	89.480	343.210	6411.10	9348.90	9169.84	-2076.91	1653824.57	14248953.76	39°14'20.335"N	80°57'09.526"W	9402.10	347.238	0.60	0.11	-0.59	
16212.00	89.230	343.380	6412.16	9443.82	9260.82	-2104.21	1653797.27	14249044.71	39°14'21.234"N	80°57'09.872"W	9496.87	347.199	0.32	-0.26	0.18	
16306.00	90.250	345.450	6412.59	9537.66	9351.36	-2129.47	1653772.03	14249135.21	39°14'22.129"N	80°57'10.193"W	9590.76	347.172	2.45	1.09	2.20	
16401.00	89.750	343.100	6412.59	9632.51	9442.80	-2155.21	1653746.30	14249226.61	39°14'23.033"N	80°57'10.519"W	9685.63	347.143	2.53	-0.53	-2.47	
16496.00	90.220	340.560	6412.62	9727.50	9533.05	-2184.83	1653716.69	14249316.83	39°14'23.925"N	80°57'10.895"W	9780.22	347.092	2.72	0.49	-2.67	
16590.00	90.220	336.540	6412.26	9821.38	9620.53	-2219.20	1653682.33	14249404.26	39°14'24.790"N	80°57'11.331"W	9873.16	347.011	4.28	0.00	-4.28	
16685.00	89.910	333.080	6412.15	9915.79	9706.48	-2259.63	1653641.92	14249490.18	39°14'25.640"N	80°57'11.845"W	9966.02	346.895	3.66	-0.33	-3.64	
16779.00	90.180	334.320	6412.07	10009.00	9790.75	-2301.28	1653600.29	14249574.42	39°14'26.473"N	80°57'12.373"W	10057.56	346.773	1.35	0.29	1.32	
16874.00	90.030	333.680	6411.90	10103.26	9876.13	-2342.92	1653558.66	14249659.77	39°14'27.317"N	80°57'12.902"W	10150.23	346.654	0.69	-0.16	-0.67	
16969.00	90.400	336.250	6411.54	10197.70	9962.20	-2383.12	1653518.48	14249745.80	39°14'28.168"N	80°57'13.412"W	10243.27	346.547	2.73	0.39	2.71	
17063.00	90.150	339.580	6411.09	10291.54	10049.29	-2418.46	1653483.16	14249832.85	39°14'29.029"N	80°57'13.861"W	10336.20	346.469	3.55	-0.27	3.54	
17158.00	90.000	340.880	6410.97	10386.52	10138.69	-2450.59	1653451.04	14249922.22	39°14'29.912"N	80°57'14.269"W	10430.64	346.412	1.38	-0.16	1.37	
17253.00	89.910	340.880	6411.04	10481.52	10228.44	-2481.71	1653419.93	14250011.94	39°14'30.800"N	80°57'14.664"W	10525.20	346.362	0.09	-0.09	0.00	
17347.00	90.000	340.920	6411.12	10575.52	10317.27	-2512.46	1653389.19	14250100.73	39°14'31.678"N	80°57'15.054"W	10618.78	346.314	0.10	0.10	0.04	
17441.00	89.970	339.490	6411.14	10669.50	10405.71	-2544.30	1653357.37	14250189.14	39°14'32.552"N	80°57'15.458"W	10712.25	346.260	1.52	-0.03	-1.52	
17536.00	90.060	338.330	6411.12	10764.43	10494.35	-2578.48	1653323.20	14250277.74	39°14'33.428"N	80°57'15.892"W	10806.47	346.196	1.22	0.09	-1.22	
17631.00	89.880	340.230	6411.17	10859.38	10583.20	-2612.09	1653289.60	14250366.55	39°14'34.307"N	80°57'16.319"W	10900.79	346.136	2.01	-0.19	2.00	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad		

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
17725.00	89.820	340.170	6411.41	10953.36	10671.64	-2643.93	1653257.77	14250454.96	39°14'35.181"N	80°57'16.723"W	10994.29	346.085	0.09	-0.06	-0.06	
17820.00	90.180	340.290	6411.41	11048.35	10761.04	-2676.07	1653225.65	14250544.32	39°14'36.065"N	80°57'17.131"W	11088.79	346.035	0.40	0.38	0.13	
17915.00	90.000	340.900	6411.26	11143.35	10850.64	-2707.63	1653194.10	14250633.89	39°14'36.951"N	80°57'17.531"W	11183.37	345.989	0.67	-0.19	0.64	
18001.00	89.720	342.090	6411.47	11229.34	10932.20	-2734.92	1653166.82	14250715.41	39°14'37.757"N	80°57'17.878"W	11269.10	345.955	1.42	-0.33	1.38	
18026.00	89.720	342.090	6411.59	11254.34	10955.98	-2742.61	1653159.13	14250739.19	39°14'37.992"N	80°57'17.975"W	11294.05	345.946	0.00	0.00	0.00	Projected MD at TD: 18026'

HOLE & CASING SECTIONS - Ref Wellbore: Buzzard Run Unit 1H AWB Ref Wellpath: Buzzard Run Unit 1H AWP Proj: 18026'									
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	-0.02	0.06
17.5in Open Hole	105.00	586.00	481.00	105.00	585.99	-0.02	0.06	-1.58	1.58
13.375in Casing Surface	25.00	586.00	561.00	25.00	585.99	0.00	0.00	-1.58	1.58
12.25in Open Hole	586.00	2600.00	2014.00	585.99	2565.77	-1.58	1.58	-89.26	331.14
9.625in Casing Intermediate	25.00	2600.00	2575.00	25.00	2565.77	0.00	0.00	-89.26	331.14
8.75in Open Hole	2600.00	6171.00	3571.00	2565.77	6039.92	-89.26	331.14	-110.52	1024.81
8.5in Open Hole	6171.00	18026.00	11855.00	6039.92	6411.59	-110.52	1024.81	10955.98	-2742.61
5.5in Casing Production	25.00	18026.00	18001.00	25.00	6411.59	0.00	0.00	10955.98	-2742.61

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Buzzard Run Unit 1H - POE - Rev-2	6388.00	320.53	919.73	1656820.00	14240108.00	39°12'52.852"N	80°56'31.512"W	point
Buzzard Run Unit 1H - BHL - Rev-2	6413.00	11200.90	-2797.77	1653104.00	14250984.00	39°14'40.413"N	80°57'18.675"W	point
Buzzard Run Unit 1H - LP - Rev-2	6413.00	510.77	854.73	1656755.03	14240298.17	39°12'54.733"N	80°56'32.337"W	point

WELLPATH COMPOSITION - Ref Wellbore: Buzzard Run Unit 1H AWB Ref Wellpath: Buzzard Run Unit 1H AWP Proj: 18026'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	553.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-543')	Buzzard Run Unit 1H AWB
553.00	2519.00	OWSG MWD rev2 + HRGM	02 WFT EM <12-1/4">(543')(642'-2509')	Buzzard Run Unit 1H AWB
2519.00	6098.00	OWSG MWD rev2 + HRGM	03 WFT EM <8-3/4">(2509')(2676'-6088')	Buzzard Run Unit 1H AWB
6098.00	18001.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(6098')(6159'-18001')	Buzzard Run Unit 1H AWB
18001.00	18026.00	Blind Drilling (std)	Projection to bit	Buzzard Run Unit 1H AWB

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Ritchie County, WV	Well	Buzzard Run Unit 1H
Field	Ritchie	Wellbore	Buzzard Run Unit 1H AWB
Facility	Lynn Camp Pad		

COMMENTS
<p>Wellpath general comments API: 47-085-10379-0000 BHI Job #: 109788593 Rig: Patterson 342 Duration: 05/01/2019-05/04/2019 Gyrodatta MS Gyro <17-1/2">(100'-543') WFT EM <12-1/4">(543')(642'-2509') WFT EM <8-3/4">(2509')(2676'-6088') BH AT Curve <8-1/2">(6098')(6159'-18001') Middlesex: 6423' MD Burkett: 6625' MD Tully: 6717' MD Marcellus POE: 6834' MD Projected MD at TD: 18026'</p>

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