



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'

Page 1 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

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	12/18/2019 at 5:18:54 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	-8.50	5.31	1700261.99	14308692.06	39°24'10.3460"N	80°47'17.3220"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 #06)	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	161.69°



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Page 2 of 11



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Slot	Slot #06		

WELLPATH DATA (218 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	226.810	0.00	0.00	0.00	0.00	1700261.99	14308692.06	39°24'10.3460"N	80°47'17.3220"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	226.810	25.00	0.00	0.00	0.00	1700261.99	14308692.06	39°24'10.3460"N	80°47'17.3220"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.320	226.810	100.00	0.09	-0.14	-0.15	1700261.84	14308691.92	39°24'10.3446"N	80°47'17.3239"W	0.21	226.810	0.43	0.43	0.00	Gyrodata MS Gyro <17-1/2">(100'-350')
125.00	0.280	234.700	125.00	0.14	-0.23	-0.25	1700261.74	14308691.83	39°24'10.3437"N	80°47'17.3252"W	0.34	228.224	0.23	-0.16	31.56	
150.00	0.190	256.220	150.00	0.15	-0.27	-0.34	1700261.65	14308691.79	39°24'10.3433"N	80°47'17.3263"W	0.44	231.673	0.50	-0.36	86.08	
175.00	0.170	268.580	175.00	0.14	-0.28	-0.42	1700261.57	14308691.78	39°24'10.3432"N	80°47'17.3273"W	0.51	236.142	0.17	-0.08	49.44	
200.00	0.170	285.860	200.00	0.10	-0.27	-0.49	1700261.50	14308691.79	39°24'10.3433"N	80°47'17.3282"W	0.56	241.041	0.20	0.00	69.12	
225.00	0.020	186.260	225.00	0.09	-0.27	-0.53	1700261.46	14308691.79	39°24'10.3434"N	80°47'17.3287"W	0.59	243.222	0.70	-0.60	-398.40	
250.00	0.150	284.590	250.00	0.07	-0.26	-0.56	1700261.43	14308691.80	39°24'10.3434"N	80°47'17.3291"W	0.62	244.881	0.62	0.52	393.32	
275.00	0.130	274.070	275.00	0.05	-0.25	-0.62	1700261.37	14308691.81	39°24'10.3435"N	80°47'17.3299"W	0.67	247.846	0.13	-0.08	-42.08	
300.00	0.080	218.500	300.00	0.04	-0.26	-0.66	1700261.33	14308691.80	39°24'10.3434"N	80°47'17.3304"W	0.71	248.166	0.43	-0.20	-222.28	
325.00	0.090	185.000	325.00	0.07	-0.30	-0.67	1700261.32	14308691.76	39°24'10.3431"N	80°47'17.3305"W	0.74	246.131	0.20	0.04	-134.00	
350.00	0.180	150.500	350.00	0.13	-0.35	-0.66	1700261.33	14308691.71	39°24'10.3425"N	80°47'17.3303"W	0.74	241.796	0.47	0.36	-138.00	
354.00	0.150	109.360	354.00	0.14	-0.36	-0.65	1700261.34	14308691.70	39°24'10.3424"N	80°47'17.3302"W	0.74	241.011	2.98	-0.75	-1028.50	Gyrodata MS Gyro <12-1/4">(350')(354'-657')
476.00	0.150	131.540	476.00	0.37	-0.52	-0.38	1700261.61	14308691.54	39°24'10.3409"N	80°47'17.3268"W	0.64	216.111	0.05	0.00	18.18	
566.00	0.160	170.440	566.00	0.60	-0.72	-0.27	1700261.72	14308691.34	39°24'10.3389"N	80°47'17.3254"W	0.77	200.470	0.12	0.01	43.22	
657.00	0.160	166.070	657.00	0.85	-0.97	-0.22	1700261.77	14308691.09	39°24'10.3364"N	80°47'17.3247"W	0.99	192.631	0.01	0.00	-4.80	
779.00	0.100	162.170	779.00	1.13	-1.24	-0.14	1700261.85	14308690.83	39°24'10.3338"N	80°47'17.3238"W	1.24	186.624	0.05	-0.05	-3.20	APS EM <12-1/4">(657')(779'-2630')
869.00	0.250	169.800	869.00	1.40	-1.50	-0.08	1700261.91	14308690.56	39°24'10.3311"N	80°47'17.3231"W	1.51	183.222	0.17	0.17	8.48	
960.00	0.570	183.400	959.99	2.02	-2.15	-0.08	1700261.91	14308689.91	39°24'10.3247"N	80°47'17.3230"W	2.15	182.032	0.37	0.35	14.95	
1055.00	1.180	65.450	1054.99	2.35	-2.22	0.79	1700262.78	14308689.85	39°24'10.3241"N	80°47'17.3120"W	2.35	160.481	1.61	0.64	-124.16	
1150.00	2.770	60.650	1149.93	1.80	-0.68	3.68	1700265.66	14308691.38	39°24'10.3391"N	80°47'17.2751"W	3.74	100.541	1.68	1.67	-5.05	
1245.00	2.660	57.980	1244.82	0.84	1.61	7.55	1700269.53	14308693.67	39°24'10.3617"N	80°47'17.2258"W	7.72	77.957	0.18	-0.12	-2.81	
1339.00	3.460	59.630	1338.69	-0.27	4.20	11.84	1700273.83	14308696.26	39°24'10.3872"N	80°47'17.1710"W	12.57	70.471	0.86	0.85	1.76	
1434.00	6.640	52.330	1433.31	-2.69	9.01	18.67	1700280.65	14308701.06	39°24'10.4346"N	80°47'17.0839"W	20.73	64.239	3.41	3.35	-7.68	
1528.00	10.100	41.240	1526.30	-8.67	18.53	28.40	1700290.38	14308710.58	39°24'10.5285"N	80°47'16.9596"W	33.91	56.881	4.05	3.68	-11.80	
1622.00	11.050	39.710	1618.70	-17.62	31.66	39.59	1700301.57	14308723.71	39°24'10.6580"N	80°47'16.8166"W	50.69	51.355	1.05	1.01	-1.63	
1717.00	13.490	47.880	1711.53	-26.91	46.10	53.63	1700315.60	14308738.14	39°24'10.8003"N	80°47'16.6374"W	70.72	49.321	3.15	2.57	8.60	
1812.00	17.330	51.260	1803.10	-36.33	62.39	72.89	1700334.86	14308754.42	39°24'10.9609"N	80°47'16.3915"W	95.95	49.441	4.15	4.04	3.56	
1907.00	18.060	53.630	1893.61	-45.83	79.98	95.79	1700357.74	14308772.00	39°24'11.1342"N	80°47'16.0993"W	124.79	50.141	1.08	0.77	2.49	



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Page 3 of 11



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Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

WELLPATH DATA (218 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
2002.00	16.580	55.610	1984.30	-54.15	96.37	118.83	1700380.78	14308788.39	39°24'11.2956"N	80°47'15.8053"W	152.99	50.960	1.68	-1.56	2.08	
2096.00	18.110	56.020	2074.02	-61.82	112.11	142.02	1700403.95	14308804.12	39°24'11.4507"N	80°47'15.5094"W	180.93	51.713	1.63	1.63	0.44	
2191.00	20.800	57.370	2163.59	-69.98	129.46	168.47	1700430.39	14308821.47	39°24'11.6216"N	80°47'15.1719"W	212.47	52.460	2.87	2.83	1.42	
2286.00	22.130	58.240	2252.00	-78.31	147.97	197.89	1700459.80	14308839.97	39°24'11.8039"N	80°47'14.7966"W	247.10	53.213	1.44	1.40	0.92	
2380.00	23.530	57.550	2338.63	-87.01	167.36	228.78	1700490.68	14308859.35	39°24'11.9948"N	80°47'14.4025"W	283.46	53.813	1.52	1.49	-0.73	
2475.00	24.630	56.010	2425.36	-97.00	188.60	261.20	1700523.08	14308880.59	39°24'12.2040"N	80°47'13.9889"W	322.17	54.168	1.33	1.16	-1.62	
2507.00	25.020	55.250	2454.41	-100.71	196.19	272.29	1700534.17	14308888.17	39°24'12.2787"N	80°47'13.8474"W	335.60	54.227	1.57	1.22	-2.37	
2569.00	25.350	53.170	2510.51	-108.64	211.62	293.68	1700555.56	14308903.59	39°24'12.4307"N	80°47'13.5744"W	361.98	54.225	1.52	0.53	-3.35	
2630.00	25.420	50.860	2565.62	-117.44	227.71	314.29	1700576.16	14308919.68	39°24'12.5892"N	80°47'13.3114"W	388.11	54.076	1.63	0.11	-3.79	
2734.00	23.630	44.420	2660.25	-134.94	256.69	346.20	1700608.05	14308948.65	39°24'12.8750"N	80°47'12.9040"W	430.98	53.445	3.09	-1.72	-6.19	BH AT Curve <8-1/2">(2630')(2734'-18461')
2828.00	25.080	39.520	2745.90	-154.18	285.52	372.07	1700633.91	14308977.47	39°24'13.1593"N	80°47'12.5736"W	469.00	52.498	2.64	1.54	-5.21	
2923.00	26.680	43.080	2831.37	-175.11	316.64	399.45	1700661.28	14309008.57	39°24'13.4662"N	80°47'12.2238"W	509.72	51.597	2.35	1.68	3.75	
3018.00	26.670	48.060	2916.27	-193.87	346.47	429.88	1700691.70	14309038.39	39°24'13.7603"N	80°47'11.8353"W	552.12	51.133	2.35	-0.01	5.24	
3113.00	26.730	52.190	3001.15	-209.55	373.82	462.62	1700724.43	14309065.73	39°24'14.0298"N	80°47'11.4173"W	594.78	51.060	1.95	0.06	4.35	
3207.00	26.690	56.520	3085.13	-222.14	398.42	496.93	1700758.73	14309090.33	39°24'14.2722"N	80°47'10.9795"W	636.93	51.279	2.07	-0.04	4.61	
3301.00	26.650	59.310	3169.13	-232.18	420.83	532.67	1700794.45	14309112.72	39°24'14.4928"N	80°47'10.5235"W	678.85	51.690	1.33	-0.04	2.97	
3396.00	23.870	57.230	3255.04	-241.55	442.11	567.16	1700828.93	14309134.00	39°24'14.7024"N	80°47'10.0835"W	719.12	52.063	3.07	-2.93	-2.19	
3490.00	24.120	53.330	3340.92	-252.35	463.88	598.56	1700860.32	14309155.75	39°24'14.9168"N	80°47'9.6828"W	757.27	52.225	1.71	0.27	-4.15	
3585.00	23.040	54.150	3427.99	-264.07	486.36	629.20	1700890.94	14309178.23	39°24'15.1382"N	80°47'9.2918"W	795.26	52.297	1.19	-1.14	0.86	
3680.00	23.760	57.450	3515.18	-274.38	507.55	660.40	1700922.13	14309199.40	39°24'15.3469"N	80°47'8.8937"W	832.91	52.456	1.57	0.76	3.47	
3775.00	23.990	57.010	3602.05	-283.98	528.36	692.74	1700954.45	14309220.21	39°24'15.5518"N	80°47'8.4812"W	871.23	52.667	0.31	0.24	-0.46	
3869.00	24.080	55.710	3687.90	-294.10	549.57	724.61	1700986.31	14309241.41	39°24'15.7607"N	80°47'8.0745"W	909.44	52.822	0.57	0.10	-1.38	
3964.00	24.460	54.950	3774.50	-305.10	571.78	756.72	1701018.41	14309263.61	39°24'15.9795"N	80°47'7.6648"W	948.45	52.925	0.52	0.40	-0.80	
4059.00	23.160	53.650	3861.41	-316.55	594.15	787.87	1701049.55	14309285.97	39°24'16.1999"N	80°47'7.2673"W	986.79	52.979	1.48	-1.37	-1.37	
4154.00	25.040	52.010	3948.13	-329.11	617.60	818.76	1701080.43	14309309.41	39°24'16.4309"N	80°47'6.8730"W	1025.57	52.972	2.10	1.99	-1.73	
4249.00	25.290	50.210	4034.12	-343.31	642.96	850.20	1701111.85	14309334.77	39°24'16.6808"N	80°47'6.4717"W	1065.95	52.902	0.85	0.26	-1.89	
4344.00	23.620	49.390	4120.59	-357.96	668.34	880.24	1701141.88	14309360.13	39°24'16.9309"N	80°47'6.0882"W	1105.22	52.792	1.79	-1.76	-0.86	
4439.00	22.780	50.390	4207.91	-371.87	692.45	908.86	1701170.49	14309384.24	39°24'17.1686"N	80°47'5.7229"W	1142.59	52.697	0.98	-0.88	1.05	
4533.00	24.020	51.640	4294.18	-385.04	715.93	937.88	1701199.50	14309407.70	39°24'17.3999"N	80°47'5.3525"W	1179.91	52.644	1.42	1.32	1.33	
4627.00	25.250	53.010	4379.62	-398.02	739.87	968.90	1701230.51	14309431.63	39°24'17.6358"N	80°47'4.9566"W	1219.09	52.634	1.44	1.31	1.46	



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Page 4 of 11



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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
4722.00	24.860	53.650	4465.68	-410.69	763.89	1001.17	1701262.76	14309455.65	39°24'17.8725"N	80°47'4.5448"W	1259.31	52.656	0.50	-0.41	0.67	
4817.00	23.530	53.740	4552.33	-422.72	786.95	1032.54	1701294.12	14309478.69	39°24'18.0996"N	80°47'4.1444"W	1298.24	52.687	1.40	-1.40	0.09	
4910.00	22.400	55.650	4637.96	-433.34	807.92	1062.14	1701323.71	14309499.66	39°24'18.3062"N	80°47'3.7667"W	1334.50	52.741	1.46	-1.22	2.05	
5005.00	22.300	56.270	4725.82	-443.13	828.15	1092.08	1701353.63	14309519.88	39°24'18.5054"N	80°47'3.3847"W	1370.57	52.826	0.27	-0.11	0.65	
5100.00	23.940	55.060	4813.19	-453.44	849.20	1122.87	1701384.41	14309540.92	39°24'18.7127"N	80°47'2.9918"W	1407.83	52.901	1.80	1.73	-1.27	
5195.00	24.090	54.450	4899.97	-464.70	871.51	1154.45	1701415.98	14309563.22	39°24'18.9325"N	80°47'2.5889"W	1446.47	52.950	0.31	0.16	-0.64	
5290.00	23.910	54.260	4986.76	-476.22	894.02	1185.85	1701447.37	14309585.73	39°24'19.1543"N	80°47'2.1882"W	1485.10	52.987	0.21	-0.19	-0.20	
5385.00	24.620	54.700	5073.36	-487.77	916.70	1217.62	1701479.13	14309608.40	39°24'19.3777"N	80°47'1.7827"W	1524.12	53.025	0.77	0.75	0.46	
5480.00	24.200	54.340	5159.87	-499.36	939.49	1249.59	1701511.09	14309631.18	39°24'19.6021"N	80°47'1.3747"W	1563.37	53.063	0.47	-0.44	-0.38	
5575.00	23.420	55.740	5246.78	-510.35	961.47	1281.02	1701542.50	14309653.15	39°24'19.8186"N	80°47'0.9737"W	1601.70	53.110	1.01	-0.82	1.47	
5670.00	24.640	57.190	5333.55	-520.50	982.83	1313.27	1701574.74	14309674.50	39°24'20.0290"N	80°47'0.5622"W	1640.31	53.189	1.43	1.28	1.53	
5764.00	24.470	56.040	5419.05	-530.65	1004.32	1345.89	1701607.34	14309695.98	39°24'20.2406"N	80°47'0.1460"W	1679.31	53.269	0.54	-0.18	-1.22	
5858.00	24.170	54.530	5504.71	-541.58	1026.37	1377.71	1701639.15	14309718.02	39°24'20.4577"N	80°46'59.7400"W	1717.99	53.315	0.73	-0.32	-1.61	
5953.00	24.340	56.110	5591.32	-552.58	1048.57	1409.80	1701671.23	14309740.21	39°24'20.6764"N	80°46'59.3305"W	1756.99	53.359	0.71	0.18	1.66	
6047.00	24.910	60.030	5676.78	-561.79	1069.26	1443.03	1701704.44	14309760.90	39°24'20.8801"N	80°46'58.9065"W	1796.01	53.462	1.84	0.61	4.17	
6142.00	23.480	72.010	5763.49	-565.73	1085.11	1478.38	1701739.79	14309776.74	39°24'21.0359"N	80°46'58.4556"W	1833.87	53.722	5.37	-1.51	12.61	
6237.00	24.340	87.950	5850.42	-560.13	1091.66	1515.99	1701777.38	14309783.29	39°24'21.0998"N	80°46'57.9763"W	1868.14	54.242	6.84	0.91	16.78	
6332.00	23.910	104.330	5937.22	-544.25	1087.59	1554.25	1701815.62	14309779.22	39°24'21.0587"N	80°46'57.4890"W	1896.99	55.017	7.04	-0.45	17.24	
6426.00	27.240	123.610	6022.15	-516.99	1070.94	1590.70	1701852.05	14309762.57	39°24'20.8932"N	80°46'57.0252"W	1917.61	56.050	9.49	3.54	20.51	
6521.00	33.940	138.190	6104.00	-475.45	1039.05	1626.57	1701887.92	14309730.70	39°24'20.5772"N	80°46'56.5691"W	1930.12	57.430	10.48	7.05	15.35	
6616.00	39.350	141.230	6180.20	-422.86	995.77	1663.14	1701924.47	14309687.43	39°24'20.1486"N	80°46'56.1046"W	1938.45	59.090	6.00	5.69	3.20	
6650.00†	42.405	142.973	6205.90	-401.90	978.21	1676.80	1701938.12	14309669.88	39°24'19.9747"N	80°46'55.9311"W	1941.28	59.742	9.59	8.98	5.13	Middlesex: 6650' MD
6710.00	47.850	145.600	6248.22	-361.34	943.68	1701.57	1701962.88	14309635.36	39°24'19.6328"N	80°46'55.6166"W	1945.73	60.988	9.59	9.08	4.38	
6805.00	57.590	151.920	6305.73	-287.76	879.04	1740.46	1702001.76	14309570.75	39°24'18.9930"N	80°46'55.1232"W	1949.85	63.203	11.53	10.25	6.65	
6852.00	61.840	153.940	6329.43	-247.65	842.91	1758.91	1702020.20	14309534.63	39°24'18.6354"N	80°46'54.8892"W	1950.45	64.395	9.77	9.04	4.30	
6881.00†	63.936	154.807	6342.65	-222.05	819.63	1770.07	1702031.36	14309511.37	39°24'18.4051"N	80°46'54.7478"W	1950.63	65.153	7.70	7.23	2.99	Burkett: 6881' MD
6899.00	65.240	155.330	6350.37	-205.90	804.89	1776.93	1702038.21	14309496.63	39°24'18.2593"N	80°46'54.6609"W	1950.72	65.631	7.70	7.24	2.90	
6946.00	66.520	155.490	6369.58	-163.26	765.88	1794.78	1702056.05	14309457.64	39°24'17.8733"N	80°46'54.4347"W	1951.36	66.891	2.74	2.72	0.34	
6952.00†	66.772	155.600	6371.95	-157.79	760.87	1797.06	1702058.33	14309452.63	39°24'17.8237"N	80°46'54.4058"W	1951.49	67.052	4.53	4.20	1.84	Tully: 6952' MD
6994.00	68.540	156.360	6387.92	-119.14	725.39	1812.87	1702074.13	14309417.16	39°24'17.4727"N	80°46'54.2055"W	1952.61	68.192	4.53	4.21	1.81	



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'
Page 5 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

WELLPATH DATA (218 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
7041.00	71.660	158.510	6403.92	-75.07	684.58	1829.81	1702091.08	14309376.37	39°24'17.0690"N	80°46'53.9909"W	1953.68	69.488	7.91	6.64	4.57	
7089.00	73.750	160.440	6418.19	-29.28	641.67	1845.88	1702107.13	14309333.47	39°24'16.6444"N	80°46'53.7876"W	1954.22	70.831	5.80	4.35	4.02	
7108.00†	75.268	161.236	6423.26	-10.97	624.37	1851.89	1702113.14	14309316.18	39°24'16.4733"N	80°46'53.7115"W	1954.31	71.368	8.95	7.99	4.19	Marcellus POE: 7108' MD
7136.00	77.510	162.390	6429.85	16.24	598.52	1860.38	1702121.63	14309290.34	39°24'16.2176"N	80°46'53.6042"W	1954.28	72.166	8.95	8.01	4.12	
7183.00	81.070	163.330	6438.59	62.40	554.39	1873.98	1702135.23	14309246.23	39°24'15.7812"N	80°46'53.4322"W	1954.27	73.520	7.83	7.57	2.00	
7230.00	84.980	164.410	6444.29	109.01	509.59	1886.94	1702148.18	14309201.45	39°24'15.3380"N	80°46'53.2685"W	1954.54	74.887	8.63	8.32	2.30	
7277.00	89.110	165.020	6446.71	155.87	464.32	1899.31	1702160.54	14309156.20	39°24'14.8903"N	80°46'53.1123"W	1955.24	76.262	8.88	8.79	1.30	
7324.00	89.750	164.590	6447.18	202.80	418.97	1911.63	1702172.86	14309110.86	39°24'14.4418"N	80°46'52.9568"W	1957.00	77.638	1.64	1.36	-0.91	
7371.00	89.750	164.080	6447.39	249.75	373.71	1924.32	1702185.54	14309065.62	39°24'13.9942"N	80°46'52.7955"W	1960.27	79.010	1.09	0.00	-1.09	
7466.00	89.880	162.420	6447.69	344.71	282.75	1951.70	1702212.91	14308974.69	39°24'13.0945"N	80°46'52.4506"W	1972.07	81.757	1.75	0.14	-1.75	
7480.00	89.750	161.920	6447.74	358.71	269.42	1955.98	1702217.19	14308961.37	39°24'12.9627"N	80°46'52.3964"W	1974.45	82.157	3.69	-0.93	-3.57	
7575.00	89.540	160.690	6448.33	453.70	179.44	1986.43	1702247.63	14308871.42	39°24'12.0726"N	80°46'52.0113"W	1994.52	84.838	1.31	-0.22	-1.29	
7669.00	89.420	159.950	6449.18	547.67	90.93	2018.09	1702279.27	14308782.95	39°24'11.1971"N	80°46'51.6107"W	2020.13	87.420	0.80	-0.13	-0.79	
7763.00	89.320	159.000	6450.21	641.59	2.90	2051.04	1702312.22	14308694.96	39°24'10.3263"N	80°46'51.1936"W	2051.04	89.919	1.02	-0.11	-1.01	
7858.00	89.350	158.090	6451.32	736.44	-85.51	2085.79	1702346.95	14308606.59	39°24'9.4517"N	80°46'50.7538"W	2087.54	92.348	0.96	0.03	-0.96	
7953.00	89.320	157.390	6452.42	831.21	-173.42	2121.77	1702382.92	14308518.71	39°24'8.5819"N	80°46'50.2981"W	2128.85	94.673	0.74	-0.03	-0.74	
8048.00	89.290	157.610	6453.57	925.95	-261.18	2158.12	1702419.26	14308430.98	39°24'7.7136"N	80°46'49.8377"W	2173.87	96.901	0.23	-0.03	0.23	
8142.00	89.260	156.710	6454.76	1019.65	-347.80	2194.61	1702455.72	14308344.39	39°24'6.8566"N	80°46'49.3756"W	2222.00	99.005	0.96	-0.03	-0.96	
8237.00	89.200	156.600	6456.04	1114.27	-435.02	2232.25	1702493.35	14308257.21	39°24'5.9937"N	80°46'48.8988"W	2274.24	101.028	0.13	-0.06	-0.12	
8332.00	89.380	155.540	6457.22	1208.81	-521.84	2270.78	1702531.87	14308170.42	39°24'5.1347"N	80°46'48.4107"W	2329.97	102.942	1.13	0.19	-1.12	
8426.00	89.540	156.900	6458.10	1302.37	-607.86	2308.68	1702569.75	14308084.44	39°24'4.2836"N	80°46'47.9306"W	2387.36	104.751	1.46	0.17	1.45	
8521.00	89.970	159.450	6458.51	1397.19	-696.04	2344.00	1702605.05	14307996.30	39°24'3.4112"N	80°46'47.4834"W	2445.16	106.539	2.72	0.45	2.68	
8616.00	89.820	160.030	6458.68	1492.13	-785.16	2376.89	1702637.94	14307907.21	39°24'2.5296"N	80°46'47.0671"W	2503.22	108.280	0.63	-0.16	0.61	
8711.00	89.380	161.440	6459.35	1587.11	-874.84	2408.23	1702669.27	14307817.57	39°24'1.6425"N	80°46'46.6707"W	2562.21	109.965	1.55	-0.46	1.48	
8806.00	90.180	165.580	6459.71	1682.04	-965.91	2435.19	1702696.21	14307726.54	39°24'0.7418"N	80°46'46.3301"W	2619.76	111.636	4.44	0.84	4.36	
8901.00	89.970	164.910	6459.59	1776.86	-1057.78	2459.39	1702720.40	14307634.70	39°23'59.8332"N	80°46'46.0247"W	2677.22	113.272	0.74	-0.22	-0.71	
8996.00	90.030	164.140	6459.59	1871.74	-1149.33	2484.74	1702745.74	14307543.19	39°23'58.9277"N	80°46'45.7047"W	2737.68	114.823	0.81	0.06	-0.81	
9090.00	89.540	164.090	6459.94	1965.66	-1239.74	2510.46	1702771.46	14307452.81	39°23'58.0335"N	80°46'45.3798"W	2799.89	116.282	0.52	-0.52	-0.05	
9185.00	89.660	166.010	6460.60	2060.49	-1331.52	2534.97	1702795.95	14307361.07	39°23'57.1259"N	80°46'45.0705"W	2863.39	117.711	2.02	0.13	2.02	
9280.00	90.310	169.720	6460.63	2154.92	-1424.38	2554.94	1702815.91	14307268.25	39°23'56.2076"N	80°46'44.8190"W	2925.16	119.140	3.96	0.68	3.91	



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'

Page 6 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

WELLPATH DATA (218 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
9374.00	90.460	169.210	6460.00	2248.05	-1516.79	2572.12	1702833.09	14307175.87	39°23'55.2938"N	80°46'44.6030"W	2986.05	120.528	0.57	0.16	-0.54	
9468.00	91.390	167.660	6458.48	2341.38	-1608.87	2590.97	1702851.92	14307083.83	39°23'54.3833"N	80°46'44.3658"W	3049.85	121.838	1.92	0.99	-1.65	
9563.00	91.420	164.810	6456.15	2436.05	-1701.10	2613.56	1702874.51	14306991.63	39°23'53.4712"N	80°46'44.0809"W	3118.40	123.059	3.00	0.03	-3.00	
9658.00	89.780	161.800	6455.15	2530.99	-1792.08	2640.85	1702901.79	14306900.69	39°23'52.5714"N	80°46'43.7362"W	3191.49	124.161	3.61	-1.73	-3.17	
9753.00	90.060	162.350	6455.29	2625.99	-1882.47	2670.08	1702931.01	14306810.34	39°23'51.6773"N	80°46'43.3665"W	3266.96	125.185	0.65	0.29	0.58	
9847.00	90.030	161.570	6455.21	2719.99	-1971.85	2699.19	1702960.11	14306721.00	39°23'50.7932"N	80°46'42.9985"W	3342.73	126.149	0.83	-0.03	-0.83	
9941.00	89.970	158.890	6455.21	2813.95	-2060.30	2730.99	1702991.89	14306632.58	39°23'49.9182"N	80°46'42.5963"W	3420.98	127.031	2.85	-0.06	-2.85	
10036.00	90.250	156.820	6455.03	2908.73	-2148.28	2766.79	1703027.68	14306544.63	39°23'49.0478"N	80°46'42.1430"W	3502.90	127.828	2.20	0.29	-2.18	
10130.00	89.850	156.820	6454.95	3002.39	-2234.70	2803.80	1703064.67	14306458.25	39°23'48.1928"N	80°46'41.6743"W	3585.41	128.556	0.43	-0.43	0.00	
10224.00	89.750	158.270	6455.28	3096.14	-2321.57	2839.70	1703100.56	14306371.42	39°23'47.3334"N	80°46'41.2197"W	3667.91	129.267	1.55	-0.11	1.54	
10319.00	90.830	160.320	6454.79	3191.05	-2410.42	2873.28	1703134.13	14306282.60	39°23'46.4543"N	80°46'40.7947"W	3750.45	129.994	2.44	1.14	2.16	
10414.00	90.710	160.260	6453.52	3286.01	-2499.85	2905.32	1703166.15	14306193.21	39°23'45.5697"N	80°46'40.3894"W	3832.77	130.710	0.14	-0.13	-0.06	
10508.00	90.250	157.900	6452.73	3379.91	-2587.64	2938.88	1703199.70	14306105.45	39°23'44.7012"N	80°46'39.9647"W	3915.73	131.363	2.56	-0.49	-2.51	
10603.00	89.940	158.550	6452.57	3474.73	-2675.86	2974.12	1703234.93	14306017.26	39°23'43.8284"N	80°46'39.5186"W	4000.71	131.978	0.76	-0.33	0.68	
10697.00	90.150	161.230	6452.50	3568.68	-2764.12	3006.44	1703267.23	14305929.04	39°23'42.9553"N	80°46'39.1097"W	4084.00	132.595	2.86	0.22	2.85	
10792.00	89.780	163.080	6452.56	3663.67	-2854.55	3035.55	1703296.33	14305838.65	39°23'42.0608"N	80°46'38.7418"W	4166.89	133.240	1.99	-0.39	1.95	
10887.00	90.310	167.050	6452.48	3758.48	-2946.32	3060.03	1703320.80	14305746.91	39°23'41.1532"N	80°46'38.4329"W	4247.89	133.915	4.22	0.56	4.18	
10981.00	90.400	166.890	6451.90	3852.08	-3037.90	3081.22	1703341.98	14305655.37	39°23'40.2476"N	80°46'38.1658"W	4326.98	134.594	0.20	0.10	-0.17	
11076.00	91.290	163.700	6450.50	3946.87	-3129.77	3105.33	1703366.08	14305563.54	39°23'39.3390"N	80°46'37.8616"W	4408.91	135.225	3.49	0.94	-3.36	
11170.00	91.600	160.630	6448.13	4040.83	-3219.18	3134.18	1703394.93	14305474.16	39°23'38.4546"N	80°46'37.4969"W	4492.91	135.766	3.39	0.33	-3.37	
11266.00	90.740	159.260	6446.17	4136.76	-3309.31	3167.18	1703427.91	14305384.07	39°23'37.5630"N	80°46'37.0795"W	4580.67	136.257	1.60	-0.90	-1.32	
11360.00	89.780	159.590	6445.74	4230.68	-3397.31	3200.21	1703460.93	14305296.10	39°23'36.6924"N	80°46'36.6615"W	4667.23	136.711	1.08	-1.02	0.35	
11455.00	89.780	161.060	6446.11	4325.65	-3486.76	3232.19	1703492.90	14305206.68	39°23'35.8075"N	80°46'36.2569"W	4754.43	137.170	1.55	0.00	1.55	
11550.00	89.780	162.990	6446.47	4420.64	-3577.12	3261.51	1703522.20	14305116.36	39°23'34.9138"N	80°46'35.8864"W	4840.79	137.642	2.03	0.00	2.03	
11645.00	89.750	165.580	6446.86	4515.54	-3668.56	3287.24	1703547.92	14305024.96	39°23'34.0094"N	80°46'35.5615"W	4925.88	138.138	2.73	-0.03	2.73	
11739.00	89.970	167.130	6447.09	4609.22	-3759.91	3309.41	1703570.09	14304933.65	39°23'33.1060"N	80°46'35.2820"W	5008.90	138.646	1.67	0.23	1.65	
11833.00	90.370	166.970	6446.81	4702.81	-3851.52	3330.48	1703591.14	14304842.08	39°23'32.2001"N	80°46'35.0165"W	5091.78	139.149	0.46	0.43	-0.17	
11929.00	90.400	164.270	6446.17	4798.58	-3944.50	3354.32	1703614.97	14304749.13	39°23'31.2805"N	80°46'34.7158"W	5177.89	139.623	2.81	0.03	-2.81	
12023.00	90.620	162.120	6445.33	4892.53	-4034.47	3381.49	1703642.14	14304659.19	39°23'30.3906"N	80°46'34.3726"W	5264.17	140.032	2.30	0.23	-2.29	
12117.00	89.480	159.950	6445.25	4986.52	-4123.36	3412.04	1703672.67	14304570.34	39°23'29.5113"N	80°46'33.9863"W	5352.02	140.393	2.61	-1.21	-2.31	



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'
Page 7 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

WELLPATH DATA (218 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
12212.00	89.540	160.030	6446.06	5081.48	-4212.63	3444.54	1703705.16	14304481.11	39°23'28.6283"N	80°46'33.5751"W	5441.61	140.728	0.11	0.06	0.08	
12307.00	89.510	160.260	6446.85	5176.44	-4301.98	3476.81	1703737.42	14304391.80	39°23'27.7444"N	80°46'33.1670"W	5531.29	141.055	0.24	-0.03	0.24	
12401.00	89.600	160.520	6447.58	5270.41	-4390.52	3508.36	1703768.95	14304303.29	39°23'26.8685"N	80°46'32.7680"W	5620.07	141.373	0.29	0.10	0.28	
12495.00	89.690	160.730	6448.16	5364.39	-4479.20	3539.54	1703800.12	14304214.65	39°23'25.9913"N	80°46'32.3736"W	5708.90	141.684	0.24	0.10	0.22	
12590.00	89.570	160.530	6448.77	5459.37	-4568.82	3571.05	1703831.62	14304125.06	39°23'25.1048"N	80°46'31.9751"W	5798.83	141.988	0.25	-0.13	-0.21	
12685.00	89.630	160.590	6449.44	5554.35	-4658.40	3602.66	1703863.22	14304035.52	39°23'24.2186"N	80°46'31.5753"W	5888.96	142.283	0.09	0.06	0.06	
12780.00	89.600	160.240	6450.07	5649.33	-4747.90	3634.51	1703895.05	14303946.05	39°23'23.3332"N	80°46'31.1725"W	5979.31	142.566	0.37	-0.03	-0.37	
12874.00	89.630	159.440	6450.71	5743.28	-4836.14	3666.90	1703927.43	14303857.85	39°23'22.4603"N	80°46'30.7627"W	6069.14	142.830	0.85	0.03	-0.85	
12969.00	89.600	160.600	6451.34	5838.23	-4925.42	3699.36	1703959.88	14303768.60	39°23'21.5771"N	80°46'30.3521"W	6159.95	143.091	1.22	-0.03	1.22	
13064.00	90.000	159.270	6451.68	5933.18	-5014.65	3731.95	1703992.46	14303679.41	39°23'20.6944"N	80°46'29.9398"W	6250.93	143.343	1.46	0.42	-1.40	
13158.00	90.340	159.340	6451.40	6027.10	-5102.58	3765.17	1704025.67	14303591.51	39°23'19.8245"N	80°46'29.5195"W	6341.36	143.577	0.37	0.36	0.07	
13253.00	90.680	158.550	6450.55	6121.99	-5191.23	3799.30	1704059.78	14303502.89	39°23'18.9475"N	80°46'29.0877"W	6433.01	143.801	0.91	0.36	-0.83	
13348.00	90.090	156.390	6449.91	6216.72	-5278.98	3835.70	1704096.16	14303415.18	39°23'18.0794"N	80°46'28.6269"W	6525.35	143.998	2.36	-0.62	-2.27	
13442.00	89.780	156.340	6450.02	6310.32	-5365.09	3873.39	1704133.83	14303329.10	39°23'17.2273"N	80°46'28.1497"W	6617.20	144.172	0.33	-0.33	-0.05	
13538.00	89.820	157.390	6450.35	6405.97	-5453.37	3911.10	1704171.54	14303240.86	39°23'16.3539"N	80°46'27.6721"W	6710.88	144.352	1.09	0.04	1.09	
13633.00	89.230	158.090	6451.14	6500.74	-5541.29	3947.09	1704207.51	14303152.98	39°23'15.4841"N	80°46'27.2166"W	6803.33	144.538	0.96	-0.62	0.74	
13727.00	89.380	159.880	6452.28	6594.63	-5629.02	3980.79	1704241.20	14303065.28	39°23'14.6161"N	80°46'26.7901"W	6894.39	144.732	1.91	0.16	1.90	
13822.00	89.780	161.780	6452.98	6689.61	-5718.75	4011.99	1704272.38	14302975.59	39°23'13.7285"N	80°46'26.3957"W	6985.71	144.948	2.04	0.42	2.00	
13917.00	89.880	164.230	6453.26	6784.58	-5809.59	4039.75	1704300.13	14302884.78	39°23'12.8300"N	80°46'26.0449"W	7076.08	145.187	2.58	0.11	2.58	
14012.00	89.940	166.040	6453.41	6879.40	-5901.41	4064.12	1704324.50	14302793.00	39°23'11.9219"N	80°46'25.7375"W	7165.45	145.446	1.91	0.06	1.91	
14106.00	90.340	165.380	6453.18	6973.17	-5992.50	4087.32	1704347.69	14302701.94	39°23'11.0210"N	80°46'25.4449"W	7253.71	145.703	0.82	0.43	-0.70	
14201.00	90.340	162.470	6452.62	7068.09	-6083.77	4113.63	1704373.98	14302610.71	39°23'10.1183"N	80°46'25.1128"W	7343.99	145.935	3.06	0.00	-3.06	
14295.00	90.180	160.590	6452.19	7162.08	-6172.93	4143.40	1704403.75	14302521.59	39°23'9.2364"N	80°46'24.7364"W	7434.57	146.130	2.01	-0.17	-2.00	
14390.00	89.320	159.470	6452.60	7257.04	-6262.21	4175.85	1704436.18	14302432.34	39°23'8.3531"N	80°46'24.3261"W	7526.82	146.303	1.49	-0.91	-1.18	
14484.00	88.830	160.980	6454.12	7350.99	-6350.65	4207.65	1704467.96	14302343.93	39°23'7.4782"N	80°46'23.9239"W	7618.08	146.473	1.69	-0.52	1.61	
14579.00	88.890	163.310	6456.01	7445.96	-6441.05	4236.77	1704497.07	14302253.57	39°23'6.5840"N	80°46'23.5559"W	7709.56	146.664	2.45	0.06	2.45	
14673.00	89.880	166.050	6457.02	7539.82	-6531.70	4261.60	1704521.89	14302162.96	39°23'5.6875"N	80°46'23.2426"W	7798.99	146.878	3.10	1.05	2.91	
14768.00	89.880	167.120	6457.22	7634.47	-6624.11	4283.64	1704543.92	14302070.59	39°23'4.7737"N	80°46'22.9649"W	7888.49	147.110	1.13	0.00	1.13	
14862.00	90.340	169.300	6457.04	7727.86	-6716.12	4302.84	1704563.12	14301978.62	39°23'3.8638"N	80°46'22.7232"W	7976.26	147.353	2.37	0.49	2.32	
14957.00	90.060	168.820	6456.71	7822.07	-6809.39	4320.87	1704581.14	14301885.38	39°23'2.9415"N	80°46'22.4966"W	8064.60	147.603	0.58	-0.29	-0.51	



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'
Page 8 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

WELLPATH DATA (218 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
15052.00	89.480	169.010	6457.09	7916.32	-6902.62	4339.14	1704599.40	14301792.19	39°23'2.0196"N	80°46'22.2670"W	8153.17	147.846	0.64	-0.61	0.20	
15146.00	90.220	170.180	6457.34	8009.42	-6995.07	4356.11	1704616.37	14301699.78	39°23'1.1055"N	80°46'22.0537"W	8240.55	148.088	1.47	0.79	1.24	
15241.00	90.770	166.970	6456.51	8103.72	-7088.17	4374.93	1704635.18	14301606.71	39°23'0.1848"N	80°46'21.8171"W	8329.59	148.316	3.43	0.58	-3.38	
15336.00	90.220	166.140	6455.69	8198.37	-7180.56	4397.02	1704657.26	14301514.36	39°22'59.2711"N	80°46'21.5388"W	8419.87	148.519	1.05	-0.58	-0.87	
15431.00	90.150	166.470	6455.39	8293.06	-7272.86	4419.51	1704679.74	14301422.09	39°22'58.3583"N	80°46'21.2553"W	8510.38	148.714	0.36	-0.07	0.35	
15526.00	90.800	166.070	6454.60	8387.76	-7365.14	4442.05	1704702.28	14301329.85	39°22'57.4457"N	80°46'20.9711"W	8601.00	148.905	0.80	0.68	-0.42	
15620.00	91.690	163.840	6452.56	8481.57	-7455.89	4466.45	1704726.66	14301239.14	39°22'56.5481"N	80°46'20.6634"W	8691.34	149.076	2.55	0.95	-2.37	
15716.00	92.120	160.550	6449.37	8577.50	-7547.23	4495.78	1704755.98	14301147.83	39°22'55.6447"N	80°46'20.2927"W	8784.80	149.218	3.45	0.45	-3.43	
15811.00	90.740	158.980	6446.99	8672.42	-7636.33	4528.63	1704788.81	14301058.77	39°22'54.7632"N	80°46'19.8773"W	8878.18	149.331	2.20	-1.45	-1.65	
15905.00	91.380	158.140	6445.26	8766.26	-7723.81	4562.98	1704823.15	14300971.32	39°22'53.8977"N	80°46'19.4426"W	8970.96	149.427	1.12	0.68	-0.89	
15999.00	90.830	157.670	6443.44	8860.04	-7810.89	4598.33	1704858.49	14300884.28	39°22'53.0362"N	80°46'18.9952"W	9063.92	149.514	0.77	-0.59	-0.50	
16095.00	89.880	156.310	6442.85	8955.71	-7899.25	4635.85	1704896.00	14300795.95	39°22'52.1620"N	80°46'18.5202"W	9159.11	149.592	1.73	-0.99	-1.42	
16190.00	90.220	155.010	6442.76	9050.18	-7985.80	4675.01	1704935.14	14300709.43	39°22'51.3055"N	80°46'18.0244"W	9253.58	149.655	1.41	0.36	-1.37	
16284.00	90.490	157.370	6442.18	9143.74	-8071.80	4712.95	1704973.07	14300623.48	39°22'50.4547"N	80°46'17.5439"W	9346.97	149.720	2.53	0.29	2.51	
16380.00	90.060	158.620	6441.72	9239.54	-8160.80	4748.92	1705009.02	14300534.51	39°22'49.5741"N	80°46'17.0887"W	9441.97	149.804	1.38	-0.45	1.30	
16474.00	89.630	159.400	6441.98	9333.43	-8248.56	4782.59	1705042.68	14300446.78	39°22'48.7059"N	80°46'16.6627"W	9534.77	149.894	0.95	-0.46	0.83	
16569.00	89.480	160.740	6442.71	9428.39	-8337.87	4814.97	1705075.05	14300357.51	39°22'47.8224"N	80°46'16.2533"W	9628.29	149.994	1.42	-0.16	1.41	
16663.00	89.660	161.610	6443.42	9522.38	-8426.83	4845.30	1705105.37	14300268.58	39°22'46.9423"N	80°46'15.8699"W	9720.52	150.102	0.95	0.19	0.93	
16758.00	89.660	161.880	6443.98	9617.38	-8517.05	4875.06	1705135.11	14300178.40	39°22'46.0499"N	80°46'15.4938"W	9813.58	150.214	0.28	0.00	0.28	
16852.00	89.630	162.700	6444.57	9711.37	-8606.59	4903.66	1705163.69	14300088.89	39°22'45.1642"N	80°46'15.1326"W	9905.52	150.327	0.87	-0.03	0.87	
16947.00	89.540	162.940	6445.25	9806.35	-8697.35	4931.71	1705191.74	14299998.17	39°22'44.2665"N	80°46'14.7782"W	9998.29	150.445	0.27	-0.09	0.25	
17042.00	90.120	162.920	6445.54	9901.33	-8788.17	4959.60	1705219.62	14299907.39	39°22'43.3682"N	80°46'14.4260"W	10091.06	150.562	0.61	0.61	-0.02	
17137.00	90.250	164.270	6445.23	9996.27	-8879.30	4986.43	1705246.44	14299816.30	39°22'42.4669"N	80°46'14.0873"W	10183.63	150.682	1.43	0.14	1.42	
17231.00	90.680	165.000	6444.47	10090.14	-8969.93	5011.34	1705271.33	14299725.70	39°22'41.5704"N	80°46'13.7730"W	10274.88	150.809	0.90	0.46	0.78	
17326.00	90.650	164.470	6443.36	10185.00	-9061.58	5036.35	1705296.33	14299634.09	39°22'40.6641"N	80°46'13.4575"W	10367.11	150.935	0.56	-0.03	-0.56	
17420.00	90.800	163.450	6442.17	10278.92	-9151.91	5062.32	1705322.29	14299543.79	39°22'39.7706"N	80°46'13.1297"W	10458.70	151.051	1.10	0.16	-1.09	
17515.00	90.680	161.630	6440.95	10373.90	-9242.52	5090.82	1705350.78	14299453.22	39°22'38.8743"N	80°46'12.7697"W	10551.80	151.154	1.92	-0.13	-1.92	
17609.00	90.580	160.330	6439.91	10467.88	-9331.38	5121.45	1705381.40	14299364.39	39°22'37.9953"N	80°46'12.3825"W	10644.43	151.240	1.39	-0.11	-1.38	
17704.00	90.740	159.800	6438.82	10562.84	-9420.68	5153.84	1705413.78	14299275.13	39°22'37.1119"N	80°46'11.9730"W	10738.31	151.318	0.58	0.17	-0.56	
17798.00	90.770	158.240	6437.58	10656.73	-9508.44	5187.49	1705447.42	14299187.40	39°22'36.2437"N	80°46'11.5473"W	10831.46	151.385	1.66	0.03	-1.66	



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'

Page 9 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

WELLPATH DATA (218 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
17893.00	90.150	157.760	6436.82	10751.52	-9596.52	5223.08	1705482.99	14299099.36	39°22'35.3722"N	80°46'11.0970"W	10925.83	151.442	0.83	-0.65	-0.51	
17988.00	90.180	158.600	6436.54	10846.34	-9684.71	5258.39	1705518.28	14299011.20	39°22'34.4997"N	80°46'10.6502"W	11020.17	151.500	0.88	0.03	0.88	
18083.00	90.180	159.020	6436.25	10941.22	-9773.29	5292.72	1705552.61	14298922.66	39°22'33.6234"N	80°46'10.2158"W	11114.41	151.562	0.44	0.00	0.44	
18177.00	90.150	159.210	6435.97	11035.13	-9861.11	5326.23	1705586.11	14298834.87	39°22'32.7545"N	80°46'9.7920"W	11207.60	151.625	0.20	-0.03	0.20	
18272.00	89.290	160.940	6436.44	11130.09	-9950.42	5358.61	1705618.47	14298745.60	39°22'31.8710"N	80°46'9.3826"W	11301.57	151.696	2.03	-0.91	1.82	
18367.00	89.380	162.790	6437.54	11225.07	-10040.69	5388.17	1705648.02	14298655.37	39°22'30.9781"N	80°46'9.0091"W	11395.08	151.780	1.95	0.09	1.95	
18461.00	89.350	164.230	6438.58	11319.02	-10130.81	5414.85	1705674.69	14298565.28	39°22'30.0867"N	80°46'8.6723"W	11487.13	151.876	1.53	-0.03	1.53	
18487.00†	89.350	164.230	6438.88	11344.99	-10155.83	5421.92	1705681.75	14298540.27	39°22'29.8392"N	80°46'8.5831"W	11512.52	151.903	0.00	0.00	0.00	Projected MD at TD: 18487'

HOLE & CASING SECTIONS - Ref Wellbore: Mammoth Unit 1H AWB Ref Wellpath: Mammoth Unit 1H AWP Proj: 18487'

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	-0.16	-0.17
17.5in Open Hole	105.00	433.40	328.40	105.00	433.40	-0.16	-0.17	-0.45	-0.47
13.375in Casing Surface	25.00	433.40	408.40	25.00	433.40	0.00	0.00	-0.45	-0.47
12.25in Open Hole	433.40	2700.00	2266.60	433.40	2629.17	-0.45	-0.47	247.04	336.37
9.625in Casing Intermediate	25.00	2685.10	2660.10	25.00	2615.59	0.00	0.00	242.87	331.88
8.5in Open Hole	2700.00	18487.00	15787.00	2629.17	6438.88	247.04	336.37	-10155.83	5421.92
5.5in Casing Production	25.00	18487.00	18462.00	25.00	6438.88	0.00	0.00	-10155.83	5421.92



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'

Page 10 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Mammoth Unit 1H - POE - Rev-2	6424.00	648.67	1835.07	1702096.33	14309340.48	39°24'16.7139"N	80°46'53.9250"W	point
Mammoth Unit 1H - BHL - Rev-2	6450.00	-10114.32	5397.71	1705657.55	14298581.76	39°22'30.2501"N	80°46'8.8900"W	point
Mammoth Unit 1H - LP - Rev-2	6450.00	467.14	1895.16	1702156.40	14309159.01	39°24'14.9183"N	80°46'53.1651"W	point

WELLPATH COMPOSITION - Ref Wellbore: Mammoth Unit 1H AWB Ref Wellpath: Mammoth Unit 1H AWP Proj: 18487'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.00	350.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2">(100'-350')	Mammoth Unit 1H AWB	
350.00	657.00	Gyrodata 2015 - GC+WIR+DPIPE	02 Gyrodata MS Gyro <12-1/4">(350')(354'-657')	Mammoth Unit 1H AWB	
657.00	2630.00	BH NaviTrak (Axial)	03 APS EM <12-1/4">(657')(779'-2630')	Mammoth Unit 1H AWB	
2630.00	18487.00	BH AutoTrak Curve (2019) (Short spacing)	04 BH AT Curve <8-1/2">(2630')(2734'-18461')	Mammoth Unit 1H AWB	



Actual Wellpath Report

Mammoth Unit 1H AWP Proj: 18487'
Page 11 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Mammoth Unit 1H
Field	Tyler	API	47-095-02605-0000
Facility	Colorado East Pad	Wellbore	Mammoth Unit 1H AWB
Slot	Slot #06		

COMMENTS

Wellpath general comments

API: 47-095-02605-0000
BHI Job #: 110080411B
Rig: Patterson 342
Duration: 11/01/2019-12/14/2019
Gyrodatta MS Gyro <17-1/2">(100'-350')
Gyrodatta MS Gyro <12-1/4">(350')(354'-657')
APS EM <12-1/4">(657')(779'-2630')
BH AT Curve <8-1/2">(2630')(2734'-18461')
Middlesex: 6650' MD
Burkett: 6881' MD
Tully: 6952' MD
Marcellus POE: 7108' MD
Projected MD at TD: 18487'