



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #07
Area	Tyler County, WV	Treasury Unit 1H
Field	Tyler	Treasury Unit 1H AWB
Facility	Kirk Hadley 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	10/4/2019 at 2:48:39 PM
Convergence at slot	0.04° East	Database/Source file	WA_MPL_EasternUS_Defn/Treasury_Unit_1H_AWP_Proj_21584_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	59.13	10.14	1659530.79	14330638.93	39°27'47.968"N	80°55'56.196"W
Facility Reference Pt			1659520.65	14330579.82	39°27'47.384"N	80°55'56.326"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	937.00ft
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Ground Level at Slot (Slot #07)	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	341.06°



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Field	Tyler	Wellbore	Treasury Unit 1H AWB
Facility	Kirk Hadley Pad		

WELLPATH DATA (245 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00	0.00	307.390	0.00	0.00	0.00	0.00	1659530.79	14330638.93	39°27'47.968"N	80°55'56.196"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.00	307.390	25.00	0.00	0.00	0.00	1659530.79	14330638.93	39°27'47.968"N	80°55'56.196"W	0.00	0.000	0.00	0.00	0.00	
125.00	0.410	307.390	125.00	0.30	0.22	-0.28	1659530.50	14330639.15	39°27'47.970"N	80°55'56.200"W	0.36	307.390	0.41	0.41	0.41	Gyrodata MS Gyro <17-1/2">(125'-387')
225.00	0.340	301.570	225.00	0.82	0.59	-0.82	1659529.97	14330639.52	39°27'47.974"N	80°55'56.206"W	1.01	305.685	0.41	0.41	-0.15	-52.61
325.00	0.190	302.880	325.00	1.18	0.84	-1.21	1659529.57	14330639.76	39°27'47.976"N	80°55'56.211"W	1.47	304.541	0.15	0.15	-0.15	-5.82
387.00	0.170	309.700	387.00	1.34	0.95	-1.37	1659529.42	14330639.88	39°27'47.977"N	80°55'56.213"W	1.67	304.723	0.05	0.05	-0.03	11.00
447.00	0.300	276.670	447.00	1.49	1.02	-1.59	1659529.19	14330639.95	39°27'47.978"N	80°55'56.216"W	1.90	302.723	0.30	0.22	0.22	-55.05
537.00	0.260	288.540	537.00	1.71	1.12	-2.02	1659528.77	14330640.05	39°27'47.979"N	80°55'56.222"W	2.31	298.914	0.08	0.04	0.04	Gyrodata MS Gyro <12-1/4">(387'X447'-904')
627.00	0.260	173.460	626.99	1.64	0.98	-2.19	1659528.60	14330639.91	39°27'47.978"N	80°55'56.224"W	2.40	294.062	0.49	0.00	0.00	-127.87
719.00	1.860	115.510	718.98	0.39	0.13	-0.82	1659529.97	14330639.06	39°27'47.969"N	80°55'56.206"W	0.93	278.908	1.89	1.74	1.74	-62.95
810.00	3.760	107.490	809.86	-2.42	-1.40	3.36	1659534.14	14330637.53	39°27'47.954"N	80°55'56.153"W	3.64	112.695	2.13	2.03	2.03	-8.81
904.00	6.510	94.370	903.48	-6.36	-2.74	11.61	1659542.40	14330636.19	39°27'47.941"N	80°55'56.048"W	11.93	103.261	3.16	2.93	2.93	-13.96
1023.00	8.720	90.430	1021.42	-12.02	-3.32	27.36	1659558.14	14330635.61	39°27'47.935"N	80°55'55.847"W	27.56	96.918	1.91	1.86	-3.31	WFT EM <12-1/4">(904'X1023'-2596')
1118.00	10.420	91.330	1115.10	-17.38	-3.57	43.15	1659573.92	14330635.36	39°27'47.932"N	80°55'55.646"W	43.30	94.732	1.80	1.73	0.95	
1213.00	12.340	90.860	1208.23	-23.80	-3.92	61.89	1659592.66	14330635.01	39°27'47.929"N	80°55'55.407"W	62.02	93.628	2.02	2.02	-0.49	
1308.00	14.310	90.910	1300.66	-31.23	-4.26	83.78	1659614.54	14330634.67	39°27'47.925"N	80°55'55.128"W	83.89	92.913	2.07	2.07	0.05	
1401.00	15.530	88.920	1390.53	-38.95	-4.21	107.72	1659638.47	14330634.72	39°27'47.926"N	80°55'54.823"W	107.81	92.238	1.42	1.31	-2.14	
1496.00	16.430	86.250	1481.86	-46.37	-3.09	133.85	1659664.58	14330635.84	39°27'47.936"N	80°55'54.489"W	133.88	91.323	1.22	0.95	-2.81	
1591.00	16.300	85.310	1573.01	-53.17	-1.12	160.54	1659691.26	14330637.81	39°27'47.956"N	80°55'54.149"W	160.54	90.401	0.31	-0.14	-0.95	
1685.00	16.970	89.140	1663.08	-60.68	0.16	187.41	1659718.12	14330639.09	39°27'47.968"N	80°55'53.807"W	187.41	89.951	1.37	0.71	4.07	
1780.00	17.610	89.920	1753.78	-69.62	0.39	215.64	1659746.34	14330639.32	39°27'47.970"N	80°55'53.447"W	215.64	89.897	0.72	0.67	0.82	
1875.00	19.890	89.010	1843.74	-79.25	0.69	246.17	1659776.86	14330639.62	39°27'47.973"N	80°55'53.057"W	246.17	89.840	2.42	2.40	-0.96	
1970.00	20.690	84.860	1932.84	-88.23	2.47	279.05	1659809.72	14330641.40	39°27'47.990"N	80°55'52.638"W	279.06	89.493	1.73	0.84	-4.37	
2064.00	17.910	83.050	2021.55	-95.20	5.71	309.94	1659840.60	14330644.84	39°27'48.022"N	80°55'52.244"W	309.99	88.945	3.02	-2.96	-1.93	
2159.00	15.440	87.460	2112.56	-101.81	8.04	337.08	1659867.73	14330646.96	39°27'48.045"N	80°55'51.898"W	337.17	88.634	2.92	-2.60	4.64	
2253.00	17.090	94.130	2202.80	-110.75	7.60	363.36	1659894.00	14330646.52	39°27'48.040"N	80°55'51.583"W	363.44	88.802	2.65	1.76	7.10	
2348.00	20.160	94.100	2292.81	-122.63	5.42	393.62	1659924.25	14330644.35	39°27'48.019"N	80°55'51.177"W	393.65	89.211	3.23	3.23	-0.03	
2443.00	20.410	89.740	2381.93	-134.35	4.33	426.51	1659957.13	14330643.25	39°27'48.008"N	80°55'50.758"W	426.53	89.419	1.61	0.26	-4.59	
2538.00	18.910	90.000	2471.39	-144.65	4.40	458.47	1659989.08	14330643.33	39°27'48.008"N	80°55'50.350"W	458.49	89.450	1.58	-1.58	0.27	
2596.00	16.840	93.570	2526.58	-150.92	3.88	476.26	1660006.85	14330642.81	39°27'48.003"N	80°55'50.124"W	476.27	89.534	4.04	-3.57	6.16	



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Operator	Slot #07
ANTERO RESOURCES CORPORATION	Treasury Unit 1H
Tyler County, WV	Treasury Unit 1H AWB
Tyler	
Kirk Hadley Pad	

WELLPATH DATA (245 stations)

MID (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
2762.00	17.12	89.240	2685.35	-167.74	2.70	524.69	1660055.27	14330641.63	39°27'47.991"N	80°55'49.506"W	524.70	89.705	0.78	0.17	-2.61	WFT EM -8-3/4" > 2596' (2762-5983')
2857.00	19.67	94.530	2775.50	-178.48	1.63	554.62	1660085.18	14330640.56	39°27'47.980"N	80°55'49.125"W	554.62	89.832	3.21	2.68	5.57	
2952.00	18.96	91.400	2865.15	-190.21	-0.01	585.99	1660116.54	14330638.92	39°27'47.963"N	80°55'48.725"W	585.99	90.001	1.32	-0.75	-3.29	
3047.00	18.40	96.280	2955.15	-201.96	-2.03	616.32	1660146.86	14330636.90	39°27'47.943"N	80°55'48.338"W	616.32	90.189	1.75	-0.59	-5.14	
3141.00	16.25	90.240	3044.89	-212.61	-3.71	644.22	1660174.75	14330635.22	39°27'47.926"N	80°55'47.982"W	644.23	90.330	2.98	-2.29	-6.43	
3236.00	16.39	88.130	3136.06	-220.91	-3.33	670.91	1660201.43	14330635.60	39°27'47.930"N	80°55'47.842"W	670.92	90.284	0.84	0.15	-2.22	
3330.00	18.21	89.340	3225.81	-229.41	-2.73	698.86	1660229.36	14330636.21	39°27'47.936"N	80°55'47.286"W	698.86	90.223	1.97	1.94	1.29	
3425.00	20.21	91.290	3315.52	-239.74	-2.92	730.11	1660260.60	14330636.01	39°27'47.934"N	80°55'46.987"W	730.11	90.229	2.21	2.11	2.05	
3520.00	18.77	87.260	3405.07	-249.68	-2.56	761.78	1660292.26	14330636.37	39°27'47.937"N	80°55'46.483"W	761.79	90.193	2.07	-1.52	-4.24	
3615.00	19.97	87.674	3494.69	-258.58	-1.17	793.26	1660323.73	14330637.76	39°27'47.950"N	80°55'46.082"W	793.26	90.085	1.27	1.26	0.43	
3710.00	21.30	93.570	3583.61	-269.83	-1.59	826.69	1660357.15	14330637.34	39°27'47.946"N	80°55'45.655"W	826.70	90.110	2.60	1.40	6.21	
3804.00	19.92	93.600	3671.59	-282.50	-3.66	859.72	1660390.16	14330635.28	39°27'47.925"N	80°55'45.235"W	859.72	90.244	1.47	-1.47	0.03	
3899.00	17.48	91.470	3761.57	-293.68	-5.04	890.14	1660420.57	14330633.89	39°27'47.911"N	80°55'44.847"W	890.15	90.324	2.67	-2.57	-2.24	
3993.00	17.80	88.980	3851.15	-303.03	-5.14	918.62	1660449.03	14330633.79	39°27'47.910"N	80°55'44.484"W	918.63	90.321	0.87	0.34	-2.65	
4090.00	18.63	91.600	3943.29	-313.03	-5.31	948.93	1660479.33	14330633.62	39°27'47.908"N	80°55'44.097"W	948.94	90.321	1.20	0.86	2.70	
4185.00	16.22	88.410	4033.93	-322.31	-5.37	977.36	1660507.76	14330633.56	39°27'47.907"N	80°55'43.735"W	977.38	90.315	2.73	-2.54	-3.36	
4279.00	17.33	89.880	4123.92	-330.74	-4.98	1004.49	1660534.87	14330633.96	39°27'47.911"N	80°55'43.389"W	1004.50	90.284	1.26	1.18	1.56	
4374.00	18.77	91.740	4214.25	-340.70	-5.41	1033.92	1660564.29	14330633.52	39°27'47.907"N	80°55'43.014"W	1033.93	90.300	1.63	1.52	1.96	
4468.00	19.34	91.810	4303.10	-351.56	-6.36	1064.59	1660594.95	14330632.57	39°27'47.897"N	80°55'42.622"W	1064.61	90.342	0.61	0.61	0.07	
4563.00	17.27	87.500	4393.29	-361.12	-6.24	1094.41	1660624.75	14330632.69	39°27'47.898"N	80°55'42.242"W	1094.42	90.327	2.60	-2.18	-4.54	
4657.00	17.60	89.870	4482.97	-369.66	-5.60	1122.56	1660652.89	14330633.33	39°27'47.904"N	80°55'41.883"W	1122.57	90.286	0.83	0.35	2.52	
4752.00	18.85	93.010	4573.21	-380.02	-6.37	1152.25	1660682.57	14330632.56	39°27'47.896"N	80°55'41.505"W	1152.27	90.317	1.67	1.32	3.31	
4846.00	16.39	90.070	4662.79	-390.02	-7.19	1180.68	1660710.99	14330631.74	39°27'47.888"N	80°55'41.142"W	1180.70	90.349	2.78	-2.62	-3.13	
4944.00	17.51	89.710	4753.66	-398.96	-7.13	1208.37	1660738.68	14330631.80	39°27'47.888"N	80°55'40.789"W	1208.40	90.338	1.18	1.18	-0.38	
5036.00	18.97	90.880	4843.89	-408.76	-7.30	1238.11	1660768.40	14330631.64	39°27'47.886"N	80°55'40.410"W	1238.13	90.338	1.58	1.54	1.23	
5130.00	21.22	89.780	4932.16	-419.41	-7.47	1270.40	1660800.68	14330631.47	39°27'47.884"N	80°55'39.998"W	1270.42	90.337	2.43	2.39	-1.17	
5224.00	20.62	95.760	5019.97	-431.78	-9.06	1303.88	1660834.15	14330629.87	39°27'47.868"N	80°55'39.572"W	1303.91	90.398	2.36	-0.64	6.36	
5319.00	17.19	93.610	5109.84	-444.16	-11.63	1334.55	1660864.80	14330627.31	39°27'47.843"N	80°55'39.181"W	1334.60	90.499	3.68	-3.61	-2.26	
5414.00	16.73	90.740	5200.71	-454.15	-12.69	1362.23	1660892.47	14330626.25	39°27'47.832"N	80°55'38.828"W	1362.29	90.534	1.01	-0.48	-3.02	
5509.00	18.18	91.774	5291.33	-464.00	-13.32	1390.72	1660920.95	14330625.61	39°27'47.826"N	80°55'38.464"W	1390.78	90.549	1.56	1.53	1.08	



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5603.00	18.460	89.370	5380.57	-473.86	-13.61	1420.26	1660950.47	14330625.32	39°27'47.823"N	80°55'38.088"W	1420.32	90.549	0.86	0.30	-2.55	
5698.00	19.110	73.890	5470.56	-479.35	-9.13	1450.25	1660980.46	14330629.81	39°27'47.867"N	80°55'37.705"W	1450.28	90.361	5.28	0.68	-16.29	
5743.00	19.080	61.460	5513.10	-478.49	-3.57	1463.80	1660994.00	14330635.36	39°27'47.921"N	80°55'37.533"W	1463.80	90.140	9.02	-0.07	-27.62	
5793.00	18.940	44.760	5560.41	-473.53	6.11	1476.70	1661006.90	14330645.03	39°27'48.017"N	80°55'37.368"W	1476.71	89.763	10.85	-0.28	-33.40	
5838.00	19.550	34.090	5602.91	-465.76	17.53	1486.07	1661016.26	14330656.45	39°27'48.130"N	80°55'37.248"W	1486.17	89.324	7.92	1.36	-23.71	
5888.00	20.700	29.470	5649.86	-454.86	32.15	1495.10	1661025.29	14330671.07	39°27'48.274"N	80°55'37.133"W	1495.45	88.768	3.92	2.30	-9.24	
5933.00	23.070	21.930	5691.62	-442.91	47.26	1502.31	1661032.50	14330686.17	39°27'48.424"N	80°55'37.041"W	1503.05	88.198	8.16	5.27	-16.76	
5983.00	26.340	16.930	5737.04	-426.51	66.97	1509.20	1661039.38	14330709.57	39°27'48.571"N	80°55'36.953"W	1510.69	87.459	7.76	6.54	-10.00	
6036.00	28.710	11.580	5784.05	-406.01	90.70	1515.18	1661045.36	14330725.87	39°27'48.853"N	80°55'36.876"W	1517.90	86.574	6.46	4.47	-10.00	BH AT Curve <-8-1/2> (5983' (6036'-21560'))
6089.00	29.720	5.610	5830.32	-383.09	116.25	1519.02	1661049.20	14330755.13	39°27'49.105"N	80°55'36.827"W	1523.47	85.624	5.82	1.91	-11.26	
6184.00	33.990	353.210	5911.08	-335.64	166.13	1518.19	1661048.36	14330804.99	39°27'49.598"N	80°55'36.837"W	1527.25	83.755	8.21	4.49	-13.05	
6235.00	37.850	346.710	5952.39	-306.11	195.53	1512.90	1661043.08	14330834.39	39°27'49.889"N	80°55'36.904"W	1525.48	82.636	10.63	7.57	-12.75	
6279.00	41.340	342.960	5986.29	-278.14	222.58	1505.53	1661035.72	14330861.42	39°27'50.156"N	80°55'36.996"W	1521.90	81.590	9.61	7.93	-8.52	
6326.00	45.170	341.580	6020.52	-245.94	253.24	1495.72	1661025.90	14330892.07	39°27'50.459"N	80°55'37.123"W	1517.00	80.390	8.39	8.15	-2.94	
6373.00	49.680	340.320	6052.31	-211.34	285.94	1484.41	1661014.60	14330924.76	39°27'50.783"N	80°55'37.267"W	1511.70	79.097	9.80	9.60	-2.68	
6374.00†	49.784	340.313	6052.95	-210.58	286.66	1484.15	1661014.34	14330925.48	39°27'50.790"N	80°55'37.270"W	1511.58	79.068	10.44	10.42	-0.63	Middlesex: 6374' MD
6420.00	54.580	340.020	6081.15	-174.26	320.83	1471.82	1661002.02	14330959.63	39°27'51.128"N	80°55'37.427"W	1506.39	77.703	10.44	10.43	-0.64	
6469.00	59.480	339.670	6107.81	-133.17	359.41	1457.66	1660987.86	14330998.20	39°27'51.509"N	80°55'37.607"W	1501.32	76.149	10.02	10.00	-0.71	
6516.00	64.000	339.630	6130.05	-91.80	398.22	1443.27	1660973.48	14331036.99	39°27'51.893"N	80°55'37.790"W	1497.20	74.575	9.62	9.62	-0.09	
6537.00†	65.658	339.803	6136.99	-72.80	416.04	1436.68	1660966.89	14331054.81	39°27'52.069"N	80°55'37.874"W	1495.71	73.850	7.93	7.90	0.83	Burkett: 6537' MD
6564.00	67.790	340.030	6149.65	-48.00	439.34	1428.17	1660958.38	14331078.09	39°27'52.299"N	80°55'37.982"W	1494.21	72.901	7.93	7.90	0.82	
6594.00†	69.758	341.592	6160.52	-20.04	465.75	1418.98	1660949.19	14331104.49	39°27'52.560"N	80°55'38.099"W	1493.46	71.829	8.16	6.56	5.21	Tully: 6594' MD
6611.00	70.880	342.460	6166.24	-4.03	480.97	1414.04	1660944.26	14331119.71	39°27'52.711"N	80°55'38.162"W	1493.60	71.215	8.16	6.60	5.10	
6647.00†	72.776	344.683	6177.47	30.13	513.78	1404.37	1660934.59	14331152.50	39°27'53.035"N	80°55'38.285"W	1493.40	69.905	7.89	5.27	6.19	Marcellus POE: 6647' MD
6658.00	73.360	345.360	6180.67	40.63	523.94	1401.65	1660931.88	14331162.66	39°27'53.136"N	80°55'38.319"W	1496.38	69.504	7.89	5.31	6.11	
6705.00	76.330	347.450	6192.96	85.79	568.03	1391.00	1660921.22	14331206.73	39°27'53.571"N	80°55'38.455"W	1502.51	67.787	7.64	6.32	4.45	
6753.00	80.380	348.460	6202.65	132.45	614.00	1381.19	1660911.42	14331252.68	39°27'54.026"N	80°55'38.579"W	1511.52	66.033	8.69	8.44	2.10	
6800.00	83.590	347.660	6209.20	178.64	659.53	1371.56	1660901.80	14331298.19	39°27'54.476"N	80°55'38.702"W	1521.89	64.319	7.03	6.83	-1.70	
6849.00	89.260	346.350	6212.25	227.26	707.16	1360.57	1660890.81	14331345.80	39°27'54.947"N	80°55'38.841"W	1533.37	62.537	11.87	11.57	-2.67	
6944.00	89.780	342.890	6213.05	322.06	798.74	1335.38	1660865.63	14331437.35	39°27'55.852"N	80°55'39.162"W	1556.02	59.115	3.68	0.55	-3.64	



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Treasury Unit 1H
Tyler County, WV	Wellbore	Treasury Unit 1H AWB
Tyler		
Kirk Hadley Pad		

WELLPATH DATA (245 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (°/100ft)	Comments
7038.00	89.940	340.000	6213.28	416.05	887.84	1305.47	1660835.73	14331826.41	39°27'56.733"N	80°55'39.542"W	1578.77	55.781	3.08	0.17	-3.07	
7133.00	89.970	339.160	6213.35	511.01	976.87	1272.32	1660802.60	14331615.41	39°27'57.613"N	80°55'39.964"W	1604.08	52.483	0.88	0.03	-0.88	
7226.00	90.280	338.900	6213.15	603.96	1063.71	1239.04	1660769.33	14331702.21	39°27'58.472"N	80°55'40.387"W	1633.00	49.354	0.44	0.33	-0.28	
7322.00	90.620	338.080	6212.40	699.86	1153.02	1203.84	1660734.15	14331791.49	39°27'59.355"N	80°55'40.835"W	1666.94	46.235	0.92	0.35	-0.85	
7417.00	90.680	336.470	6211.32	794.64	1240.64	1167.15	1660697.46	14331879.07	39°28'00.221"N	80°55'41.302"W	1703.35	43.252	1.70	0.06	-1.68	
7513.00	89.970	337.730	6210.78	890.41	1329.07	1129.79	1660660.13	14331967.46	39°28'01.095"N	80°55'41.776"W	1744.38	40.367	1.51	-0.74	1.31	
7609.00	90.340	336.380	6210.52	986.17	1417.47	1092.37	1660622.72	14332055.83	39°28'01.969"N	80°55'42.254"W	1789.55	37.619	1.46	0.33	-1.41	
7704.00	89.880	337.560	6210.33	1080.92	1504.90	1055.20	1660585.57	14332143.22	39°28'02.833"N	80°55'42.727"W	1837.98	35.037	1.33	-0.48	1.24	
7799.00	89.850	339.450	6210.56	1175.83	1593.28	1020.39	1660550.77	14332231.57	39°28'03.707"N	80°55'43.170"W	1892.03	32.637	1.99	-0.03	1.98	
7894.00	90.280	341.830	6210.45	1270.82	1682.91	988.90	1660519.29	14332321.16	39°28'04.593"N	80°55'43.570"W	1951.95	30.439	2.55	0.45	2.51	
7988.00	90.430	344.190	6209.87	1364.75	1772.80	961.44	1660491.84	14332411.01	39°28'05.482"N	80°55'43.920"W	2016.72	28.472	2.52	0.16	2.51	
8082.00	90.250	344.080	6209.31	1458.62	1863.21	935.74	1660466.15	14332501.39	39°28'06.376"N	80°55'44.247"W	2084.99	26.667	0.22	-0.13	-0.12	
8177.00	90.340	343.510	6208.82	1553.51	1954.44	909.23	1660439.65	14332592.58	39°28'07.278"N	80°55'44.584"W	2155.58	24.948	0.61	0.09	-0.60	
8272.00	90.430	342.340	6208.18	1648.45	2045.25	881.34	1660411.77	14332683.35	39°28'08.175"N	80°55'44.938"W	2227.06	23.312	1.24	0.03	-1.23	
8366.00	90.400	341.420	6207.50	1742.44	2134.58	852.10	1660382.55	14332772.65	39°28'09.068"N	80°55'45.310"W	2298.37	21.761	0.98	-0.03	-0.98	
8461.00	90.490	341.290	6206.76	1837.43	2224.59	821.73	1660352.19	14332862.63	39°28'09.948"N	80°55'45.697"W	2371.51	20.274	0.17	0.03	-0.14	
8556.00	90.830	340.360	6205.67	1932.43	2314.31	790.53	1660321.00	14332952.32	39°28'10.835"N	80°55'46.094"W	2445.61	18.859	1.04	0.36	-0.98	
8651.00	90.250	339.030	6204.77	2027.39	2403.41	757.57	1660288.05	14333041.37	39°28'11.716"N	80°55'46.513"W	2519.97	17.495	1.53	-0.61	-1.40	
8745.00	90.340	339.070	6204.29	2121.33	2491.19	723.96	1660254.46	14333129.12	39°28'12.584"N	80°55'46.941"W	2594.25	16.204	0.10	0.10	0.04	
8840.00	90.310	338.250	6203.75	2216.25	2579.67	689.39	1660219.90	14333217.57	39°28'13.459"N	80°55'47.381"W	2670.20	14.962	0.86	-0.03	-0.86	
8934.00	90.310	340.550	6203.24	2310.20	2667.66	656.32	1660186.84	14333305.52	39°28'14.329"N	80°55'47.801"W	2747.21	13.822	2.45	0.00	2.45	
9029.00	90.090	341.760	6202.91	2405.20	2757.56	625.63	1660156.17	14333395.38	39°28'15.217"N	80°55'48.192"W	2827.64	12.783	1.29	-0.23	1.27	
9124.00	89.450	343.820	6203.29	2500.15	2848.30	597.53	1660128.07	14333486.09	39°28'16.114"N	80°55'48.549"W	2910.30	11.848	2.27	-0.67	2.17	
9218.00	90.370	347.550	6203.44	2593.82	2939.37	574.29	1660104.85	14333577.12	39°28'17.015"N	80°55'48.845"W	2994.94	11.055	4.09	0.98	3.97	
9312.00	90.310	347.850	6202.88	2687.19	3031.21	554.27	1660084.83	14333668.92	39°28'17.922"N	80°55'49.099"W	3081.47	10.362	0.33	-0.06	0.32	
9408.00	90.280	346.170	6202.39	2782.67	3124.75	532.69	1660063.26	14333762.42	39°28'18.847"N	80°55'49.373"W	3169.83	9.674	1.75	-0.03	-1.75	
9503.00	90.250	344.500	6201.95	2877.40	3216.65	508.64	1660039.22	14333854.28	39°28'19.756"N	80°55'49.679"W	3256.61	8.986	1.76	-0.03	-1.76	
9597.00	90.400	343.550	6201.41	2971.27	3307.01	482.77	1660013.36	14333944.62	39°28'20.649"N	80°55'50.008"W	3342.07	8.306	1.02	0.16	-1.01	
9692.00	90.340	340.970	6200.80	3066.24	3397.49	453.82	1659984.43	14334035.05	39°28'21.543"N	80°55'50.376"W	3427.66	7.608	2.72	-0.06	-2.72	
9786.00	90.340	341.230	6200.24	3160.24	3486.42	423.38	1659953.99	14334123.95	39°28'22.423"N	80°55'50.764"W	3512.03	6.924	0.28	0.00	0.28	



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Treasury Unit 1H
Field	Tyler	Wellbore	Treasury Unit 1H AWB
Facility	Kirk Hadley Pad		

WELLPATH DATA (245 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 (1/100ft)	Build Rate (1/100ft)	Turn Rate (°/100ft)	Comments
9882.00	89.910	341.960	6200.03	3256.24	3577.51	393.07	1659923.70	14334215.00	39°28'23.323"N	80°55'51.149"W	3599.03	6.270	0.88	-0.45	0.76	
9976.00	90.400	342.470	6199.78	3350.22	3667.01	364.36	1659895.00	14334304.47	39°28'24.208"N	80°55'51.515"W	3685.07	5.674	0.75	0.52	0.54	
10072.00	90.120	343.430	6199.34	3446.16	3758.79	336.21	1659866.86	14334396.21	39°28'25.115"N	80°55'51.873"W	3773.80	5.111	1.04	-0.29	1.00	
10167.00	90.340	344.120	6198.96	3541.05	3850.01	309.66	1659840.33	14334487.39	39°28'26.017"N	80°55'52.210"W	3862.44	4.599	0.76	0.23	0.73	
10262.00	90.150	343.700	6198.56	3635.93	3941.28	283.34	1659814.01	14334578.63	39°28'26.919"N	80°55'52.545"W	3951.46	4.112	0.49	-0.20	-0.44	
10357.00	90.370	344.380	6198.12	3730.80	4032.62	257.21	1659787.90	14334669.93	39°28'27.822"N	80°55'52.877"W	4040.82	3.650	0.75	0.23	0.72	
10452.00	90.430	344.190	6197.46	3825.65	4124.07	231.48	1659762.18	14334761.34	39°28'28.726"N	80°55'53.205"W	4130.56	3.213	0.21	0.06	-0.20	
10548.00	90.220	343.910	6196.92	3921.52	4216.37	205.10	1659735.81	14334853.61	39°28'29.639"N	80°55'53.540"W	4221.36	2.785	0.36	-0.22	-0.29	
10643.00	90.340	343.650	6196.45	4016.41	4307.59	178.57	1659709.28	14334944.79	39°28'30.540"N	80°55'53.878"W	4311.29	2.374	0.30	0.13	-0.27	
10737.00	90.550	343.500	6195.72	4110.32	4397.75	151.99	1659682.72	14335034.91	39°28'31.432"N	80°55'54.216"W	4400.37	1.979	0.27	0.22	-0.16	
10833.00	90.370	342.850	6194.95	4206.25	4489.64	124.20	1659654.94	14335126.76	39°28'32.340"N	80°55'54.569"W	4491.35	1.585	0.70	-0.19	-0.68	
10928.00	90.490	342.940	6194.24	4301.20	4580.43	96.26	1659627.01	14335217.52	39°28'33.238"N	80°55'54.925"W	4581.44	1.204	0.16	0.13	0.09	
11024.00	90.520	342.140	6193.39	4397.16	4672.00	67.46	1659598.22	14335309.06	39°28'34.143"N	80°55'55.291"W	4672.49	0.827	0.83	0.03	-0.83	
11118.00	90.400	340.430	6192.64	4491.15	4761.03	37.30	1659568.07	14335398.05	39°28'35.023"N	80°55'55.675"W	4761.17	0.449	1.82	-0.13	-1.82	
11213.00	90.340	338.550	6192.02	4586.11	4850.00	4.02	1659534.80	14335486.98	39°28'35.903"N	80°55'56.098"W	4850.00	0.047	1.98	-0.06	-1.98	
11307.00	90.430	337.900	6191.39	4679.99	4937.29	-30.85	1659499.95	14335574.24	39°28'36.765"N	80°55'56.542"W	4937.39	359.642	0.70	0.10	-0.69	
11402.00	90.460	338.260	6190.66	4774.86	5025.42	-66.31	1659464.50	14335662.33	39°28'37.637"N	80°55'56.994"W	5025.86	359.244	0.38	0.03	0.38	
11498.00	91.420	338.800	6189.08	4870.86	5114.74	-101.45	1659429.38	14335751.62	39°28'38.520"N	80°55'57.441"W	5115.75	358.864	1.15	1.00	0.56	
11592.00	90.400	337.710	6187.59	4964.63	5202.04	-136.27	1659394.58	14335838.88	39°28'39.363"N	80°55'57.884"W	5203.83	358.499	1.59	-1.09	-1.16	
11686.00	90.340	336.690	6186.98	5058.41	5288.69	-172.69	1659358.17	14335925.50	39°28'40.240"N	80°55'58.348"W	5291.51	358.130	1.09	-0.06	-1.09	
11781.00	89.970	336.600	6186.72	5153.13	5375.91	-210.35	1659320.52	14336012.68	39°28'41.102"N	80°55'58.827"W	5380.02	357.759	0.40	-0.39	-0.09	
11875.00	90.650	341.200	6186.21	5247.03	5463.58	-244.18	1659286.70	14336100.32	39°28'41.969"N	80°55'59.258"W	5469.04	357.441	4.95	0.72	4.89	
11970.00	90.090	342.390	6185.60	5342.02	5553.82	-273.86	1659257.04	14336190.52	39°28'42.861"N	80°55'59.635"W	5560.57	357.177	1.38	-0.59	1.25	
12065.00	89.910	345.150	6185.00	5436.91	5645.03	-300.41	1659230.50	14336281.69	39°28'43.762"N	80°55'59.973"W	5653.02	356.954	2.91	-0.19	2.91	
12160.00	90.310	348.170	6185.42	5531.44	5737.45	-322.33	1659208.59	14336374.08	39°28'44.676"N	80°56'00.252"W	5746.50	356.785	3.21	0.42	3.18	
12255.00	91.080	348.760	6184.27	5625.84	5830.16	-342.94	1659187.98	14336466.77	39°28'45.593"N	80°56'00.514"W	5840.26	356.634	1.69	0.81	-1.48	
12349.00	90.680	342.830	6182.82	5719.61	5920.86	-367.59	1659163.35	14336557.41	39°28'46.489"N	80°56'00.827"W	5932.26	356.447	4.20	-0.43	-4.18	
12443.00	90.580	340.440	6181.79	5813.59	6010.06	-397.20	1659133.75	14336646.58	39°28'47.371"N	80°56'01.204"W	6023.17	356.219	2.54	-0.11	-2.54	
12538.00	91.230	338.770	6180.29	5908.55	6099.09	-430.30	1659100.66	14336735.57	39°28'48.251"N	80°56'01.625"W	6114.25	355.964	1.89	0.68	-1.76	
12633.00	90.680	334.790	6178.70	6003.25	6186.37	-467.74	1659063.23	14336822.81	39°28'49.114"N	80°56'02.102"W	6204.02	355.676	4.23	-0.58	-4.19	



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Treasury Unit 1H
Field	Tyler	Wellbore	Treasury Unit 1H AWB
Facility	Kirk Hadley Pad		

WELLPATH DATA (245 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 (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
12729.00	90.890	336.090	6177.39	6098.78	6273.67	-507.64	1659023.35	14336910.08	39°28'49.97"N	80°56'02.61"W	6294.17	355.374	1.37	0.22	0.22	1.35
12824.00	90.800	332.900	6175.99	6193.13	6359.39	-548.54	1658982.47	14336995.77	39°28'50.824"N	80°56'03.131"W	6383.00	355.070	3.36	-0.09	-3.36	-3.36
12919.00	90.740	331.900	6174.71	6287.04	6443.57	-592.55	1658938.48	14337079.91	39°28'51.657"N	80°56'03.691"W	6470.76	354.746	1.05	-0.06	-1.05	-1.05
13015.00	90.580	331.870	6173.60	6381.80	6528.24	-637.78	1658893.26	14337164.55	39°28'52.494"N	80°56'04.287"W	6559.32	354.420	0.17	-0.17	-0.03	-0.03
13110.00	90.220	333.930	6172.94	6475.83	6612.80	-681.06	1658850.01	14337249.08	39°28'53.330"N	80°56'04.818"W	6647.78	354.120	2.20	-0.38	2.17	2.17
13206.00	90.370	334.420	6172.45	6571.14	6699.21	-722.88	1658808.20	14337335.45	39°28'54.184"N	80°56'05.351"W	6738.10	353.841	0.53	0.16	0.51	0.51
13303.00	90.620	338.710	6171.61	6667.82	6788.19	-761.44	1658769.65	14337424.39	39°28'55.064"N	80°56'05.842"W	6830.76	353.600	4.43	0.26	4.42	4.42
13399.00	90.370	344.650	6170.78	6763.76	6879.28	-791.60	1658739.50	14337515.44	39°28'55.964"N	80°56'06.226"W	6924.67	353.436	6.19	-0.26	6.19	6.19
13493.00	90.620	343.880	6169.97	6857.61	6969.75	-817.09	1658714.02	14337605.88	39°28'56.859"N	80°56'06.550"W	7017.48	353.313	0.86	0.27	-0.82	-0.82
13588.00	90.620	344.450	6168.94	6952.47	7061.14	-843.01	1658688.11	14337697.23	39°28'57.762"N	80°56'06.880"W	7111.28	353.192	0.60	0.00	0.60	0.60
13684.00	90.620	344.650	6167.90	7048.28	7153.67	-868.59	1658662.55	14337789.72	39°28'58.677"N	80°56'07.205"W	7206.20	353.077	0.21	0.00	0.21	0.21
13779.00	90.460	345.930	6167.00	7143.02	7245.55	-892.71	1658638.44	14337881.57	39°28'59.586"N	80°56'07.512"W	7300.33	352.976	1.36	-0.17	1.35	1.35
13874.00	90.340	345.580	6166.34	7237.70	7337.62	-916.08	1658615.07	14337973.61	39°29'00.495"N	80°56'07.809"W	7394.59	352.884	0.39	-0.13	-0.37	-0.37
13970.00	90.250	342.520	6165.85	7333.55	7429.91	-942.46	1658588.70	14338065.86	39°29'01.408"N	80°56'08.145"W	7489.45	352.771	3.19	-0.05	-3.19	-3.19
14065.00	90.090	341.040	6165.56	7428.54	7520.15	-972.16	1658559.01	14338156.06	39°29'02.300"N	80°56'08.523"W	7582.73	352.634	1.57	-0.17	-1.56	-1.56
14160.00	90.250	339.410	6165.28	7523.53	7609.54	-1004.30	1658526.89	14338245.42	39°29'03.183"N	80°56'08.932"W	7675.53	352.482	1.72	0.17	-1.72	-1.72
14255.00	90.370	338.820	6164.77	7618.47	7698.30	-1038.17	1658493.03	14338334.14	39°29'04.061"N	80°56'09.363"W	7767.99	352.320	0.63	0.13	-0.62	-0.62
14350.00	90.140	339.700	6164.18	7713.42	7787.14	-1071.81	1658459.41	14338422.94	39°29'04.939"N	80°56'09.791"W	7860.56	352.163	0.93	-0.03	0.93	0.93
14445.00	90.150	338.020	6163.77	7808.35	7875.74	-1106.07	1658425.16	14338511.51	39°29'05.815"N	80°56'10.227"W	7953.03	352.006	1.78	-0.20	-1.77	-1.77
14539.00	90.180	336.300	6163.50	7902.13	7962.37	-1142.56	1658388.69	14338598.10	39°29'06.672"N	80°56'10.692"W	8043.93	351.834	1.83	0.03	-1.83	-1.83
14635.00	90.120	336.070	6163.25	7997.78	8050.19	-1181.32	1658349.94	14338685.89	39°29'07.540"N	80°56'11.185"W	8136.41	351.652	0.25	-0.06	-0.24	-0.24
14733.00	90.250	337.410	6162.94	8095.50	8140.23	-1220.02	1658311.26	14338775.89	39°29'08.430"N	80°56'11.678"W	8231.14	351.476	1.37	0.13	1.37	1.37
14825.00	90.310	338.760	6162.49	8187.37	8225.58	-1254.36	1658276.94	14338861.20	39°29'09.274"N	80°56'12.115"W	8320.67	351.330	1.47	0.07	1.47	1.47
14919.00	90.250	340.510	6162.03	8281.34	8313.70	-1287.07	1658244.24	14338949.29	39°29'10.145"N	80°56'12.532"W	8412.73	351.200	1.86	-0.06	-1.86	-1.86
15014.00	90.000	341.420	6161.82	8376.34	8403.50	-1318.05	1658213.27	14339039.06	39°29'11.033"N	80°56'12.926"W	8506.24	351.086	0.99	-0.26	0.96	0.96
15109.00	90.250	342.730	6161.61	8471.32	8493.89	-1347.29	1658184.04	14339129.41	39°29'11.926"N	80°56'13.298"W	8600.07	350.987	1.40	0.26	1.38	1.38
15204.00	89.910	341.640	6161.48	8566.30	8584.33	-1376.35	1658154.99	14339219.81	39°29'12.820"N	80°56'13.668"W	8693.97	350.891	1.20	-0.36	-1.15	-1.15
15300.00	90.370	343.790	6161.24	8662.25	8675.99	-1404.87	1658126.48	14339311.43	39°29'13.726"N	80°56'14.031"W	8789.00	350.802	2.29	0.48	2.24	2.24
15395.00	90.090	346.250	6160.86	8757.02	8767.75	-1429.43	1658101.94	14339403.16	39°29'14.633"N	80°56'14.344"W	8883.51	350.740	2.61	-0.23	2.59	2.59
15490.00	90.310	348.050	6160.53	8851.48	8860.37	-1450.55	1658080.82	14339495.74	39°29'15.549"N	80°56'14.612"W	8978.32	350.702	1.91	0.23	1.89	1.89



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Treasury Unit 1H
Field	Tyler	Wellbore	Treasury Unit 1H AWB
Facility	Kirk Hatley Pad		

WELLPATH DATA (245 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
15585.00	90.400	351.700	6159.94	8945.34	8953.87	-1467.25	1658064.13	14333583.21	39°29'16.473"N	80°56'14.824"W	9073.29	350.694	3.84	0.09	3.84	
15680.00	90.520	353.850	6159.18	9038.35	9048.11	-1479.20	1658052.18	14339683.40	39°29'17.405"N	80°56'14.976"W	9168.22	350.715	2.27	0.13	2.26	
15774.00	90.340	353.680	6158.47	9130.05	9141.55	-1489.41	1658041.98	14339778.81	39°29'18.328"N	80°56'15.105"W	9262.09	350.746	0.26	-0.19	-0.18	
15872.00	89.940	351.650	6158.23	9226.04	9238.74	-1501.92	1658029.47	14339873.96	39°29'19.288"N	80°56'15.264"W	9360.03	350.766	2.11	-0.41	-2.07	
15964.00	89.940	348.750	6158.33	9316.86	9329.39	-1517.58	1658013.82	14339964.57	39°29'20.185"N	80°56'15.463"W	9452.01	350.761	3.15	0.00	-3.15	
16059.00	90.280	343.520	6158.15	9411.45	9421.59	-1540.33	1657991.07	14340056.74	39°29'21.096"N	80°56'15.752"W	9546.67	350.715	5.52	0.36	-5.51	
16153.00	90.030	343.220	6157.89	9505.38	9511.66	-1567.23	1657964.18	14340146.77	39°29'21.997"N	80°56'16.095"W	9639.91	350.643	0.42	-0.27	-0.32	
16247.00	90.060	340.880	6157.82	9599.36	9601.08	-1596.20	1657935.23	14340236.15	39°29'22.871"N	80°56'16.463"W	9732.86	350.561	2.49	0.03	-2.49	
16342.00	89.940	338.080	6157.82	9694.31	9690.04	-1629.50	1657901.94	14340325.08	39°29'23.750"N	80°56'16.887"W	9826.09	350.454	2.95	-0.13	-2.95	
16437.00	90.490	336.940	6157.46	9789.12	9777.81	-1665.84	1657865.62	14340412.81	39°29'24.618"N	80°56'17.350"W	9918.70	350.331	1.33	0.58	-1.20	
16531.00	90.550	334.880	6156.61	9882.74	9863.62	-1704.20	1657827.27	14340498.59	39°29'25.466"N	80°56'17.839"W	10009.76	350.197	2.19	0.06	-2.19	
16627.00	90.490	331.490	6155.74	9977.81	9949.28	-1747.50	1657783.99	14340584.21	39°29'26.313"N	80°56'18.390"W	10101.58	350.038	3.53	-0.06	-3.53	
16722.00	90.370	333.530	6155.03	10071.75	10033.54	-1791.35	1657740.16	14340668.44	39°29'27.146"N	80°56'18.949"W	10192.20	349.877	2.15	-0.13	2.15	
16817.00	90.060	337.430	6154.67	10166.28	10119.96	-1830.77	1657700.76	14340754.83	39°29'28.001"N	80°56'19.451"W	10284.22	349.746	4.12	-0.33	4.11	
16913.00	89.780	339.090	6154.80	10262.16	10209.13	-1866.32	1657665.21	14340843.96	39°29'28.862"N	80°56'19.903"W	10378.32	349.640	1.75	-0.29	1.73	
17010.00	89.690	339.910	6155.25	10359.12	10299.98	-1900.29	1657631.26	14340934.78	39°29'29.780"N	80°56'20.336"W	10473.81	349.547	0.85	-0.09	0.85	
17104.00	89.720	341.800	6155.74	10453.12	10388.78	-1931.12	1657600.44	14341023.84	39°29'30.658"N	80°56'20.728"W	10566.74	349.470	2.01	0.03	2.01	
17199.00	89.570	341.650	6156.33	10548.11	10478.99	-1960.91	1657570.67	14341113.71	39°29'31.550"N	80°56'21.108"W	10660.88	349.401	0.22	-0.16	-0.16	
17293.00	89.690	342.690	6156.93	10642.09	10568.47	-1989.69	1657541.90	14341203.15	39°29'32.434"N	80°56'21.474"W	10754.13	349.338	1.11	0.13	1.11	
17388.00	89.010	343.480	6158.01	10737.02	10659.35	-2017.33	1657514.27	14341294.00	39°29'33.333"N	80°56'21.826"W	10848.57	349.283	1.10	-0.72	0.83	
17484.00	88.980	344.180	6159.69	10832.90	10751.54	-2044.06	1657487.55	14341386.15	39°29'34.244"N	80°56'22.166"W	10944.12	349.236	0.73	-0.03	0.73	
17579.00	88.980	344.170	6161.38	10927.74	10842.92	-2069.96	1657461.66	14341477.50	39°29'35.147"N	80°56'22.495"W	11038.74	349.192	0.01	0.00	-0.01	
17674.00	88.920	342.740	6163.13	11022.64	10933.97	-2097.01	1657434.62	14341568.51	39°29'36.048"N	80°56'22.840"W	11133.25	349.143	1.51	-0.06	-1.51	
17769.00	88.980	341.630	6164.87	11117.60	11024.40	-2126.07	1657405.57	14341658.90	39°29'36.941"N	80°56'23.210"W	11227.54	349.084	1.17	0.06	-1.17	
17865.00	89.230	339.930	6166.37	11213.59	11115.03	-2157.67	1657373.99	14341749.50	39°29'37.837"N	80°56'23.612"W	11322.52	349.014	1.79	0.26	-1.77	
17960.00	88.890	337.930	6167.92	11308.50	11203.67	-2191.81	1657339.85	14341838.10	39°29'38.714"N	80°56'24.047"W	11416.05	348.931	2.14	-0.36	-2.11	
18054.00	89.110	337.250	6169.57	11402.32	11290.55	-2227.64	1657304.04	14341924.95	39°29'39.573"N	80°56'24.503"W	11508.21	348.839	0.76	0.23	-0.72	
18150.00	89.510	337.550	6170.72	11498.11	11379.18	-2264.53	1657267.16	14342013.84	39°29'40.449"N	80°56'24.973"W	11602.32	348.745	0.52	0.42	0.31	
18245.00	89.510	337.160	6171.53	11592.91	11466.85	-2301.11	1657230.60	14342101.17	39°29'41.315"N	80°56'25.439"W	11695.46	348.653	0.41	0.00	-0.41	
18340.00	89.540	338.190	6172.32	11687.74	11554.72	-2337.19	1657194.53	14342189.01	39°29'42.164"N	80°56'25.896"W	11788.73	348.565	1.08	0.03	1.08	



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Treasury Unit 1H
Tyler County, WV	Wellbore	Treasury Unit 1H AWB
Tyler		
Kirk Hadley Pad		

WELLPATH DATA (245 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
18435.00	89.570	337.600	6173.06	11782.59	11642.74	-2372.94	1657158.80	14342276.99	39°29'43.054"N	80°56'26.353"W	11882.10	348.480	0.62	0.03	-0.62	
18530.00	89.910	339.770	6173.49	11877.50	11731.23	-2407.47	1657124.28	14342365.45	39°29'43.929"N	80°56'26.793"W	11975.71	348.403	2.31	0.36	2.28	
18624.00	89.940	341.770	6173.61	11971.50	11819.98	-2438.43	1657093.34	14342454.17	39°29'44.807"N	80°56'27.187"W	12068.88	348.344	2.13	0.03	2.13	
18719.00	89.970	343.880	6173.69	12066.45	11910.74	-2466.48	1657065.30	14342544.89	39°29'45.704"N	80°56'27.544"W	12163.44	348.301	2.22	0.03	2.22	
18815.00	90.000	345.030	6173.71	12162.28	12003.23	-2492.21	1657039.58	14342637.34	39°29'46.618"N	80°56'27.872"W	12259.22	348.270	1.20	0.03	1.20	
18910.00	89.940	343.770	6173.76	12257.11	12094.73	-2517.75	1657014.04	14342728.80	39°29'47.522"N	80°56'28.197"W	12354.01	348.241	1.33	-0.06	-1.33	
19004.00	89.940	344.260	6173.86	12350.99	12185.09	-2543.64	1656988.17	14342819.13	39°29'48.416"N	80°56'28.526"W	12447.75	348.209	0.52	0.00	0.52	
19098.00	90.000	344.230	6173.91	12444.84	12275.56	-2569.16	1656962.66	14342909.36	39°29'49.310"N	80°56'28.851"W	12541.53	348.179	0.07	0.06	-0.03	
19193.00	89.910	340.790	6173.99	12539.80	12366.16	-2597.71	1656934.12	14343007.18	39°29'51.067"N	80°56'29.214"W	12636.06	348.137	3.62	-0.09	-3.62	
19286.00	89.970	338.170	6174.08	12632.75	12463.25	-2630.31	1656901.54	14343087.18	39°29'51.067"N	80°56'29.630"W	12728.00	348.074	2.82	0.06	-2.82	
19381.00	89.940	338.430	6174.16	12727.64	12541.51	-2665.43	1656866.43	14343175.41	39°29'52.811"N	80°56'30.077"W	12821.63	348.002	0.28	-0.03	0.27	
19476.00	89.850	337.890	6174.33	12822.52	12629.70	-2700.77	1656831.10	14343263.55	39°29'52.811"N	80°56'30.527"W	12915.24	347.929	0.58	-0.09	-0.57	
19572.00	89.910	337.270	6174.53	12918.34	12718.44	-2737.39	1656794.50	14343352.26	39°29'53.688"N	80°56'30.993"W	13009.69	347.854	0.65	0.06	-0.65	
19667.00	89.940	337.550	6174.66	13013.15	12806.15	-2773.88	1656758.02	14343439.94	39°29'54.555"N	80°56'31.458"W	13103.12	347.778	0.30	0.03	0.29	
19762.00	89.910	338.220	6174.78	13108.01	12894.16	-2809.64	1656722.27	14343527.91	39°29'55.425"N	80°56'31.914"W	13196.72	347.707	0.71	-0.03	0.71	
19857.00	89.940	338.870	6174.91	13202.91	12982.58	-2844.39	1656687.54	14343616.29	39°29'56.299"N	80°56'32.356"W	13290.52	347.642	0.68	0.03	0.68	
19952.00	90.000	338.460	6174.96	13297.83	13071.07	-2878.96	1656652.99	14343704.75	39°29'57.174"N	80°56'32.796"W	13384.36	347.579	0.44	0.06	-0.43	
20047.00	90.000	343.550	6174.96	13392.80	13160.86	-2909.87	1656622.09	14343794.51	39°29'58.062"N	80°56'33.190"W	13478.71	347.532	5.36	0.00	5.36	
20142.00	89.940	342.890	6175.01	13487.73	13251.82	-2937.29	1656594.67	14343885.43	39°29'58.961"N	80°56'33.539"W	13573.44	347.502	0.70	-0.06	-0.69	
20232.00	89.970	342.390	6175.23	13582.70	13342.38	-2965.97	1656566.01	14343975.96	39°29'59.856"N	80°56'33.904"W	13668.07	347.467	0.97	-0.03	-0.97	
20332.00	89.970	342.390	6175.23	13677.68	13432.83	-2995.04	1656536.95	14344066.36	39°30'00.750"N	80°56'34.274"W	13762.67	347.431	0.45	0.06	0.44	
20428.00	90.000	342.750	6175.25	13773.65	13524.42	-3023.80	1656508.20	14344157.92	39°30'01.656"N	80°56'34.640"W	13858.33	347.397	0.38	0.03	0.38	
20523.00	89.690	342.740	6175.51	13868.61	13615.14	-3051.98	1656480.04	14344248.60	39°30'02.553"N	80°56'34.999"W	13953.02	347.365	0.33	-0.33	-0.01	
20619.00	89.690	342.630	6176.03	13964.57	13706.79	-3080.55	1656451.48	14344340.22	39°30'03.459"N	80°56'35.363"W	14048.70	347.333	0.11	0.00	-0.11	
20714.00	89.690	343.110	6176.54	14059.52	13797.57	-3108.53	1656423.51	14344430.96	39°30'04.356"N	80°56'35.719"W	14143.41	347.304	0.51	0.00	0.51	
20808.00	89.690	341.750	6177.05	14153.49	13887.19	-3136.90	1656395.14	14344520.54	39°30'05.242"N	80°56'36.080"W	14237.07	347.271	1.45	0.00	-1.45	
20904.00	89.750	339.310	6177.52	14249.48	13977.69	-3168.90	1656363.16	14344611.01	39°30'06.137"N	80°56'36.488"W	14332.40	347.226	2.54	0.06	-2.54	
20999.00	89.820	338.110	6177.88	14344.39	14066.20	-3203.39	1656328.68	14344699.48	39°30'07.012"N	80°56'36.927"W	14426.36	347.170	1.27	0.07	-1.26	
21094.00	90.150	338.930	6177.90	14439.30	14154.60	-3238.18	1656293.91	14344787.85	39°30'07.885"N	80°56'37.370"W	14520.28	347.114	0.93	0.35	0.86	
21189.00	89.780	339.690	6177.96	14534.26	14243.48	-3271.74	1656260.36	14344876.69	39°30'08.764"N	80°56'37.798"W	14614.41	347.063	0.89	-0.39	0.80	



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #07
ANTERO RESOURCES CORPORATION	Treasury Unit 1H
Tyler County, WV	Treasury Unit 1H AWB
Tyler	
Kirk Hadley Pad	

WELLPATH DATA (245 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (°/100ft)	Comments
21285.00	89.75	341.47	6178.36	14630.25	14334.01	-3303.66	1656228.45	14344967.18	39°30'09.659"N	80°56'38.204"W	14709.79	347.021	1.85	-0.03	1.85	
21381.00	89.63	341.39	6178.87	14726.24	14425.01	-3334.23	1656197.89	14345058.15	39°30'10.559"N	80°56'38.593"W	14805.34	346.985	0.15	-0.13	-0.08	
21476.00	89.66	341.36	6179.46	14821.24	14515.03	-3384.57	1656167.57	14345148.13	39°30'11.449"N	80°56'38.980"W	14899.88	346.949	0.04	0.03	-0.03	
21560.00	89.69	341.01	6179.94	14905.24	14594.54	-3391.66	1656140.49	14345227.61	39°30'12.234"N	80°56'39.325"W	14983.46	346.917	0.42	0.04	-0.42	
21584.00	89.69	341.01	6180.07	14929.24	14617.24	-3399.47	1656132.68	14345250.30	39°30'12.459"N	80°56'39.424"W	15007.33	346.908	0.00	0.00	0.00	Projected MD at TD: 21584'

HOLE & CASING SECTIONS - Ref Wellbore: Treasury Unit 1H AWB Ref Wellpath: Treasury Unit 1H AWP Proj: 21584'

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	0.14	-0.18
17.5in Open Hole	105.00	486.70	381.70	105.00	486.69	0.14	-0.18	1.06	-1.79
13.375in Casing Surface	25.00	477.00	452.00	25.00	476.99	0.00	0.00	1.05	-1.75
12.25in Open Hole	486.70	2678.00	2191.30	486.69	2605.04	1.06	-1.79	2.84	500.07
9.625in Casing Intermediate	25.00	2668.00	2643.00	25.00	2595.48	0.00	0.00	2.92	497.16
8.75in Open Hole	2678.00	6053.00	3375.00	2605.04	5798.94	2.84	500.07	98.76	1516.69
8.5in Open Hole	6053.00	21584.00	15531.00	5798.94	6180.07	98.76	1516.69	14617.24	-3399.47
5.5in Casing Production	25.00	21584.00	21559.00	25.00	6180.07	0.00	0.00	14617.24	-3399.47



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #07
ANTERO RESOURCES CORPORATION	Treasury Unit 1H
Tyler County, WV	Well
Tyler	Wellbore
Kirk Hadley Pad	Treasury Unit 1H AWB

TARGETS

Name	TVD (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Shape
Treasury Unit 1H - POE - Rev-1	6179.00	526.92	1444.03	1660974.24	14331165.64	39°27'53.165"N	80°55'37.779"W	point
Treasury Unit 1H - BHL - Rev-1	6216.00	14653.46	-3404.80	1656127.35	14345286.51	39°30'12.817"N	80°56'39.492"W	point
Treasury Unit 1H - LP - Rev-1	6216.00	741.84	1370.26	1660900.50	14331380.47	39°27'55.289"N	80°55'38.717"W	point

WELLPATH COMPOSITION - Ref Wellbore: Treasury Unit 1H AWB Ref Wellpath: Treasury Unit 1H AWP Proj: 21584'

Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	387.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2>(125-387)	Treasury Unit 1H AWB
387.00	904.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4>(387-904)	Treasury Unit 1H AWB
904.00	2596.00	OWSG MWD rev2 + HRGM	03 WFT EM <12-1/4>(904-2596)	Treasury Unit 1H AWB
2596.00	5983.00	OWSG MWD rev2 + HRGM	04 WFT EM <8-3/4>(2596-5983)	Treasury Unit 1H AWB
5983.00	21560.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2>(5983-21560)	Treasury Unit 1H AWB
21560.00	21584.00	Blind Drilling (std)	Projection to bit	Treasury Unit 1H AWB



Actual Wellpath Report

Treasury Unit 1H AWP Proj: 21584'



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Treasury Unit 1H
Field	Tyler	Wellbore	Treasury Unit 1H AWB
Facility	Kirk Hadley Pad		

COMMENTS
<p>Wellpath general comments</p> <p>API: 47-095-02556-0000</p> <p>BHI Job #: 110021741A</p> <p>Rig: Patterson 342</p> <p>Duration: 09/23/2019-09/27/2019</p> <p>Gyrodata MS Gyro <17-1/2">(125'-387')</p> <p>Gyrodata MS Gyro <12-1/4">(387')(447'-904')</p> <p>WFT EM <12-1/4">(904')(1023'-2596')</p> <p>WFT EM <8-3/4">(2596')(2762'-5983')</p> <p>BH AT Curve <8-1/2">(5983')(6036'-21560')</p> <p>Middlesex: 6374' MD</p> <p>Burkett: 6537' MD</p> <p>Tully: 6594' MD</p> <p>Marcellus POE: 6647' MD</p> <p>Projected MD at TD: 21584'</p>