

ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: Gorrell Pad
 Slot: Slot #02
 Well: Grounds Unit 2H
 Wellbore: Grounds Unit 2H PWB

Plot reference wellbore is Grounds Unit 2H PWB Rev-B.0	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 1075 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #02): -1045 feet	Created by: delaset on 2019-06-12
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Gorrell Pad	1643134.326	14314301.475	39°25'06.502"N	80°59'25.358"W
Slot #02	39.26	-5.65	39°25'06.890"N	80°59'25.430"W
H&P 519 (RKB) to Ground level (At Slot: Slot #02)		30ft		
Mean Sea Level to Ground level (At Slot: Slot #02)		-1045ft		
H&P 519 (RKB) to Mean Sea Level		1075ft		

Well Data

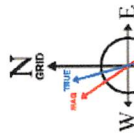
Slot	Well	Wellbore	Wellpath
Slot #02	Grounds Unit 2H	Grounds Unit 2H AVB	Grounds Unit 2H AVWP Proj: 17672'
Slot #02	Grounds Unit 2H	Grounds Unit 2H PWB	Grounds Unit 2H PWB Rev-B.0

Gyrodata MS Gyro <17-1/2">(100'-612') : 0.37° Inc, 100.00ft MD, 100.00ft TVD, -0.05ft VS

BHI NavTrak <12-1/4">(612') (722'-2555') : 1.42° Inc, 722.00ft MD, 721.99ft TVD, 0.53ft VS

BHI NavTrak <8-3/4">(2555')(2615'-5405') : 17.14° Inc, 2615.00ft MD, 2524.23ft TVD, -65.56ft VS

Design Comment	MD (ft)		Az (°)		TVD (ft)		Local N (ft)		Local E (ft)		DLS (°/100ft)		VS (ft)	
	MD	Inc	Az	Local N	TVD	Local N	Local E	DLS	Local E	DLS	VS			
On	2555.00	17.660	69.610	2468.97	220.23	450.53	2.40	-54.88						
Prof. To Bottom	2622.00	17.660	69.610	2530.81	227.31	469.58	0.00	-55.06						
Drill Out Casing	2710.00	17.660	69.610	2614.67	236.62	494.60	0.00	-55.37						
Hold Tangent	2954.38	22.142	63.843	2844.42	269.85	570.73	2.00	-80.90						
Curve KOP	5979.42	22.142	63.843	5553.74	755.84	1560.28	0.00	-183.53						
POE	6817.52	71.252	160.229	6240.00	357.08	1922.54	8.00	314.26						
Landing Pt.	7051.86	90.000	160.229	6278.00	140.46	2000.41	8.00	544.45						
BHL	17677.00	90.000	160.229	6278.00	-9588.33	5594.55	0.00	11160.59						

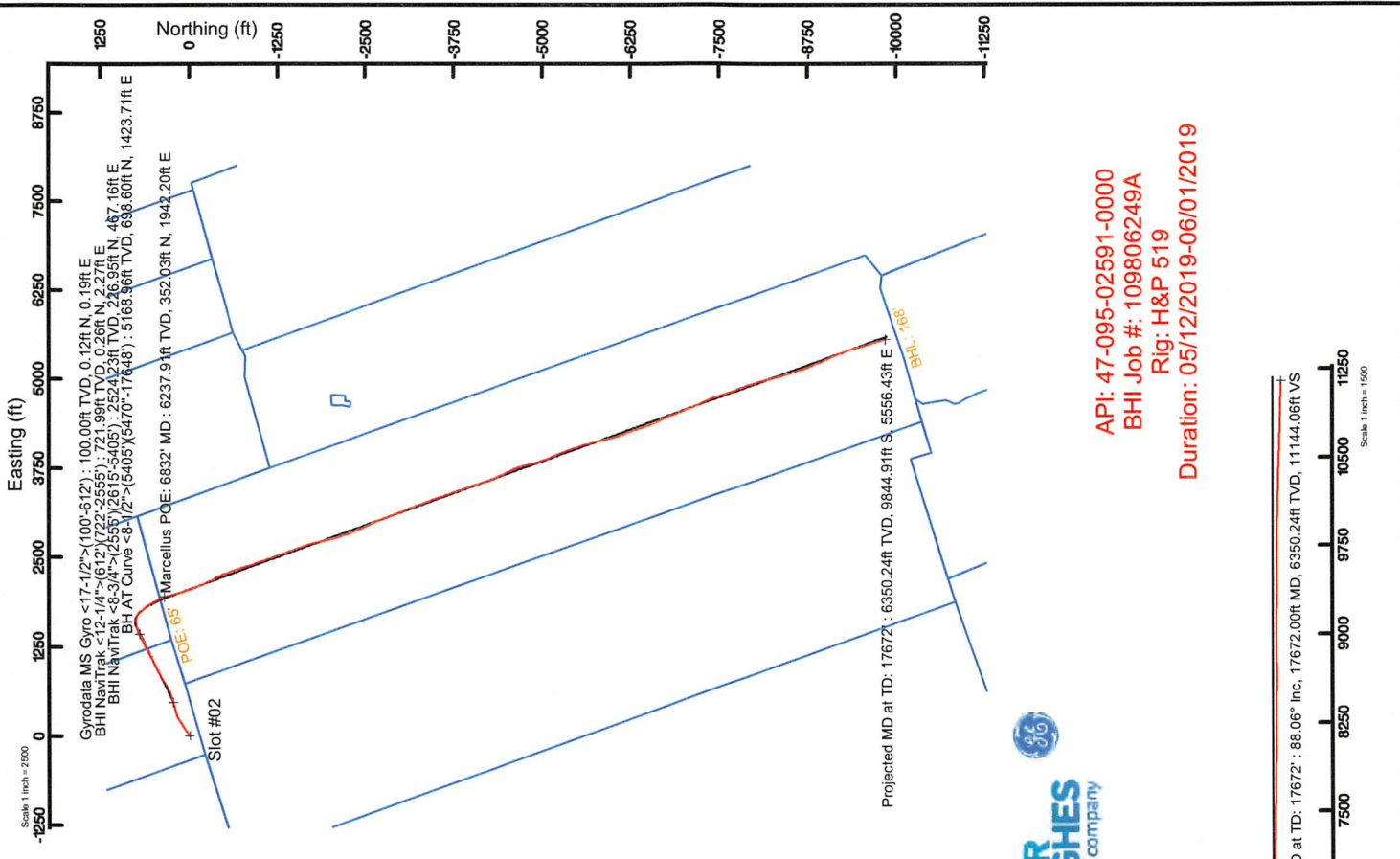


User specified (HDCM) Dip: 66.48° Field: 51716.1T
 Magnetic North is 7.18 degrees West of True North (5/24/2019)
 To correct azimuth from True to Grid subtract 0.01 degrees
 To correct azimuth from Magnetic to Grid subtract 7.82 degrees

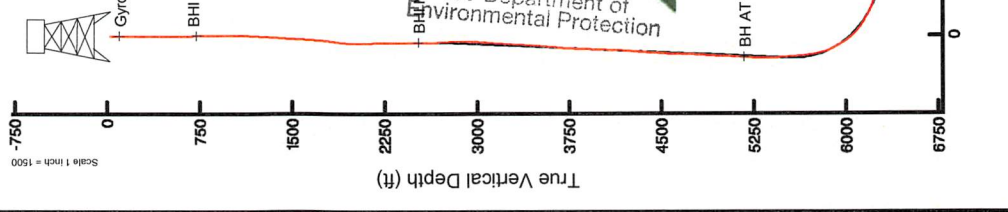
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API: 47-095-02591-0000
 BHI Job #: 109806249A
 Rig: H&P 519
 Duration: 05/12/2019-06/01/2019



Vertical Section (ft)
 Azimuth 160.23° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500



Actual Wellpath Report

Grounds Unit 2H AWP Proj: 17672'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #02	Grounds Unit 2H
Area	Tyler County, WV	Well	Grounds Unit 2H AWB
Field	Tyler	Wellbore	
Facility	Gorrell 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	6/12/2019 at 1:06:46 PM
Convergence at slot	0.01° East	Database/Source file	WA_MPL_EasternUS_Defn/Grounds_Unit_2H_AWP_Proj_17672_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	39.26	-5.65	1643128.67	14314340.72	39°25'06.890"N	80°59'25.430"W
Facility Reference Pt			1643134.33	14314301.48	39°25'06.502"N	80°59'25.358"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	30.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1075.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #02)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.23°

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Actual Wellpath Report

Grounds Unit 2H AWP Proj: 17672'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #02
Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 2H
Area	Tyler County, WV	Wellbore	Grounds Unit 2H AWB
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (205 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
0.00H	0.000	57.010	0.00	0.00	0.00	0.00	1643128.67	14314340.72	39°25'06.890"N	80°59'25.430"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	57.010	30.00	0.00	0.00	0.00	1643128.67	14314340.72	39°25'06.890"N	80°59'25.430"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.370	57.010	100.00	-0.05	0.12	0.19	1643128.86	14314340.84	39°25'06.891"N	80°59'25.428"W	0.23	57.010	0.53	81.44	81.44	Gyrodatta MS Gyro <17-1/2">(100-6'12')
200.00	0.090	78.640	200.00	-0.11	0.31	0.54	1643129.21	14314341.03	39°25'06.893"N	80°59'25.423"W	0.62	59.675	0.29	-0.28	21.63	
300.00	0.090	47.470	300.00	-0.13	0.38	0.67	1643129.35	14314341.10	39°25'06.894"N	80°59'25.421"W	0.77	60.336	0.05	0.00	-31.17	
400.00	0.050	208.900	400.00	-0.13	0.40	0.71	1643129.38	14314341.11	39°25'06.894"N	80°59'25.421"W	0.81	60.707	0.14	-0.04	161.43	
500.00	0.070	330.300	500.00	-0.17	0.41	0.66	1643129.33	14314341.13	39°25'06.894"N	80°59'25.422"W	0.78	57.895	0.11	0.02	121.40	
600.00	0.130	76.390	600.00	-0.21	0.49	0.74	1643129.41	14314341.21	39°25'06.895"N	80°59'25.421"W	0.89	56.277	0.16	0.06	106.09	
612.00	0.190	69.910	612.00	-0.21	0.50	0.77	1643129.44	14314341.22	39°25'06.895"N	80°59'25.420"W	0.92	56.861	0.52	0.50	-54.00	
722.00	1.420	103.120	721.99	0.53	0.26	2.27	1643130.94	14314340.97	39°25'06.893"N	80°59'25.401"W	2.28	83.568	1.15	1.12	30.19	BHI NavitTrak <12-1/4">(612'-2555')
785.00	2.820	87.610	784.94	1.41	0.14	4.58	1643133.25	14314340.86	39°25'06.891"N	80°59'25.372"W	4.58	88.209	2.38	2.22	-24.62	
904.00	5.340	78.260	903.63	3.06	1.39	12.92	1643141.59	14314342.11	39°25'06.904"N	80°59'25.265"W	13.00	83.852	2.18	2.12	-7.86	
997.00	6.560	71.300	996.13	3.77	3.98	22.19	1643150.86	14314344.69	39°25'06.929"N	80°59'25.147"W	22.55	79.843	1.52	1.31	-7.48	
1088.00	8.070	61.230	1086.39	2.86	8.72	32.72	1643161.38	14314349.43	39°25'06.976"N	80°59'25.013"W	33.86	75.081	2.17	1.66	-11.07	
1179.00	9.200	50.980	1176.36	-0.53	16.37	43.97	1643172.63	14314357.08	39°25'07.052"N	80°59'24.870"W	46.92	69.577	2.09	1.24	-11.26	
1272.00	11.310	49.710	1267.87	-6.18	26.95	56.70	1643185.35	14314367.66	39°25'07.156"N	80°59'24.707"W	62.78	64.578	2.28	2.27	-1.37	
1367.00	13.800	53.820	1360.59	-12.65	39.67	72.96	1643201.60	14314380.37	39°25'07.282"N	80°59'24.500"W	83.04	61.468	2.78	2.62	4.33	
1461.00	16.250	55.420	1451.37	-19.18	53.75	92.84	1643221.47	14314394.45	39°25'07.421"N	80°59'24.247"W	107.28	59.930	2.64	2.61	1.70	
1556.00	16.920	57.530	1542.42	-25.62	68.72	115.45	1643244.07	14314409.41	39°25'07.569"N	80°59'23.959"W	134.35	59.238	0.95	0.71	2.22	
1650.00	17.180	58.820	1632.29	-31.37	83.25	138.86	1643267.48	14314423.93	39°25'07.713"N	80°59'23.661"W	161.90	59.058	0.49	0.28	1.37	
1746.00	19.110	58.350	1723.51	-37.41	98.84	164.37	1643292.98	14314439.51	39°25'07.867"N	80°59'23.335"W	191.80	58.982	2.02	2.01	-0.49	
1841.00	20.360	53.120	1812.94	-45.48	116.92	190.83	1643319.43	14314457.58	39°25'08.045"N	80°59'22.998"W	223.80	58.506	2.28	1.32	-5.51	
1935.00	25.000	56.200	1899.65	-55.11	137.79	220.44	1643349.02	14314478.45	39°25'08.252"N	80°59'22.621"W	259.96	57.991	5.09	4.94	3.28	
2030.00	29.060	63.970	1984.28	-62.50	159.10	257.88	1643386.45	14314499.75	39°25'08.462"N	80°59'22.144"W	303.01	58.327	5.66	4.27	8.18	
2124.00	29.890	72.930	2066.15	-63.88	176.00	300.80	1643429.35	14314516.65	39°25'08.629"N	80°59'21.597"W	348.51	59.668	4.77	0.88	9.53	
2219.00	24.580	78.060	2150.60	-60.07	187.05	342.80	1643471.33	14314527.69	39°25'08.738"N	80°59'21.062"W	390.51	61.381	6.11	-5.59	5.40	
2314.00	18.430	72.370	2238.96	-56.82	195.69	376.47	1643505.00	14314536.33	39°25'08.824"N	80°59'20.633"W	424.30	62.535	6.83	-6.47	-5.99	
2408.00	19.610	71.700	2327.82	-55.86	205.15	405.61	1643534.12	14314545.78	39°25'08.917"N	80°59'20.261"W	454.54	63.171	1.28	1.26	-0.71	
2503.00	18.690	71.860	2417.57	-55.01	214.89	435.21	1643563.71	14314555.52	39°25'09.013"N	80°59'19.884"W	485.38	63.722	0.97	-0.97	0.17	
2555.00	17.660	69.610	2466.97	-54.86	220.23	450.53	1643579.02	14314560.86	39°25'09.066"N	80°59'19.689"W	501.47	63.949	2.40	-1.98	-4.33	

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Actual Wellpath Report

Grounds Unit 2H AWP Proj: 17672'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #02
Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 2H
Area	Tyler County, WV	Wellbore	Grounds Unit 2H AWB
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (205 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 (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
2615.00	17.140	66.380	2524.23	-55.56	226.95	467.16	1643595.64	14314567.57	39°25'09.132"N	80°59'19.477"W	519.37	64.089	1.83	-0.87	-5.38	BHI NaviTrak <8-3/4">(2615'-5405')
2662.00	16.920	66.480	2569.17	-56.47	232.45	479.77	1643608.25	14314573.07	39°25'09.187"N	80°59'19.316"W	533.12	64.150	0.47	-0.47	0.21	
2756.00	19.180	77.440	2658.56	-55.42	241.27	507.40	1643635.87	14314581.89	39°25'09.274"N	80°59'18.964"W	561.84	64.569	4.33	2.40	11.66	
2850.00	22.450	78.800	2746.41	-50.81	248.12	540.09	1643668.54	14314588.73	39°25'09.342"N	80°59'18.548"W	594.35	65.326	3.52	3.48	1.45	
2945.00	24.750	75.280	2833.47	-46.36	256.69	577.12	1643705.56	14314597.31	39°25'09.426"N	80°59'18.076"W	631.63	66.021	2.84	2.42	-3.71	
3042.00	25.330	68.220	2921.37	-45.30	269.56	616.04	1643744.46	14314610.16	39°25'09.553"N	80°59'17.580"W	672.43	66.368	3.14	0.60	-7.28	
3137.00	23.070	60.440	3008.04	-49.17	286.28	651.11	1643779.52	14314626.89	39°25'09.719"N	80°59'17.133"W	711.27	66.266	4.11	-2.38	-8.19	
3231.00	21.260	57.490	3095.09	-56.08	304.54	681.50	1643809.90	14314645.14	39°25'09.899"N	80°59'16.746"W	746.45	65.922	2.27	-1.93	-3.18	
3326.00	18.040	59.010	3184.55	-62.75	321.39	708.64	1643837.03	14314661.97	39°25'10.066"N	80°59'16.400"W	778.11	65.804	3.43	-3.39	1.64	
3420.00	17.480	59.810	3274.07	-68.14	335.98	733.32	1643861.70	14314676.56	39°25'10.210"N	80°59'16.086"W	806.62	65.384	0.65	-0.60	0.85	
3515.00	18.080	60.020	3364.53	-73.33	350.52	758.42	1643886.79	14314691.10	39°25'10.353"N	80°59'15.766"W	835.50	65.195	0.64	0.63	0.22	
3609.00	20.810	59.000	3453.16	-79.17	366.41	785.37	1643913.73	14314706.98	39°25'10.511"N	80°59'15.422"W	866.64	64.989	2.93	2.90	-1.03	
3704.00	23.040	57.980	3541.28	-86.40	384.96	815.60	1643943.95	14314725.53	39°25'10.694"N	80°59'15.037"W	901.89	64.733	2.38	2.39	-1.07	
3798.00	21.290	59.110	3628.33	-93.60	403.48	845.85	1643974.18	14314744.03	39°25'10.877"N	80°59'14.652"W	937.15	64.498	1.92	-1.86	1.20	
3893.00	21.720	61.050	3716.72	-99.73	420.84	876.03	1644004.35	14314761.39	39°25'11.048"N	80°59'14.267"W	971.87	64.340	0.87	0.45	2.04	
3987.00	22.720	62.720	3803.74	-104.87	437.58	907.38	1644035.69	14314778.12	39°25'11.214"N	80°59'13.867"W	1007.38	64.254	1.26	1.06	1.78	
4082.00	23.610	66.430	3891.09	-108.53	453.60	941.13	1644069.42	14314794.13	39°25'11.372"N	80°59'13.437"W	1044.74	64.267	1.80	0.94	3.91	
4176.00	23.890	65.390	3977.12	-111.39	469.05	975.69	1644103.97	14314809.58	39°25'11.525"N	80°59'12.997"W	1082.58	64.324	0.54	0.30	-1.11	
4271.00	23.540	65.430	4064.10	-114.60	484.95	1010.43	1644138.70	14314825.48	39°25'11.682"N	80°59'12.554"W	1120.78	64.361	0.37	-0.37	0.04	
4365.00	23.000	64.740	4150.46	-117.92	500.60	1044.11	1644172.36	14314841.11	39°25'11.836"N	80°59'12.125"W	1157.91	64.385	0.64	-0.57	-0.73	
4460.00	22.680	60.030	4238.01	-122.94	517.67	1076.76	1644205.00	14314858.17	39°25'12.005"N	80°59'11.709"W	1194.74	64.324	1.95	-0.34	-4.96	
4554.00	23.080	59.730	4324.62	-129.51	536.01	1108.38	1644236.60	14314876.51	39°25'12.186"N	80°59'11.306"W	1231.18	64.192	0.44	0.43	-0.32	
4649.00	23.710	61.870	4411.81	-135.68	554.40	1141.30	1644269.52	14314894.89	39°25'12.368"N	80°59'10.887"W	1268.83	64.091	1.11	0.66	2.25	
4743.00	23.860	61.820	4497.83	-141.21	572.29	1174.73	1644302.93	14314912.77	39°25'12.545"N	80°59'10.461"W	1306.71	64.026	0.16	0.16	-0.05	
4837.00	22.910	62.870	4584.10	-146.33	589.61	1207.77	1644335.96	14314930.09	39°25'12.716"N	80°59'10.040"W	1344.00	63.979	1.10	-1.01	1.12	
4932.00	22.190	65.700	4671.84	-150.12	605.42	1240.58	1644368.75	14314945.90	39°25'12.872"N	80°59'09.621"W	1380.43	63.987	1.37	-0.76	2.98	
5027.00	22.160	63.590	4759.82	-153.61	620.78	1272.98	1644401.14	14314961.24	39°25'13.024"N	80°59'09.209"W	1416.27	64.003	0.84	-0.03	-2.22	
5121.00	22.850	60.920	4846.66	-158.61	637.53	1304.81	1644432.95	14314977.99	39°25'13.189"N	80°59'08.803"W	1452.23	63.960	1.31	0.73	-2.84	
5216.00	23.920	62.790	4933.86	-164.09	655.31	1338.06	1644466.19	14314995.76	39°25'13.365"N	80°59'08.379"W	1489.90	63.907	1.37	1.13	1.97	
5310.00	22.740	66.050	5020.17	-167.88	671.40	1371.61	1644499.73	14315011.84	39°25'13.524"N	80°59'07.952"W	1527.12	63.919	1.86	-1.26	3.47	

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Grounds Unit 2H AWP Proj: 17672'
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Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 2H
Area	Tyler County, WV	Wellbore	Grounds Unit 2H AWB
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (205 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
5405.00	21.350	61.800	5108.23	-171.76	687.02	1403.63	1644631.74	14315027.46	39°25'13.678"N	80°59'07.544"W	1562.75	63.920	2.23	-1.46	-4.47	
5470.00	20.450	58.200	5168.96	-175.86	698.60	1423.71	1644651.81	14315039.03	39°25'13.793"N	80°59'07.288"W	1585.87	63.863	2.41	-1.38	-5.54	BH AT Curve <8-1/2"> (5405)-(5470)-(17648)
5518.00	19.820	62.240	5214.03	-178.74	706.81	1438.04	1644566.14	14315047.24	39°25'13.874"N	80°59'07.105"W	1602.35	63.826	3.18	-1.31	8.42	
5613.00	21.330	66.740	5302.97	-182.03	721.13	1468.17	1644596.25	14315061.56	39°25'14.015"N	80°59'06.721"W	1635.71	63.841	2.97	-1.59	4.74	
5707.00	20.930	74.410	5390.67	-181.84	732.40	1500.05	1644628.13	14315072.82	39°25'14.127"N	80°59'06.315"W	1669.30	63.976	2.30	-0.43	8.16	
5802.00	21.220	78.790	5479.32	-178.05	740.30	1533.27	1644661.32	14315080.72	39°25'14.205"N	80°59'05.892"W	1702.63	64.227	1.69	0.31	4.61	
5896.00	22.120	80.330	5566.67	-172.41	746.58	1567.40	1644695.44	14315087.00	39°25'14.267"N	80°59'05.457"W	1736.12	64.531	1.13	0.96	1.64	
5943.00	22.170	83.020	5610.21	-168.90	749.15	1584.93	1644712.96	14315089.56	39°25'14.292"N	80°59'05.233"W	1753.06	64.701	2.16	0.11	5.72	
5991.00	22.320	85.610	5654.64	-164.47	750.94	1603.00	1644731.03	14315091.36	39°25'14.310"N	80°59'05.003"W	1770.18	64.899	2.07	0.31	5.40	
6038.00	22.540	88.790	5698.08	-159.24	751.82	1620.91	1644748.93	14315092.23	39°25'14.318"N	80°59'04.775"W	1786.78	65.117	2.62	0.47	6.77	
6085.00	21.710	97.300	5741.63	-152.41	750.90	1638.54	1644766.56	14315091.32	39°25'14.309"N	80°59'04.550"W	1802.41	65.379	7.04	-1.77	18.11	
6180.00	25.000	116.960	5828.97	-129.76	739.55	1673.93	1644801.93	14315079.97	39°25'14.197"N	80°59'04.039"W	1830.02	66.164	8.86	3.46	20.69	
6275.00	30.730	129.600	5912.99	-94.20	714.93	1710.58	1644838.57	14315055.36	39°25'13.954"N	80°59'03.632"W	1853.98	67.318	8.63	6.03	13.31	
6369.00	37.550	136.510	5990.78	-47.23	678.79	1748.86	1644876.83	14315019.23	39°25'13.596"N	80°59'03.145"W	1875.97	68.787	8.34	7.26	7.35	
6464.00	46.230	141.370	6061.45	11.86	630.89	1790.29	1644918.24	14314971.35	39°25'13.123"N	80°59'02.617"W	1898.20	70.588	9.75	9.14	5.12	
6558.00	54.520	145.630	6121.36	81.15	572.66	1833.17	1644961.11	14314913.15	39°25'12.547"N	80°59'02.071"W	1920.54	72.652	9.48	8.82	4.53	
6570.00†	55.546	146.476	6128.24	90.69	564.51	1838.66	1644966.60	14314905.00	39°25'12.467"N	80°59'02.001"W	1923.37	72.932	10.32	8.55	7.05	Middlesex: 6570' MD
6605.00	58.570	148.830	6147.27	119.35	539.69	1854.37	1644982.29	14314880.19	39°25'12.221"N	80°59'01.801"W	1931.31	73.773	10.32	8.64	6.73	
6653.00	62.520	152.120	6170.88	160.53	503.33	1874.93	1645002.85	14314843.84	39°25'11.862"N	80°59'01.539"W	1941.32	74.973	10.16	8.23	6.85	
6700.00	65.640	154.020	6191.42	202.46	465.64	1894.07	1645012.98	14314806.17	39°25'11.489"N	80°59'01.295"W	1950.47	76.188	7.57	6.64	4.04	
6747.00	68.240	155.950	6209.83	245.52	426.46	1912.34	1645040.25	14314767.00	39°25'11.102"N	80°59'01.062"W	1959.32	77.429	6.70	5.53	4.11	
6763.00†	69.230	156.822	6215.63	260.40	412.79	1918.32	1645046.22	14314753.34	39°25'10.967"N	80°59'00.986"W	1962.23	77.856	8.00	6.19	5.45	Burkett: 6763' MD
6794.00	71.160	158.480	6226.14	289.53	385.82	1929.40	1645057.30	14314726.38	39°25'10.701"N	80°59'00.845"W	1967.60	78.692	8.00	6.23	5.35	
6812.00†	71.911	159.224	6231.84	306.60	369.90	1935.56	1645063.46	14314710.46	39°25'10.543"N	80°59'00.766"W	1970.59	79.181	5.73	4.17	4.13	Tully: 6812' MD
6832.00†	72.750	160.043	6237.91	325.66	352.03	1942.20	1645070.09	14314692.61	39°25'10.367"N	80°59'00.682"W	1973.84	79.726	5.73	4.19	4.10	Marcellus POE: 6832' MD
6842.00	73.170	160.450	6240.84	335.22	343.03	1945.43	1645073.32	14314683.61	39°25'10.278"N	80°59'00.641"W	1975.44	80.000	5.73	4.20	4.07	
6889.00	75.060	162.700	6253.70	380.40	300.15	1959.71	1645087.59	14314640.75	39°25'09.854"N	80°59'00.459"W	1982.56	81.292	6.11	4.02	4.79	
6936.00	78.630	164.940	6264.40	426.07	256.20	1972.45	1645100.33	14314596.82	39°25'09.419"N	80°59'00.297"W	1989.02	82.599	8.90	7.60	4.77	
6983.00	82.310	165.120	6272.18	472.25	211.43	1984.42	1645112.30	14314552.06	39°25'08.977"N	80°59'00.144"W	1995.66	83.918	7.84	7.83	0.38	
7031.00	86.770	164.790	6276.74	519.86	165.30	1996.82	1645124.69	14314505.95	39°25'08.521"N	80°58'59.986"W	2003.65	85.268	9.32	9.29	-0.69	

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Actual Wellpath Report

Grounds Unit 2H AWP Proj: 17672

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #02
Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 2H
Area	Tyler County, WV	Wellbore	Grounds Unit 2H AWP
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (205 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (IUS ft)	Grid North (IUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
7078.00	89.090	164.040	6278.03	566.71	120.05	2009.44	1645137.31	14314460.72	39°25'08.074"N	80°58'59.826"W	2013.03	86.581	7.24	7.06	-1.60	
7125.00	89.970	163.120	6278.01	613.63	74.97	2022.73	1645150.59	14314415.66	39°25'07.628"N	80°58'59.656"W	2024.12	87.877	1.97	-0.26	-1.96	
7220.00	90.370	160.710	6277.73	708.58	-15.33	2052.22	1645180.07	14314325.39	39°25'06.736"N	80°58'59.281"W	2052.28	90.428	2.57	0.42	-2.54	
7314.00	90.250	157.550	6277.22	802.55	-103.15	2085.70	1645213.54	14314237.61	39°25'05.867"N	80°58'58.854"W	2088.25	92.831	3.36	-0.13	-3.36	
7409.00	89.850	156.090	6277.13	897.38	-190.48	2123.09	1645250.91	14314150.31	39°25'05.004"N	80°58'58.378"W	2131.62	95.127	1.59	-0.42	-1.54	
7503.00	89.750	154.640	6277.46	991.04	-275.92	2162.28	1645290.08	14314064.91	39°25'04.160"N	80°58'57.879"W	2179.81	97.272	1.55	-0.11	-1.54	
7598.00	89.880	154.440	6277.77	1085.57	-361.69	2203.11	1645330.90	14313979.17	39°25'03.312"N	80°58'57.359"W	2232.61	99.323	0.25	0.14	-0.21	
7692.00	89.910	155.460	6277.94	1179.17	-446.85	2242.91	1645370.69	14313894.05	39°25'02.470"N	80°58'56.852"W	2286.99	101.267	1.09	0.03	1.09	
7787.00	89.780	158.150	6278.20	1273.99	-534.16	2280.33	1645408.08	14313806.77	39°25'01.607"N	80°58'56.376"W	2342.06	103.184	2.83	-0.14	2.83	
7881.00	89.880	162.370	6278.48	1367.97	-622.62	2312.07	1645439.81	14313718.35	39°25'00.733"N	80°58'55.971"W	2394.43	105.072	4.49	0.11	4.49	
7976.00	89.850	163.580	6278.70	1462.86	-713.45	2339.88	1645467.62	14313627.55	39°24'59.835"N	80°58'55.617"W	2446.24	106.957	1.27	-0.03	1.27	
8070.00	90.000	163.160	6278.82	1556.71	-803.52	2366.78	1645494.51	14313537.52	39°24'58.945"N	80°58'55.275"W	2499.46	108.752	0.47	0.16	-0.45	
8165.00	90.060	161.900	6278.77	1651.64	-894.14	2395.30	1645523.01	14313446.94	39°24'58.049"N	80°58'54.912"W	2556.75	110.470	1.33	0.06	-1.33	
8259.00	89.780	161.300	6278.91	1745.61	-983.33	2424.97	1645552.67	14313357.78	39°24'57.168"N	80°58'54.534"W	2616.76	112.073	0.70	-0.30	-0.64	
8354.00	89.750	160.600	6279.30	1840.60	-1073.13	2455.98	1645583.67	14313268.02	39°24'56.280"N	80°58'54.139"W	2680.20	113.603	0.74	-0.03	-0.74	
8448.00	89.880	159.680	6279.60	1934.60	-1161.54	2487.91	1645615.59	14313179.65	39°24'55.406"N	80°58'53.732"W	2745.70	115.027	0.99	0.14	-0.98	
8543.00	89.540	160.810	6280.08	2029.59	-1250.94	2520.02	1645647.68	14313090.28	39°24'54.522"N	80°58'53.323"W	2813.43	116.400	1.24	-0.36	1.19	
8637.00	89.780	160.450	6280.64	2123.59	-1339.62	2551.20	1645678.85	14313001.64	39°24'53.646"N	80°58'52.926"W	2881.53	117.704	0.46	0.26	-0.38	
8732.00	89.850	159.310	6280.94	2218.59	-1428.82	2583.88	1645711.51	14312912.47	39°24'52.764"N	80°58'52.510"W	2952.62	118.941	1.20	0.07	-1.20	
8826.00	89.780	160.810	6281.25	2312.58	-1517.18	2615.93	1645743.56	14312824.15	39°24'51.891"N	80°58'52.102"W	3024.06	120.113	1.60	-0.07	1.60	
8921.00	89.780	161.500	6281.61	2407.57	-1607.09	2646.62	1645774.23	14312734.27	39°24'51.002"N	80°58'51.711"W	3096.34	121.267	0.73	0.00	0.73	
9016.00	89.820	162.580	6281.94	2502.52	-1697.46	2675.91	1645803.51	14312643.94	39°24'50.109"N	80°58'51.338"W	3168.89	122.389	1.14	0.04	1.14	
9110.00	89.850	164.920	6282.21	2596.34	-1787.69	2702.21	1645829.80	14312553.74	39°24'49.217"N	80°58'51.004"W	3240.03	123.487	2.49	0.03	2.49	
9205.00	89.850	166.410	6282.46	2690.91	-1879.73	2725.74	1645853.31	14312461.74	39°24'48.307"N	80°58'50.704"W	3311.05	124.591	1.57	0.00	1.57	
9299.00	89.850	167.630	6282.71	2784.24	-1971.33	2746.85	1645874.42	14312370.18	39°24'47.402"N	80°58'50.435"W	3381.02	125.666	1.30	0.00	1.30	
9394.00	90.310	166.400	6282.98	2878.58	-2063.90	2768.19	1645895.75	14312277.65	39°24'46.487"N	80°58'50.164"W	3452.91	126.707	1.38	0.48	-1.29	
9488.00	90.650	161.280	6281.79	2972.36	-2154.15	2794.35	1645921.90	14312187.43	39°24'45.595"N	80°58'49.831"W	3528.28	127.628	5.46	0.36	-5.45	
9583.00	90.120	158.230	6281.15	3067.34	-2243.27	2827.21	1645954.75	14312098.35	39°24'44.714"N	80°58'49.412"W	3609.07	128.430	3.26	-0.56	-3.21	
9677.00	89.820	157.730	6281.20	3161.27	-2330.41	2862.46	1645989.98	14312011.24	39°24'43.853"N	80°58'48.963"W	3691.14	129.150	0.62	-0.32	-0.53	
9772.00	90.000	157.100	6281.35	3256.15	-2418.13	2898.94	1646026.45	14311923.56	39°24'42.986"N	80°58'48.499"W	3775.08	129.833	0.69	0.19	-0.66	

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Actual Wellpath Report

Grounds Unit 2H AWP Proj: 17672'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #02
Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 2H
Area	Tyler County, WV	Wellbore	Grounds Unit 2H AWB
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (205 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (IUS ft)	Grid North (IUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
9866.00	89.880	155.760	6281.45	3349.94	-2504.28	2936.53	1646064.02	14311837.44	39°24'42.134"N	80°58'48.020"W	3859.36	130.458	1.43	-0.13	-1.43	
9961.00	89.750	156.670	6281.75	3444.71	-2591.21	2974.84	1646102.32	14311750.55	39°24'41.275"N	80°58'47.532"W	3945.13	131.057	0.97	-0.14	0.96	
10056.00	89.750	157.880	6282.17	3539.58	-2678.83	3011.54	1646139.00	14311662.96	39°24'40.409"N	80°58'47.065"W	4030.57	131.654	1.27	0.00	1.27	
10150.00	89.820	159.290	6282.52	3633.54	-2766.34	3045.86	1646173.31	14311575.49	39°24'39.544"N	80°58'46.628"W	4114.60	132.247	1.50	0.07	1.50	
10245.00	89.780	158.960	6282.85	3728.52	-2855.11	3079.71	1646207.15	14311486.76	39°24'38.666"N	80°58'46.197"W	4199.55	132.833	0.35	-0.04	-0.35	
10339.00	89.820	158.770	6283.18	3822.49	-2942.78	3113.61	1646241.03	14311399.12	39°24'37.800"N	80°58'45.765"W	4284.22	133.384	0.21	0.04	-0.20	
10433.00	89.820	158.770	6283.48	3916.46	-3030.40	3147.64	1646275.05	14311311.53	39°24'36.934"N	80°58'45.332"W	4369.32	133.913	0.00	0.00	0.00	
10528.00	89.910	158.690	6283.70	4011.43	-3118.93	3182.11	1646309.50	14311223.04	39°24'36.059"N	80°58'44.893"W	4455.73	134.426	0.13	0.09	-0.08	
10623.00	89.940	158.910	6283.82	4106.40	-3207.50	3216.46	1646343.84	14311134.51	39°24'35.183"N	80°58'44.456"W	4542.43	134.920	0.23	0.03	0.23	
10717.00	89.880	159.950	6283.97	4200.39	-3295.51	3249.49	1646378.85	14311046.53	39°24'34.313"N	80°58'44.035"W	4628.12	135.403	1.11	-0.06	1.11	
10812.00	89.720	160.480	6284.30	4295.39	-3384.90	3281.64	1646409.00	14310957.18	39°24'33.430"N	80°58'43.618"W	4714.52	135.887	0.58	-0.17	0.56	
10906.00	89.820	159.650	6284.68	4389.38	-3473.26	3313.69	1646441.03	14310868.85	39°24'32.556"N	80°58'43.218"W	4800.43	136.347	0.89	0.11	-0.88	
11000.00	89.850	160.890	6284.95	4483.38	-3561.74	3345.43	1646472.75	14310780.41	39°24'31.682"N	80°58'42.814"W	4886.50	136.794	1.32	0.03	1.32	
11094.00	89.720	161.800	6285.30	4577.36	-3650.80	3375.49	1646502.81	14310691.38	39°24'30.801"N	80°58'42.431"W	4972.15	137.244	0.98	-0.14	0.97	
11189.00	89.750	160.690	6285.74	4672.34	-3740.76	3406.04	1646533.34	14310601.46	39°24'29.912"N	80°58'42.042"W	5059.09	137.681	1.17	0.03	-1.17	
11283.00	89.850	160.130	6286.07	4766.34	-3829.31	3437.55	1646564.84	14310512.94	39°24'29.037"N	80°58'41.641"W	5145.91	138.086	0.61	0.11	-0.60	
11378.00	90.340	160.680	6286.91	4861.34	-3918.81	3469.41	1646596.69	14310423.48	39°24'28.152"N	80°58'41.235"W	5233.92	138.481	0.78	0.52	0.58	
11473.00	90.280	163.290	6285.40	4956.29	-4009.15	3498.79	1646626.06	14310333.18	39°24'27.260"N	80°58'40.861"W	5321.16	138.889	2.75	-0.06	2.75	
11567.00	90.370	161.170	6284.87	5050.22	-4098.65	3527.48	1646654.73	14310243.71	39°24'26.375"N	80°58'40.496"W	5407.59	139.283	2.26	0.10	-2.26	
11661.00	90.310	161.880	6284.31	5144.20	-4187.81	3557.26	1646684.51	14310154.59	39°24'25.494"N	80°58'40.117"W	5494.71	139.654	0.76	-0.06	0.76	
11756.00	90.180	160.240	6283.90	5239.18	-4277.66	3588.10	1646715.33	14310064.78	39°24'24.605"N	80°58'39.724"W	5583.26	140.010	1.73	-0.14	-1.73	
11851.00	90.280	156.370	6283.52	5334.11	-4365.91	3623.21	1646750.43	14309976.56	39°24'23.733"N	80°58'39.277"W	5673.52	140.311	4.08	0.11	-4.07	
11945.00	90.030	153.630	6283.27	5427.71	-4451.10	3662.93	1646780.13	14309891.41	39°24'22.891"N	80°58'38.772"W	5764.49	140.548	2.93	-0.27	-2.91	
12040.00	89.510	152.860	6283.65	5522.00	-4535.93	3705.70	1646812.88	14309806.61	39°24'22.053"N	80°58'38.227"W	5857.20	140.752	0.98	-0.55	-0.81	
12134.00	89.600	157.930	6284.38	5615.63	-4621.36	3744.82	1646847.99	14309721.21	39°24'21.208"N	80°58'37.729"W	5948.16	140.981	5.39	0.10	5.39	
12229.00	89.450	163.310	6285.17	5710.59	-4710.94	3776.33	1646883.49	14309631.67	39°24'20.323"N	80°58'37.328"W	6037.69	141.284	5.67	-0.16	5.66	
12323.00	89.820	168.190	6285.77	5804.13	-4802.02	3799.46	1646926.61	14309540.63	39°24'19.422"N	80°58'37.033"W	6123.34	141.648	5.21	0.39	5.19	
12418.00	90.490	165.540	6285.51	5898.48	-4894.52	3821.05	1646968.19	14309448.16	39°24'18.508"N	80°58'36.759"W	6209.41	142.022	2.88	0.71	-2.79	
12512.00	90.090	168.600	6285.03	5992.38	-4983.90	3849.97	1646977.09	14309358.82	39°24'17.625"N	80°58'36.390"W	6297.74	142.315	7.40	-0.43	-7.38	
12607.00	89.820	157.860	6285.11	6087.32	-5072.13	3885.20	1647012.31	14309270.63	39°24'16.753"N	80°58'35.942"W	6389.15	142.548	0.83	-0.28	-0.78	

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Actual Wellpath Report

Grounds Unit 2H AWP Proj: 17672'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #02
Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 2H
Area	Tyler County, WV	Wellbore	Grounds Unit 2H AWB
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (205 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
12702.00	89.910	157.900	6285.33	6182.24	-5160.13	3920.97	1647048.07	14309182.66	39°24'15.883"N	80°58'35.486"W	6480.82	142.770	0.10	0.09	0.04	
12796.00	89.880	157.830	6285.50	6276.16	-5247.21	3956.39	1647083.48	14309095.62	39°24'15.022"N	80°58'35.036"W	6571.62	142.984	0.08	-0.03	-0.07	
12891.00	89.350	158.870	6286.14	6371.10	-5335.50	3991.44	1647118.51	14309007.36	39°24'14.149"N	80°58'34.589"W	6663.27	143.200	1.23	-0.56	1.09	
12985.00	89.480	161.220	6287.10	6465.09	-5423.85	4023.52	1647150.57	14308919.05	39°24'13.276"N	80°58'34.181"W	6753.28	143.431	2.50	0.14	2.50	
13080.00	89.480	163.000	6287.96	6560.03	-5514.25	4052.70	1647179.74	14308828.69	39°24'12.382"N	80°58'33.810"W	6843.34	143.686	1.87	0.00	1.87	
13175.00	89.510	163.900	6288.80	6654.88	-5605.31	4079.76	1647206.79	14308737.66	39°24'11.482"N	80°58'33.465"W	6932.81	143.951	0.95	0.03	0.95	
13269.00	89.480	164.060	6289.63	6748.67	-5695.65	4105.70	1647232.72	14308647.35	39°24'10.589"N	80°58'33.135"W	7021.20	144.214	0.17	-0.03	0.17	
13364.00	89.450	165.520	6290.52	6843.36	-5787.32	4130.62	1647259.63	14308555.75	39°24'09.683"N	80°58'32.818"W	7110.21	144.483	1.54	-0.03	1.54	
13458.00	89.480	166.310	6291.40	6936.90	-5878.49	4153.49	1647280.50	14308464.59	39°24'08.782"N	80°58'32.527"W	7197.79	144.757	0.84	0.03	0.84	
13552.00	89.350	165.760	6292.35	7030.41	-5969.70	4176.18	1647303.17	14308373.41	39°24'07.881"N	80°58'32.238"W	7285.45	145.025	0.60	-0.14	-0.59	
13647.00	89.260	162.900	6293.51	7125.15	-6061.16	4201.83	1647328.82	14308282.00	39°24'06.977"N	80°58'31.912"W	7375.16	145.269	3.01	-0.09	-3.01	
13741.00	89.110	160.210	6294.84	7219.11	-6150.31	4231.57	1647358.54	14308192.88	39°24'06.095"N	80°58'31.533"W	7465.42	145.471	2.87	-0.16	-2.86	
13836.00	89.020	160.310	6296.39	7314.09	-6239.72	4263.65	1647390.61	14308103.51	39°24'05.212"N	80°58'31.125"W	7557.30	145.655	0.14	-0.09	0.11	
13930.00	88.980	161.340	6298.04	7408.07	-6328.49	4294.52	1647421.47	14308014.78	39°24'04.334"N	80°58'30.732"W	7648.05	145.839	1.10	-0.04	1.10	
14025.00	89.110	161.260	6299.62	7503.04	-6418.46	4324.97	1647451.91	14307924.84	39°24'03.445"N	80°58'30.344"W	7739.64	146.027	0.16	0.14	-0.08	
14119.00	89.110	160.380	6301.08	7597.03	-6507.23	4355.85	1647482.77	14307836.10	39°24'02.567"N	80°58'29.951"W	7830.55	146.202	0.94	0.00	-0.94	
14214.00	89.200	156.940	6302.48	7691.97	-6595.69	4390.41	1647517.32	14307747.68	39°24'01.693"N	80°58'29.511"W	7923.31	146.350	3.62	0.09	-3.62	
14308.00	89.350	154.200	6303.67	7785.64	-6681.26	4429.28	1647556.18	14307662.14	39°24'00.847"N	80°58'29.016"W	8016.10	146.458	2.92	0.16	-2.91	
14403.00	89.140	159.900	6304.92	7880.24	-6767.38	4469.35	1647596.23	14307576.05	39°23'59.996"N	80°58'28.506"W	8110.03	146.558	1.80	-0.22	1.79	
14497.00	89.080	158.900	6306.38	7974.10	-6854.15	4505.47	1647632.33	14307489.33	39°23'59.138"N	80°58'28.047"W	8202.35	146.682	3.19	-0.06	3.19	
14592.00	89.140	159.940	6307.86	8069.08	-6943.07	4538.86	1647665.71	14307400.44	39°23'58.259"N	80°58'27.622"W	8295.03	146.826	1.10	0.06	1.09	
14686.00	89.170	158.560	6309.24	8163.05	-7030.96	4572.16	1647698.99	14307312.58	39°23'57.391"N	80°58'27.198"W	8386.84	146.964	1.47	0.03	-1.47	
14781.00	90.120	158.190	6309.83	8258.00	-7119.97	4607.17	1647733.99	14307224.31	39°23'56.518"N	80°58'26.752"W	8479.98	147.091	1.07	1.00	-0.39	
14876.00	89.940	156.640	6309.78	8352.88	-7206.98	4643.65	1647770.46	14307136.63	39°23'55.651"N	80°58'26.288"W	8573.45	147.205	1.64	-0.19	-1.63	
14970.00	89.780	155.330	6310.01	8446.62	-7292.85	4681.90	1647808.70	14307050.80	39°23'54.802"N	80°58'25.801"W	8666.36	147.300	1.40	-0.17	-1.39	
15065.00	89.290	156.770	6310.78	8541.36	-7379.66	4720.47	1647847.24	14306964.02	39°23'53.944"N	80°58'25.310"W	8760.26	147.395	1.60	-0.52	1.52	
15159.00	90.180	163.440	6311.22	8635.31	-7468.00	4752.44	1647879.20	14306875.72	39°23'53.071"N	80°58'24.903"W	8851.93	147.528	7.16	0.95	7.10	
15254.00	90.310	162.670	6310.81	8730.19	-7558.87	4780.12	1647906.87	14306784.88	39°23'52.172"N	80°58'24.550"W	8943.50	147.691	0.82	0.14	-0.81	
15348.00	91.110	159.010	6309.65	8824.16	-7647.64	4810.97	1647937.71	14306696.15	39°23'51.295"N	80°58'24.158"W	9035.03	147.827	3.99	0.85	-3.89	
15443.00	89.660	157.410	6309.01	8919.10	-7735.85	4846.23	1647972.95	14306607.98	39°23'50.423"N	80°58'23.709"W	9128.49	147.934	2.27	-1.53	-1.68	

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Gorrell Pad
Slot	Slot #02
Well	Grounds Unit 2H
Wellbore	Grounds Unit 2H AWB

WELLPATH DATA (205 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
15537.00	89.260	159.130	6309.90	9013.03	-7823.16	4881.03	1648007.74	14306520.70	39°23'49.560"N	80°58'23.266"W	9220.97	148.039	1.88	-0.43	1.83	
15632.00	90.180	161.050	6310.36	9108.03	-7912.48	4913.38	1648040.07	14306431.42	39°23'48.677"N	80°58'22.854"W	9313.89	148.161	2.24	0.97	2.02	
15727.00	89.630	161.780	6310.52	9203.00	-8002.52	4943.65	1648070.34	14306341.41	39°23'47.787"N	80°58'22.469"W	9406.38	148.294	0.96	-0.58	0.77	
15821.00	89.510	164.920	6311.22	9296.85	-8092.57	4970.58	1648097.26	14306251.40	39°23'46.897"N	80°58'22.126"W	9497.17	148.441	3.34	-0.73	3.34	
15916.00	90.250	166.980	6311.42	9391.37	-8184.72	4993.64	1648120.31	14306159.29	39°23'45.986"N	80°58'21.833"W	9587.81	148.612	2.30	0.78	2.17	
16010.00	90.220	164.420	6311.04	9484.93	-8275.80	5016.86	1648143.52	14306068.25	39°23'45.086"N	80°58'21.538"W	9677.69	148.775	2.72	-0.03	-2.72	
16105.00	90.000	163.440	6310.85	9579.74	-8367.08	5043.16	1648169.80	14305977.00	39°23'44.184"N	80°58'21.203"W	9769.42	148.921	1.06	-0.23	-1.03	
16200.00	89.970	163.550	6310.88	9674.58	-8458.17	5070.15	1648196.78	14305885.95	39°23'43.283"N	80°58'20.860"W	9861.39	149.060	0.12	-0.03	0.12	
16294.00	89.940	160.320	6310.95	9768.53	-8547.52	5099.29	1648225.91	14305796.63	39°23'42.400"N	80°58'20.489"W	9953.04	149.180	3.44	-0.03	-3.44	
16389.00	88.650	160.690	6312.12	9863.52	-8637.07	5130.99	1648257.60	14305707.12	39°23'41.515"N	80°58'20.085"W	10046.20	149.287	1.41	-1.36	0.39	
16483.00	88.460	162.420	6314.49	9957.46	-8726.21	5160.72	1648287.32	14305618.02	39°23'40.634"N	80°58'19.707"W	10138.04	149.400	1.85	-0.20	1.84	
16578.00	87.290	158.150	6318.02	10052.37	-8815.56	5192.74	1648319.32	14305528.70	39°23'39.751"N	80°58'19.299"W	10231.25	149.500	4.66	-1.23	-4.49	
16672.00	90.030	157.070	6320.21	10146.23	-8902.44	5228.53	1648355.10	14305441.86	39°23'38.892"N	80°58'18.844"W	10324.29	149.574	3.13	2.91	-1.15	
16767.00	89.020	155.680	6321.00	10241.01	-8989.47	5266.60	1648393.16	14305354.86	39°23'38.031"N	80°58'18.359"W	10418.62	149.636	1.81	-1.06	-1.46	
16861.00	88.550	156.400	6323.00	10334.74	-9075.35	5304.76	1648431.30	14305269.02	39°23'37.183"N	80°58'17.874"W	10512.01	149.693	0.91	-0.50	0.77	
16956.00	88.030	157.390	6325.83	10429.54	-9162.69	5342.03	1648468.55	14305181.71	39°23'36.319"N	80°58'17.399"W	10606.23	149.757	1.18	-0.55	1.04	
17050.00	87.910	159.280	6329.16	10523.42	-9249.99	5376.71	1648503.22	14305094.45	39°23'35.456"N	80°58'16.958"W	10699.12	149.832	2.01	-0.13	2.01	
17145.00	88.000	161.770	6332.55	10618.35	-9339.49	5408.36	1648534.85	14305004.98	39°23'34.572"N	80°58'16.555"W	10792.42	149.926	2.62	0.09	2.62	
17240.00	88.090	163.010	6335.79	10713.23	-9429.98	5437.08	1648563.57	14304914.52	39°23'33.677"N	80°58'16.190"W	10885.15	150.033	1.31	0.09	1.31	
17334.00	88.060	163.640	6338.95	10807.04	-9519.98	5464.04	1648590.51	14304824.56	39°23'32.788"N	80°58'15.847"W	10976.60	150.146	0.67	-0.03	0.67	
17428.00	88.180	164.690	6342.03	10900.76	-9610.36	5489.67	1648616.14	14304734.22	39°23'31.894"N	80°58'15.521"W	11067.77	150.264	1.12	0.13	1.12	
17523.00	88.030	163.950	6345.17	10995.47	-9701.78	5515.33	1648641.79	14304642.84	39°23'30.991"N	80°58'15.194"W	11159.90	150.382	0.79	-0.16	-0.78	
17617.00	88.060	164.220	6348.38	11089.20	-9792.12	5541.09	1648667.54	14304552.53	39°23'30.098"N	80°58'14.866"W	11251.19	150.496	0.29	0.03	0.29	
17648.00	88.060	163.640	6349.43	11120.12	-9821.89	5549.67	1648676.11	14304522.77	39°23'29.803"N	80°58'14.757"W	11281.33	150.532	1.87	0.00	-1.87	
17672.00	88.060	163.640	6350.24	11144.06	-9844.91	5556.43	1648682.87	14304499.77	39°23'29.576"N	80°58'14.671"W	11304.69	150.560	0.00	0.00	0.00	Projected MD at TD: 17672'

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REFERENCE WELLPATH IDENTIFICATION		
Operator	ANTERO RESOURCES CORPORATION	Slot #02
Area	Tyler County, WV	Grounds Unit 2H
Field	Tyler	Grounds Unit 2H AWB
Facility	Gorrell Pad	

HOLE & CASING SECTIONS - Ref Wellbore: Grounds Unit 2H AWB Ref Wellpath: Grounds Unit 2H AWP Proj: 17672'									
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	30.00	110.00	80.00	30.00	110.00	0.00	0.00	0.16	0.24
17.5in Open Hole	110.00	650.00	540.00	110.00	650.00	0.16	0.24	0.50	1.03
13.375in Casing Surface	30.00	630.70	600.70	30.00	630.70	0.00	0.00	0.51	0.86
12.25in Open Hole	630.70	2622.00	1991.30	630.70	2530.92	0.51	0.86	227.77	469.05
9.625in Casing Intermediate	30.00	2602.50	2572.50	30.00	2512.29	0.00	0.00	225.49	463.76
8.75in Open Hole	2622.00	5496.00	2874.00	2530.92	5193.35	227.77	469.05	703.20	1431.46
8.5in Open Hole	5496.00	17672.00	12176.00	5193.35	6350.24	703.20	1431.46	-9844.91	5556.43
5.5in Casing Production	30.00	17672.00	17642.00	30.00	6350.24	0.00	0.00	-9844.91	5556.43

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Grounds Unit 2H - POE - Rev-2	6240.00	357.08	1922.54	1645050.44	14314697.65	39°25'10.416"N	80°59'00.932"W	point
Grounds Unit 2H - BHL - Rev-2	6278.00	-9858.33	5594.55	1648720.97	14304486.35	39°23'29.443"N	80°58'14.186"W	point
Grounds Unit 2H - LP - Rev-2	6278.00	140.46	2000.41	1645128.27	14314481.12	39°25'08.275"N	80°58'59.941"W	point

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Grounds Unit 2H
Field	Tyler	Wellbore	Grounds Unit 2H AWB
Facility	Gorrell Pad		

WELLPATH COMPOSITION - Ref Wellbore: Grounds Unit 2H AWB Ref Wellpath: Grounds Unit 2H AWP Proj: 17672'			
Start MD ft)	End MD ft)	Positional Uncertainty Model	Log Name/Comment
30.00	612.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-612')
612.00	2555.00	BHI NaviTrak (Axial)	02 BHI NaviTrak <12-1/4">(612')(722'-2555')
2555.00	5405.00	BHI NaviTrak (Axial)	03 BHI NaviTrak <8-3/4">(2555')(2615'-5405')
5405.00	17648.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(5405')(5470'-17648')
17648.00	17672.00	Blind Drilling (std)	Projection to bit
			Wellbore

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Slot	Slot #02	
ANTERO RESOURCES CORPORATION	Well	Grounds Unit 2H	
Tyler County, WV	Wellbore	Grounds Unit 2H AWB	
Tyler			
Gorrell Pad			

COMMENTS
<p>Wellpath general comments</p> <p>API: 47-095-02591-0000</p> <p>BHI Job #: 109806249A</p> <p>Rig: H&P 519</p> <p>Duration: 05/12/2019-06/01/2019</p> <p>Gyrodatta MS Gyro <17-1/2">(100'-612')</p> <p>BHI NaviTrak <12-1/4">(612')(722'-2555')</p> <p>BHI NaviTrak <8-3/4">(2555')(2615'-5405')</p> <p>BH AT Curve <8-1/2">(5405')(5470"-17648')</p> <p>Middlesex: 6570' MD</p> <p>Burkett: 6763' MD</p> <p>Tully: 6812' MD</p> <p>Marcellus POE: 6832' MD</p> <p>Projected MD at TD: 17672'</p>

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