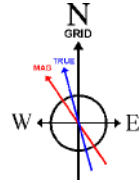




ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: Sine Pad

Slot: Slot #08
 Well: Remington Unit 2H
 Wellbore: Remington Unit 2H PWB



User specified (HDGM) Dip: 66.51° Field: 51780 nT
 Magnetic North is 7.73 degrees West of True North (at 2/8/2019)
 Grid North is 0.03 degrees East of True North
 To correct azimuth from True to Grid subtract 0.03 degrees
 To correct azimuth from Magnetic to Grid subtract 7.76 degrees

Plot reference wellpath is Remington Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Patterson 342 (RKB)	North Reference: Grid north
Measured depths are referenced to Patterson 342 (RKB)	Scale: True distance
Patterson 342 (RKB) to Mean Sea Level: 824 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #08): -799 feet	Created by: delaset on 2019-02-22
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn



Gyrodata MS Gyro <17-1/2">(25'-313') : 0.44° Inc, 35.00ft MD, 35.00ft TVD, -0.03ft VS
 WFT EM <12-1/4">(313')(436'-2479') : 0.49° Inc, 446.00ft MD, 445.99ft TVD, 0.57ft VS

Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Sine Pad		1652653.868	14313061.080	39°24'54.210"N	80°57'24.020"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #08	-1.00	14.91	1652668.775	14313060.076	39°24'54.200"N	80°57'23.830"W
Comment Remington Unit 2H						
Patterson 342 (RKB) to Ground level (At Slot: Slot #08)			25ft			
Mean Sea Level to Ground level (At Slot: Slot #08)			-799ft			
Patterson 342 (RKB) to Mean Sea Level			824ft			

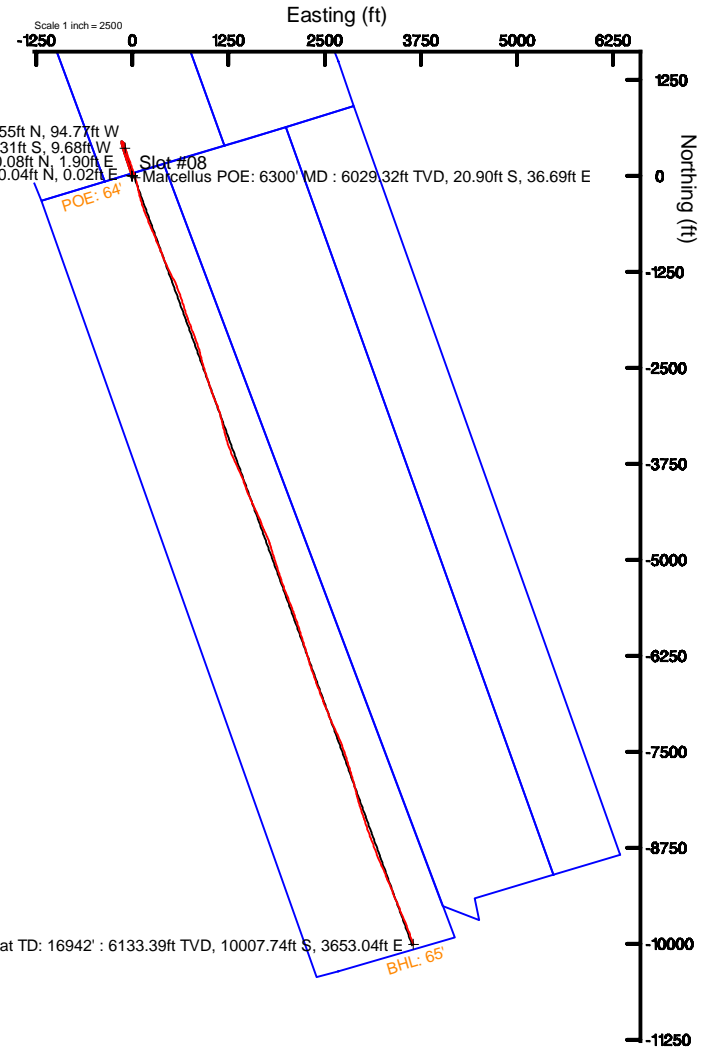
WFT EM <8-3/4">(2479')(2618'-5690') : 1.85° Inc, 2628.00ft MD, 2627.76ft TVD, -2.06ft VS

Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	5700.00	25.610	166.790	5643.58	390.51	-101.98	-401.93
Proj. To Bottom	5774.00	30.770	164.490	5708.78	356.68	-93.26	-367.15
End of 3D Arc	6292.37	71.855	161.326	6025.95	-20.79	26.24	28.47
POE	6308.34	71.252	160.139	6031.00	-35.09	31.24	43.61
Landing Pt.	6542.69	90.000	160.139	6069.00	-251.59	109.44	273.80
BHL	16924.75	90.000	160.139	6069.00	-10016.10	3636.69	10655.86

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #08	Remington Unit 2H	Remington Unit 2H AWB	Remington Unit 2H AWP Proj: 16942'
Slot #08	Remington Unit 2H	Remington Unit 2H PWB	Remington Unit 2H PWP Rev-A.0

BH AT Curve <8-1/2">(5700')(5760'-16918') : 29.86° Inc, 5760.00ft MD, 5696.68ft TVD, -374.12ft VS
 Marcellus POE: 6300' MD : 73.83° Inc, 6300.00ft MD, 6029.32ft TVD, 32.12ft VS

Projected MD at TD: 16942' : 90.12° Inc, 16942.00ft MD, 6133.39ft TVD, 10653.56ft VS



Scale 1 inch = 1500
 True Vertical Depth (ft)
 -750
 0
 750
 1500
 2250
 3000
 3750
 4500
 5250
 6000

-750 0 750 1500 2250 3000 3750 4500 5250 6000 6750 7500 8250 9000 9750 10500 11250

Vertical Section (ft)
 Azimuth 160.14° with reference 0.00 N, 0.00 E

API: 47-095-02535-0000
 BHI Job #: 109636737
 Rig: Patterson 342
 Duration: 02/10/2019-02/13/2019



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine 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	2/22/2019 at 8:01:33 PM
Convergence at slot	0.03° East	Database/Source file	WA_MPL_EasternUS_Defn/Remington_Unit_2H_AWP_Proj_16942_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1.00	14.91	1652668.78	14313060.08	39°24'54.200"N	80°57'23.830"W
Facility Reference Pt			1652653.87	14313061.08	39°24'54.210"N	80°57'24.020"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	824.00ft
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Ground Level at Slot (Slot #08)	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	160.14°



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

WELLPATH DATA (214 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	23.430	0.00	0.00	0.00	0.00	1652668.78	14313060.08	39°24'54.200"N	80°57'23.830"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	23.430	25.00	0.00	0.00	0.00	1652668.78	14313060.08	39°24'54.200"N	80°57'23.830"W	0.00	0.000	0.00	0.00	0.00	
35.00	0.440	23.430	35.00	-0.03	0.04	0.02	1652668.79	14313060.11	39°24'54.200"N	80°57'23.830"W	0.04	23.430	4.40	4.40	234.30	Gyrodata MS Gyro <17-1/2">(25'-313')
60.00	0.320	57.750	60.00	-0.11	0.16	0.11	1652668.89	14313060.24	39°24'54.202"N	80°57'23.829"W	0.20	35.013	1.01	-0.48	137.28	
85.00	0.250	41.820	85.00	-0.15	0.24	0.21	1652668.98	14313060.31	39°24'54.202"N	80°57'23.827"W	0.32	41.082	0.42	-0.28	-63.72	
110.00	0.240	46.090	110.00	-0.20	0.32	0.28	1652669.06	14313060.39	39°24'54.203"N	80°57'23.826"W	0.42	41.796	0.08	-0.04	17.08	
135.00	0.360	59.180	135.00	-0.24	0.39	0.39	1652669.16	14313060.47	39°24'54.204"N	80°57'23.825"W	0.55	44.645	0.55	0.48	52.36	
160.00	0.280	50.300	160.00	-0.27	0.47	0.50	1652669.28	14313060.55	39°24'54.205"N	80°57'23.824"W	0.69	46.788	0.38	-0.32	-35.52	
185.00	0.400	62.240	185.00	-0.31	0.55	0.63	1652669.40	14313060.63	39°24'54.205"N	80°57'23.822"W	0.83	48.643	0.55	0.48	47.76	
210.00	0.480	60.420	210.00	-0.34	0.64	0.79	1652669.57	14313060.72	39°24'54.206"N	80°57'23.820"W	1.02	50.992	0.32	0.32	-7.28	
235.00	0.400	82.580	235.00	-0.33	0.71	0.97	1652669.75	14313060.78	39°24'54.207"N	80°57'23.818"W	1.20	53.992	0.75	-0.32	88.64	
260.00	0.470	89.770	260.00	-0.28	0.72	1.16	1652669.94	14313060.79	39°24'54.207"N	80°57'23.815"W	1.36	58.266	0.35	0.28	28.76	
285.00	0.360	91.080	284.99	-0.22	0.72	1.34	1652670.12	14313060.79	39°24'54.207"N	80°57'23.813"W	1.52	61.889	0.44	-0.44	5.24	
310.00	0.350	102.460	309.99	-0.15	0.70	1.49	1652670.27	14313060.77	39°24'54.207"N	80°57'23.811"W	1.65	64.945	0.28	-0.04	45.52	
323.00	0.320	103.100	322.99	-0.11	0.68	1.57	1652670.34	14313060.76	39°24'54.207"N	80°57'23.810"W	1.71	66.506	0.23	-0.23	4.92	
446.00	0.490	180.260	445.99	0.57	0.08	1.90	1652670.68	14313060.15	39°24'54.201"N	80°57'23.806"W	1.90	87.643	0.42	0.14	62.73	WFT EM <12-1/4">(313')(436'-2479')
538.00	0.550	193.300	537.99	1.31	-0.74	1.80	1652670.57	14313059.33	39°24'54.193"N	80°57'23.807"W	1.95	112.504	0.14	0.07	14.17	
631.00	0.720	213.170	630.98	2.04	-1.67	1.38	1652670.15	14313058.41	39°24'54.184"N	80°57'23.812"W	2.16	140.496	0.30	0.18	21.37	
723.00	0.550	219.220	722.98	2.61	-2.49	0.78	1652669.55	14313057.58	39°24'54.175"N	80°57'23.820"W	2.61	162.634	0.20	-0.18	6.58	
816.00	0.470	231.750	815.97	2.96	-3.08	0.20	1652668.97	14313057.00	39°24'54.170"N	80°57'23.827"W	3.08	176.313	0.15	-0.09	13.47	
912.00	0.490	194.720	911.97	3.42	-3.72	-0.22	1652668.56	14313056.36	39°24'54.163"N	80°57'23.833"W	3.72	183.315	0.32	0.02	-38.57	
1007.00	0.520	193.240	1006.97	4.12	-4.53	-0.42	1652668.36	14313055.55	39°24'54.155"N	80°57'23.835"W	4.55	185.263	0.03	0.03	-1.56	
1102.00	0.970	211.050	1101.96	4.99	-5.64	-0.93	1652667.84	14313054.44	39°24'54.144"N	80°57'23.842"W	5.71	189.374	0.53	0.47	18.75	
1197.00	1.240	208.770	1196.94	6.17	-7.23	-1.84	1652666.94	14313052.85	39°24'54.129"N	80°57'23.853"W	7.46	194.284	0.29	0.28	-2.40	
1292.00	0.910	226.900	1291.92	7.15	-8.64	-2.89	1652665.89	14313051.43	39°24'54.115"N	80°57'23.867"W	9.11	198.460	0.49	-0.35	19.08	
1386.00	0.680	289.240	1385.92	7.09	-8.97	-3.96	1652664.82	14313051.11	39°24'54.111"N	80°57'23.880"W	9.80	203.805	0.90	-0.24	66.32	
1481.00	1.000	305.010	1480.91	6.06	-8.31	-5.17	1652663.61	14313051.77	39°24'54.118"N	80°57'23.896"W	9.79	211.883	0.41	0.34	16.60	
1576.00	0.780	314.190	1575.89	4.80	-7.38	-6.31	1652662.47	14313052.70	39°24'54.127"N	80°57'23.910"W	9.71	220.525	0.28	-0.23	9.66	
1670.00	0.870	316.610	1669.88	3.57	-6.42	-7.26	1652661.52	14313053.66	39°24'54.137"N	80°57'23.923"W	9.69	228.522	0.10	0.10	2.57	
1765.00	1.170	320.100	1764.87	2.00	-5.15	-8.38	1652660.40	14313054.93	39°24'54.149"N	80°57'23.937"W	9.83	238.419	0.32	0.32	3.67	



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

WELLPATH DATA (214 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
1860.00	0.600	306.700	1859.86	0.67	-4.11	-9.40	1652659.38	14313055.97	39°24'54.159"N	80°57'23.950"W	10.26	246.387	0.63	-0.60	-14.11	
1955.00	0.530	201.420	1954.86	0.59	-4.22	-9.96	1652658.82	14313055.86	39°24'54.158"N	80°57'23.957"W	10.82	247.031	0.95	-0.07	-110.82	
2049.00	0.650	189.350	2048.85	1.38	-5.15	-10.20	1652658.58	14313054.93	39°24'54.149"N	80°57'23.960"W	11.43	243.212	0.18	0.13	-12.84	
2144.00	0.680	208.860	2143.84	2.22	-6.18	-10.56	1652658.22	14313053.90	39°24'54.139"N	80°57'23.965"W	12.24	239.683	0.24	0.03	20.54	
2239.00	0.620	224.910	2238.84	2.81	-7.03	-11.20	1652657.58	14313053.04	39°24'54.131"N	80°57'23.973"W	13.22	237.863	0.20	-0.06	16.89	
2334.00	0.360	337.000	2333.84	2.73	-7.12	-11.68	1652657.10	14313052.95	39°24'54.130"N	80°57'23.979"W	13.68	238.615	0.87	-0.27	117.99	
2429.00	1.050	22.600	2428.83	1.79	-6.05	-11.46	1652657.32	14313054.03	39°24'54.140"N	80°57'23.976"W	12.96	242.186	0.88	0.73	48.00	
2489.00	1.310	23.120	2488.82	0.89	-4.91	-10.98	1652657.80	14313055.17	39°24'54.152"N	80°57'23.957"W	12.03	245.917	0.43	0.43	0.87	
2628.00	1.850	17.650	2627.76	-2.06	-1.31	-9.68	1652659.10	14313058.77	39°24'54.187"N	80°57'23.953"W	9.76	262.301	0.40	0.39	-3.94	WFT EM <8-3/4">(2479')(2618'-5690')
2723.00	3.310	4.920	2722.66	-5.76	2.89	-8.97	1652659.80	14313062.96	39°24'54.229"N	80°57'23.944"W	9.43	287.826	1.64	1.54	-13.40	
2818.00	4.740	354.890	2817.43	-12.05	9.53	-9.09	1652659.69	14313069.60	39°24'54.294"N	80°57'23.946"W	13.17	316.351	1.67	1.51	-10.56	
2913.00	6.430	339.150	2911.98	-21.17	18.41	-11.33	1652657.45	14313078.48	39°24'54.382"N	80°57'23.974"W	21.62	328.386	2.39	1.78	-16.57	
3013.00	7.630	336.710	3011.23	-33.39	29.74	-15.95	1652652.83	14313089.81	39°24'54.494"N	80°57'24.033"W	33.75	331.795	1.24	1.20	-2.44	
3108.00	8.060	344.050	3105.34	-46.33	41.94	-20.27	1652648.51	14313102.00	39°24'54.615"N	80°57'24.088"W	46.58	334.199	1.15	0.45	7.73	
3202.00	7.580	342.460	3198.47	-59.10	54.19	-23.95	1652644.83	14313114.24	39°24'54.736"N	80°57'24.135"W	59.24	336.151	0.56	-0.51	-1.69	
3297.00	8.530	341.640	3292.53	-72.40	66.85	-28.06	1652640.72	14313126.90	39°24'54.861"N	80°57'24.187"W	72.50	337.228	1.01	1.00	-0.86	
3392.00	9.960	342.220	3386.29	-87.66	81.36	-32.79	1652636.00	14313141.40	39°24'55.004"N	80°57'24.247"W	87.72	338.049	1.51	1.51	0.61	
3487.00	11.400	343.220	3479.64	-105.25	98.17	-38.01	1652630.78	14313158.21	39°24'55.170"N	80°57'24.314"W	105.27	338.835	1.53	1.52	1.05	
3582.00	12.420	344.830	3572.60	-124.80	117.02	-43.39	1652625.40	14313177.05	39°24'55.357"N	80°57'24.382"W	124.81	339.654	1.13	1.07	1.69	
3677.00	11.820	341.730	3665.48	-144.71	136.12	-49.12	1652619.68	14313196.14	39°24'55.546"N	80°57'24.455"W	144.71	340.159	0.93	-0.63	-3.26	
3772.00	11.060	340.620	3758.59	-163.55	153.96	-55.19	1652613.61	14313213.97	39°24'55.722"N	80°57'24.532"W	163.55	340.278	0.83	-0.80	-1.17	
3867.00	11.640	340.530	3851.73	-182.25	171.59	-61.41	1652607.39	14313231.59	39°24'55.896"N	80°57'24.611"W	182.25	340.308	0.61	0.61	-0.09	
3962.00	12.060	341.810	3944.71	-201.75	190.05	-67.70	1652601.10	14313250.05	39°24'56.079"N	80°57'24.691"W	201.75	340.393	0.52	0.44	1.35	
4057.00	12.030	340.780	4037.62	-221.57	208.83	-74.06	1652594.75	14313268.82	39°24'56.264"N	80°57'24.772"W	221.57	340.474	0.23	-0.03	-1.08	
4151.00	12.470	342.000	4129.48	-241.51	227.73	-80.42	1652588.39	14313287.72	39°24'56.451"N	80°57'24.853"W	241.51	340.550	0.54	0.47	1.30	
4246.00	12.280	341.440	4222.27	-261.86	247.06	-86.81	1652582.00	14313307.04	39°24'56.642"N	80°57'24.935"W	261.87	340.641	0.24	-0.20	-0.59	
4341.00	11.690	339.490	4315.20	-281.58	265.66	-93.39	1652575.42	14313325.62	39°24'56.826"N	80°57'25.018"W	281.59	340.631	0.75	-0.62	-2.05	
4436.00	11.830	341.960	4408.21	-300.94	283.93	-99.78	1652569.03	14313343.89	39°24'57.007"N	80°57'25.100"W	300.95	340.637	0.55	0.15	2.60	
4531.00	11.800	343.400	4501.19	-320.37	302.50	-105.57	1652563.25	14313362.45	39°24'57.190"N	80°57'25.173"W	320.39	340.761	0.31	-0.03	1.52	
4626.00	11.630	342.100	4594.21	-339.64	320.92	-111.29	1652557.53	14313380.86	39°24'57.372"N	80°57'25.246"W	339.67	340.874	0.33	-0.18	-1.37	



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #08
Area	Tyler County, WV		Well	Remington Unit 2H
Field	Tyler		Wellbore	Remington Unit 2H AWB
Facility	Sine Pad			

WELLPATH DATA (214 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
4720.00	12.120	341.340	4686.20	-358.97	339.28	-117.36	1652551.46	14313399.22	39°24'57.554"N	80°57'25.323"W	359.01	340.919	0.55	0.52	-0.81	
4815.00	11.660	344.330	4779.16	-378.52	357.98	-123.14	1652545.68	14313417.91	39°24'57.739"N	80°57'25.397"W	378.56	341.017	0.81	-0.48	3.15	
4910.00	12.000	344.030	4872.15	-397.95	376.71	-128.45	1652540.37	14313436.64	39°24'57.924"N	80°57'25.464"W	398.01	341.171	0.36	0.36	-0.32	
5005.00	10.790	344.290	4965.27	-416.67	394.77	-133.58	1652535.25	14313454.69	39°24'58.102"N	80°57'25.530"W	416.76	341.306	1.27	-1.27	0.27	
5100.00	10.330	344.390	5058.66	-434.03	411.53	-138.28	1652530.55	14313471.44	39°24'58.268"N	80°57'25.589"W	434.14	341.427	0.48	-0.48	0.11	
5194.00	10.410	342.920	5151.13	-450.92	427.77	-143.04	1652525.79	14313487.67	39°24'58.429"N	80°57'25.650"W	451.05	341.511	0.29	0.09	-1.56	
5258.00	8.530	348.470	5214.25	-461.39	437.95	-145.69	1652523.15	14313497.85	39°24'58.529"N	80°57'25.684"W	461.54	341.600	3.26	-2.94	8.67	
5289.00	7.140	2.010	5244.97	-465.46	442.12	-146.08	1652522.75	14313502.02	39°24'58.570"N	80°57'25.689"W	465.63	341.716	7.42	-4.48	43.68	
5321.00	6.700	19.610	5276.74	-468.74	445.87	-145.38	1652523.45	14313505.77	39°24'58.607"N	80°57'25.680"W	468.97	341.941	6.74	-1.37	55.00	
5353.00	5.670	35.790	5308.55	-471.08	448.91	-143.83	1652525.00	14313508.81	39°24'58.638"N	80°57'25.660"W	471.39	342.234	6.30	-3.22	50.56	
5384.00	5.160	60.180	5339.42	-472.18	450.85	-141.73	1652527.11	14313510.74	39°24'58.657"N	80°57'25.633"W	472.60	342.549	7.54	-1.65	78.68	
5416.00	5.490	88.230	5371.29	-471.96	451.61	-138.95	1652529.88	14313511.51	39°24'58.664"N	80°57'25.598"W	472.50	342.898	8.12	1.03	87.66	
5448.00	7.090	110.520	5403.10	-470.20	450.97	-135.57	1652533.26	14313510.86	39°24'58.658"N	80°57'25.555"W	470.90	343.268	9.03	5.00	69.66	
5479.00	9.400	121.950	5433.78	-466.97	448.96	-131.63	1652537.20	14313508.85	39°24'58.638"N	80°57'25.504"W	467.85	343.660	9.10	7.45	36.87	
5511.00	12.200	130.140	5465.21	-461.99	445.39	-126.82	1652542.00	14313505.29	39°24'58.603"N	80°57'25.443"W	463.10	344.106	9.96	8.75	25.59	
5542.00	14.710	139.120	5495.36	-455.47	440.30	-121.74	1652547.08	14313500.20	39°24'58.552"N	80°57'25.378"W	456.82	344.544	10.51	8.10	28.97	
5574.00	16.750	149.340	5526.16	-447.15	433.26	-116.73	1652552.09	14313493.16	39°24'58.483"N	80°57'25.315"W	448.71	344.921	10.73	6.38	31.94	
5605.00	19.000	156.980	5555.67	-437.72	424.77	-112.48	1652556.34	14313484.68	39°24'58.399"N	80°57'25.261"W	439.41	345.169	10.47	7.26	24.65	
5637.00	21.230	160.900	5585.72	-426.72	414.50	-108.54	1652560.27	14313474.41	39°24'58.297"N	80°57'25.210"W	428.48	345.326	8.14	6.97	12.25	
5669.00	23.170	165.360	5615.35	-414.66	402.93	-105.06	1652563.76	14313462.85	39°24'58.183"N	80°57'25.166"W	416.41	345.387	8.03	6.06	13.94	
5700.00	25.610	166.790	5643.58	-401.93	390.51	-101.98	1652566.83	14313450.43	39°24'58.060"N	80°57'25.127"W	403.61	345.364	8.10	7.87	4.61	
5760.00	29.860	163.470	5696.68	-374.12	363.55	-94.77	1652574.05	14313423.48	39°24'57.794"N	80°57'25.035"W	375.70	345.390	7.53	7.08	-5.53	BH AT Curve <8-1/2">(5700')(5760'-16918')
5808.00	31.230	162.340	5738.01	-349.76	340.24	-87.59	1652581.22	14313400.18	39°24'57.563"N	80°57'24.944"W	351.33	345.563	3.09	2.85	-2.35	
5855.00	34.720	161.290	5777.44	-324.19	315.94	-79.60	1652589.21	14313375.89	39°24'57.323"N	80°57'24.842"W	325.82	345.859	7.52	7.43	-2.23	
5902.00	39.300	160.520	5814.96	-295.91	289.22	-70.34	1652598.47	14313349.18	39°24'57.059"N	80°57'24.724"W	297.65	346.331	9.79	9.74	-1.64	
5949.00	43.610	160.190	5850.17	-264.81	259.92	-59.88	1652608.92	14313319.89	39°24'56.769"N	80°57'24.591"W	266.73	347.028	9.18	9.17	-0.70	
5996.00	47.890	159.670	5882.96	-231.15	228.31	-48.32	1652620.47	14313288.29	39°24'56.457"N	80°57'24.444"W	233.37	348.050	9.14	9.11	-1.11	
6041.00†	51.835	159.248	5911.97	-196.75	196.10	-36.25	1652632.54	14313256.10	39°24'56.138"N	80°57'24.291"W	199.43	349.528	8.80	8.77	-0.94	Middlesex: 6041' MD
6043.00	52.010	159.230	5913.20	-195.18	194.63	-35.69	1652633.10	14313254.63	39°24'56.124"N	80°57'24.284"W	197.88	349.609	8.80	8.77	-0.88	
6091.00	55.790	160.060	5941.48	-156.41	158.27	-22.21	1652646.58	14313218.29	39°24'55.764"N	80°57'24.112"W	159.82	352.013	8.00	7.87	1.73	



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

WELLPATH DATA (214 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
6138.00	60.050	160.740	5966.43	-116.59	120.77	-8.86	1652659.92	14313180.79	39°24'55.394"N	80°57'23.942"W	121.09	355.805	9.15	9.06	1.45	
6185.00	63.840	161.500	5988.53	-75.13	81.53	4.56	1652673.33	14313141.57	39°24'55.006"N	80°57'23.771"W	81.65	3.199	8.19	8.06	1.62	
6210.00†	66.238	161.965	5999.08	-52.47	60.00	11.66	1652680.43	14313120.06	39°24'54.793"N	80°57'23.681"W	61.13	10.996	9.74	9.59	1.86	Burkett: 6210' MD
6232.00	68.350	162.360	6007.57	-32.19	40.69	17.88	1652686.64	14313100.75	39°24'54.602"N	80°57'23.602"W	44.44	23.718	9.74	9.60	1.80	
6277.00†	72.456	163.158	6022.66	10.15	0.21	30.43	1652699.20	14313060.28	39°24'54.202"N	80°57'23.442"W	30.43	89.613	9.28	9.12	1.77	Tully: 6277' MD
6280.00	72.730	163.210	6023.56	13.00	-2.53	31.26	1652700.02	14313057.54	39°24'54.175"N	80°57'23.432"W	31.36	94.636	9.28	9.13	1.73	
6300.00†	73.826	163.879	6029.32	32.12	-20.90	36.69	1652705.45	14313039.18	39°24'53.993"N	80°57'23.363"W	42.23	119.674	6.35	5.48	3.34	Marcellus POE: 6300' MD
6327.00	75.310	164.770	6036.50	58.08	-45.96	43.72	1652712.48	14313014.13	39°24'53.746"N	80°57'23.273"W	63.43	136.433	6.35	5.49	3.30	
6374.00	77.470	166.630	6047.56	103.54	-90.22	55.00	1652723.75	14312969.89	39°24'53.308"N	80°57'23.130"W	105.66	148.635	5.99	4.60	3.96	
6421.00	80.070	167.170	6056.71	149.32	-135.12	65.44	1652734.19	14312925.01	39°24'52.864"N	80°57'22.997"W	150.13	154.157	5.65	5.53	1.15	
6468.00	83.280	167.110	6063.52	195.47	-180.45	75.79	1652744.54	14312879.70	39°24'52.416"N	80°57'22.865"W	195.72	157.217	6.83	6.83	-0.13	
6515.00	87.260	166.470	6067.39	241.98	-226.04	86.50	1652755.24	14312834.12	39°24'51.965"N	80°57'22.729"W	242.03	159.061	8.58	8.47	-1.36	
6563.00	89.880	165.140	6068.59	289.73	-272.56	98.26	1652767.00	14312787.63	39°24'51.506"N	80°57'22.580"W	289.73	160.175	6.12	5.46	-2.77	
6658.00	89.540	162.910	6069.07	384.50	-363.88	124.41	1652793.13	14312696.34	39°24'50.603"N	80°57'22.247"W	384.56	161.125	2.37	-0.36	-2.35	
6753.00	89.290	160.270	6070.04	479.46	-454.01	154.40	1652823.12	14312606.25	39°24'49.712"N	80°57'21.866"W	479.54	161.217	2.79	-0.26	-2.78	
6847.00	88.680	157.240	6071.71	573.41	-541.59	188.46	1652857.15	14312518.70	39°24'48.846"N	80°57'21.432"W	573.45	160.814	3.29	-0.65	-3.22	
6941.00	88.680	158.410	6073.87	667.30	-628.62	223.92	1652892.61	14312431.71	39°24'47.986"N	80°57'20.981"W	667.31	160.393	1.24	0.00	1.24	
7036.00	88.620	157.230	6076.11	762.20	-716.56	259.78	1652928.45	14312343.80	39°24'47.117"N	80°57'20.525"W	762.20	160.073	1.24	-0.06	-1.24	
7130.00	88.710	156.530	6078.30	856.02	-802.99	296.68	1652965.33	14312257.41	39°24'46.262"N	80°57'20.055"W	856.04	159.722	0.75	0.10	-0.74	
7224.00	88.620	157.820	6080.49	949.87	-889.60	333.13	1653001.77	14312170.83	39°24'45.406"N	80°57'19.591"W	949.93	159.470	1.38	-0.10	1.37	
7319.00	88.610	158.130	6082.79	1044.77	-977.64	368.75	1653037.37	14312082.83	39°24'44.536"N	80°57'19.138"W	1044.87	159.335	0.33	-0.01	0.33	
7414.00	88.610	156.770	6085.09	1139.63	-1065.35	405.17	1653073.78	14311995.15	39°24'43.669"N	80°57'18.674"W	1139.80	159.178	1.43	0.00	-1.43	
7509.00	88.620	156.390	6087.39	1234.42	-1152.50	442.92	1653111.51	14311908.04	39°24'42.807"N	80°57'18.194"W	1234.68	158.978	0.40	0.01	-0.40	
7604.00	88.460	154.030	6089.81	1329.03	-1238.71	482.73	1653151.31	14311821.86	39°24'41.955"N	80°57'17.687"W	1329.45	158.709	2.49	-0.17	-2.48	
7698.00	88.550	154.020	6092.26	1422.47	-1323.19	523.89	1653192.45	14311737.42	39°24'41.120"N	80°57'17.163"W	1423.12	158.400	0.10	0.10	-0.01	
7793.00	88.060	155.350	6095.07	1516.99	-1409.02	564.49	1653233.04	14311651.62	39°24'40.271"N	80°57'16.647"W	1517.89	158.168	1.49	-0.52	1.40	
7888.00	88.000	159.420	6098.34	1611.81	-1496.65	600.99	1653269.53	14311564.03	39°24'39.405"N	80°57'16.182"W	1612.81	158.122	4.28	-0.06	4.28	
7982.00	87.290	162.330	6102.20	1705.71	-1585.38	631.76	1653300.28	14311475.34	39°24'38.528"N	80°57'15.791"W	1706.62	158.273	3.18	-0.76	3.10	
8076.00	88.520	162.120	6105.64	1799.58	-1674.83	660.44	1653328.95	14311385.92	39°24'37.644"N	80°57'15.426"W	1800.34	158.479	1.33	1.31	-0.22	
8171.00	89.880	162.720	6106.96	1894.50	-1765.38	689.13	1653357.63	14311295.41	39°24'36.748"N	80°57'15.061"W	1895.11	158.676	1.56	1.43	0.63	



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

WELLPATH DATA (214 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
8266.00	89.970	159.690	6107.09	1989.47	-1855.30	719.73	1653388.22	14311205.52	39°24'35.860"N	80°57'14.672"W	1990.02	158.797	3.19	0.09	-3.19	
8360.00	88.680	159.550	6108.20	2083.46	-1943.41	752.46	1653420.94	14311117.45	39°24'34.989"N	80°57'14.255"W	2084.00	158.834	1.38	-1.37	-0.15	
8455.00	89.260	159.370	6109.90	2178.43	-2032.36	785.79	1653454.25	14311028.54	39°24'34.109"N	80°57'13.831"W	2178.98	158.862	0.64	0.61	-0.19	
8549.00	88.370	158.470	6111.85	2272.39	-2120.05	819.59	1653488.04	14310940.88	39°24'33.242"N	80°57'13.401"W	2272.95	158.864	1.35	-0.95	-0.96	
8644.00	89.200	162.670	6113.86	2367.34	-2209.59	851.18	1653519.61	14310851.37	39°24'32.357"N	80°57'12.999"W	2367.87	158.932	4.51	0.87	4.42	
8738.00	89.910	165.620	6114.59	2461.10	-2300.00	876.86	1653545.28	14310761.00	39°24'31.464"N	80°57'12.673"W	2461.48	159.131	3.23	0.76	3.14	
8833.00	89.350	165.760	6115.21	2555.65	-2392.05	900.34	1653568.75	14310668.98	39°24'30.554"N	80°57'12.374"W	2555.88	159.374	0.61	-0.59	0.15	
8928.00	88.280	163.710	6117.17	2650.32	-2483.68	925.34	1653593.74	14310577.40	39°24'29.648"N	80°57'12.056"W	2650.45	159.566	2.43	-1.13	-2.16	
9022.00	88.310	162.170	6119.97	2744.16	-2573.50	952.90	1653621.30	14310487.61	39°24'28.760"N	80°57'11.706"W	2744.25	159.682	1.64	0.03	-1.64	
9117.00	88.800	161.640	6122.36	2839.09	-2663.77	982.40	1653650.78	14310397.38	39°24'27.868"N	80°57'11.331"W	2839.15	159.756	0.76	0.52	-0.56	
9211.00	89.630	161.540	6123.65	2933.05	-2752.95	1012.08	1653680.45	14310308.23	39°24'26.986"N	80°57'10.953"W	2933.10	159.815	0.89	0.88	-0.11	
9306.00	90.000	159.910	6123.96	3028.04	-2842.62	1043.44	1653711.80	14310218.60	39°24'26.100"N	80°57'10.554"W	3028.08	159.843	1.76	0.39	-1.72	
9401.00	87.290	156.290	6126.21	3122.93	-2930.72	1078.86	1653747.20	14310130.53	39°24'25.229"N	80°57'10.104"W	3122.99	159.790	4.76	-2.85	-3.81	
9496.00	89.230	160.800	6129.09	3217.82	-3019.07	1113.58	1653781.90	14310042.22	39°24'24.355"N	80°57'09.662"W	3217.89	159.754	5.17	2.04	4.75	
9590.00	89.600	164.210	6130.05	3311.72	-3108.70	1141.83	1653810.15	14309952.62	39°24'23.469"N	80°57'09.302"W	3311.77	159.832	3.65	0.39	3.63	
9685.00	89.750	166.390	6130.59	3406.33	-3200.59	1165.93	1653834.24	14309860.78	39°24'22.561"N	80°57'08.996"W	3406.34	159.984	2.30	0.16	2.29	
9780.00	89.850	167.600	6130.92	3500.65	-3293.15	1187.31	1653855.61	14309768.25	39°24'21.646"N	80°57'08.724"W	3500.65	160.174	1.28	0.11	1.27	
9874.00	90.030	165.010	6131.02	3594.09	-3384.47	1209.56	1653877.85	14309676.97	39°24'20.744"N	80°57'08.441"W	3594.12	160.334	2.76	0.19	-2.76	
9969.00	91.540	162.230	6129.72	3688.90	-3475.59	1236.35	1653904.63	14309585.88	39°24'19.843"N	80°57'08.101"W	3688.94	160.418	3.33	1.59	-2.93	
10063.00	92.590	158.420	6126.33	3782.82	-3564.03	1267.97	1653936.24	14309497.48	39°24'18.969"N	80°57'07.699"W	3782.86	160.416	4.20	1.12	-4.05	
10158.00	91.050	154.950	6123.31	3877.58	-3651.21	1305.54	1653973.79	14309410.33	39°24'18.107"N	80°57'07.220"W	3877.60	160.325	3.99	-1.62	-3.65	
10252.00	89.820	155.230	6122.60	3971.21	-3736.46	1345.13	1654013.37	14309325.12	39°24'17.264"N	80°57'06.717"W	3971.21	160.201	1.34	-1.31	0.30	
10347.00	89.480	156.640	6123.18	4065.95	-3823.20	1383.87	1654052.09	14309238.41	39°24'16.406"N	80°57'06.224"W	4065.95	160.101	1.53	-0.36	1.48	
10442.00	89.540	158.010	6123.99	4160.83	-3910.85	1420.49	1654088.70	14309150.79	39°24'15.540"N	80°57'05.758"W	4160.84	160.038	1.44	0.06	1.44	
10536.00	89.480	160.430	6124.80	4254.81	-3998.73	1453.84	1654122.03	14309062.95	39°24'14.671"N	80°57'05.334"W	4254.82	160.020	2.58	-0.06	2.57	
10631.00	89.690	160.190	6125.48	4349.81	-4088.17	1485.85	1654154.02	14308973.55	39°24'13.787"N	80°57'04.927"W	4349.81	160.026	0.34	0.22	-0.25	
10725.00	89.750	157.080	6125.94	4443.76	-4175.70	1520.09	1654188.25	14308886.05	39°24'12.922"N	80°57'04.491"W	4443.77	159.997	3.31	0.06	-3.31	
10820.00	89.570	155.340	6126.51	4538.53	-4262.62	1558.41	1654226.55	14308799.17	39°24'12.062"N	80°57'04.003"W	4538.57	159.918	1.84	-0.19	-1.83	
10914.00	89.600	155.820	6127.19	4632.23	-4348.21	1597.27	1654265.40	14308713.61	39°24'11.216"N	80°57'03.509"W	4632.30	159.830	0.51	0.03	0.51	
11009.00	89.540	155.440	6127.90	4726.93	-4434.74	1636.46	1654304.58	14308627.11	39°24'10.361"N	80°57'03.010"W	4727.05	159.745	0.40	-0.06	-0.40	



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

WELLPATH DATA (214 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
11104.00	89.630	156.670	6128.59	4821.69	-4521.56	1675.02	1654343.12	14308540.33	39°24'09.503"N	80°57'02.520"W	4821.85	159.673	1.30	0.09	1.29	
11199.00	89.540	156.090	6129.28	4916.48	-4608.60	1713.08	1654381.17	14308453.33	39°24'08.642"N	80°57'02.035"W	4916.69	159.609	0.62	-0.09	-0.61	
11294.00	89.540	157.690	6130.04	5011.32	-4695.97	1750.37	1654418.44	14308365.99	39°24'07.778"N	80°57'01.561"W	5011.58	159.558	1.68	0.00	1.68	
11389.00	89.540	161.320	6130.80	5106.30	-4784.94	1783.62	1654451.68	14308277.06	39°24'06.899"N	80°57'01.138"W	5106.56	159.557	3.82	0.00	3.82	
11483.00	89.570	162.700	6131.53	5200.24	-4874.34	1812.65	1654480.70	14308187.69	39°24'06.015"N	80°57'00.769"W	5200.47	159.601	1.47	0.03	1.47	
11578.00	89.450	163.180	6132.35	5295.12	-4965.16	1840.52	1654508.56	14308096.91	39°24'05.117"N	80°57'00.414"W	5295.31	159.661	0.52	-0.13	0.51	
11673.00	89.510	162.090	6133.21	5390.03	-5055.82	1868.87	1654536.90	14308006.28	39°24'04.221"N	80°57'00.054"W	5390.18	159.713	1.15	0.06	-1.15	
11767.00	89.420	162.220	6134.09	5483.97	-5145.30	1897.68	1654565.69	14307916.85	39°24'03.337"N	80°56'59.688"W	5484.09	159.755	0.17	-0.10	0.14	
11862.00	90.030	162.300	6134.54	5578.90	-5235.78	1926.62	1654594.62	14307826.40	39°24'02.442"N	80°56'59.320"W	5579.00	159.798	0.65	0.64	0.08	
11956.00	90.120	160.320	6134.42	5672.88	-5324.82	1956.74	1654624.73	14307737.40	39°24'01.562"N	80°56'58.936"W	5672.96	159.823	2.11	0.10	-2.11	
12051.00	90.090	158.640	6134.24	5767.87	-5413.78	1990.04	1654658.02	14307648.47	39°24'00.683"N	80°56'58.513"W	5767.96	159.817	1.77	-0.03	-1.77	
12146.00	90.000	157.880	6134.17	5862.81	-5502.03	2025.23	1654693.19	14307560.26	39°23'59.810"N	80°56'58.065"W	5862.92	159.792	0.81	-0.09	-0.80	
12241.00	90.310	159.360	6133.91	5957.78	-5590.49	2059.86	1654727.81	14307471.84	39°23'58.936"N	80°56'57.625"W	5957.90	159.773	1.59	0.33	1.56	
12335.00	89.910	160.350	6133.73	6051.78	-5678.73	2092.23	1654760.17	14307383.62	39°23'58.063"N	80°56'57.213"W	6051.90	159.775	1.14	-0.43	1.05	
12430.00	90.030	160.890	6133.78	6146.77	-5768.35	2123.76	1654791.68	14307294.04	39°23'57.177"N	80°56'56.812"W	6146.89	159.788	0.58	0.13	0.57	
12524.00	90.060	161.660	6133.71	6240.75	-5857.38	2153.93	1654821.84	14307205.05	39°23'56.297"N	80°56'56.428"W	6240.86	159.810	0.82	0.03	0.82	
12619.00	90.060	162.300	6133.61	6335.70	-5947.71	2183.32	1654851.22	14307114.75	39°23'55.404"N	80°56'56.055"W	6335.79	159.843	0.67	0.00	0.67	
12713.00	90.120	163.090	6133.46	6429.61	-6037.46	2211.28	1654879.17	14307025.04	39°23'54.517"N	80°56'55.699"W	6429.67	159.884	0.84	0.06	0.84	
12808.00	89.780	162.670	6133.54	6524.50	-6128.25	2239.25	1654907.12	14306934.29	39°23'53.620"N	80°56'55.344"W	6524.54	159.928	0.57	-0.36	-0.44	
12903.00	89.850	163.430	6133.85	6619.38	-6219.12	2266.94	1654934.81	14306843.45	39°23'52.721"N	80°56'54.991"W	6619.40	159.973	0.80	0.07	0.80	
12997.00	89.780	163.440	6134.15	6713.22	-6309.22	2293.74	1654961.60	14306753.39	39°23'51.831"N	80°56'54.651"W	6713.23	160.021	0.08	-0.07	0.01	
13092.00	89.850	161.900	6134.46	6808.12	-6399.90	2322.04	1654989.88	14306662.74	39°23'50.934"N	80°56'54.291"W	6808.13	160.058	1.62	0.07	-1.62	
13186.00	89.850	161.180	6134.71	6902.09	-6489.07	2351.81	1655019.64	14306573.62	39°23'50.053"N	80°56'53.912"W	6902.10	160.078	0.77	0.00	-0.77	
13281.00	89.850	160.720	6134.96	6997.08	-6578.86	2382.81	1655050.63	14306483.86	39°23'49.165"N	80°56'53.518"W	6997.09	160.090	0.48	0.00	-0.48	
13375.00	89.820	159.380	6135.23	7091.08	-6667.22	2414.88	1655082.69	14306395.53	39°23'48.292"N	80°56'53.110"W	7091.08	160.089	1.43	-0.03	-1.43	
13470.00	89.820	158.910	6135.52	7186.07	-6756.00	2448.70	1655116.50	14306306.80	39°23'47.414"N	80°56'52.680"W	7186.07	160.077	0.49	0.00	-0.49	
13564.00	89.780	159.170	6135.85	7280.05	-6843.77	2482.33	1655150.11	14306219.05	39°23'46.546"N	80°56'52.252"W	7280.06	160.064	0.28	-0.04	0.28	
13659.00	89.820	157.990	6136.18	7375.01	-6932.21	2517.02	1655184.79	14306130.65	39°23'45.672"N	80°56'51.811"W	7375.02	160.044	1.24	0.04	-1.24	
13754.00	89.850	157.550	6136.46	7469.93	-7020.15	2552.96	1655220.71	14306042.75	39°23'44.803"N	80°56'51.354"W	7469.95	160.016	0.46	0.03	-0.46	
13848.00	89.780	156.340	6136.76	7563.78	-7106.64	2589.77	1655257.51	14305956.29	39°23'43.948"N	80°56'50.886"W	7563.81	159.977	1.29	-0.07	-1.29	



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

WELLPATH DATA (214 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
13943.00	89.720	154.010	6137.18	7658.42	-7192.85	2629.66	1655297.38	14305870.11	39°23'43.095"N	80°56'50.378"W	7658.48	159.918	2.45	-0.06	-2.45	
14038.00	89.540	155.890	6137.79	7753.02	-7278.91	2669.88	1655337.58	14305784.09	39°23'42.245"N	80°56'49.867"W	7753.12	159.857	1.99	-0.19	1.98	
14133.00	89.750	158.830	6138.38	7847.90	-7366.58	2706.44	1655374.13	14305696.46	39°23'41.378"N	80°56'49.402"W	7848.01	159.827	3.10	0.22	3.09	
14227.00	89.910	160.740	6138.66	7941.89	-7454.79	2738.92	1655406.60	14305608.29	39°23'40.506"N	80°56'48.989"W	7942.01	159.826	2.04	0.17	2.03	
14322.00	89.880	162.060	6138.83	8036.87	-7544.82	2769.22	1655436.89	14305518.29	39°23'39.616"N	80°56'48.603"W	8036.97	159.845	1.39	-0.03	1.39	
14417.00	89.910	162.490	6139.01	8131.80	-7635.31	2798.15	1655465.80	14305427.83	39°23'38.721"N	80°56'48.236"W	8131.89	159.873	0.45	0.03	0.45	
14510.00	89.850	163.120	6139.20	8224.70	-7724.15	2825.64	1655493.28	14305339.03	39°23'37.843"N	80°56'47.886"W	8224.77	159.907	0.68	-0.06	0.68	
14605.00	90.000	163.890	6139.32	8319.53	-7815.24	2852.61	1655520.24	14305247.97	39°23'36.943"N	80°56'47.543"W	8319.58	159.948	0.83	0.16	0.81	
14700.00	90.000	165.310	6139.32	8414.24	-7906.83	2877.84	1655545.46	14305156.42	39°23'36.037"N	80°56'47.223"W	8414.27	160.000	1.49	0.00	1.49	
14795.00	90.030	166.050	6139.30	8508.80	-7998.88	2901.34	1655568.94	14305064.41	39°23'35.127"N	80°56'46.924"W	8508.81	160.063	0.78	0.03	0.78	
14889.00	89.880	166.400	6139.37	8602.27	-8090.17	2923.72	1655591.32	14304973.15	39°23'34.225"N	80°56'46.640"W	8602.27	160.131	0.41	-0.16	0.37	
14984.00	89.880	161.440	6139.57	8697.03	-8181.43	2950.02	1655617.61	14304881.93	39°23'33.323"N	80°56'46.305"W	8697.03	160.172	5.22	0.00	-5.22	
15079.00	91.290	163.030	6138.60	8791.96	-8271.89	2979.01	1655646.58	14304791.51	39°23'32.429"N	80°56'45.937"W	8791.96	160.194	2.24	1.48	1.67	
15173.00	90.060	161.340	6137.49	8885.89	-8361.37	3007.76	1655675.33	14304702.07	39°23'31.544"N	80°56'45.571"W	8885.90	160.215	2.22	-1.31	-1.80	
15268.00	90.060	161.940	6137.40	8980.85	-8451.53	3037.68	1655705.24	14304611.94	39°23'30.653"N	80°56'45.191"W	8980.87	160.230	0.63	0.00	0.63	
15363.00	90.030	160.910	6137.32	9075.83	-8541.58	3067.95	1655735.49	14304521.92	39°23'29.763"N	80°56'44.806"W	9075.84	160.243	1.08	-0.03	-1.08	
15457.00	90.180	157.820	6137.15	9169.81	-8629.54	3101.07	1655768.60	14304434.00	39°23'28.893"N	80°56'44.385"W	9169.82	160.234	3.29	0.16	-3.29	
15552.00	90.090	160.760	6136.92	9264.79	-8718.39	3134.66	1655802.18	14304345.19	39°23'28.015"N	80°56'43.958"W	9264.80	160.224	3.10	-0.09	3.09	
15646.00	90.370	158.930	6136.55	9358.78	-8806.63	3167.05	1655834.55	14304256.98	39°23'27.142"N	80°56'43.546"W	9358.79	160.220	1.97	0.30	-1.95	
15740.00	90.250	158.130	6136.04	9452.74	-8894.11	3201.45	1655868.94	14304169.54	39°23'26.278"N	80°56'43.108"W	9452.75	160.204	0.86	-0.13	-0.85	
15834.00	90.180	156.810	6135.69	9546.64	-8980.93	3237.47	1655904.94	14304082.75	39°23'25.419"N	80°56'42.650"W	9546.64	160.177	1.41	-0.07	-1.40	
15929.00	90.180	156.140	6135.39	9641.44	-9068.03	3275.39	1655942.85	14303995.68	39°23'24.558"N	80°56'42.168"W	9641.44	160.140	0.71	0.00	-0.71	
16023.00	90.150	157.140	6135.12	9735.27	-9154.33	3312.66	1655980.10	14303909.43	39°23'23.705"N	80°56'41.694"W	9735.27	160.106	1.06	-0.03	1.06	
16117.00	90.250	157.400	6134.79	9829.15	-9241.03	3348.98	1656016.41	14303822.76	39°23'22.848"N	80°56'41.232"W	9829.15	160.079	0.30	0.11	0.28	
16212.00	90.180	159.160	6134.43	9924.09	-9329.28	3384.13	1656051.55	14303734.55	39°23'21.976"N	80°56'40.785"W	9924.10	160.062	1.85	-0.07	1.85	
16307.00	90.090	157.870	6134.21	10019.05	-9417.67	3418.93	1656086.33	14303646.18	39°23'21.102"N	80°56'40.342"W	10019.07	160.047	1.36	-0.09	-1.36	
16401.00	89.910	156.480	6134.21	10112.92	-9504.31	3455.39	1656122.78	14303559.58	39°23'20.245"N	80°56'39.879"W	10112.95	160.021	1.49	-0.19	-1.48	
16496.00	90.000	157.170	6134.28	10207.76	-9591.65	3492.78	1656160.15	14303472.28	39°23'19.382"N	80°56'39.403"W	10207.80	159.991	0.73	0.09	0.73	
16591.00	90.120	157.440	6134.18	10302.65	-9679.29	3529.43	1656196.79	14303384.68	39°23'18.515"N	80°56'38.937"W	10302.70	159.966	0.31	0.13	0.28	
16685.00	90.180	158.600	6133.94	10396.58	-9766.46	3564.61	1656231.95	14303297.54	39°23'17.654"N	80°56'38.490"W	10396.64	159.949	1.24	0.06	1.23	



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

WELLPATH DATA (214 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
16780.00	90.120	159.640	6133.69	10491.56	-9855.22	3598.47	1656265.80	14303208.82	39°23'16.776"N	80°56'38.059"W	10491.63	159.941	1.10	-0.06	1.09	
16874.00	90.090	160.400	6133.52	10585.56	-9943.56	3630.59	1656297.91	14303120.51	39°23'15.903"N	80°56'37.651"W	10585.63	159.942	0.81	-0.03	0.81	
16918.00	90.120	160.870	6133.44	10629.56	-9985.07	3645.18	1656312.49	14303079.02	39°23'15.492"N	80°56'37.465"W	10629.62	159.945	1.07	0.07	1.07	
16942.00	90.120	160.870	6133.39	10653.56	-10007.74	3653.04	1656320.35	14303056.36	39°23'15.268"N	80°56'37.365"W	10653.62	159.947	0.00	0.00	0.00	Projected MD at TD: 16942'

HOLE & CASING SECTIONS - Ref Wellbore: Remington Unit 2H AWB Ref Wellpath: Remington Unit 2H AWP Proj: 16942'

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	0.30	0.27
17.5in Open Hole	105.00	372.00	267.00	105.00	371.99	0.30	0.27	0.55	1.78
13.375in Casing Surface	25.00	372.00	347.00	25.00	371.99	0.00	0.00	0.55	1.78
12.25in Open Hole	372.00	2571.00	2199.00	371.99	2570.79	0.55	1.78	-2.95	-10.22
9.625in Casing Intermediate	25.00	2571.00	2546.00	25.00	2570.79	0.00	0.00	-2.95	-10.22
8.75in Open Hole	2571.00	5774.00	3203.00	2570.79	5708.79	-2.95	-10.22	356.84	-92.75
8.5in Open Hole	5774.00	16942.00	11168.00	5708.79	6133.39	356.84	-92.75	-10007.74	3653.04
5.5in Casing Production	25.00	16942.00	16917.00	25.00	6133.39	0.00	0.00	-10007.74	3653.04



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Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Remington Unit 2H - POE - Rev-1	6031.00	-35.09	31.24	1652700.00	14313025.00	39°24'53.853"N	80°57'23.432"W	point
Remington Unit 2H - BHL - Rev-2	6069.00	-10016.10	3636.69	1656304.00	14303048.00	39°23'15.186"N	80°56'37.574"W	point
Remington Unit 2H - LP - Rev-2	6069.00	-251.59	109.44	1652778.17	14312808.59	39°24'51.713"N	80°57'22.437"W	point

WELLPATH COMPOSITION - Ref Wellbore: Remington Unit 2H AWB Ref Wellpath: Remington Unit 2H AWP Proj: 16942'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	323.00	Gyrodata standard - Drop gyro or Multi-shot	01_Gyrodata MS Gyro <17-1/2">(25'-313')	Remington Unit 2H AWB
323.00	2489.00	ISCWSA MWD, Rev. 4 (Standard)	02_WFT EM <12-1/4">(313')(436'-2479')	Remington Unit 2H AWB
2489.00	5700.00	ISCWSA MWD, Rev. 4 (Standard)	03_WFT EM <8-3/4">(2479')(2618'-5690')	Remington Unit 2H AWB
5700.00	16918.00	BHI AutoTrak Curve (Short)	04_BH AT Curve <8-1/2">(5700')(5760'-16918')	Remington Unit 2H AWB
16918.00	16942.00	Blind Drilling (std)	Projection to bit	Remington Unit 2H AWB



Actual Wellpath Report

Remington Unit 2H AWP Proj: 16942'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Tyler County, WV	Well	Remington Unit 2H
Field	Tyler	Wellbore	Remington Unit 2H AWB
Facility	Sine Pad		

COMMENTS
<p>Wellpath general comments API: 47-095-02535-0000 BHI Job #: 109636737 Rig: Patterson 342 Duration: 02/10/2019-02/13/2019 Gyrodata MS Gyro <17-1/2">(25'-313') WFT EM <12-1/4">(313')(436'-2479') WFT EM <8-3/4">(2479')(2618'-5690') BH AT Curve <8-1/2">(5700')(5760'-16918') Middlesex: 6041' MD Burkett: 6210' MD Tully: 6277' MD Marcellus POE: 6300' MD Projected MD at TD: 16942'</p>