



ANTERO RESOURCES CORPORATION

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

Slot: Slot #04

Well: Rymer Unit 2H

Wellbore: Rymer Unit 2H PWB

Plot reference wellbore is Rymer Unit 2H PWP Rev-A.0

* = Wellpath was transformed from a different geodetic datum

True vertical depths are referenced to PD 523 (RKB)

Measured depths are referenced to PD 523 (RKB)

PD 523 (RKB) to Mean Sea Level: 1036 feet

Mean Sea Level to Mud line (At Slot: Slot #04): -1017 feet

Coordinates are in feet referenced to Slot

Projected MD at TD: 15056° 6472.79ft TVD, 7557.00ft N, 2043.96ft W

Scale: 1 inch = 1500

North Reference: Grid north

Scale: True distance

Depths are in feet

Created by: harelik on 2016-07-11

Database: WA_MPL_EASTERNUS_Datm

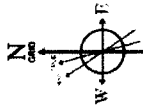
Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Dale Pad	1679131.090	14319219.570	39°25'54.840"N	80°51'46.413"W
Slot	Local E (ft)	Grid East (US ft)	Latitude	Longitude
Slot #04	36.19	1679202.470	39°25'55.197"N	80°51'45.502"W
Comment	Rymer Unit 2H			
PD 523 (RKB) to Mud line (At Slot: Slot #04)	19ft			
Mean Sea Level to Mud line (At Slot: Slot #04)	-1017ft			
PD 523 (RKB) to Mean Sea Level	1036ft			

SDI Std. Keeper Gyro (100°-5629.06°) : 0.33° Inc, 100.00ft MD, 100.00ft TVD, 0.23ft VS

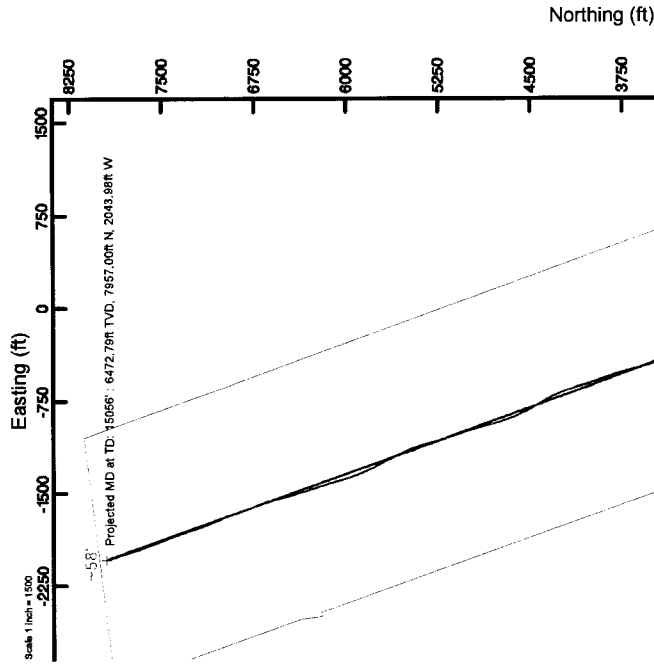
Well Data

Slot	Well	Wellbore	Wellpath
Slot #04	Rymer Unit 2H	Rymer Unit 2H AMB	Rymer Unit 2H AWP Proj: 15056°
Slot #04	Rymer Unit 2H	Rymer Unit 2H PWB	Rymer Unit 2H PWP Rev-A.0

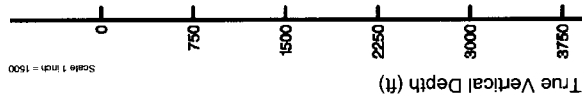


User specified Dip: 98.83° Flank 52192 mT
Magnetic North is 7.50 degrees West of True North (at 541(2016)
To correct azimuth from True to Grid subtract 0.09 degrees
To correct azimuth from Magnetic to Grid subtract 7.69 degrees

BHI Job #: 7985468
API #: 47-095-02270-0000
Rig: PD 523
Duration: 06.20.2016-06.24.2016



Scale: 1 inch = 1500



11/10/2017

Vertical Section (ft)
Azimuth 340.20° with reference 0.00 N, 0.00 E

Scale: 1 inch = 1500

Scale: 1 inch = 1500



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Rymer Unit 2H
Field	Tyler	Wellbore	Rymer Unit 2H AWB
Facility	Dale Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet		
North Reference	Grid	Software System	WellArchitect® 5.0
Scale	0.999602	User	Hareluk
Convergence at slot	0.09° East	Report Generated	7/11/2016 at 2:05:22 PM
		Database/Source file	WA_MPL_EASTERNUS_Defn/Rymer_Unit_2H_AWP_Proj_15056_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	36.19	71.41	1679202.47	14319255.75	39°25'55.197"N	80°51'45.502"W
Facility Reference Pt			1679131.09	14319219.57	39°25'54.840"N	80°51'46.413"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	PD 523 (RKB) to Facility Vertical Datum	19.00ft
Horizontal Reference Pt	Slot	PD 523 (RKB) to Mean Sea Level	1036.00ft
Vertical Reference Pt	PD 523 (RKB)	PD 523 (RKB) to Mud Line at Slot (Slot #04)	19.00ft
MD Reference Pt	PD 523 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	345.59°



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 2H
Area	Tyler County, WV	Wellbore	Rymer Unit 2H AWB
Field	Tyler		
Facility	Dale Pad		

WELLPATH DATA (350 stations) † = Interpolated/extrapolated station															
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sec (ft)	North (ft)	East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (°/100ft)	Comments
0.00	0.00	355.120	0.00	0.00	1679202.47	14319255.75	39°25'55.197"N	80°51'45.502"W	0.00	0.000	0.00	0.00	0.00	0.00	
19.00	0.00	355.120	19.00	0.00	1679202.47	14319255.75	39°25'55.197"N	80°51'45.502"W	0.00	0.000	0.00	0.00	0.00	0.00	
100.00	0.330	355.120	100.00	0.23	0.23	-0.02	1679202.45	14319255.98	39°25'55.199"N	0.23	355.120	0.41	0.41	-6.02	SDI Std. Keeper Gyro (100'-5629.06')
125.00	0.350	342.330	125.00	0.38	0.38	-0.05	1679202.42	14319256.13	39°25'55.200"N	0.38	352.571	0.31	0.31	-0.08	-51.16
150.00	0.340	342.890	150.00	0.53	0.52	-0.09	1679202.38	14319256.27	39°25'55.202"N	0.53	349.749	0.04	0.04	-0.04	2.24
175.00	0.430	1.230	175.00	0.69	0.69	-0.11	1679202.36	14319256.43	39°25'55.203"N	0.69	350.558	0.61	0.38	73.36	
200.00	0.410	11.450	200.00	0.86	0.87	-0.09	1679202.38	14319256.62	39°25'55.205"N	0.87	353.798	0.31	-0.08	40.88	
225.00	0.250	339.940	225.00	1.00	1.01	-0.10	1679202.37	14319256.76	39°25'55.207"N	1.01	354.596	0.95	-0.64	-126.04	
250.00	0.280	338.020	250.00	1.11	1.11	-0.14	1679202.33	14319256.86	39°25'55.208"N	1.12	353.000	0.13	0.12	-7.68	
275.00	0.190	328.630	275.00	1.21	1.21	-0.18	1679202.29	14319256.96	39°25'55.209"N	1.22	351.454	0.39	-0.36	-37.56	
300.00	0.140	306.860	300.00	1.28	1.26	-0.23	1679202.24	14319257.01	39°25'55.209"N	1.28	349.774	0.32	-0.20	-87.08	
325.00	0.090	318.610	325.00	1.32	1.29	-0.26	1679202.21	14319257.04	39°25'55.209"N	1.32	348.423	0.22	-0.20	47.00	
350.00	0.150	315.910	350.00	1.36	1.33	-0.30	1679202.17	14319257.08	39°25'55.210"N	1.36	347.280	0.24	0.24	-10.80	
375.00	0.170	298.650	375.00	1.42	1.37	-0.36	1679202.11	14319257.12	39°25'55.210"N	1.42	345.465	0.21	0.08	-69.04	
400.00	0.110	288.030	400.00	1.46	1.40	-0.41	1679202.06	14319257.15	39°25'55.211"N	1.46	343.605	0.26	-0.24	-42.46	
425.00	0.090	262.130	425.00	1.47	1.40	-0.45	1679202.02	14319257.15	39°25'55.211"N	1.47	342.080	0.20	-0.08	-103.60	
450.00	0.080	214.220	450.00	1.46	1.38	-0.48	1679201.99	14319257.13	39°25'55.210"N	1.47	340.786	0.28	-0.04	-191.64	
475.00	0.160	167.710	475.00	1.41	1.34	-0.48	1679201.99	14319257.09	39°25'55.210"N	1.42	340.051	0.48	0.32	-186.04	
500.00	0.160	163.020	500.00	1.34	1.27	-0.47	1679202.00	14319257.02	39°25'55.209"N	1.35	339.778	0.05	0.00	-18.76	
525.00	0.260	108.560	525.00	1.28	1.22	-0.40	1679202.07	14319256.97	39°25'55.209"N	1.28	341.665	0.85	0.40	-217.84	
550.00	0.120	193.490	550.00	1.23	1.17	-0.36	1679202.11	14319256.92	39°25'55.208"N	1.23	343.140	1.11	-0.56	339.72	
575.00	0.160	179.840	575.00	1.17	1.11	-0.36	1679202.11	14319256.86	39°25'55.208"N	1.17	342.002	0.21	0.16	-54.60	
600.00	0.100	221.010	600.00	1.12	1.06	-0.38	1679202.09	14319256.81	39°25'55.207"N	1.13	340.506	0.43	-0.24	164.68	
625.00	0.150	178.070	625.00	1.08	1.01	-0.39	1679202.08	14319256.76	39°25'55.207"N	1.08	338.982	0.41	0.20	-171.76	
650.00	0.300	293.330	650.00	1.06	1.01	-0.45	1679202.02	14319256.78	39°25'55.207"N	1.10	335.989	1.55	0.80	461.04	
675.00	0.570	309.480	674.99	1.23	1.11	-0.60	1679201.87	14319256.86	39°25'55.208"N	1.26	331.460	1.18	1.08	64.60	
700.00	0.740	321.550	699.99	1.47	1.32	-0.80	1679201.67	14319257.41	39°25'55.210"N	1.54	328.699	0.87	0.68	48.44	
725.00	1.310	319.710	724.99	1.88	1.66	-1.09	1679201.38	14319257.41	39°25'55.213"N	1.98	326.832	2.28	2.28	-7.52	
750.00	1.860	324.450	749.98	2.51	2.21	-1.51	1679200.96	14319257.96	39°25'55.219"N	2.67	325.712	2.26	2.20	18.96	
775.00	2.180	321.360	774.96	3.33	2.91	-2.04	1679200.43	14319258.68	39°25'55.225"N	3.55	324.886	1.35	1.28	-12.36	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 2H
Area	Tyler County, WV	Wellbore	Rymer Unit 2H AWB
Field	Tyler		
Facility	Date Pad		

WELLPATH DATA (350 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 (ft/100ft)	Comments
800.00	2.360	321.990	799.94	4.23	3.69	-2.65	1679199.82	14319289.44	39°25'55.233"N	80°51'45.536"W	4.54	324.287	0.73	0.72	2.52	
825.00	2.840	327.740	824.92	5.29	4.62	-3.30	1679199.17	14319280.36	39°25'55.242"N	80°51'45.544"W	5.68	324.440	2.18	1.92	23.00	
850.00	3.150	324.620	849.88	6.52	5.70	-4.03	1679198.44	14319281.45	39°25'55.253"N	80°51'45.553"W	6.98	324.750	1.40	1.24	-12.48	
875.00	3.480	324.300	874.84	7.87	6.88	-4.87	1679197.60	14319282.62	39°25'55.265"N	80°51'45.564"W	8.43	324.699	1.32	1.32	-1.28	
900.00	3.700	324.640	899.79	9.33	8.15	-5.78	1679196.88	14319283.90	39°25'55.277"N	80°51'45.575"W	9.99	324.684	0.88	0.88	1.36	
925.00	3.790	325.260	924.74	10.86	9.49	-6.72	1679195.76	14319285.23	39°25'55.291"N	80°51'45.587"W	11.62	324.705	0.39	0.38	2.48	
950.00	4.220	326.290	949.68	12.50	10.93	-7.70	1679194.78	14319286.68	39°25'55.305"N	80°51'45.600"W	13.37	324.848	1.74	1.72	4.12	
975.00	4.460	325.250	974.61	14.28	12.50	-8.76	1679193.71	14319288.24	39°25'55.320"N	80°51'45.613"W	15.26	324.980	1.01	0.98	-4.16	
1000.00	4.550	325.560	999.53	16.13	14.11	-9.88	1679192.60	14319289.86	39°25'55.336"N	80°51'45.627"W	17.23	325.011	0.37	0.36	1.24	
1025.00	4.730	325.720	1024.45	18.03	15.78	-11.02	1679191.48	14319271.53	39°25'55.353"N	80°51'45.642"W	19.25	325.078	0.72	0.72	0.64	
1050.00	4.590	326.130	1049.37	19.94	17.46	-12.16	1679190.32	14319273.21	39°25'55.369"N	80°51'45.656"W	21.28	325.158	0.58	-0.56	1.64	
1075.00	4.700	325.370	1074.28	21.84	19.14	-13.30	1679189.18	14319274.88	39°25'55.386"N	80°51'45.671"W	23.30	325.209	0.50	0.44	-3.04	
1100.00	4.570	324.800	1099.20	23.74	20.79	-14.45	1679188.02	14319276.54	39°25'55.402"N	80°51'45.686"W	25.32	325.200	0.55	-0.52	-2.28	
1125.00	4.540	325.840	1124.12	25.60	22.43	-15.58	1679186.89	14319278.17	39°25'55.419"N	80°51'45.700"W	27.31	325.208	0.35	-0.12	4.16	
1150.00	4.280	325.450	1149.05	27.41	24.01	-16.67	1679185.81	14319279.75	39°25'55.434"N	80°51'45.714"W	29.23	325.237	1.05	-1.04	-1.56	
1175.00	4.040	323.840	1173.98	29.10	25.49	-17.72	1679184.76	14319281.23	39°25'55.449"N	80°51'45.727"W	31.04	325.204	1.07	-0.96	-6.44	
1200.00	3.960	325.610	1198.92	30.73	26.92	-18.72	1679183.75	14319282.66	39°25'55.476"N	80°51'45.740"W	32.79	325.178	0.59	-0.32	7.08	
1225.00	3.560	320.910	1223.87	32.24	28.23	-19.70	1679182.78	14319283.97	39°25'55.476"N	80°51'45.752"W	34.42	325.093	2.02	-1.60	-18.80	
1250.00	3.400	322.000	1248.82	33.63	29.42	-20.65	1679181.83	14319285.16	39°25'55.468"N	80°51'45.764"W	35.94	324.939	0.69	-0.64	4.36	
1300.00	3.260	314.780	1298.74	36.12	31.48	-22.65	1679179.83	14319287.21	39°25'55.508"N	80°51'45.790"W	38.78	324.263	0.40	-0.04	7.00	
1325.00	3.000	314.460	1323.70	37.29	32.43	-23.62	1679178.86	14319288.98	39°25'55.518"N	80°51'45.802"W	40.12	323.936	1.04	-1.04	-1.28	
1350.00	2.410	311.700	1348.67	38.29	33.24	-24.48	1679178.00	14319289.98	39°25'55.526"N	80°51'45.813"W	41.28	323.632	2.42	-2.36	-11.04	
1375.00	2.310	310.740	1373.65	39.14	33.92	-25.25	1679177.23	14319289.66	39°25'55.532"N	80°51'45.823"W	42.29	323.333	0.43	-0.40	-3.84	
1400.00	1.910	305.420	1398.64	39.87	34.49	-25.98	1679176.51	14319290.23	39°25'55.538"N	80°51'45.832"W	43.18	323.017	1.78	-1.60	-21.28	
1425.00	1.760	300.220	1423.63	40.38	34.87	-26.95	1679175.93	14319290.79	39°25'55.542"N	80°51'45.840"W	43.83	322.713	2.66	-2.60	-20.80	
1450.00	0.780	284.480	1448.62	40.66	35.05	-26.95	1679175.54	14319290.61	39°25'55.544"N	80°51'45.845"W	44.22	322.440	2.21	-1.92	-62.96	
1475.00	0.580	270.240	1473.62	40.77	35.09	-27.25	1679175.24	14319290.83	39°25'55.544"N	80°51'45.848"W	44.43	322.176	1.04	-0.80	-56.96	
1500.00	0.310	231.320	1498.62	40.77	35.05	-27.43	1679175.06	14319290.79	39°25'55.544"N	80°51'45.851"W	44.51	321.981	1.56	-1.08	-155.68	
1525.00	0.760	182.020	1523.62	40.58	34.85	-27.43	1679175.05	14319290.59	39°25'55.542"N	80°51'45.851"W	44.35	321.800	2.85	1.80	-277.20	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 2H
Area	Tyler County, WV	Wellbore	Rymer Unit 2H AWP
Field	Tyler		
Facility	Dale Pad		

WELLPATH DATA (350 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 (ft/100ft)	Comments
1550.00	1.270	151.490	1548.61	40.15	34.45	-27.24	1679175.24	14319280.19	39°25'55.538"N	80°51'45.848"W	43.92	321.665	2.16	2.04	-42.12	
1575.00	1.420	150.020	1573.61	39.58	33.94	-26.96	1679175.52	14319289.68	39°25'55.533"N	80°51'45.845"W	43.34	321.543	0.62	0.60	-5.88	
1600.00	1.560	147.950	1598.60	38.96	33.38	-26.62	1679175.86	14319289.12	39°25'55.527"N	80°51'45.840"W	42.70	321.430	0.60	0.56	-8.28	
1625.00	1.400	149.600	1623.59	38.34	32.83	-26.29	1679176.19	14319288.57	39°25'55.522"N	80°51'45.836"W	42.06	321.319	0.66	-0.64	6.60	
1650.00	1.500	149.860	1648.58	37.73	32.28	-25.97	1679176.51	14319288.02	39°25'55.516"N	80°51'45.832"W	41.43	321.190	0.40	0.40	1.12	
1675.00	1.610	153.850	1673.57	37.07	31.69	-25.65	1679176.83	14319287.42	39°25'55.510"N	80°51'45.828"W	40.77	321.013	0.62	0.44	15.88	
1700.00	1.580	149.840	1698.56	36.40	31.07	-25.32	1679177.16	14319286.81	39°25'55.504"N	80°51'45.824"W	40.08	320.826	0.46	-0.12	-16.04	
1725.00	1.760	154.390	1723.55	35.69	30.43	-24.98	1679177.50	14319286.17	39°25'55.498"N	80°51'45.820"W	39.37	320.616	0.89	0.72	18.20	
1750.00	1.540	152.910	1748.54	34.98	29.78	-24.66	1679177.82	14319285.52	39°25'55.491"N	80°51'45.816"W	38.67	320.375	0.90	-0.88	-5.92	
1775.00	1.360	140.960	1773.53	34.39	29.25	-24.32	1679178.16	14319284.99	39°25'55.486"N	80°51'45.811"W	38.04	320.280	1.40	-0.72	-47.72	
1800.00	1.350	119.940	1798.53	33.91	28.88	-23.88	1679178.60	14319284.62	39°25'55.482"N	80°51'45.806"W	37.47	320.411	1.98	-0.04	-84.16	
1825.00	1.250	110.320	1823.52	33.55	28.64	-23.37	1679179.11	14319284.37	39°25'55.480"N	80°51'45.799"W	36.96	320.782	0.96	-0.40	-38.48	
1850.00	1.230	101.140	1848.52	33.28	28.49	-22.85	1679179.63	14319284.23	39°25'55.479"N	80°51'45.793"W	36.52	321.288	0.80	-0.08	-36.72	
1875.00	1.260	95.070	1873.51	33.07	28.41	-22.31	1679180.17	14319284.15	39°25'55.478"N	80°51'45.786"W	36.13	321.857	0.54	0.12	-24.28	
1900.00	1.090	90.200	1898.50	32.92	28.39	-21.80	1679180.68	14319284.13	39°25'55.478"N	80°51'45.779"W	35.79	322.476	0.79	-0.68	-19.48	
1925.00	1.160	93.740	1923.50	32.78	28.37	-21.31	1679181.17	14319284.11	39°25'55.477"N	80°51'45.773"W	35.48	323.087	0.39	0.28	14.16	
1950.00	1.170	89.990	1948.49	32.64	28.35	-20.80	1679181.67	14319284.09	39°25'55.477"N	80°51'45.766"W	35.17	323.732	0.31	0.04	-15.00	
1975.00	1.160	87.230	1973.49	32.52	28.37	-20.30	1679182.18	14319284.10	39°25'55.477"N	80°51'45.760"W	34.88	324.477	0.23	-0.04	-11.04	
2000.00	1.220	87.060	1998.48	32.42	28.39	-19.78	1679182.70	14319284.13	39°25'55.478"N	80°51'45.753"W	34.60	325.140	0.24	0.24	-0.68	
2025.00	1.270	81.590	2023.48	32.29	28.40	-19.23	1679183.24	14319284.14	39°25'55.478"N	80°51'45.746"W	34.30	325.890	0.44	0.20	18.12	
2050.00	1.370	90.130	2048.47	32.14	28.39	-18.66	1679183.82	14319284.13	39°25'55.478"N	80°51'45.739"W	33.97	326.686	0.42	0.40	-5.84	
2075.00	1.330	92.010	2073.46	31.98	28.38	-18.07	1679184.41	14319284.12	39°25'55.477"N	80°51'45.732"W	33.64	327.514	0.24	-0.16	7.52	
2100.00	1.490	94.280	2098.46	31.80	28.34	-17.46	1679185.02	14319284.10	39°25'55.477"N	80°51'45.724"W	33.29	328.374	0.68	0.64	9.08	
2125.00	1.320	89.730	2123.45	31.62	28.32	-16.84	1679185.64	14319284.06	39°25'55.477"N	80°51'45.716"W	32.95	329.262	0.78	-0.64	-18.20	
2150.00	0.990	88.670	2148.44	31.50	28.33	-16.34	1679186.14	14319284.07	39°25'55.477"N	80°51'45.710"W	32.70	330.030	1.56	-1.38	-4.24	
2175.00	0.670	76.810	2173.44	31.46	28.36	-15.98	1679186.50	14319284.11	39°25'55.477"N	80°51'45.705"W	32.57	330.614	1.56	-1.38	-63.44	
2200.00	0.770	78.280	2198.44	31.46	28.46	-15.68	1679186.80	14319284.20	39°25'55.478"N	80°51'45.701"W	32.49	331.151	0.44	0.40	13.88	
2225.00	0.640	76.060	2223.44	31.46	28.53	-15.38	1679187.10	14319284.27	39°25'55.479"N	80°51'45.697"W	32.41	331.677	0.52	-0.52	-0.88	
2250.00	0.670	56.060	2248.44	31.51	28.65	-15.12	1679187.35	14319284.39	39°25'55.480"N	80°51'45.694"W	32.39	332.173	0.92	-0.12	-80.00	
2275.00	0.540	62.090	2273.43	31.59	28.78	-14.90	1679187.53	14319284.52	39°25'55.481"N	80°51'45.691"W	32.41	332.638	0.58	-0.52	24.12	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Rymer Unit 2H
Field	Tyler	Wellbore	Rymer Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (350 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 (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
2300.00	0.550	47.300	2298.43	31.67	28.92	-14.70	1679187.77	14319284.66	39°25'55.483"N	80°51'45.689"W	32.44	333.051	0.58	0.04	-59.16	
2325.00	0.550	38.610	2323.43	31.80	29.10	-14.54	1679187.94	14319284.83	39°25'55.484"N	80°51'45.687"W	32.53	333.447	0.33	0.00	-34.76	
2350.00	0.640	19.770	2348.43	31.99	29.32	-14.42	1679188.06	14319285.06	39°25'55.487"N	80°51'45.685"W	32.67	333.815	0.86	0.36	-75.36	
2375.00	0.670	18.410	2373.43	32.23	29.59	-14.33	1679188.15	14319285.33	39°25'55.489"N	80°51'45.684"W	32.88	334.168	0.14	0.12	-5.44	
2400.00	0.670	2.920	2398.43	32.49	29.88	-14.27	1679188.20	14319285.61	39°25'55.492"N	80°51'45.683"W	33.11	334.466	0.72	0.00	-81.96	
2425.00	0.800	354.660	2423.43	32.80	30.20	-14.28	1679188.20	14319285.93	39°25'55.495"N	80°51'45.693"W	33.40	334.689	0.67	0.52	-33.04	
2450.00	0.780	340.250	2448.42	33.14	30.53	-14.35	1679188.12	14319286.27	39°25'55.499"N	80°51'45.694"W	33.74	334.818	0.80	-0.08	-57.64	
2475.00	0.810	339.370	2473.42	33.49	30.86	-14.47	1679188.00	14319286.59	39°25'55.502"N	80°51'45.686"W	34.08	334.859	0.13	0.12	-3.52	
2500.00	0.940	338.890	2498.42	33.87	31.21	-14.61	1679187.87	14319286.95	39°25'55.505"N	80°51'45.687"W	34.46	334.916	0.52	0.12	-1.92	
2525.00	1.050	330.530	2523.41	34.29	31.60	-14.80	1679187.68	14319287.34	39°25'55.509"N	80°51'45.680"W	34.90	334.911	0.73	0.44	-33.44	
2550.00	1.020	328.180	2548.41	34.72	31.99	-15.03	1679187.45	14319287.73	39°25'55.513"N	80°51'45.693"W	35.34	334.840	0.21	-0.12	-9.40	
2575.00	1.120	324.050	2573.41	35.16	32.38	-15.29	1679187.19	14319288.12	39°25'55.517"N	80°51'45.696"W	35.81	334.726	0.50	0.40	-16.52	
2600.00	1.280	322.600	2598.40	35.65	32.80	-15.60	1679186.88	14319288.53	39°25'55.521"N	80°51'45.700"W	36.32	334.562	0.65	0.64	-5.80	
2625.00	1.320	323.840	2623.39	36.17	33.25	-15.94	1679186.54	14319288.99	39°25'55.526"N	80°51'45.704"W	36.88	334.388	0.20	0.16	4.96	
2650.00	1.230	320.640	2648.39	36.68	33.69	-16.28	1679186.20	14319289.43	39°25'55.530"N	80°51'45.709"W	37.42	334.210	0.46	-0.36	-12.80	
2675.00	1.190	312.900	2673.38	37.14	34.08	-16.64	1679185.84	14319289.81	39°25'55.534"N	80°51'45.713"W	37.92	333.972	0.67	-0.16	-30.96	
2700.00	1.220	309.680	2698.38	37.58	34.42	-17.04	1679185.44	14319290.16	39°25'55.537"N	80°51'45.718"W	38.41	333.670	0.30	0.12	-12.88	
2725.00	1.240	313.550	2723.37	38.02	34.78	-17.44	1679185.04	14319290.52	39°25'55.541"N	80°51'45.723"W	38.91	333.373	0.34	0.08	15.48	
2750.00	1.160	316.240	2748.37	38.47	35.15	-17.81	1679184.67	14319290.88	39°25'55.544"N	80°51'45.728"W	39.40	333.132	0.39	-0.32	10.76	
2775.00	0.780	311.780	2773.36	38.84	35.44	-18.11	1679184.37	14319291.18	39°25'55.547"N	80°51'45.732"W	39.80	332.937	1.55	-1.52	-17.84	
2800.00	0.450	300.420	2798.36	39.05	35.61	-18.32	1679184.16	14319291.34	39°25'55.549"N	80°51'45.735"W	40.04	332.773	1.40	-1.32	-45.44	
2825.00	0.410	305.450	2823.36	39.18	35.71	-18.48	1679184.00	14319291.44	39°25'55.550"N	80°51'45.737"W	40.21	332.640	0.22	-0.16	20.12	
2850.00	0.340	302.620	2848.36	39.31	35.80	-18.61	1679183.86	14319291.54	39°25'55.551"N	80°51'45.738"W	40.35	332.529	0.29	-0.28	-11.32	
2875.00	0.360	283.530	2873.36	39.40	35.86	-18.75	1679183.72	14319291.60	39°25'55.551"N	80°51'45.740"W	40.47	332.393	0.47	0.08	-76.36	
2900.00	0.400	272.650	2898.36	39.46	35.88	-18.92	1679183.56	14319291.62	39°25'55.552"N	80°51'45.742"W	40.56	332.203	0.33	0.16	-43.52	
2925.00	0.390	274.050	2923.36	39.51	35.89	-19.09	1679183.39	14319291.63	39°25'55.552"N	80°51'45.744"W	40.65	331.995	0.06	-0.04	5.60	
2950.00	0.460	283.490	2948.36	39.59	35.92	-19.27	1679183.21	14319291.66	39°25'55.552"N	80°51'45.747"W	40.76	331.788	0.40	0.28	37.76	
2975.00	0.440	291.510	2973.36	39.69	35.98	-19.46	1679183.02	14319291.72	39°25'55.553"N	80°51'45.749"W	40.90	331.596	0.26	-0.08	32.08	
3000.00	0.490	289.200	2998.36	39.80	36.05	-19.65	1679182.83	14319291.79	39°25'55.553"N	80°51'45.752"W	41.06	331.409	0.21	0.20	-9.24	
3021.84	0.560	281.170	3011.19	39.88	36.08	-19.76	1679182.72	14319291.82	39°25'55.554"N	80°51'45.753"W	41.14	331.291	0.79	0.55	-62.54	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 2H
Area	Tyler County, WV	Wellbore	Rymer Unit 2H AWP
Field	Tyler		
Facility	Dale Pad		

WELLPATH DATA (350 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TWD (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
3036.76	0.420	301.070	3035.11	39.98	36.15	-19.95	1679182.53	14319291.88	39°25'55.554"N	80°51'45.755"W	41.23	331.105	0.91	-0.59	83.19	
3063.83	0.440	297.530	3062.18	40.12	36.25	-20.13	1679182.35	14319291.98	39°25'55.555"N	80°51'45.758"W	41.46	330.957	0.12	0.07	-13.08	
3087.07	0.500	316.440	3085.42	40.26	36.36	-20.28	1679182.20	14319292.10	39°25'55.556"N	80°51'45.760"W	41.63	330.854	0.71	0.26	81.37	
3113.84	0.580	289.240	3112.19	40.44	36.49	-20.49	1679181.99	14319292.23	39°25'55.558"N	80°51'45.762"W	41.85	330.691	0.99	0.30	-101.61	
3137.08	0.310	292.420	3135.43	40.54	36.55	-20.65	1679181.82	14319292.29	39°25'55.558"N	80°51'45.764"W	41.99	330.532	1.17	-1.16	13.68	
3163.65	0.570	275.540	3162.00	40.63	36.59	-20.85	1679181.63	14319292.33	39°25'55.559"N	80°51'45.767"W	42.12	330.324	1.08	0.98	-63.53	
3186.93	0.460	294.610	3185.28	40.73	36.64	-21.05	1679181.43	14319292.38	39°25'55.559"N	80°51'45.769"W	42.26	330.122	0.87	-0.47	81.92	
3213.49	0.600	296.360	3211.84	40.89	36.75	-21.27	1679181.20	14319292.44	39°25'55.560"N	80°51'45.772"W	42.46	329.934	0.53	0.53	6.59	
3239.86	0.700	303.750	3238.21	41.10	36.90	-21.53	1679180.95	14319292.64	39°25'55.562"N	80°51'45.776"W	42.72	329.736	0.49	0.38	28.02	
3262.66	0.590	302.510	3261.00	41.29	37.04	-21.75	1679180.73	14319292.78	39°25'55.563"N	80°51'45.778"W	42.95	329.583	0.49	-0.48	-5.44	
3289.35	0.380	288.500	3287.69	41.44	37.14	-21.95	1679180.53	14319292.88	39°25'55.564"N	80°51'45.781"W	43.14	329.423	0.90	-0.79	-52.49	
3313.43	0.410	304.070	3311.77	41.54	37.22	-22.09	1679180.39	14319292.95	39°25'55.565"N	80°51'45.783"W	43.28	329.305	0.46	0.12	64.66	
3337.50	0.460	299.300	3335.84	41.68	37.31	-22.25	1679180.23	14319293.05	39°25'55.566"N	80°51'45.785"W	43.44	329.193	0.26	0.21	-19.82	
3361.77	0.400	304.670	3360.11	41.81	37.41	-22.40	1679180.07	14319293.14	39°25'55.567"N	80°51'45.787"W	43.60	329.083	0.30	-0.25	22.13	
3388.64	0.340	293.930	3386.98	41.93	37.49	-22.56	1679179.93	14319293.23	39°25'55.568"N	80°51'45.789"W	43.76	328.972	0.34	-0.22	-39.97	
3412.80	0.430	179.840	3411.14	41.88	37.43	-22.62	1679179.86	14319293.17	39°25'55.567"N	80°51'45.789"W	43.74	328.857	2.68	0.37	-472.23	
3439.84	0.500	180.490	3438.18	41.67	37.21	-22.62	1679179.85	14319292.95	39°25'55.565"N	80°51'45.789"W	43.55	328.707	0.26	0.26	2.40	
3463.55	0.550	183.460	3461.89	41.46	37.00	-22.63	1679179.85	14319292.73	39°25'55.563"N	80°51'45.790"W	43.37	328.549	0.24	0.21	12.53	
3487.25	0.510	185.410	3485.59	41.26	36.78	-22.64	1679179.80	14319292.51	39°25'55.561"N	80°51'45.790"W	43.19	328.379	0.19	-0.17	8.23	
3513.58	0.540	188.500	3511.92	41.03	36.54	-22.66	1679179.75	14319292.27	39°25'55.558"N	80°51'45.790"W	43.00	328.178	0.18	0.11	15.53	
3537.27	0.480	191.110	3535.61	40.84	36.33	-22.71	1679179.77	14319292.07	39°25'55.556"N	80°51'45.791"W	42.85	327.987	0.26	-0.25	6.80	
3564.29	0.470	176.480	3562.62	40.63	36.11	-22.73	1679179.75	14319291.85	39°25'55.554"N	80°51'45.791"W	42.67	327.812	0.45	-0.04	-54.15	
3587.97	0.520	197.910	3586.30	40.44	35.91	-22.76	1679179.72	14319291.65	39°25'55.552"N	80°51'45.791"W	42.51	327.639	0.80	0.21	90.50	
3614.98	0.400	205.780	3613.31	40.27	35.71	-22.83	1679179.64	14319291.44	39°25'55.550"N	80°51'45.792"W	42.39	327.403	0.50	-0.44	29.14	
3638.59	0.450	184.880	3636.92	40.12	35.54	-22.88	1679179.60	14319291.28	39°25'55.548"N	80°51'45.793"W	42.27	327.231	0.69	0.21	-86.52	
3661.58	0.270	165.390	3659.91	39.98	35.40	-22.87	1679179.61	14319291.14	39°25'55.547"N	80°51'45.793"W	42.15	327.133	0.94	-0.78	-84.78	
3688.58	0.590	220.460	3686.91	39.83	35.23	-22.95	1679179.53	14319290.90	39°25'55.545"N	80°51'45.794"W	42.05	326.925	1.81	1.19	203.96	
3712.27	0.390	203.210	3710.60	39.70	35.07	-23.06	1679179.42	14319290.80	39°25'55.544"N	80°51'45.795"W	41.97	326.673	1.04	-0.84	-72.82	
3739.17	0.500	202.170	3737.50	39.53	34.87	-23.14	1679179.34	14319290.61	39°25'55.542"N	80°51'45.796"W	41.85	326.437	0.41	0.41	-3.87	
3762.88	0.560	206.280	3761.21	39.36	34.67	-23.23	1679179.25	14319290.41	39°25'55.540"N	80°51'45.797"W	41.73	326.182	0.30	0.25	17.33	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 2H
Area	Tyler County, WV	Wellbore	Rymer Unit 2H AWB
Field	Tyler		
Facility	Dale Pad		

WELLPATH DATA (350 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 (P/100ft)	Build Rate (P/100ft)	Turn Rate (P/100ft)	Comments
3786.98	0.500	203.340	3785.31	39.19	34.47	-23.32	1679179.16	14319280.21	39°25'55.538"N	80°51'45.798"W	41.62	325.919	0.27	-0.25	-12.20	
3813.66	0.530	214.340	3811.99	39.02	34.26	-23.44	1679179.04	14319280.00	39°25'55.536"N	80°51'45.800"W	41.51	325.626	0.39	0.11	41.23	
3837.64	0.640	210.940	3835.97	38.85	34.06	-23.57	1679178.91	14319289.79	39°25'55.534"N	80°51'45.802"W	41.42	325.314	0.48	0.46	-14.18	
3864.89	0.510	214.390	3863.21	38.66	33.83	-23.72	1679178.76	14319289.56	39°25'55.531"N	80°51'45.803"W	41.31	324.965	0.49	-0.48	12.66	
3888.77	0.640	209.960	3887.08	38.50	33.63	-23.84	1679178.64	14319289.37	39°25'55.529"N	80°51'45.805"W	41.22	324.672	0.38	0.34	-18.47	
3912.76	0.700	214.510	3911.08	38.32	33.40	-23.98	1679178.50	14319289.14	39°25'55.527"N	80°51'45.807"W	41.12	324.324	0.51	0.46	18.88	
3939.41	0.550	214.490	3937.73	38.13	33.16	-24.15	1679178.33	14319288.90	39°25'55.525"N	80°51'45.809"W	41.02	323.942	0.56	-0.56	-0.08	
3963.39	0.670	214.470	3961.71	37.96	32.95	-24.29	1679178.19	14319288.69	39°25'55.523"N	80°51'45.811"W	40.94	323.605	0.50	0.50	-0.08	
3987.36	0.730	235.860	3985.68	37.82	32.75	-24.50	1679177.98	14319288.49	39°25'55.521"N	80°51'45.813"W	40.90	323.206	1.11	0.29	89.24	
4014.72	0.760	230.990	4013.03	37.68	32.54	-24.78	1679177.70	14319288.28	39°25'55.519"N	80°51'45.817"W	40.80	322.708	0.27	0.11	-18.26	
4038.70	0.920	227.140	4037.01	37.52	32.31	-25.05	1679177.43	14319288.04	39°25'55.516"N	80°51'45.820"W	40.88	322.216	0.70	0.67	-14.39	
4061.88	0.900	218.960	4060.19	37.33	32.04	-25.30	1679177.18	14319287.78	39°25'55.514"N	80°51'45.824"W	40.82	321.708	0.57	-0.09	-35.29	
4089.22	0.910	227.130	4087.53	37.09	31.72	-25.59	1679176.89	14319287.46	39°25'55.511"N	80°51'45.827"W	40.76	321.109	0.47	0.04	29.88	
4113.19	0.880	225.080	4111.49	36.91	31.46	-25.86	1679176.62	14319287.20	39°25'55.508"N	80°51'45.831"W	40.73	320.584	0.18	-0.13	-8.55	
4137.16	0.900	228.400	4135.46	36.73	31.21	-26.13	1679176.35	14319286.95	39°25'55.506"N	80°51'45.834"W	40.71	320.062	0.23	0.08	13.85	
4164.50	0.910	225.820	4162.80	36.52	30.92	-26.45	1679175.79	14319286.65	39°25'55.503"N	80°51'45.838"W	40.69	319.454	0.15	0.04	-9.44	
4188.46	0.960	211.530	4186.75	36.29	30.61	-26.69	1679175.79	14319286.35	39°25'55.500"N	80°51'45.841"W	40.61	318.917	0.99	0.21	-69.64	
4211.74	1.440	168.520	4210.03	35.86	30.16	-26.73	1679175.75	14319285.90	39°25'55.495"N	80°51'45.842"W	40.30	318.447	4.24	2.06	-184.75	
4239.09	1.750	166.900	4237.37	35.11	29.44	-26.50	1679175.98	14319285.18	39°25'55.488"N	80°51'45.839"W	39.61	318.007	1.63	1.13	-42.49	
4283.04	1.940	153.620	4261.31	34.35	28.74	-26.18	1679176.30	14319284.48	39°25'55.481"N	80°51'45.836"W	38.87	317.671	0.91	0.79	-13.70	
4289.40	2.760	141.360	4287.64	33.33	27.84	-25.58	1679176.90	14319283.58	39°25'55.472"N	80°51'45.827"W	37.81	317.424	3.63	3.11	-46.51	
4313.10	3.500	134.200	4311.31	32.20	26.89	-24.71	1679177.77	14319282.63	39°25'55.463"N	80°51'45.816"W	36.52	317.232	1.76	1.18	-20.27	
4339.89	3.820	128.770	4338.04	30.78	25.76	-23.43	1679179.05	14319281.63	39°25'55.452"N	80°51'45.800"W	34.82	317.428	3.53	3.12	-30.21	
4364.06	3.860	131.350	4362.16	29.47	24.72	-22.19	1679180.29	14319280.46	39°25'55.441"N	80°51'45.784"W	33.22	318.095	0.73	0.17	10.67	
4388.47	5.240	123.490	4386.49	28.22	22.28	-18.69	1679183.79	14319278.02	39°25'55.417"N	80°51'45.740"W	31.33	318.785	6.19	5.66	-32.20	
4412.75	5.830	124.080	4410.66	26.22	20.73	-16.36	1679186.11	14319276.47	39°25'55.417"N	80°51'45.710"W	29.07	320.010	2.43	2.43	-0.70	
4439.69	6.060	124.080	4437.45	24.15	20.73	-14.30	1679186.11	14319275.03	39°25'55.388"N	80°51'45.684"W	24.01	323.450	1.79	1.64	6.62	
4462.81	6.440	125.610	4460.44	22.24	19.29	-14.30	1679188.18	14319273.18	39°25'55.369"N	80°51'45.651"W	21.03	326.011	2.27	2.24	3.43	
4489.64	7.040	126.530	4487.08	19.81	17.43	-11.75	1679190.72	14319271.44	39°25'55.352"N	80°51'45.621"W	16.28	329.140	0.94	0.88	-2.53	
4513.34	7.250	126.930	4510.60	17.53	15.69	-9.38	1679193.10	14319271.44	39°25'55.352"N	80°51'45.621"W	16.28	329.140	0.94	0.88	-2.53	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Rymer Unit 2H
Field	Tyler	Wellbore	Rymer Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (350 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 (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
4537.02	7.380	126.690	4534.08	15.20	13.91	-8.95	1679195.53	14319269.65	39°25'55.334"N	80°51'45.590"W	15.55	333.455	0.68	0.55	3.21	
4564.04	7.930	128.020	4560.86	12.37	11.72	-4.09	1679198.38	14319267.47	39°25'55.313"N	80°51'45.554"W	12.41	340.778	2.14	2.04	4.92	
4587.03	8.360	128.590	4583.62	9.78	9.70	-1.53	1679200.94	14319265.45	39°25'55.293"N	80°51'45.521"W	9.82	351.029	1.90	1.87	2.48	
4613.94	8.590	127.420	4610.24	6.64	7.26	1.59	1679204.06	14319269.01	39°25'55.268"N	80°51'45.481"W	7.43	12.379	1.07	0.85	4.35	
4637.60	8.970	127.060	4633.82	3.80	5.08	4.47	1679206.94	14319268.82	39°25'55.247"N	80°51'45.445"W	6.76	41.363	1.62	1.81	-1.52	
4664.50	9.330	126.010	4660.18	0.48	2.53	7.91	1679210.37	14319258.28	39°25'55.222"N	80°51'45.401"W	8.30	72.257	1.48	1.34	-3.90	
4688.16	9.520	125.460	4683.52	-2.49	0.27	11.05	1679213.52	14319256.02	39°25'55.199"N	80°51'45.361"W	11.05	88.616	0.89	0.80	-2.32	
4714.85	9.690	124.980	4709.83	-5.88	-2.30	14.69	1679217.15	14319253.45	39°25'55.174"N	80°51'45.315"W	14.87	98.903	0.70	0.64	-1.80	
4738.59	9.940	124.600	4733.24	-8.88	-4.56	17.94	1679220.40	14319251.19	39°25'55.151"N	80°51'45.273"W	18.51	104.257	0.88	-0.84	-1.60	
4764.90	9.390	125.220	4759.26	-12.15	-7.03	21.48	1679223.94	14319248.73	39°25'55.127"N	80°51'45.228"W	23.60	108.119	0.54	-0.38	2.36	
4788.54	9.240	126.190	4782.52	-15.09	-9.26	24.58	1679227.04	14319246.49	39°25'55.105"N	80°51'45.189"W	26.27	110.641	0.92	-0.63	4.10	
4812.11	9.010	126.120	4805.80	-17.97	-11.47	27.60	1679230.06	14319244.29	39°25'55.083"N	80°51'45.150"W	29.89	112.558	0.98	-0.98	-0.30	
4839.00	8.910	125.820	4832.36	-21.20	-13.93	30.99	1679233.45	14319241.83	39°25'55.059"N	80°51'45.107"W	33.98	114.196	0.41	-0.37	-1.12	
4862.64	8.670	124.740	4855.72	-23.95	-16.01	33.94	1679236.40	14319239.74	39°25'55.038"N	80°51'45.070"W	37.53	115.257	1.23	-1.02	-4.57	
4886.94	8.710	123.670	4881.72	-26.93	-18.25	37.23	1679239.68	14319237.51	39°25'55.016"N	80°51'45.028"W	41.46	116.111	0.63	0.15	-4.07	
4912.48	9.440	122.580	4904.96	-29.67	-20.27	40.34	1679242.79	14319235.48	39°25'54.996"N	80°51'44.988"W	45.14	116.685	3.19	3.10	-4.63	
4939.44	10.300	122.990	4931.52	-33.06	-22.78	44.22	1679246.67	14319232.98	39°25'54.971"N	80°51'44.939"W	49.74	117.251	3.20	3.19	1.52	
4963.06	10.750	123.020	4954.75	-36.24	-25.13	47.84	1679250.29	14319230.63	39°25'54.948"N	80°51'44.893"W	54.04	117.710	1.91	1.91	0.13	
4986.68	11.410	123.470	4977.93	-39.59	-27.62	51.63	1679254.08	14319228.15	39°25'54.923"N	80°51'44.844"W	58.56	118.139	2.82	2.78	1.91	
5014.61	12.270	121.570	5005.26	-43.78	-30.69	56.47	1679258.92	14319225.07	39°25'54.892"N	80°51'44.783"W	64.27	118.526	3.38	3.08	-6.80	
5038.58	13.090	119.990	5028.65	-47.51	-33.38	60.99	1679263.43	14319222.38	39°25'54.866"N	80°51'44.725"W	69.53	118.695	3.71	3.42	-6.59	
5062.67	13.470	118.980	5052.10	-51.35	-36.11	65.81	1679268.25	14319219.66	39°25'54.839"N	80°51'44.664"W	75.06	118.752	1.85	1.58	-4.19	
5086.06	13.750	118.380	5074.84	-55.10	-38.75	70.64	1679273.08	14319217.02	39°25'54.813"N	80°51'44.602"W	80.57	118.747	1.34	1.20	-2.57	
5112.92	14.380	117.430	5100.88	-59.50	-41.80	76.40	1679278.84	14319213.97	39°25'54.782"N	80°51'44.529"W	87.09	118.683	2.50	2.35	-3.54	
5139.80	14.580	117.360	5126.91	-63.98	-44.69	82.37	1679284.81	14319210.87	39°25'54.752"N	80°51'44.453"W	93.81	118.591	0.78	0.78	-0.26	
5163.44	14.860	115.990	5149.77	-67.93	-47.59	87.74	1679290.18	14319208.16	39°25'54.725"N	80°51'44.375"W	99.82	118.475	1.86	1.14	-5.80	
5187.09	15.360	117.810	5172.60	-72.00	-50.38	93.24	1679295.67	14319205.39	39°25'54.697"N	80°51'44.315"W	105.98	118.385	2.91	2.11	7.70	
5213.85	16.220	118.540	5198.35	-76.92	-53.82	99.66	1679302.09	14319201.95	39°25'54.663"N	80°51'44.233"W	113.26	118.372	3.30	3.21	2.73	
5236.89	16.920	118.870	5220.44	-81.41	-56.98	105.42	1679307.85	14319198.80	39°25'54.632"N	80°51'44.159"W	119.83	118.390	3.07	3.04	1.43	
5263.86	17.750	119.570	5246.18	-86.95	-60.90	112.43	1679314.86	14319194.87	39°25'54.593"N	80°51'44.070"W	127.87	118.443	3.17	3.08	2.90	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Rymer Unit 2H
Field	Tyler	Wellbore	Rymer Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (350 stations) † = interpolated/extrapolated station

MD	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
5287.87	18.690	119.670	6268.99	-92.18	-64.61	118.96	1679321.38	14319191.17	89°25'54.556"N	80°51'43.987"W	135.37	118.508	3.88	3.87	0.42	
5314.73	19.450	119.890	5294.37	-98.29	-68.97	126.57	1679328.99	14319186.81	89°25'54.513"N	80°51'43.890"W	144.14	118.586	2.88	2.87	0.82	
5338.34	19.500	120.460	5316.63	-103.82	-72.92	133.38	1679335.79	14319182.85	89°25'54.474"N	80°51'43.804"W	152.01	118.668	0.83	0.21	2.41	
5362.19	20.020	120.500	5339.08	-109.51	-77.01	140.33	1679342.74	14319178.77	89°25'54.433"N	80°51'43.715"W	160.07	118.759	2.18	2.18	0.17	
5389.72	21.040	120.110	5364.86	-116.30	-81.99	148.98	1679351.07	14319173.90	89°25'54.385"N	80°51'43.609"W	169.72	118.847	3.74	3.71	-1.42	
5413.28	21.110	119.730	5386.84	-122.22	-86.11	156.00	1679358.41	14319169.67	89°25'54.343"N	80°51'43.515"W	178.19	118.898	0.65	0.30	-1.61	
5437.43	20.940	120.750	5409.39	-128.31	-90.47	163.49	1679365.89	14319165.31	89°25'54.300"N	80°51'43.420"W	186.85	118.960	1.67	-0.70	4.22	
5464.80	22.000	122.890	5434.86	-135.42	-95.61	172.09	1679374.49	14319160.17	89°25'54.249"N	80°51'43.311"W	196.87	119.057	3.89	3.87	0.88	
5488.85	22.850	121.540	5457.09	-141.99	-100.38	179.83	1679382.33	14319155.41	89°25'54.202"N	80°51'43.211"W	206.03	119.156	3.64	3.63	2.29	
5512.86	22.640	121.800	5479.23	-148.67	-105.25	187.63	1679390.22	14319150.54	89°25'54.154"N	80°51'43.110"W	215.31	119.264	0.97	-0.87	1.08	
5539.83	22.860	122.180	5504.10	-156.23	-110.78	196.67	1679399.07	14319145.02	89°25'54.099"N	80°51'42.998"W	225.73	119.390	0.98	0.82	1.41	
5564.74	24.260	122.880	5526.93	-163.50	-116.13	205.07	1679407.15	14319134.01	89°25'53.990"N	80°51'42.891"W	235.67	119.523	5.73	5.62	2.81	
5589.47	25.360	123.160	5549.38	-171.14	-121.79	213.77	1679416.15	14319128.15	89°25'53.932"N	80°51'42.866"W	246.03	119.671	4.47	4.45	1.13	
5614.36	26.580	123.290	5571.85	-179.05	-127.65	222.72	1679425.10	14319122.15	89°25'53.877"N	80°51'42.866"W	256.71	119.819	0.91	0.88	0.52	
5629.05	25.820	123.630	5585.10	-183.78	-131.17	228.04	1679430.42	14319124.64	89°25'53.897"N	80°51'42.598"W	263.07	119.907	1.92	1.63	2.31	BH AT Curve [SS + MSA] <-8-1/2"> (5629.06) (576
5763.00	29.860	123.510	5703.51	-230.23	-165.74	280.15	1679482.51	14319080.07	89°25'53.440"N	80°51'41.693"W	347.69	120.650	5.18	-1.36	-10.13	
5808.00	29.250	118.950	5742.66	-246.10	-177.25	299.11	1679501.46	14319078.57	89°25'53.440"N	80°51'41.935"W	325.51	120.610	3.02	3.02	-0.09	
5853.00	27.940	110.510	5782.19	-259.69	-186.27	318.62	1679520.95	14319069.55	89°25'53.351"N	80°51'41.445"W	369.07	120.312	9.43	-2.91	-18.76	
5897.00	27.310	101.730	5821.19	-270.04	-191.94	338.16	1679540.50	14319063.89	89°25'53.295"N	80°51'41.196"W	388.84	119.579	9.36	-1.43	-19.99	
5942.00	27.170	94.910	5861.21	-277.98	-194.92	358.51	1679560.84	14319060.91	89°25'53.265"N	80°51'40.937"W	408.07	118.532	6.94	-0.31	-15.16	
5987.00	28.210	88.120	5901.06	-283.69	-195.45	379.38	1679581.70	14319060.38	89°25'53.259"N	80°51'40.671"W	426.77	117.266	7.38	2.31	-15.09	
6032.00	29.950	82.980	5940.39	-287.44	-193.72	401.17	1679603.48	14319062.10	89°25'53.276"N	80°51'40.393"W	445.49	115.776	6.76	3.87	-11.42	
6076.00	32.320	79.060	5978.06	-289.57	-190.15	423.62	1679625.92	14319065.68	89°25'53.311"N	80°51'40.107"W	464.34	114.173	7.09	5.39	-8.91	
6121.00	34.570	75.550	6015.61	-290.28	-184.68	447.80	1679650.09	14319071.15	89°25'53.365"N	80°51'39.799"W	484.39	112.412	6.59	5.00	-7.80	
6166.00	37.090	72.120	6052.09	-288.45	-177.32	473.09	1679675.37	14319078.50	89°25'53.437"N	80°51'39.476"W	505.23	110.547	7.18	5.60	-7.82	
6211.00	38.940	68.240	6087.55	-286.82	-167.91	499.14	1679701.41	14319087.90	89°25'53.530"N	80°51'39.144"W	526.63	108.593	6.71	4.11	-8.62	
6255.00	40.100	62.030	6121.50	-281.72	-156.14	524.51	1679726.77	14319089.68	89°25'53.646"N	80°51'38.820"W	547.25	106.577	9.36	2.64	-14.11	
6300.00	41.140	56.620	6155.67	-273.51	-141.19	549.68	1679751.93	14319114.62	89°25'53.793"N	80°51'38.499"W	567.52	104.406	8.16	2.31	-12.02	
6307.00†	41.294	55.635	6160.94	-271.97	-138.62	553.51	1679755.75	14319117.19	89°25'53.818"N	80°51'38.451"W	570.60	104.060	9.53	2.19	-14.07	Sycamore: 6307 MD
6345.00	42.270	50.400	6189.28	-262.25	-123.39	573.71	1679775.95	14319132.41	89°25'53.968"N	80°51'38.193"W	586.83	102.198	9.53	2.57	-13.78	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 2H
Area	Tyler County, WV	Wellbore	Rymer Unit 2H AWB
Field	Tyler		
Facility	Date Pad		

WELLPATH DATA (350 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
6390.00	43.420	44.990	8222.29	-247.93	-102.80	596.31	1679798.54	14319152.99	39°25'54.172"N	80°51'37.904"W	605.11	99.781	8.56	2.56	-12.02	
6434.00	44.940	39.320	8253.85	-231.03	-80.07	616.86	1679819.08	14319175.71	39°25'54.396"N	80°51'37.642"W	622.04	97.396	9.62	3.45	-12.89	
6479.00	46.480	34.300	8285.28	-210.85	-54.29	636.13	1679838.95	14319201.48	39°25'54.850"N	80°51'37.396"W	638.44	94.878	8.89	3.42	-11.16	
6524.00	49.180	28.900	8315.50	-187.68	-25.89	653.57	1679855.77	14319229.87	39°25'54.931"N	80°51'37.173"W	654.08	92.268	10.72	6.00	-12.00	
6567.00†	51.251	24.749	8336.63	-168.61	-3.26	664.99	1679867.20	14319262.49	39°25'55.154"N	80°51'37.027"W	665.00	90.281	11.52	6.28	-12.58	Middlesex: 6557 MD
6569.00	52.040	23.300	8344.07	-161.24	5.33	668.82	1679871.02	14319261.08	39°25'55.239"N	80°51'36.978"W	668.84	89.543	11.52	6.57	-12.07	
6614.00	54.760	18.160	8370.91	-131.70	39.11	681.67	1679883.77	14319294.84	39°25'55.573"N	80°51'36.815"W	682.70	86.716	10.98	6.04	-11.42	
6658.00	57.690	13.400	8395.38	-100.09	74.29	691.49	1679893.68	14319330.01	39°25'55.920"N	80°51'36.688"W	695.47	83.868	11.19	6.66	-10.82	
6703.00	60.990	8.890	8418.33	-65.17	112.26	698.94	1679901.13	14319367.96	39°25'56.296"N	80°51'36.592"W	707.90	80.876	11.32	7.33	-10.02	
6737.00†	63.720	5.524	8434.11	-37.17	142.13	702.71	1679904.90	14319397.82	39°25'56.591"N	80°51'36.544"W	716.94	78.566	11.89	8.03	-9.90	Burkett: 6737 MD
6748.00	64.620	4.470	8438.90	-27.84	151.99	703.57	1679905.76	14319407.68	39°25'56.688"N	80°51'36.532"W	719.80	77.810	11.89	8.18	-9.58	
6793.00	68.620	359.650	8456.77	11.76	193.25	705.03	1679907.22	14319448.92	39°25'57.096"N	80°51'36.513"W	731.03	74.672	13.25	8.89	-10.71	
6826.00†	71.494	355.765	8468.02	42.08	224.23	703.78	1679905.97	14319479.89	39°25'57.402"N	80°51'36.528"W	738.64	72.327	14.08	8.71	-11.77	Tully: 6826 MD
6837.00	72.470	354.500	8471.43	52.40	234.66	702.89	1679905.08	14319490.31	39°25'57.505"N	80°51'36.539"W	741.03	71.539	14.08	8.87	-11.50	
6882.00	76.240	352.600	8483.56	95.30	277.70	698.02	1679902.21	14319533.34	39°25'57.931"N	80°51'36.601"W	751.23	68.305	9.31	8.38	-4.22	
6927.00	79.740	350.520	8492.92	139.07	321.23	691.55	1679893.75	14319576.85	39°25'58.361"N	80°51'36.682"W	762.52	65.085	9.00	7.78	-4.62	
6972.00	82.300	349.050	8499.95	183.40	364.97	683.67	1679885.87	14319620.57	39°25'58.793"N	80°51'36.782"W	774.99	61.905	6.54	5.69	-3.27	
6986.00†	82.366	348.493	8501.82	197.25	378.58	680.97	1679883.17	14319634.18	39°25'58.928"N	80°51'36.816"W	779.13	60.928	3.97	0.47	-3.98	Marcellus: 6986 MD
7016.00	82.510	347.300	8505.76	226.96	407.66	674.73	1679876.93	14319663.24	39°25'59.215"N	80°51'36.895"W	788.32	58.861	3.97	0.48	-3.98	
7061.00	82.540	344.750	8511.82	271.58	450.95	663.96	1679866.16	14319706.52	39°25'59.644"N	80°51'37.031"W	802.62	55.816	5.62	0.07	-5.67	
7106.00	83.070	341.570	8517.26	316.18	493.68	651.03	1679853.24	14319749.23	39°26'00.066"N	80°51'37.195"W	817.04	52.827	7.11	1.18	-7.07	
7196.00	90.040	339.020	8522.66	405.57	578.19	620.75	1679822.97	14319833.71	39°26'00.902"N	80°51'37.579"W	848.31	47.033	8.24	7.74	-2.83	
7285.00	90.100	338.960	8522.55	493.98	661.27	588.84	1679791.07	14319916.76	39°26'01.723"N	80°51'37.984"W	885.45	41.684	0.10	0.07	-0.07	
7375.00	90.010	337.790	8522.47	583.26	744.94	555.67	1679757.92	14320000.39	39°26'02.551"N	80°51'38.406"W	929.36	36.720	1.30	-0.10	-1.30	
7464.00	90.040	338.140	8522.43	671.47	827.44	522.28	1679724.64	14320082.86	39°26'03.267"N	80°51'38.829"W	978.48	32.260	0.39	0.03	0.39	
7554.00	90.040	340.390	8522.36	760.92	911.60	490.42	1679692.69	14320169.99	39°26'04.199"N	80°51'39.234"W	1035.15	28.279	2.50	0.00	2.50	
7643.00	90.100	341.630	8522.26	849.63	995.76	461.46	1679676.46	14320251.11	39°26'05.031"N	80°51'39.601"W	1097.49	24.864	1.39	0.07	1.39	
7732.00	90.320	342.700	8521.93	938.47	1080.48	434.20	1679636.60	14320335.79	39°26'05.869"N	80°51'39.947"W	1164.46	21.893	1.23	0.25	1.20	
7822.00	89.800	341.050	8521.84	1028.28	1166.01	406.20	1679608.51	14320421.29	39°26'06.715"N	80°51'40.302"W	1234.74	19.207	1.92	-0.58	-1.83	
7911.00	89.980	338.240	8522.01	1116.79	1249.44	375.25	1679577.57	14320504.69	39°26'07.540"N	80°51'40.695"W	1304.58	16.717	3.16	0.20	-3.16	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Date Pad
	Slot
	Well
	Wellbore
	Rymer Unit 2H AWP
	Rymer Unit 2H
	Slot #04

WELLPATH DATA (350 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 (ft/100ft)	Comments
8001.00	90.290	336.160	6521.79	1205.82	1332.40	340.38	1679542.71	14320587.62	39°26'08.360"N	80°51'41.138"W	1375.19	14.330	2.34	0.34	-2.31	
8091.00	89.950	336.840	6521.61	1294.66	1414.88	304.35	1679506.69	14320670.06	39°26'09.176"N	80°51'41.596"W	1447.24	12.140	0.65	-0.38	0.53	
8180.00	90.290	338.840	6521.42	1382.82	1497.24	270.63	1679472.99	14320752.39	39°26'09.990"N	80°51'42.024"W	1521.50	10.246	2.50	0.38	2.47	
8270.00	90.410	340.300	6520.87	1472.32	1581.57	239.22	1679441.59	14320836.69	39°26'10.824"N	80°51'42.422"W	1598.56	8.601	1.63	0.13	1.62	
8359.00	90.390	341.270	6520.26	1561.01	1665.61	209.93	1679412.31	14320920.70	39°26'11.656"N	80°51'42.794"W	1678.79	7.184	1.09	-0.03	1.09	
8448.00	90.810	343.380	6519.33	1649.85	1750.40	182.91	1679385.31	14321005.45	39°26'12.494"N	80°51'43.137"W	1759.93	5.966	2.42	0.48	2.37	
8538.00	90.750	343.580	6518.11	1739.78	1836.68	157.32	1679359.73	14321091.69	39°26'13.347"N	80°51'43.461"W	1843.40	4.896	0.23	-0.07	0.22	
8628.00	90.440	343.290	6517.17	1829.71	1922.94	131.66	1679334.06	14321177.92	39°26'14.200"N	80°51'43.766"W	1927.44	3.917	0.47	-0.34	-0.32	
8717.00	90.900	343.180	6516.13	1918.63	2008.15	105.99	1679308.42	14321263.10	39°26'15.043"N	80°51'44.112"W	2010.94	3.021	0.53	0.52	-0.12	
8807.00	90.760	338.930	6514.81	2008.32	2093.25	76.78	1679278.22	14321349.16	39°26'15.884"N	80°51'44.483"W	2094.65	2.101	4.72	-0.13	-4.72	
8896.00	90.710	336.020	6513.65	2096.41	2175.44	42.70	1679245.15	14321430.32	39°26'16.697"N	80°51'44.915"W	2175.86	1.124	3.27	-0.08	-3.27	
8986.00	90.680	336.940	6512.56	2185.27	2257.96	6.78	1679209.25	14321512.80	39°26'17.513"N	80°51'45.372"W	2257.97	0.172	1.02	-0.03	1.02	
9075.00	90.680	339.390	6511.51	2273.51	2340.56	-26.32	1679176.17	14321595.37	39°26'18.330"N	80°51'45.792"W	2340.71	359.356	2.75	0.00	2.75	
9165.00	90.840	341.040	6510.31	2363.10	2425.24	-56.78	1679145.72	14321680.01	39°26'19.167"N	80°51'46.178"W	2425.90	358.659	1.84	0.18	1.83	
9254.00	90.840	341.130	6509.01	2451.81	2509.42	-85.62	1679116.98	14321764.17	39°26'20.000"N	80°51'46.544"W	2510.88	358.046	0.10	0.00	0.10	
9344.00	90.870	342.420	6507.66	2541.60	2594.89	-113.77	1679088.75	14321849.61	39°26'20.845"N	80°51'46.902"W	2597.39	357.490	1.43	0.03	1.43	
9434.00	90.690	340.690	6506.44	2631.37	2680.26	-142.24	1679060.29	14321934.94	39°26'21.689"N	80°51'47.263"W	2684.03	356.962	1.93	-0.20	-1.92	
9523.00	90.680	341.790	6505.37	2720.10	2764.52	-170.86	1679031.68	14322019.17	39°26'22.522"N	80°51'47.626"W	2769.80	356.463	1.24	-0.01	1.24	
9613.00	90.960	343.010	6504.09	2809.95	2850.30	-198.07	1679004.48	14322104.91	39°26'23.370"N	80°51'47.971"W	2857.17	356.025	1.39	0.31	1.36	
9702.00	90.760	343.100	6502.74	2898.65	2935.43	-224.01	1678978.55	14322190.00	39°26'24.212"N	80°51'48.300"W	2943.96	355.636	0.23	-0.20	0.10	
9792.00	90.650	341.770	6501.61	2988.71	3021.22	-251.16	1678951.41	14322275.76	39°26'25.061"N	80°51'48.645"W	3031.64	355.248	1.48	-0.14	-1.48	
9881.00	91.110	341.400	6500.25	3077.48	3105.65	-279.28	1678923.31	14322360.16	39°26'25.895"N	80°51'49.001"W	3118.19	354.862	0.66	0.52	-0.42	
9971.00	90.780	339.300	6498.76	3167.09	3190.40	-309.53	1678893.06	14322444.87	39°26'26.733"N	80°51'49.385"W	3205.38	354.458	2.36	-0.37	-2.33	
10061.00	90.680	336.330	6497.61	3256.24	3273.72	-343.51	1678859.10	14322528.16	39°26'27.557"N	80°51'49.817"W	3291.69	354.010	3.30	-0.11	-3.30	
10150.00	90.740	334.760	6496.51	3343.87	3354.72	-390.35	1678822.27	14322609.13	39°26'28.359"N	80°51'50.285"W	3376.22	353.532	1.77	0.07	-1.76	
10240.00	90.870	336.410	6495.25	3432.48	3436.67	-417.55	1678785.09	14322691.04	39°26'29.169"N	80°51'50.757"W	3461.94	353.073	1.84	0.14	1.83	
10330.00	90.870	340.820	6493.88	3521.79	3520.44	-450.35	1678752.30	14322774.78	39°26'29.998"N	80°51'51.174"W	3549.13	352.710	4.90	0.00	4.90	
10420.00	90.650	344.720	6492.69	3611.65	3606.38	-477.00	1678720.56	14322860.68	39°26'30.847"N	80°51'51.512"W	3637.78	352.465	4.34	-0.24	4.33	
10509.00	90.680	348.200	6491.65	3700.62	3692.88	-497.84	1678704.83	14322947.15	39°26'31.703"N	80°51'51.776"W	3726.29	352.322	3.91	0.03	3.91	
10596.00	90.710	343.550	6490.57	3789.59	3779.16	-519.55	1678683.13	14323033.40	39°26'32.556"N	80°51'52.051"W	3814.71	352.172	5.22	0.03	-5.22	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 2H
Area	Tyler County, WV	Wellbore	Rymer Unit 2H AWB
Field	Tyler		
Facility	Date Pad		

WELLPATH DATA (350 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 (ft/100ft)	Comments
10688.00	90.250	340.070	6489.82	3879.38	3864.65	-547.64	1678655.05	14323118.85	39°26'33.401"N	80°51'52.407"W	3903.26	351.935	3.90	-0.51	-3.87	
10777.00	91.240	341.880	6488.66	3968.07	3948.77	-576.65	1678626.05	14323202.94	39°26'34.233"N	80°51'52.775"W	3990.66	351.692	2.32	1.11	2.03	
10867.00	90.340	342.290	6487.42	4057.90	4034.40	-604.33	1678598.38	14323288.54	39°26'35.080"N	80°51'53.127"W	4079.41	351.481	1.10	-1.00	0.46	
10957.00	92.320	344.200	6485.33	4147.79	4120.55	-630.26	1678572.46	14323374.65	39°26'35.931"N	80°51'53.455"W	4168.47	351.304	3.06	2.20	2.12	
11046.00	90.590	340.470	6483.07	4236.60	4205.31	-657.26	1678545.48	14323459.37	39°26'36.769"N	80°51'53.798"W	4256.36	351.117	4.82	-1.94	-4.18	
11136.00	90.410	334.950	6482.28	4325.71	4288.55	-691.38	1678511.37	14323542.58	39°26'37.593"N	80°51'54.231"W	4343.92	350.842	6.14	-0.20	-6.13	
11225.00	90.590	331.740	6481.51	4412.67	4368.07	-731.30	1678471.46	14323622.08	39°26'38.379"N	80°51'54.739"W	4428.87	350.496	3.61	0.20	-3.61	
11315.00	90.590	329.580	6480.58	4499.62	4446.52	-775.39	1678427.39	14323700.49	39°26'39.155"N	80°51'55.299"W	4513.62	350.108	2.40	0.00	-2.40	
11404.00	90.530	331.200	6479.71	4585.50	4523.89	-819.36	1678383.43	14323777.83	39°26'39.921"N	80°51'55.858"W	4597.49	349.734	1.82	-0.07	1.82	
11494.00	90.590	334.740	6478.83	4673.30	4604.04	-860.26	1678342.56	14323857.95	39°26'40.713"N	80°51'56.378"W	4683.72	349.416	3.93	0.07	3.93	
11584.00	90.590	340.320	6477.90	4762.37	4687.17	-894.64	1678308.19	14323941.05	39°26'41.535"N	80°51'56.815"W	4771.79	349.194	6.20	0.00	6.20	
11673.00	90.620	344.460	6476.96	4851.21	4771.98	-921.56	1678281.28	14324025.82	39°26'42.374"N	80°51'57.156"W	4860.15	349.070	4.65	0.03	4.65	
11763.00	90.710	344.870	6475.92	4941.19	4858.77	-945.36	1678257.49	14324112.58	39°26'43.232"N	80°51'57.468"W	4949.88	348.990	0.47	0.10	0.46	
11852.00	90.680	343.670	6474.84	5030.16	4944.43	-969.48	1678233.37	14324198.20	39°26'44.079"N	80°51'57.764"W	5038.58	348.906	1.35	-0.03	-1.35	
11942.00	90.860	342.770	6473.86	5120.08	5030.59	-995.47	1678207.40	14324284.33	39°26'44.931"N	80°51'58.093"W	5128.14	348.807	1.01	-0.13	-1.00	
12031.00	90.740	340.700	6472.85	5208.86	5115.10	-1023.36	1678179.52	14324368.80	39°26'45.767"N	80°51'58.447"W	5216.46	348.686	2.33	0.20	-2.33	
12121.00	90.370	342.730	6471.98	5298.65	5200.54	-1051.59	1678151.30	14324454.21	39°26'46.612"N	80°51'58.805"W	5305.80	348.568	2.29	-0.41	2.28	
12210.00	90.340	345.830	6471.43	5387.61	5286.20	-1075.70	1678127.20	14324539.84	39°26'47.459"N	80°51'59.111"W	5394.54	348.498	3.48	-0.03	3.48	
12300.00	90.800	344.620	6470.54	5477.60	5373.22	-1098.65	1678104.26	14324626.82	39°26'48.319"N	80°51'59.402"W	5484.39	348.444	1.44	0.51	-1.34	
12389.00	90.820	338.320	6469.43	5566.34	5457.61	-1126.77	1678076.15	14324711.18	39°26'49.153"N	80°51'59.759"W	5572.71	348.335	6.86	-0.20	-6.86	
12479.00	90.310	334.420	6468.70	5655.17	5540.11	-1162.69	1678040.24	14324793.64	39°26'50.767"N	80°52'00.215"W	5660.80	348.147	4.57	-0.34	-4.56	
12569.00	89.910	332.890	6468.53	5743.23	5620.76	-1202.63	1678000.32	14324874.26	39°26'51.548"N	80°52'00.723"W	5747.98	347.923	1.76	-0.44	-1.70	
12658.00	90.090	332.140	6468.53	5829.92	5699.71	-1243.71	1677959.26	14324953.18	39°26'52.335"N	80°52'01.245"W	5833.82	347.691	0.87	0.20	-0.84	
12748.00	90.030	332.210	6468.43	5917.46	5779.30	-1285.72	1677917.27	14325032.74	39°26'53.128"N	80°52'01.779"W	5920.59	347.458	0.10	-0.07	0.08	
12837.00	89.820	336.300	6468.55	6004.70	5859.45	-1324.37	1677878.63	14325112.86	39°26'53.957"N	80°52'02.270"W	6007.26	347.264	4.80	-0.24	4.60	
12927.00	89.970	341.020	6468.72	6094.02	5943.26	-1357.11	1677845.90	14325196.63	39°26'54.793"N	80°52'02.686"W	6096.23	347.137	5.25	0.07	5.24	
13016.00	89.940	342.760	6468.79	6182.83	6027.85	-1384.77	1677818.25	14325281.18	39°26'55.644"N	80°52'03.036"W	6184.86	347.062	1.96	-0.03	1.96	
13106.00	90.060	343.420	6468.79	6272.74	6113.95	-1410.95	1677792.08	14325367.26	39°26'56.495"N	80°52'03.369"W	6274.65	347.005	0.75	0.13	0.73	
13196.00	89.970	342.340	6468.76	6362.64	6199.96	-1437.44	1677765.60	14325453.23	39°26'57.330"N	80°52'03.705"W	6364.42	346.947	1.20	-0.10	-1.20	
13285.00	90.030	341.040	6468.76	6451.43	6284.46	-1465.40	1677737.65	14325537.69	39°26'57.330"N	80°52'04.060"W	6453.05	346.874	1.46	0.07	-1.46	



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Rymer Unit 2H
Field	Tyler	Wellbore	Rymer Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (350 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 (ft/100ft)	Comments
13375.00	90.030	343.450	6468.71	6541.27	5370.17	-1492.82	1677710.24	14325623.37	39°26'58.178"N	80°52'04.408"W	6542.75	346.811	2.71	0.00	2.71	
13454.00	90.090	345.050	6468.62	6630.25	5455.83	-1516.96	1677686.12	14325709.00	39°26'59.025"N	80°52'04.714"W	6631.66	346.777	1.77	0.07	1.76	
13554.00	89.880	344.160	6468.65	6720.23	5542.60	-1540.85	1677682.24	14325795.73	39°26'59.883"N	80°52'05.017"W	6721.60	346.748	1.02	-0.23	-0.99	
13644.00	89.820	342.490	6468.88	6810.16	5628.81	-1566.68	1677636.42	14325881.91	39°27'00.735"N	80°52'05.345"W	6811.44	346.703	1.86	-0.07	-1.86	
13733.00	89.810	340.790	6469.17	6898.04	5713.23	-1594.71	1677608.40	14325966.34	39°27'01.571"N	80°52'05.700"W	6900.09	346.637	1.81	-0.01	-1.91	
13823.00	89.750	341.110	6469.51	6988.65	5798.35	-1624.08	1677579.04	14326051.38	39°27'02.412"N	80°52'06.073"W	6989.65	346.564	0.36	-0.07	0.36	
13912.00	89.840	340.380	6469.83	7077.33	5882.37	-1653.43	1677549.70	14326135.37	39°27'03.243"N	80°52'06.446"W	7078.20	346.491	0.83	0.10	-0.82	
14001.00	89.780	337.560	6470.13	7165.72	5965.43	-1685.37	1677517.78	14326218.40	39°27'04.064"N	80°52'06.851"W	7166.43	346.398	3.17	-0.07	-3.17	
14091.00	89.660	336.700	6470.57	7254.74	7048.36	-1720.34	1677482.81	14326301.29	39°27'04.884"N	80°52'07.296"W	7255.27	346.284	0.96	-0.13	-0.96	
14181.00	89.780	337.940	6471.01	7343.80	7131.40	-1755.05	1677445.13	14326384.29	39°27'05.705"N	80°52'07.737"W	7344.18	346.174	1.38	0.13	1.38	
14270.00	89.660	340.850	6471.44	7432.27	7214.69	-1786.36	1677416.82	14326467.55	39°27'06.529"N	80°52'08.134"W	7432.55	346.093	3.27	-0.13	3.27	
14359.00	89.600	342.200	6472.02	7521.04	7299.10	-1814.56	1677388.63	14326551.93	39°27'07.364"N	80°52'08.492"W	7521.27	346.039	1.52	-0.07	1.52	
14449.00	90.030	339.830	6472.31	7610.75	7384.20	-1843.94	1677359.37	14326636.99	39°27'08.205"N	80°52'08.864"W	7610.92	345.980	2.68	0.48	-2.63	
14539.00	90.030	338.190	6472.26	7700.15	7468.22	-1876.08	1677327.14	14326720.98	39°27'09.036"N	80°52'09.273"W	7700.26	345.899	1.82	0.00	-1.82	
14628.00	90.000	339.140	6472.24	7788.60	7551.12	-1908.46	1677294.78	14326803.85	39°27'09.866"N	80°52'09.684"W	7788.56	345.816	1.07	-0.03	1.07	
14718.00	89.970	340.330	6472.26	7878.03	7635.55	-1939.63	1677263.62	14326888.24	39°27'10.691"N	80°52'10.080"W	7878.06	345.747	1.32	-0.03	1.32	
14807.00	89.830	341.260	6472.57	7966.72	7719.60	-1968.81	1677234.35	14326972.26	39°27'11.522"N	80°52'10.452"W	7966.73	345.692	1.11	-0.38	1.04	
14896.00	89.850	342.570	6472.98	8055.53	7804.20	-1996.53	1677206.74	14327056.82	39°27'12.358"N	80°52'10.803"W	8055.53	345.650	1.49	0.25	1.47	
14986.00	90.150	342.820	6472.98	8145.42	7890.12	-2023.30	1677179.97	14327142.71	39°27'13.208"N	80°52'11.142"W	8145.42	345.617	0.43	0.33	0.28	
15056.00	90.160	342.820	6472.79	8215.33	7957.00	-2043.98	1677159.31	14327209.56	39°27'13.869"N	80°52'11.405"W	8215.33	345.593	0.00	0.00	0.00	Projected MD at TD: 15056'

HOLE & CASING SECTIONS - Ref Wellbore: Rymer Unit 2H AWB Ref Wellpath: Rymer Unit 2H AWP Proj: 15056'

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	19.00	59.00	40.00	19.00	59.00	0.00	0.00	0.00	0.00
13.375in Casing Surface	19.00	500.00	481.00	19.00	500.00	0.00	0.00	0.00	-0.47
9.625in Casing Intermediate	19.00	2613.00	2594.00	19.00	2611.40	0.00	0.00	33.03	-15.78



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION		
Area	Tyler County, WV		
Field	Tyler		
Facility	Dale Pad		
	Well	Rymer Unit 2H	
	Wellbore	Rymer Unit 2H AWB	

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Rymer Unit 2H BHL Rev-1	6523.00	7955.26	-2040.87	1677162.42	14327207.83	39°27'13.852"N	80°52'11.365"W	point
Rymer Unit 2H Landing Pt. Rev-1	6523.00	495.90	644.49	1679846.70	14319751.45	39°26'00.088"N	80°51'37.279"W	point

WELLPATH COMPOSITION - Ref Wellbore: Rymer Unit 2H AWB			Ref Wellpath: Rymer Unit 2H AWP Proj: 15056'		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		
19.00	5629.06	SDI Keeper v1.04	01 SDI Std: Keeper Gyro (100'-5629.06')		
5629.06	14986.00	BHI AutoTrak Curve w/ Surcon (MagCAD, Short spacing)	02 BHI AT Curve [SS + MSA] <-8-1/2'> (5629.06' - 14986')		
14986.00	15056.00	Blind Drilling (std)	Projection to bit		
					Wellbore
					Rymer Unit 2H AWB
					Rymer Unit 2H AWB



Actual Wellpath Report

Rymer Unit 2H AWP Proj: 15056'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Rymer Unit 2H
Field	Tyler	Wellbore	Rymer Unit 2H AWB
Facility	Date Pad		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
100.00	0.330	355.120	100.00	SDI Std. Keeper Gyro (100'-5629.06')
5763.00	29.860	123.510	5703.51	BHI AT Curve [SS + MSA] <8-1/2">(5629.06')(5763'- 14986')
6307.00	41.294	55.635	6160.94	Sycamore: 6307' MD
6557.00	51.251	24.749	6336.63	Middlesex: 6557' MD
6737.00	63.720	5.524	6434.11	Burkett: 6737' MD
6826.00	71.494	355.765	6488.02	Tully: 6826' MD
6986.00	82.366	348.493	6501.82	Marcellus: 6986' MD
15056.00	90.150	342.820	6472.79	Projected MD at TD: 15056'

COMMENTS

Wellpath general comments

BHI Job #: 7985468
 API #: 47-095-02270-0000
 Rig: PD 523
 Duration: 06.20.2016-06.24.2016
 SDI Std. Keeper Gyro (100'-5629.06')
 BHI AT Curve [SS + MSA] <8-1/2">(5629.06')(5763'- 14986')
 Sycamore: 6307' MD
 Middlesex: 6557' MD
 Burkett: 6737' MD
 Tully: 6826' MD
 Marcellus: 6986' MD
 Projected MD at TD: 15056'