



ANTERO RESOURCES CORPORATION

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

Slot: Slot #03
 Well: Rymer Unit 3H
 Wellbore: Rymer Unit 3H PWB

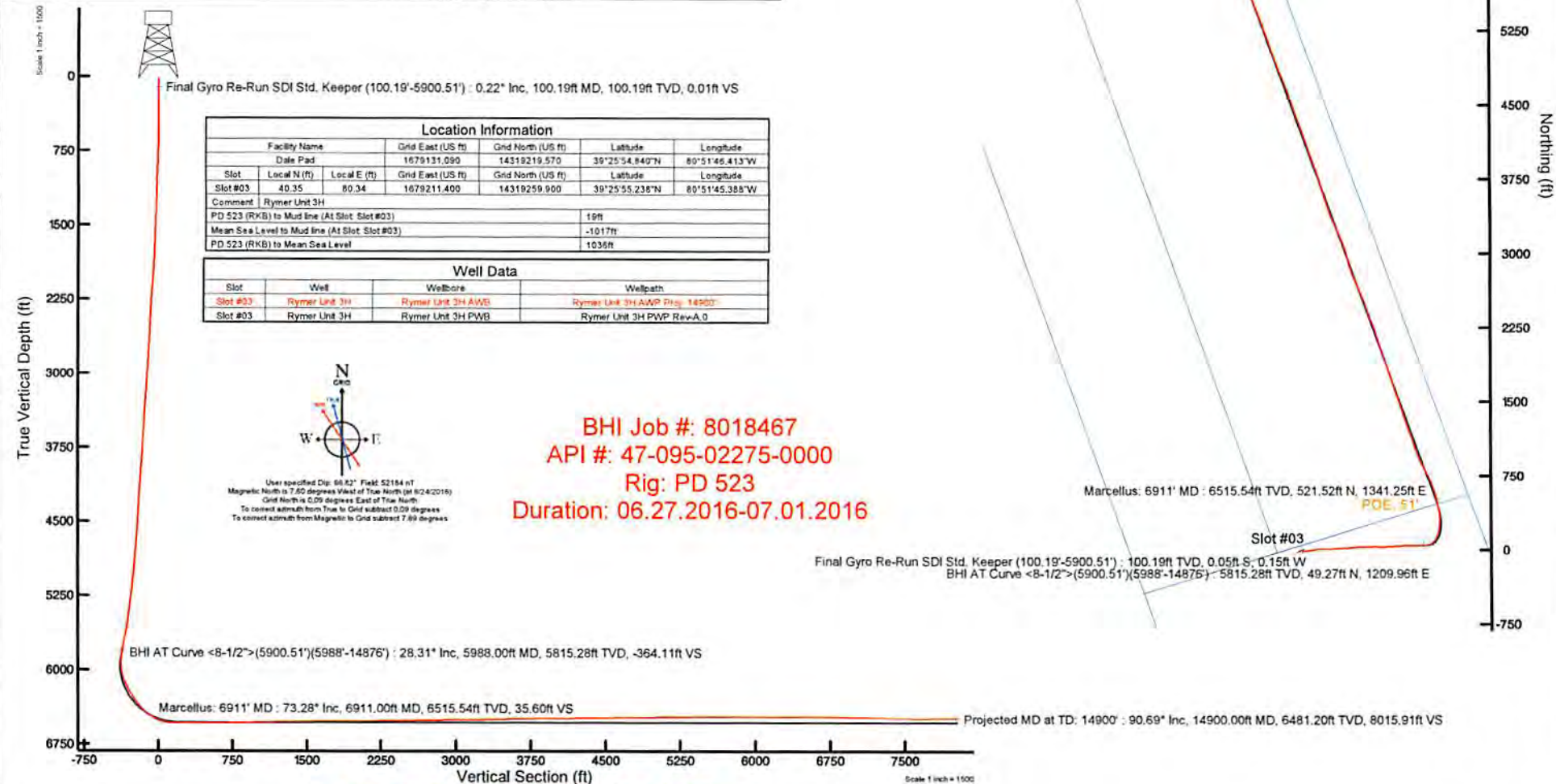


Scale 1 inch = 1500'

Easting (ft)
 -3000 -2250 -1500 -750 0 750 1500

Projected MD at TD: 14900' : 6481.20ft TVD, 8022.72ft N, 1382.27ft W

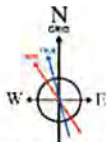
Plot reference wellpath is Rymer Unit 3H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to PD 523 (RKB)	* = Wellpath was transformed from a different geoidic datum
Measured depths are referenced to PD 523 (RKB)	North Reference: Grid north
PD 523 (RKB) to Mean Sea Level: 1036 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #03): -1017 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: harekk on 2016-07-12
	Database: WA_MPL_EASTERNUS_Deh



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 N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #03	40.35	80.34	1679211.400	14319259.900
			Latitude	Longitude
			39°25'55.236"N	80°51'45.388"W
Comment	Rymer Unit 3H			
PD 523 (RKB) to Mud line (At Slot: Slot #03)	19ft			
Mean Sea Level to Mud line (At Slot: Slot #03)	-1017ft			
PD 523 (RKB) to Mean Sea Level	1036ft			

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #03	Rymer Unit 3H	Rymer Unit 3H A/WB	Rymer Unit 3H A/WP Proj: 14900'
Slot #03	Rymer Unit 3H	Rymer Unit 3H PWB	Rymer Unit 3H PWP Rev-A.0

BHI Job #: 8018467
API #: 47-095-02275-0000
Rig: PD 523
Duration: 06.27.2016-07.01.2016



User specified Dip: 88.82° Field: 52184 nT
 Magnetic North is 7.60 degrees West of True North (at 8/24/2016)
 Grid North is 0.09 degrees East of True North
 To convert azimuth from True to Grid subtract 0.09 degrees
 To convert azimuth from Magnetic to Grid subtract 7.69 degrees

Azimuth 340.17° with reference 0.00 N, 0.00 E



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Rymer Unit 3H AWP Proj: 14900'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Dale Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Hareluk
Scale	0.999602	Report Generated	7/12/2016 at 2:05:36 PM
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Rymer_Unit_3H_AWP_Proj_14900_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	40.35	80.34	1679211.40	14319259.90	39°25'55.238"N	80°51'45.388"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 #03)	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	340.17°



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWP
Facility	Date Pad		

WELLPATH DATA (354 stations) † = Interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	East (ft)	North (ft)	East (ft)	Grid North (ft)	Grid East (ft)	Latitude	Longitude	Closure (ft)	Dir (°)	Closure (ft)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00	0.00	0.00	0.00	0.00	0.00	0.00	167921.40	14319259.90	39.2555,238°N	80.5145,388°W	0.00	0.00	0.00	0.00	0.00		
19.00	0.00	0.00	19.00	0.00	0.00	0.00	167921.40	14319259.90	39.2555,238°N	80.5145,388°W	0.00	0.00	0.00	0.00	0.00		
100.19	0.00	0.01	100.19	0.01	0.05	0.15	167921.25	14319259.85	39.2555,237°N	80.5145,390°W	0.16	252.460	0.27	132.45	Final Gyro Re-Run SDI Keeper (100.19-5900.51)		
125.07	0.29	0.25	125.07	0.25	0.00	0.25	167921.15	14319259.81	39.2555,237°N	80.5145,391°W	0.27	249.414	0.36	0.28			
148.43	0.21	0.38	148.43	0.38	0.02	0.34	167921.07	14319259.75	39.2555,236°N	80.5145,392°W	0.37	246.310	0.35	-0.34			
175.74	0.19	0.50	175.74	0.50	0.05	0.41	167921.09	14319259.70	39.2555,235°N	80.5145,393°W	0.46	244.284	0.07	-0.07			
200.19	0.21	0.50	200.19	0.50	0.23	0.49	167921.01	14319259.67	39.2555,235°N	80.5145,394°W	0.54	244.537	0.27	0.08			
224.58	0.15	0.24	224.58	0.24	0.05	0.56	167921.04	14319259.64	39.2555,235°N	80.5145,395°W	0.62	244.713	0.35	-0.25			
249.03	0.18	0.27	249.03	0.27	0.08	0.69	167921.07	14319259.62	39.2555,234°N	80.5145,396°W	0.68	245.877	0.49	0.12			
275.86	0.18	0.27	275.86	0.27	0.06	0.80	167921.10	14319259.59	39.2555,234°N	80.5145,397°W	0.75	245.462	0.76	0.00			
300.31	0.15	0.24	300.31	0.24	0.09	0.73	167921.07	14319259.54	39.2555,234°N	80.5145,397°W	0.82	243.648	0.42	-0.12			
324.71	0.22	0.32	324.71	0.32	0.11	0.80	167921.06	14319259.49	39.2555,234°N	80.5145,398°W	0.89	242.992	0.31	0.29			
349.08	0.25	0.40	349.08	0.40	0.13	0.88	167921.05	14319259.45	39.2555,233°N	80.5145,399°W	0.99	242.926	0.34	0.12			
373.97	0.26	0.40	373.97	0.40	0.12	0.99	167921.04	14319259.41	39.2555,233°N	80.5145,401°W	1.10	243.755	0.04	0.04			
398.97	0.25	0.40	398.97	0.40	0.13	1.08	167921.03	14319259.34	39.2555,233°N	80.5145,403°W	1.30	242.795	0.28	-0.12			
424.20	0.20	0.40	424.20	0.40	0.17	1.15	167921.02	14319259.31	39.2555,232°N	80.5145,403°W	1.41	242.673	0.86	0.57			
448.64	0.34	0.40	448.64	0.40	0.18	1.25	167921.01	14319259.25	39.2555,231°N	80.5145,404°W	1.53	243.728	0.30	-0.29			
472.84	0.27	0.40	472.84	0.40	0.17	1.37	167921.00	14319259.22	39.2555,230°N	80.5145,405°W	1.53	243.728	0.30	-0.29			
496.96	0.62	0.38	496.96	0.38	0.19	1.54	167920.99	14319259.14	39.2555,230°N	80.5145,408°W	1.72	243.801	1.54	1.45			
523.88	0.67	0.38	523.88	0.38	0.24	1.81	167920.98	14319259.00	39.2555,229°N	80.5145,411°W	2.02	243.588	0.25	0.19			
548.08	0.73	0.38	548.08	0.38	0.28	2.07	167920.94	14319258.86	39.2555,227°N	80.5145,414°W	2.31	243.174	0.28	0.25			
572.22	0.81	0.38	572.22	0.38	0.33	2.35	167920.95	14319258.70	39.2555,226°N	80.5145,418°W	2.64	243.063	0.38	0.33			
599.81	0.78	0.38	599.81	0.38	0.37	2.69	167920.88	14319258.53	39.2555,224°N	80.5145,422°W	3.02	243.061	0.13	-0.11			
624.09	0.63	0.38	624.09	0.38	0.44	2.94	167920.86	14319258.37	39.2555,222°N	80.5145,425°W	3.32	242.529	0.85	-0.62			
647.78	0.76	0.38	647.78	0.38	0.52	3.18	167920.82	14319258.21	39.2555,221°N	80.5145,428°W	3.60	241.949	0.69	0.56			
672.05	0.72	0.38	672.05	0.38	0.58	3.45	167920.79	14319258.04	39.2555,219°N	80.5145,432°W	3.92	241.643	0.19	-0.16			
699.88	0.64	0.38	699.88	0.38	0.67	3.71	167920.76	14319257.85	39.2555,217°N	80.5145,435°W	4.24	241.092	0.38	-0.29			
724.45	0.91	0.38	724.45	0.38	0.90	3.81	167920.75	14319257.57	39.2555,215°N	80.5145,437°W	4.47	238.545	3.05	1.10			
749.18	1.29	0.38	749.18	0.38	1.37	3.69	167920.71	14319257.12	39.2555,210°N	80.5145,435°W	4.62	232.988	2.15	1.54			
773.70	1.41	0.38	773.70	0.38	1.93	3.41	167920.79	14319256.62	39.2555,205°N	80.5145,431°W	4.73	226.079	1.38	0.49			
798.32	1.63	0.38	798.32	0.38	2.55	3.01	167920.89	14319256.10	39.2555,200°N	80.5145,426°W	4.85	218.399	0.81	0.89			



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Dale Pad		

WELLPATH DATA (354 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
822.78	2.390	129.690	822.72	-3.33	-4.40	-2.41	1679208.99	14319255.50	39°25'55.194"N	80°51'45.419"W	5.02	208.673	3.57	3.11	-50.94	
847.83	2.900	121.670	847.75	-4.27	-5.07	-1.47	1679209.93	14319254.83	39°25'55.187"N	80°51'45.407"W	5.28	196.136	2.51	2.04	-32.02	
872.41	3.180	121.570	872.29	-5.29	-5.75	-0.36	1679211.04	14319254.15	39°25'55.181"N	80°51'45.393"W	5.76	183.547	1.14	1.14	-0.41	
900.11	3.980	112.910	899.94	-6.54	-6.53	1.18	1679212.58	14319253.37	39°25'55.173"N	80°51'45.373"W	6.64	169.725	3.48	2.89	-31.26	
924.08	4.190	107.910	923.85	-7.64	-7.12	2.78	1679214.18	14319252.78	39°25'55.167"N	80°51'45.353"W	7.65	158.657	1.72	0.88	-20.86	
950.08	5.410	98.330	949.76	-8.80	-7.59	4.90	1679216.30	14319252.31	39°25'55.162"N	80°51'45.326"W	9.04	147.162	5.60	4.69	-36.85	
973.07	5.460	99.190	972.64	-9.85	-7.92	7.05	1679218.45	14319251.98	39°25'55.159"N	80°51'45.298"W	10.61	138.332	0.42	0.22	3.74	
998.25	5.430	96.110	997.71	-10.95	-8.24	9.42	1679220.82	14319251.66	39°25'55.156"N	80°51'45.268"W	12.52	131.186	1.17	-0.12	-12.23	
1023.00	5.740	94.890	1022.34	-11.98	-8.47	11.82	1679223.21	14319251.43	39°25'55.154"N	80°51'45.238"W	14.54	125.639	1.34	1.25	-4.93	
1047.75	5.930	92.820	1046.96	-12.99	-8.64	14.33	1679225.72	14319251.26	39°25'55.152"N	80°51'45.206"W	16.73	121.094	1.15	0.77	-8.36	
1075.26	6.730	91.970	1074.31	-14.13	-8.77	17.36	1679228.75	14319251.14	39°25'55.151"N	80°51'45.167"W	19.44	116.795	2.93	2.91	-3.09	
1100.01	6.830	91.060	1098.88	-15.20	-8.84	20.28	1679231.67	14319251.06	39°25'55.150"N	80°51'45.130"W	22.12	113.561	0.59	0.40	-3.68	
1124.63	7.060	89.800	1123.32	-16.23	-8.86	23.25	1679234.65	14319251.04	39°25'55.150"N	80°51'45.092"W	24.89	110.867	1.12	0.93	-5.12	
1149.38	7.690	88.560	1147.87	-17.26	-8.82	26.43	1679237.82	14319251.09	39°25'55.150"N	80°51'45.051"W	27.86	108.449	2.63	2.55	-5.01	
1174.12	8.030	85.140	1172.37	-18.23	-8.63	29.81	1679241.20	14319251.27	39°25'55.152"N	80°51'45.008"W	31.03	106.146	2.34	1.37	-13.82	
1198.24	7.980	85.570	1196.26	-19.11	-8.36	33.16	1679244.54	14319251.55	39°25'55.154"N	80°51'44.966"W	34.19	104.148	0.32	-0.21	1.78	
1222.88	8.200	84.860	1220.65	-20.01	-8.07	36.61	1679248.00	14319251.84	39°25'55.157"N	80°51'44.922"W	37.49	102.428	0.98	0.89	-2.88	
1247.62	8.800	83.730	1245.12	-20.90	-7.70	40.25	1679251.63	14319252.20	39°25'55.161"N	80°51'44.875"W	40.98	100.835	2.52	2.43	-4.57	
1272.34	9.220	83.060	1269.54	-21.79	-7.26	44.09	1679255.48	14319252.65	39°25'55.165"N	80°51'44.826"W	44.69	99.346	1.75	1.70	-2.71	
1296.31	9.430	82.150	1293.19	-22.62	-6.76	47.95	1679259.33	14319253.15	39°25'55.170"N	80°51'44.777"W	48.42	98.022	1.07	0.88	-3.80	
1324.41	9.770	81.220	1320.90	-23.56	-6.08	52.58	1679263.96	14319253.82	39°25'55.177"N	80°51'44.718"W	52.93	96.594	1.33	1.21	-3.31	
1349.10	10.020	80.910	1345.22	-24.36	-5.42	56.77	1679268.15	14319254.48	39°25'55.183"N	80°51'44.664"W	57.03	95.453	1.04	1.01	-1.26	
1373.67	10.200	81.250	1369.41	-25.17	-4.75	61.03	1679272.41	14319255.15	39°25'55.190"N	80°51'44.610"W	61.22	94.451	0.77	0.73	1.38	
1398.35	10.580	80.770	1393.68	-26.01	-4.06	65.43	1679276.80	14319255.85	39°25'55.196"N	80°51'44.554"W	65.56	93.547	1.58	1.54	-1.94	
1422.30	10.640	80.500	1417.22	-26.81	-3.34	69.78	1679281.15	14319256.56	39°25'55.204"N	80°51'44.499"W	69.86	92.738	0.33	0.25	-1.13	
1450.23	10.860	80.790	1444.66	-27.76	-2.49	74.92	1679286.29	14319257.41	39°25'55.212"N	80°51'44.433"W	74.96	91.904	0.81	0.79	1.04	
1475.02	11.150	80.970	1469.00	-28.64	-1.74	79.59	1679290.96	14319258.16	39°25'55.219"N	80°51'44.374"W	79.61	91.253	1.18	1.17	0.73	
1499.67	11.260	80.800	1493.18	-29.53	-0.98	84.32	1679295.69	14319258.92	39°25'55.227"N	80°51'44.313"W	84.33	90.667	0.47	0.45	-0.69	
1524.23	11.350	80.600	1517.26	-30.41	-0.20	89.08	1679300.44	14319259.70	39°25'55.234"N	80°51'44.253"W	89.08	90.131	0.40	0.37	-0.81	
1548.15	10.900	80.270	1540.73	-31.23	0.56	93.63	1679304.99	14319260.46	39°25'55.242"N	80°51'44.195"W	93.63	89.656	1.90	-1.88	-1.38	



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 3H
Area	Tyler County, WV	Wellbore	Rymer Unit 3H AWP
Field	Tyler		
Facility	Date Pad		

WELLPATH DATA (354 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
1572.80	11.010	81.040	1584.93	-32.08	1.32	98.25	1679309.61	14319261.22	39°25'55.249"N	80°51'44.136"W	98.26	89.228	0.74	0.45	3.12	
1597.42	11.040	80.630	1589.10	-32.96	2.07	102.90	1679314.26	14319261.97	39°25'55.257"N	80°51'44.077"W	102.92	88.846	0.34	0.12	-1.67	
1621.95	11.030	80.220	1613.17	-33.79	2.85	107.53	1679318.88	14319262.75	39°25'55.264"N	80°51'44.018"W	107.56	88.480	0.32	-0.04	-1.67	
1649.84	10.820	79.520	1640.56	-34.68	3.78	112.73	1679324.09	14319263.68	39°25'55.273"N	80°51'43.951"W	112.79	88.078	0.89	-0.75	-2.51	
1673.18	10.800	79.340	1663.49	-35.39	4.59	117.03	1679328.39	14319264.48	39°25'55.281"N	80°51'43.896"W	117.12	87.756	0.17	-0.06	-0.77	
1697.23	10.840	78.860	1687.12	-36.08	5.43	121.43	1679332.78	14319265.33	39°25'55.289"N	80°51'43.840"W	121.55	87.439	0.78	-0.67	-2.00	
1724.68	10.450	78.440	1714.10	-36.82	6.42	126.35	1679337.70	14319266.32	39°25'55.299"N	80°51'43.778"W	126.51	87.091	0.75	-0.69	-1.53	
1748.93	10.200	78.710	1737.96	-37.46	7.28	130.61	1679341.96	14319267.18	39°25'55.308"N	80°51'43.723"W	130.81	86.809	1.05	-1.03	1.11	
1772.97	10.530	78.300	1761.61	-38.08	8.14	134.85	1679346.20	14319268.04	39°25'55.316"N	80°51'43.669"W	135.10	86.544	1.41	1.37	-1.71	
1796.48	10.900	79.660	1784.71	-38.75	8.98	139.14	1679350.48	14319268.87	39°25'55.324"N	80°51'43.615"W	139.43	86.308	1.91	1.57	5.78	
1823.91	10.950	80.390	1811.64	-39.64	9.88	144.26	1679355.60	14319269.77	39°25'55.333"N	80°51'43.549"W	144.60	86.083	0.54	0.18	2.66	
1848.03	10.800	81.240	1835.33	-40.48	10.61	148.75	1679360.09	14319270.50	39°25'55.340"N	80°51'43.492"W	149.13	85.922	0.91	-0.62	3.52	
1872.15	10.600	82.780	1859.03	-41.40	11.23	153.19	1679364.53	14319271.12	39°25'55.346"N	80°51'43.435"W	153.60	85.808	1.45	-0.83	6.38	
1899.45	10.360	84.690	1885.87	-42.57	11.77	158.12	1679369.46	14319271.67	39°25'55.352"N	80°51'43.373"W	158.56	85.743	1.55	-0.88	7.00	
1923.63	10.550	86.270	1909.65	-43.73	12.12	162.50	1679373.83	14319272.01	39°25'55.355"N	80°51'43.317"W	162.95	85.736	1.42	0.78	6.53	
1950.22	10.800	86.460	1935.78	-45.10	12.43	167.41	1679378.74	14319272.32	39°25'55.358"N	80°51'43.254"W	167.87	85.754	0.95	0.94	0.71	
1972.60	11.120	86.380	1957.75	-46.36	12.62	171.66	1679382.99	14319272.51	39°25'55.360"N	80°51'43.200"W	172.12	85.796	2.17	1.43	8.58	
1999.98	11.520	89.580	1994.21	-48.07	12.71	176.96	1679388.29	14319272.61	39°25'55.361"N	80°51'43.133"W	177.41	85.891	1.72	1.48	4.45	
2023.66	11.790	89.920	2007.79	-49.70	12.73	181.82	1679393.15	14319272.63	39°25'55.361"N	80°51'43.071"W	182.27	85.994	1.16	1.12	1.41	
2047.62	12.100	91.070	2031.23	-51.42	12.69	186.78	1679398.10	14319272.58	39°25'55.360"N	80°51'43.007"W	187.21	86.113	1.63	1.29	4.80	
2074.99	12.230	92.150	2057.99	-53.53	12.53	192.54	1679403.87	14319272.42	39°25'55.358"N	80°51'42.934"W	192.95	86.277	0.96	0.47	3.95	
2099.05	12.310	91.770	2081.50	-55.43	12.35	197.65	1679408.98	14319272.25	39°25'55.357"N	80°51'42.869"W	198.04	86.424	0.47	0.33	-1.58	
2122.42	12.060	92.280	2104.34	-57.27	12.18	202.58	1679413.90	14319272.07	39°25'55.355"N	80°51'42.806"W	202.95	86.560	1.16	-1.07	2.18	
2149.99	12.000	90.410	2131.21	-59.33	12.04	208.31	1679419.62	14319271.94	39°25'55.353"N	80°51'42.733"W	208.66	86.691	1.44	-0.22	-6.81	
2173.95	11.780	89.890	2154.75	-61.03	12.03	213.26	1679424.58	14319271.93	39°25'55.353"N	80°51'42.670"W	213.60	86.771	1.02	-0.91	-2.16	
2197.71	11.340	89.220	2178.03	-62.61	12.07	218.03	1679429.34	14319271.96	39°25'55.354"N	80°51'42.609"W	218.36	86.832	1.94	-1.85	-2.82	
2221.97	11.220	87.970	2201.82	-64.11	12.18	222.77	1679434.08	14319272.08	39°25'55.355"N	80°51'42.549"W	223.10	86.870	1.12	-0.49	-5.15	
2248.72	10.970	88.060	2228.07	-65.69	12.36	227.91	1679438.22	14319272.26	39°25'55.356"N	80°51'42.483"W	228.25	86.895	0.94	-0.93	0.34	
2272.67	10.820	87.710	2251.59	-67.06	12.53	232.44	1679443.74	14319272.42	39°25'55.358"N	80°51'42.425"W	232.78	86.915	0.68	-0.63	-1.46	
2300.06	10.640	87.490	2278.50	-68.59	12.74	237.53	1679448.84	14319272.64	39°25'55.360"N	80°51'42.360"W	237.87	86.929	0.67	-0.66	-0.80	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Dale Pad		

WELLPATH DATA (354 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
2324.93	10.680	88.030	2302.94	-69.98	12.92	242.13	1679453.43	14319272.82	39°25'55.362"N	80°51'42.302"W	242.47	86.945	0.43	0.16	2.17	
2350.77	10.610	87.130	2328.34	-71.41	13.12	246.90	1679458.20	14319273.02	39°25'55.364"N	80°51'42.241"W	247.25	86.957	0.70	-0.27	-3.48	
2375.98	10.590	87.220	2353.12	-72.77	13.35	251.53	1679462.83	14319273.25	39°25'55.366"N	80°51'42.182"W	251.88	86.961	0.10	-0.08	0.36	
2400.39	10.490	87.160	2377.11	-74.07	13.57	255.99	1679467.29	14319273.47	39°25'55.368"N	80°51'42.125"W	256.35	86.965	0.41	-0.41	-0.25	
2426.11	10.370	87.790	2402.41	-75.48	13.78	260.64	1679471.94	14319273.67	39°25'55.370"N	80°51'42.066"W	261.01	86.974	0.64	-0.47	2.45	
2450.33	10.520	87.780	2426.23	-76.79	13.95	265.03	1679476.32	14319273.84	39°25'55.371"N	80°51'42.010"W	265.40	86.988	0.62	0.62	-0.04	
2478.11	10.080	87.960	2453.56	-78.30	14.13	269.99	1679481.28	14319274.02	39°25'55.373"N	80°51'41.947"W	270.36	87.004	1.59	-1.58	0.65	
2502.16	9.400	87.800	2477.26	-79.53	14.28	274.06	1679485.35	14319274.18	39°25'55.375"N	80°51'41.895"W	274.43	87.017	2.83	-2.83	-0.67	
2526.72	9.360	87.840	2501.50	-80.75	14.43	278.06	1679489.35	14319274.33	39°25'55.376"N	80°51'41.844"W	278.43	87.029	0.17	-0.16	0.16	
2552.22	8.940	86.850	2526.67	-81.95	14.62	282.11	1679493.40	14319274.51	39°25'55.378"N	80°51'41.792"W	282.49	87.033	1.76	-1.65	-3.88	
2576.44	8.580	86.550	2550.61	-83.00	14.83	285.79	1679497.08	14319274.73	39°25'55.380"N	80°51'41.745"W	286.18	87.029	1.50	-1.49	-1.24	
2600.34	9.080	85.070	2574.23	-83.98	15.10	289.45	1679500.73	14319275.00	39°25'55.382"N	80°51'41.699"W	289.84	87.013	2.30	2.09	-6.19	
2628.83	10.030	85.350	2602.32	-85.21	15.50	294.16	1679505.45	14319275.39	39°25'55.386"N	80°51'41.639"W	294.57	86.985	3.34	3.33	0.98	
2653.76	10.330	85.260	2626.86	-86.36	15.86	298.55	1679509.83	14319275.75	39°25'55.390"N	80°51'41.583"W	298.97	86.960	1.21	1.20	-0.36	
2677.38	10.760	85.800	2650.08	-87.51	16.19	302.86	1679514.14	14319276.09	39°25'55.393"N	80°51'41.528"W	303.30	86.939	1.87	1.82	2.29	
2701.59	11.670	86.920	2673.83	-88.82	16.49	307.56	1679518.84	14319276.38	39°25'55.396"N	80°51'41.468"W	308.00	86.931	3.86	3.76	4.63	
2725.76	11.830	86.890	2697.49	-90.24	16.76	312.48	1679523.75	14319276.65	39°25'55.398"N	80°51'41.405"W	312.93	86.931	0.66	0.66	-0.12	
2753.78	11.560	86.970	2724.93	-91.88	17.06	318.15	1679529.42	14319276.95	39°25'55.401"N	80°51'41.333"W	318.61	86.931	0.97	-0.96	0.29	
2776.54	12.400	86.940	2747.19	-93.24	17.31	322.87	1679534.14	14319277.20	39°25'55.404"N	80°51'41.273"W	323.33	86.931	3.69	3.69	-0.13	
2800.61	12.990	87.390	2770.67	-94.79	17.57	328.15	1679539.42	14319277.47	39°25'55.406"N	80°51'41.206"W	328.82	86.935	2.49	2.45	1.87	
2825.10	13.290	87.480	2794.52	-96.44	17.82	333.71	1679544.98	14319277.71	39°25'55.409"N	80°51'41.135"W	334.19	86.943	1.23	1.22	0.37	
2854.17	13.150	87.140	2822.82	-98.40	18.13	340.35	1679551.62	14319278.03	39°25'55.412"N	80°51'41.050"W	340.83	86.950	0.55	-0.48	-1.17	
2876.48	13.490	86.300	2844.53	-99.86	18.43	345.48	1679556.75	14319278.32	39°25'55.414"N	80°51'40.985"W	345.97	86.947	1.75	1.52	-3.77	
2902.68	13.120	85.290	2870.03	-101.49	18.87	351.50	1679562.76	14319278.76	39°25'55.419"N	80°51'40.908"W	352.00	86.927	1.67	-1.41	-3.85	
2926.89	13.100	83.720	2893.61	-102.85	19.40	356.96	1679568.22	14319279.29	39°25'55.424"N	80°51'40.838"W	357.49	86.890	1.47	-0.08	-6.48	
2950.61	12.980	82.530	2916.72	-104.05	20.04	362.28	1679573.53	14319279.93	39°25'55.430"N	80°51'40.771"W	362.83	86.835	1.24	-0.51	-5.02	
2976.83	12.610	81.120	2942.28	-105.22	20.86	368.02	1679579.28	14319280.75	39°25'55.438"N	80°51'40.697"W	368.61	86.756	1.85	-1.41	-5.38	
3002.55	12.370	81.230	2967.40	-106.28	21.71	373.52	1679584.77	14319281.60	39°25'55.447"N	80°51'40.627"W	374.15	86.673	0.94	-0.93	0.43	
3028.30	12.630	81.980	2992.54	-107.39	22.53	379.03	1679590.28	14319282.42	39°25'55.454"N	80°51'40.557"W	379.70	86.599	1.19	1.01	2.91	
3050.66	12.630	84.450	3014.35	-108.49	23.10	383.89	1679595.13	14319283.00	39°25'55.460"N	80°51'40.495"W	384.58	86.556	2.42	0.00	11.05	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Dale Pad		

WELLPATH DATA (354 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
3077.42	12.920	84.940	3040.45	-109.98	23.65	389.78	1679601.02	14319283.54	39°25'55.465"N	80°51'40.420"W	390.50	86.528	1.16	1.08	1.83	
3103.17	12.700	85.110	3065.56	-111.44	24.15	395.47	1679606.71	14319284.04	39°25'55.470"N	80°51'40.348"W	396.20	86.506	0.87	-0.85	0.66	
3127.98	12.720	86.770	3089.76	-112.92	24.53	400.91	1679612.15	14319284.42	39°25'55.474"N	80°51'40.278"W	401.66	86.498	1.47	0.08	6.69	
3153.04	12.640	89.060	3114.21	-114.60	24.73	406.41	1679617.64	14319284.62	39°25'55.476"N	80°51'40.208"W	407.16	86.517	2.03	-0.32	9.14	
3178.04	12.640	89.300	3138.61	-116.38	24.81	411.88	1679623.11	14319284.70	39°25'55.477"N	80°51'40.138"W	412.62	86.553	0.21	0.00	0.96	
3200.43	12.620	89.440	3160.45	-117.99	24.87	416.77	1679628.01	14319284.76	39°25'55.477"N	80°51'40.076"W	417.51	86.586	0.16	-0.09	0.63	
3227.15	12.680	89.930	3186.53	-119.95	24.90	422.62	1679633.85	14319284.79	39°25'55.477"N	80°51'40.001"W	423.36	86.629	0.46	0.22	1.83	
3252.07	12.610	89.670	3210.84	-121.78	24.92	428.08	1679639.31	14319284.81	39°25'55.477"N	80°51'39.932"W	428.80	86.669	0.36	-0.28	-1.04	
3276.18	12.780	89.970	3234.36	-123.56	24.93	433.38	1679644.60	14319284.82	39°25'55.477"N	80°51'39.864"W	434.09	86.707	0.76	0.71	1.24	
3301.31	12.590	89.540	3258.88	-125.41	24.96	438.90	1679650.12	14319284.85	39°25'55.478"N	80°51'39.794"W	439.60	86.746	0.84	-0.76	-1.71	
3326.17	12.890	89.250	3283.13	-127.22	25.01	444.38	1679655.60	14319284.90	39°25'55.478"N	80°51'39.724"W	445.08	86.778	1.23	1.21	-1.17	
3350.50	12.760	89.020	3306.85	-128.97	25.10	449.78	1679661.00	14319284.99	39°25'55.479"N	80°51'39.655"W	450.48	86.806	0.57	-0.53	-0.95	
3375.85	12.600	88.110	3331.58	-130.73	25.23	455.34	1679666.56	14319285.12	39°25'55.480"N	80°51'39.584"W	456.04	86.828	1.01	-0.63	-3.59	
3400.95	12.510	87.200	3356.08	-132.37	25.46	460.79	1679672.01	14319285.35	39°25'55.482"N	80°51'39.515"W	461.49	86.838	0.87	-0.36	-3.63	
3425.71	12.880	86.730	3380.24	-133.94	25.75	466.23	1679677.44	14319285.64	39°25'55.485"N	80°51'39.446"W	466.94	86.839	1.55	1.49	-1.90	
3450.01	12.800	85.890	3403.93	-135.44	26.09	471.61	1679682.83	14319285.98	39°25'55.488"N	80°51'39.377"W	472.34	86.833	0.84	-0.33	-3.46	
3477.45	12.850	85.230	3430.68	-137.06	26.57	477.69	1679688.90	14319286.45	39°25'55.493"N	80°51'39.300"W	478.42	86.817	0.56	0.18	-2.41	
3502.12	13.080	84.700	3454.72	-138.47	27.05	483.20	1679694.41	14319286.94	39°25'55.498"N	80°51'39.229"W	483.96	86.796	1.05	0.93	-2.15	
3526.98	12.930	84.350	3478.95	-139.86	27.59	488.77	1679699.97	14319287.47	39°25'55.503"N	80°51'39.158"W	489.55	86.770	0.68	-0.60	-1.41	
3549.98	12.610	84.460	3501.38	-141.11	28.08	493.83	1679705.03	14319287.97	39°25'55.508"N	80°51'39.094"W	494.63	86.745	1.40	-1.39	0.48	
3578.67	12.470	84.300	3529.38	-142.64	28.69	500.03	1679711.23	14319288.58	39°25'55.514"N	80°51'39.015"W	500.85	86.716	0.50	-0.49	-0.56	
3601.48	11.870	84.360	3551.68	-143.81	29.17	504.81	1679716.01	14319289.05	39°25'55.518"N	80°51'38.954"W	505.65	86.693	2.63	-2.63	0.26	
3626.68	11.630	84.630	3576.35	-145.08	29.66	509.92	1679721.12	14319289.55	39°25'55.523"N	80°51'38.889"W	510.78	86.671	0.98	-0.95	1.07	
3650.92	11.750	84.820	3600.09	-146.32	30.11	514.81	1679726.01	14319290.00	39°25'55.527"N	80°51'38.826"W	515.69	86.653	0.52	0.50	0.78	
3677.44	11.980	85.500	3626.04	-147.73	30.57	520.24	1679731.44	14319290.46	39°25'55.532"N	80°51'38.757"W	521.14	86.637	1.01	0.87	2.56	
3702.35	12.000	85.220	3650.41	-149.08	30.99	525.40	1679736.59	14319290.88	39°25'55.536"N	80°51'38.691"W	526.32	86.625	0.25	0.08	-1.12	
3728.27	12.020	85.520	3673.81	-150.39	31.39	530.36	1679741.55	14319291.28	39°25'55.540"N	80°51'38.628"W	531.29	86.613	0.27	0.08	1.25	
3752.70	12.180	85.950	3699.65	-151.87	31.80	535.89	1679747.07	14319291.69	39°25'55.544"N	80°51'38.558"W	536.83	86.604	0.69	0.61	1.63	
3777.34	12.200	85.900	3723.73	-153.29	32.17	541.08	1679752.26	14319292.06	39°25'55.547"N	80°51'38.492"W	542.03	86.597	0.09	0.08	-0.20	
3801.76	12.270	86.150	3747.60	-154.70	32.53	546.24	1679757.42	14319292.42	39°25'55.551"N	80°51'38.426"W	547.21	86.592	0.36	0.29	1.02	



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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Rymer Unit 3H
Area	Tyler County, WV	Wellbore	Rymer Unit 3H AWB
Field	Tyler		
Facility	Dale Pad		

WELLPATH DATA (354 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
3827.23	12.390	86.870	3772.48	-156.23	32.86	551.67	1679762.85	14319292.75	39°25'55.554"N	80°51'38.357"W	552.65	86.591	0.77	0.47	2.83	
3852.41	12.600	86.960	3797.07	-157.80	33.15	557.11	1679768.29	14319293.04	39°25'55.557"N	80°51'38.287"W	558.10	86.594	0.84	0.83	0.36	
3875.75	12.430	87.550	3819.85	-159.29	33.40	562.16	1679773.34	14319293.28	39°25'55.559"N	80°51'38.223"W	563.15	86.600	0.91	-0.73	2.53	
3901.89	12.520	88.360	3845.37	-161.01	33.60	567.80	1679778.98	14319293.48	39°25'55.561"N	80°51'38.151"W	568.80	86.614	0.75	0.34	3.10	
3927.22	12.650	90.010	3870.09	-162.61	33.68	573.32	1679784.49	14319293.56	39°25'55.562"N	80°51'38.081"W	574.31	86.638	1.51	0.51	6.51	
3951.91	12.840	90.370	3894.18	-164.67	33.66	578.77	1679789.94	14319293.54	39°25'55.561"N	80°51'38.011"W	579.75	86.672	0.83	0.77	1.46	
3977.26	12.920	90.510	3918.89	-166.63	33.61	584.42	1679795.59	14319293.50	39°25'55.561"N	80°51'37.939"W	585.39	86.708	0.34	0.32	0.55	
4000.53	13.040	90.900	3941.56	-168.47	33.55	589.65	1679800.91	14319293.44	39°25'55.560"N	80°51'37.873"W	590.60	86.743	0.64	0.52	1.68	
4027.84	13.120	90.770	3968.17	-170.65	33.46	595.83	1679806.99	14319293.35	39°25'55.559"N	80°51'37.794"W	596.76	86.786	0.31	0.28	-0.48	
4051.51	12.990	90.790	3991.22	-172.53	33.39	601.17	1679812.33	14319293.27	39°25'55.558"N	80°51'37.726"W	602.10	86.821	0.55	-0.55	0.08	
4076.88	12.860	90.240	4015.95	-174.50	33.34	606.85	1679818.00	14319293.22	39°25'55.558"N	80°51'37.653"W	607.76	86.856	0.71	-0.51	-2.17	
4101.96	12.880	88.880	4040.40	-176.36	33.38	612.43	1679823.59	14319293.27	39°25'55.558"N	80°51'37.582"W	613.34	86.880	1.21	0.08	-5.42	
4126.13	12.470	88.500	4063.98	-178.04	33.50	617.73	1679828.89	14319293.39	39°25'55.559"N	80°51'37.515"W	618.64	86.896	1.73	-1.70	-1.57	
4151.29	12.050	88.510	4088.57	-179.72	33.64	623.07	1679834.23	14319293.53	39°25'55.561"N	80°51'37.447"W	623.98	86.910	1.67	-1.67	0.04	
4176.02	11.910	88.650	4112.76	-181.34	33.77	628.19	1679839.33	14319293.65	39°25'55.562"N	80°51'37.381"W	629.09	86.923	0.98	-0.97	0.57	
4200.37	11.150	88.920	4136.63	-182.88	33.87	633.03	1679844.18	14319293.76	39°25'55.563"N	80°51'37.320"W	633.94	86.937	2.72	-2.71	1.11	
4228.25	10.830	88.540	4164.00	-184.57	33.99	638.34	1679849.49	14319293.87	39°25'55.564"N	80°51'37.252"W	639.25	86.952	1.18	-1.15	-1.36	
4250.45	10.870	88.340	4185.80	-185.88	34.10	642.52	1679853.66	14319293.99	39°25'55.565"N	80°51'37.199"W	643.43	86.962	0.25	0.18	-0.90	
4275.68	11.420	87.480	4210.55	-187.37	34.28	647.39	1679858.54	14319294.17	39°25'55.567"N	80°51'37.137"W	648.30	86.969	2.28	2.18	-3.41	
4303.40	11.870	87.260	4237.70	-189.02	34.54	652.98	1679864.12	14319294.42	39°25'55.569"N	80°51'37.065"W	653.90	86.972	1.63	1.62	-0.79	
4328.32	11.880	86.710	4262.09	-190.51	34.81	658.11	1679869.24	14319294.69	39°25'55.572"N	80°51'37.000"W	659.02	86.973	0.46	0.04	-2.21	
4352.87	12.150	87.160	4286.10	-191.98	35.08	663.21	1679874.34	14319294.97	39°25'55.574"N	80°51'36.935"W	664.14	86.972	1.16	1.10	1.83	
4377.71	12.690	87.010	4310.36	-193.54	35.35	668.54	1679879.68	14319295.24	39°25'55.577"N	80°51'36.867"W	669.48	86.973	2.18	2.17	-0.60	
4402.54	12.570	86.670	4334.59	-195.09	35.65	673.96	1679885.09	14319295.54	39°25'55.580"N	80°51'36.798"W	674.91	86.972	0.57	-0.48	-1.37	
4426.79	12.240	86.010	4358.27	-196.54	35.98	679.16	1679890.29	14319295.87	39°25'55.583"N	80°51'36.732"W	680.12	86.967	1.48	-1.36	-2.72	
4450.67	11.380	85.610	4381.65	-197.86	36.34	684.04	1679895.16	14319296.22	39°25'55.586"N	80°51'36.670"W	685.00	86.959	3.62	-3.60	-1.68	
4475.24	11.870	85.120	4405.74	-199.13	36.73	688.85	1679899.97	14319296.61	39°25'55.590"N	80°51'36.608"W	689.83	86.948	0.59	-0.45	-1.99	
4500.22	10.870	84.720	4430.25	-200.35	37.15	693.62	1679904.75	14319297.04	39°25'55.594"N	80°51'36.547"W	694.62	86.934	1.63	-1.60	-1.60	
4527.93	10.790	85.650	4457.47	-201.70	37.59	698.81	1679909.93	14319297.48	39°25'55.598"N	80°51'36.481"W	699.82	86.921	0.69	-0.29	3.36	
4551.84	11.090	86.260	4480.95	-203.01	37.83	703.34	1679914.46	14319297.71	39°25'55.601"N	80°51'36.424"W	704.36	86.921	2.42	1.25	10.92	



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Date Pad		

WELLPATH DATA (354 stations)												
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grnd East	Grnd North	Latitude	Longitude	Closure Dist	Closure Dir
[m]	[°]	[°]	[m]	[m]	[m]	[m]	[m]	[m]	[m]	[m]	[m]	[°]
4576.44	11.170	89.070	4505.08	-204.52	37.94	708.09	1679919.21	14319297.83	39°25'55.602"N	80°51'36.363"W	709.11	86.933
4601.32	11.070	90.090	4529.50	-206.11	37.98	712.88	1679923.99	14319297.86	39°25'55.602"N	80°51'36.302"W	713.89	86.951
4625.37	11.060	91.450	4553.10	-207.72	37.91	717.48	1679928.59	14319297.80	39°25'55.601"N	80°51'36.243"W	718.48	86.975
4653.12	11.920	92.940	4580.30	-209.80	37.70	723.00	1679934.11	14319297.58	39°25'55.599"N	80°51'36.173"W	723.98	87.015
4677.64	11.860	93.180	4604.29	-211.77	37.43	728.05	1679939.15	14319297.31	39°25'55.596"N	80°51'36.109"W	729.01	87.057
4702.59	12.020	93.350	4628.70	-213.79	37.14	733.20	1679944.31	14319297.02	39°25'55.593"N	80°51'36.043"W	734.14	87.101
4726.30	12.920	94.670	4651.85	-215.86	36.78	738.31	1679949.41	14319296.66	39°25'55.590"N	80°51'35.978"W	739.22	87.148
4751.06	13.240	95.210	4675.97	-218.21	36.29	743.89	1679954.18	14319296.18	39°25'55.585"N	80°51'35.907"W	744.77	87.207
4776.31	13.480	94.810	4699.56	-220.56	35.80	749.47	1679960.57	14319295.69	39°25'55.580"N	80°51'35.836"W	750.32	87.265
4801.08	13.300	93.380	4724.63	-222.98	35.38	755.42	1679966.52	14319295.26	39°25'55.576"N	80°51'35.760"W	756.26	87.319
4826.56	13.410	90.780	4749.42	-225.18	35.16	761.30	1679972.40	14319295.05	39°25'55.574"N	80°51'35.685"W	762.11	87.365
4851.52	13.360	90.180	4773.71	-227.18	35.12	767.08	1679978.17	14319295.00	39°25'55.573"N	80°51'35.611"W	767.88	87.379
4876.81	13.180	89.810	4798.32	-229.15	35.12	772.89	1679983.98	14319295.00	39°25'55.573"N	80°51'35.537"W	773.68	87.399
4902.01	13.680	89.410	4822.83	-231.10	35.16	778.74	1679989.83	14319295.04	39°25'55.573"N	80°51'35.463"W	779.53	87.415
4926.67	14.060	89.270	4845.80	-232.86	35.22	784.41	1679995.50	14319295.11	39°25'55.574"N	80°51'35.389"W	785.20	87.429
4951.15	13.900	88.390	4870.53	-234.93	35.35	790.56	1680001.65	14319295.23	39°25'55.575"N	80°51'35.312"W	791.35	87.440
4976.65	14.280	88.330	4895.26	-236.87	35.52	796.77	1680007.85	14319295.41	39°25'55.577"N	80°51'35.233"W	797.56	87.447
5000.94	15.120	88.640	4918.75	-238.81	35.69	802.93	1680014.01	14319295.57	39°25'55.578"N	80°51'35.154"W	803.72	87.455
5025.04	15.740	88.650	4941.99	-240.84	35.84	809.34	1680020.42	14319295.72	39°25'55.579"N	80°51'35.073"W	810.13	87.465
5053.70	15.900	88.370	4969.56	-243.30	36.04	817.15	1680028.22	14319295.93	39°25'55.581"N	80°51'34.973"W	817.95	87.474
5075.88	16.680	88.570	4990.85	-245.25	36.21	823.37	1680034.44	14319296.09	39°25'55.583"N	80°51'34.894"W	824.17	87.482
5100.81	18.060	88.500	5014.64	-247.60	36.40	830.81	1680041.88	14319296.28	39°25'55.585"N	80°51'34.799"W	831.61	87.491
5125.25	18.590	88.130	5037.84	-249.99	36.62	838.49	1680049.56	14319296.51	39°25'55.587"N	80°51'34.701"W	839.29	87.499
5152.36	18.930	88.910	5063.51	-252.59	37.00	847.20	1680058.26	14319296.89	39°25'55.590"N	80°51'34.590"W	848.01	87.499
5175.62	19.780	88.530	5085.46	-254.78	37.44	854.80	1680065.95	14319297.33	39°25'55.595"N	80°51'34.492"W	855.72	87.492
5201.96	21.090	88.240	5110.14	-257.35	38.02	864.07	1680075.13	14319297.91	39°25'55.600"N	80°51'34.375"W	864.91	87.480
5228.89	21.790	85.920	5133.34	-259.85	38.65	873.17	1680084.22	14319298.53	39°25'55.606"N	80°51'34.259"W	874.02	87.466
5251.43	22.660	85.920	5156.06	-262.37	39.31	882.42	1680093.47	14319299.19	39°25'55.613"N	80°51'34.141"W	883.30	87.449
5275.51	23.670	86.530	5178.20	-264.99	39.93	891.88	1680102.92	14319299.82	39°25'55.619"N	80°51'34.021"W	892.77	87.436
5301.86	24.490	86.820	5202.35	-268.05	40.56	902.65	1680113.69	14319300.44	39°25'55.625"N	80°51'33.883"W	903.56	87.427



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Date Pad		

WELLPATH DATA (354 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [1/100ft]	Build Rate [1/100ft]	Turn Rate [1/100ft]	Comments
5325.54	24.840	86.800	5223.78	-270.87	41.10	912.48	1680123.51	14319300.99	89°25'55.630"N	80°51'33.758"W	913.40	87.421	1.48	1.48	-0.08	
5351.71	25.730	86.550	5247.44	-274.05	41.75	923.63	1680134.66	14319301.64	89°25'55.636"N	80°51'33.616"W	924.58	87.412	3.43	3.40	-0.96	
5375.50	26.520	86.790	5268.80	-277.02	42.36	934.09	1680145.12	14319302.24	89°25'55.642"N	80°51'33.483"W	935.05	87.403	3.35	3.32	1.01	
5400.93	26.240	85.970	5291.58	-280.18	43.07	945.37	1680156.39	14319302.96	89°25'55.649"N	80°51'33.339"W	946.35	87.391	1.81	-1.10	-3.22	
5426.12	26.440	85.800	5314.15	-283.20	43.88	956.52	1680167.53	14319303.76	89°25'55.657"N	80°51'33.197"W	957.52	87.374	0.85	0.79	-0.87	
5450.88	26.880	85.430	5336.28	-286.16	44.73	967.59	1680178.61	14319304.61	89°25'55.665"N	80°51'33.056"W	968.63	87.353	1.90	1.78	-1.49	
5476.58	26.510	85.120	5359.24	-289.17	45.68	979.10	1680190.11	14319305.56	89°25'55.674"N	80°51'32.909"W	980.16	87.329	1.54	-1.44	-1.21	
5501.82	26.230	85.070	5381.86	-292.06	46.64	990.27	1680202.27	14319306.52	89°25'55.683"N	80°51'32.767"W	991.37	87.304	1.11	-1.11	-0.20	
5527.37	26.260	85.420	5404.77	-295.00	47.57	1001.53	1680212.53	14319307.45	89°25'55.692"N	80°51'32.623"W	1002.65	87.281	0.62	0.12	1.37	
5552.87	26.090	85.770	5427.39	-297.95	48.43	1012.81	1680223.61	14319308.31	89°25'55.701"N	80°51'32.482"W	1013.77	87.262	0.91	-0.87	1.39	
5575.53	25.480	85.790	5448.06	-300.64	49.16	1022.57	1680233.56	14319309.04	89°25'55.708"N	80°51'32.355"W	1023.75	87.248	2.66	-2.66	0.09	
5600.83	25.240	86.710	5470.92	-303.64	49.87	1033.38	1680244.37	14319309.75	89°25'55.715"N	80°51'32.217"W	1034.59	87.237	1.82	-0.95	3.64	
5626.23	25.720	87.860	5493.85	-306.86	50.39	1044.30	1680255.28	14319310.27	89°25'55.720"N	80°51'32.078"W	1045.51	87.238	2.71	1.89	4.53	
5652.16	25.360	88.010	5517.25	-310.27	50.79	1055.47	1680266.45	14319310.67	89°25'55.723"N	80°51'31.936"W	1056.69	87.245	1.41	-1.39	0.58	
5677.50	25.220	88.000	5540.16	-313.59	51.17	1066.29	1680277.26	14319311.05	89°25'55.727"N	80°51'31.798"W	1067.52	87.253	0.55	-0.55	-0.04	
5700.32	25.070	89.460	5560.82	-316.67	51.38	1075.98	1680286.95	14319311.26	89°25'55.729"N	80°51'31.674"W	1077.21	87.266	2.80	-0.66	6.40	
5725.07	25.480	91.840	5583.20	-320.37	51.26	1086.55	1680297.51	14319311.14	89°25'55.728"N	80°51'31.540"W	1087.76	87.299	4.43	1.66	9.62	
5750.55	26.620	93.250	5606.09	-324.63	50.76	1097.73	1680308.69	14319310.64	89°25'55.722"N	80°51'31.397"W	1098.90	87.352	5.09	4.47	5.53	
5775.75	27.100	93.060	5628.57	-329.08	50.13	1109.09	1680320.05	14319310.01	89°25'55.716"N	80°51'31.252"W	1110.23	87.412	1.93	1.90	-0.75	
5801.35	28.110	92.860	5651.26	-333.67	49.52	1120.94	1680331.99	14319309.40	89°25'55.710"N	80°51'31.101"W	1122.03	87.470	3.96	3.95	-0.78	
5826.13	28.760	92.460	5673.05	-338.18	48.97	1132.73	1680343.67	14319308.85	89°25'55.704"N	80°51'30.951"W	1133.78	87.524	2.73	2.62	-1.61	
5850.94	28.770	92.240	5694.80	-342.69	48.48	1144.66	1680355.60	14319308.37	89°25'55.699"N	80°51'30.799"W	1145.68	87.575	0.43	0.04	-0.89	
5876.68	28.480	91.380	5717.39	-347.24	48.09	1156.98	1680367.92	14319307.98	89°25'55.695"N	80°51'30.642"W	1157.98	87.620	1.96	-1.13	-3.34	
5900.07	28.610	89.900	5739.94	-351.15	47.97	1168.16	1680379.09	14319307.85	89°25'55.694"N	80°51'30.500"W	1169.35	87.648	3.07	0.56	-6.33	
5924.51	28.810	89.780	5762.32	-355.22	47.97	1179.33	1680390.37	14319307.85	89°25'55.694"N	80°51'30.487"W	1169.35	87.649	26.20	-22.73	-27.27	
5948.00	28.310	86.640	5785.28	-359.41	49.27	1209.96	1680402.87	14319309.15	89°25'55.706"N	80°51'29.967"W	1210.96	87.668	1.72	-0.23	-3.59	BH IAT Curve <-8-1/2>-(5900.51)-(5988-14876)
6032.00	28.500	86.310	5853.98	-369.99	50.56	1230.87	1680414.77	14319310.44	89°25'55.718"N	80°51'29.700"W	1231.90	87.648	0.65	0.55	-0.75	
6077.00	27.630	80.770	5893.68	-374.90	52.82	1251.90	1680462.80	14319312.82	89°25'55.741"N	80°51'29.432"W	1253.02	87.579	6.14	-2.04	-12.31	
6122.00	25.950	69.510	5933.88	-376.71	58.05	1271.44	1680482.37	14319317.90	89°25'55.792"N	80°51'29.183"W	1272.76	87.386	11.86	-3.73	-25.02	
6167.00	25.340	57.820	5974.47	-374.53	56.63	1288.82	1680499.71	14319326.50	89°25'55.876"N	80°51'28.961"W	1290.54	87.041	11.31	-1.36	-25.98	



Actual Wellpath Report
 Rymer Unit 3H AWP Proj: 14900
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Date Pad
Slot	Slot #03
	Rymer Unit 3H
	Rymer Unit 3H AWP

WELLPATH DATA (354 stations) † = interpolated/extrapolated station

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
6211.00	17.00	49.560	6014.23	-369.19	77.78	1304.00	1680514.87	14319337.65	39°25'55.986"N	80°51'28.768"W	1306.31	86.586	8.05	0.30	-18.77	
6256.00	27.100	39.770	6054.59	-360.59	91.94	1317.93	1680528.80	14319351.81	39°25'56.126"N	80°51'28.590"W	1321.13	86.009	10.28	3.62	-21.76	
6301.00	29.440	29.900	6094.24	-348.25	109.42	1330.00	1680540.87	14319369.28	39°25'56.299"N	80°51'28.436"W	1334.50	85.297	11.60	5.20	-21.93	
6345.00	32.850	24.880	6131.90	-332.77	129.63	1340.42	1680551.28	14319389.48	39°25'56.498"N	80°51'28.303"W	1346.67	84.476	9.74	7.75	-11.41	
6380.00	35.850	20.590	6169.06	-314.05	153.05	1350.19	1680561.05	14319412.89	39°25'56.730"N	80°51'28.178"W	1358.84	83.533	8.56	6.87	-9.53	
6397.00†	36.026	19.926	6174.72	-310.91	156.90	1351.61	1680562.47	14319416.74	39°25'56.768"N	80°51'28.159"W	1360.69	83.379	6.09	2.51	-9.46	Sycamore: 6397 MD
6435.00	37.040	16.430	6205.26	-293.09	178.39	1358.66	1680569.52	14319438.22	39°25'56.980"N	80°51'28.980"W	1370.32	82.520	6.09	2.87	-9.20	
6460.00	35.480	12.570	6241.55	-271.13	204.14	1365.34	1680576.19	14319463.96	39°25'57.234"N	80°51'27.984"W	1380.51	81.496	6.14	-3.47	-8.58	
6525.00	37.240	10.080	6277.79	-248.30	230.29	1370.56	1680581.42	14319490.10	39°25'57.493"N	80°51'27.916"W	1389.78	80.462	5.10	3.91	-5.53	
6570.00	38.330	5.420	6313.36	-223.87	257.60	1374.27	1680585.12	14319517.40	39°25'57.762"N	80°51'27.869"W	1398.20	79.383	6.79	2.42	-10.36	
6614.00	40.780	2.080	6347.29	-198.19	285.55	1376.08	1680586.93	14319545.33	39°25'58.039"N	80°51'27.845"W	1405.39	78.277	7.37	5.57	-7.59	
6617.00†	40.947	1.799	6349.55	-196.37	287.51	1376.14	1680586.99	14319547.30	39°25'58.058"N	80°51'27.844"W	1405.86	78.199	8.28	5.56	-9.38	Middlesex: 6617 MD
6659.00	43.350	358.070	6380.70	-169.85	315.68	1376.08	1680586.93	14319575.46	39°25'58.337"N	80°51'27.844"W	1411.83	77.080	8.28	5.72	-8.93	
6704.00	46.880	354.460	6412.45	-139.22	347.48	1373.97	1680584.82	14319607.24	39°25'58.651"N	80°51'27.871"W	1417.23	75.807	9.67	7.84	-7.98	
6748.00	51.550	351.870	6441.19	-106.76	380.54	1369.86	1680580.81	14319640.29	39°25'58.978"N	80°51'27.921"W	1421.83	74.476	11.56	10.61	-6.05	
6760.00†	53.186	351.185	6448.52	-97.44	389.94	1368.56	1680579.41	14319649.68	39°25'59.071"N	80°51'27.939"W	1423.02	74.096	14.22	13.63	-5.12	Burkett: 6760 MD
6793.00	57.700	349.620	6467.23	-70.70	416.72	1364.02	1680574.87	14319676.46	39°25'59.335"N	80°51'27.996"W	1426.25	73.011	14.22	13.68	-4.74	
6820.00†	61.587	348.888	6480.87	-47.70	439.61	1359.67	1680570.53	14319699.33	39°25'59.562"N	80°51'28.051"W	1428.97	72.083	14.58	14.40	-2.71	Tully: 6820 MD
6838.00	64.180	348.430	6489.08	-31.86	455.32	1356.52	1680567.38	14319715.03	39°25'59.717"N	80°51'28.091"W	1430.89	71.446	14.58	14.41	-2.56	
6883.00	69.770	346.730	6506.67	9.20	495.74	1347.60	1680568.46	14319755.44	39°26'00.117"N	80°51'28.204"W	1435.89	69.803	12.90	12.42	-3.76	
6911.00†	73.281	345.579	6515.54	35.60	521.52	1341.25	1680552.11	14319781.21	39°26'00.371"N	80°51'28.284"W	1439.07	68.752	13.13	12.54	-4.11	Marcellus: 6911 MD
6927.00	75.290	344.840	6519.88	50.85	536.41	1337.33	1680548.19	14319796.10	39°26'00.519"N	80°51'28.334"W	1440.90	68.144	13.13	12.56	-3.99	
6972.00	80.870	343.730	6529.17	94.84	578.79	1325.44	1680536.31	14319838.46	39°26'00.938"N	80°51'28.484"W	1446.30	66.410	12.68	12.40	-2.69	
7017.00	85.370	342.140	6534.56	139.45	621.49	1312.33	1680523.20	14319881.14	39°26'01.360"N	80°51'28.651"W	1452.05	64.659	10.60	10.00	-3.53	
7062.00	90.160	339.070	6538.32	184.40	663.88	1297.40	1680508.28	14319923.52	39°26'01.779"N	80°51'28.840"W	1457.39	62.901	12.62	10.62	-6.82	
7107.00	90.150	336.810	6536.20	229.36	705.58	1280.50	1680491.39	14319965.20	39°26'02.192"N	80°51'29.055"W	1462.03	61.144	5.02	0.00	-5.02	
7196.00	90.180	332.980	6535.94	317.97	786.16	1242.75	1680453.65	14320045.75	39°26'02.989"N	80°51'29.534"W	1470.54	57.683	4.30	0.03	-4.30	
7266.00	90.150	333.970	6535.68	407.35	866.69	1202.56	1680413.47	14320126.24	39°26'03.785"N	80°51'30.045"W	1482.32	54.220	1.10	-0.03	1.10	
7375.00	90.120	336.930	6535.47	496.04	947.63	1165.58	1680376.52	14320207.15	39°26'04.686"N	80°51'30.514"W	1502.19	50.888	3.33	-0.03	3.33	
7465.00	90.550	340.650	6534.95	586.00	1031.52	1133.03	1680343.97	14320291.01	39°26'05.415"N	80°51'30.928"W	1532.25	47.885	4.16	0.48	4.13	



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Dale Pad		

WELLPATH DATA (354 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
7554.00	91.660	341.350	6533.23	674.97	1115.65	1104.06	1680315.02	14320375.11	39°26'06.247"N	80°51'31.295"W	1569.59	44.701	1.47	1.25	0.79	
7644.00	90.950	340.100	6531.18	764.94	1200.58	1074.36	1680285.33	14320460.00	39°26'07.087"N	80°51'31.672"W	1611.10	41.824	1.60	-0.79	-1.39	
7733.00	91.140	340.710	6529.56	853.92	1284.41	1044.51	1680255.50	14320543.80	39°26'07.916"N	80°51'32.051"W	1655.52	39.119	0.72	0.21	0.69	
7823.00	91.190	342.540	6527.73	943.87	1369.80	1016.15	1680227.14	14320629.16	39°26'08.760"N	80°51'32.411"W	1705.56	36.569	2.03	0.06	2.03	
7912.00	90.950	342.100	6526.07	1032.79	1454.59	989.13	1680200.13	14320713.90	39°26'09.599"N	80°51'32.753"W	1759.03	34.216	0.56	-0.27	-0.49	
8002.00	91.870	340.750	6523.85	1122.74	1539.87	960.47	1680171.48	14320799.15	39°26'10.442"N	80°51'33.117"W	1814.85	31.953	1.81	1.02	-1.50	
8091.00	91.560	341.390	6521.19	1211.69	1624.02	931.61	1680142.63	14320883.27	39°26'11.274"N	80°51'33.483"W	1872.25	29.840	0.80	-0.35	0.72	
8181.00	90.790	341.330	6519.34	1301.65	1709.28	902.85	1680113.89	14320968.49	39°26'12.117"N	80°51'33.848"W	1933.07	27.843	0.86	-0.86	-0.07	
8270.00	90.110	341.200	6518.64	1390.63	1793.56	874.26	1680085.31	14321052.74	39°26'12.951"N	80°51'34.210"W	1995.29	25.987	0.78	-0.76	-0.15	
8360.00	90.300	341.180	6518.32	1480.62	1878.75	845.24	1680056.31	14321137.90	39°26'13.793"N	80°51'34.579"W	2060.13	24.223	0.21	0.21	-0.02	
8449.00	90.820	341.240	6517.45	1569.60	1963.00	816.58	1680027.65	14321222.12	39°26'14.626"N	80°51'34.942"W	2126.07	22.587	0.59	0.56	0.07	
8539.00	90.230	340.980	6516.63	1659.58	2048.15	787.44	1679998.53	14321307.23	39°26'15.468"N	80°51'35.312"W	2194.31	21.030	0.72	-0.66	-0.29	
8628.00	89.820	342.360	6516.74	1748.55	2132.63	759.45	1679970.55	14321391.68	39°26'16.304"N	80°51'35.667"W	2263.82	19.601	1.70	-0.69	1.55	
8718.00	90.080	342.030	6516.98	1838.49	2218.32	731.93	1679943.04	14321477.34	39°26'17.151"N	80°51'36.016"W	2335.95	18.260	0.63	0.51	-0.37	
8808.00	90.730	339.560	6516.34	1928.47	2303.31	702.33	1679913.45	14321562.28	39°26'17.992"N	80°51'36.392"W	2408.00	16.958	2.84	0.72	-2.74	
8897.00	90.110	338.170	6515.69	2017.45	2386.31	670.24	1679881.37	14321645.26	39°26'18.812"N	80°51'36.799"W	2478.65	15.688	1.71	-0.70	-1.56	
8987.00	91.130	340.610	6514.72	2107.43	2470.54	638.57	1679849.71	14321729.45	39°26'19.645"N	80°51'37.201"W	2551.73	14.492	2.94	1.13	2.71	
9076.00	91.410	338.370	6512.74	2196.39	2553.87	607.39	1679818.55	14321812.75	39°26'20.469"N	80°51'37.597"W	2625.11	13.378	2.54	0.31	-2.52	
9165.00	90.540	337.340	6511.23	2285.30	2636.29	573.85	1679785.02	14321895.14	39°26'21.285"N	80°51'38.023"W	2698.03	12.280	1.51	-0.98	-1.16	
9255.00	90.730	336.490	6510.23	2375.15	2719.08	538.56	1679749.75	14321977.89	39°26'22.103"N	80°51'38.471"W	2771.91	11.203	0.97	0.21	-0.94	
9344.00	90.510	338.770	6509.27	2464.05	2801.37	504.70	1679715.89	14322060.15	39°26'22.917"N	80°51'38.901"W	2846.47	10.213	2.57	-0.25	2.56	
9434.00	90.940	342.930	6508.13	2554.02	2886.37	475.18	1679686.39	14322145.11	39°26'23.758"N	80°51'39.275"W	2925.22	9.349	4.65	0.48	4.62	
9524.00	91.190	345.870	6506.46	2643.75	2973.03	450.98	1679662.20	14322231.74	39°26'24.615"N	80°51'39.582"W	3007.04	8.626	3.28	0.28	3.27	
9613.00	91.370	341.810	6504.47	2732.53	3058.47	426.23	1679637.46	14322317.15	39°26'25.459"N	80°51'39.896"W	3088.03	7.934	4.57	0.20	-4.56	
9703.00	90.630	337.270	6502.89	2822.48	3142.76	394.78	1679606.02	14322401.40	39°26'26.293"N	80°51'40.295"W	3167.46	7.160	5.11	-0.82	-5.04	
9793.00	90.660	334.890	6501.88	2912.24	3225.02	358.29	1679569.55	14322483.63	39°26'27.106"N	80°51'40.759"W	3244.86	6.339	2.64	0.03	-2.64	
9882.00	90.630	335.780	6500.88	3000.92	3305.89	321.15	1679532.43	14322564.47	39°26'27.906"N	80°51'41.230"W	3321.45	5.549	1.00	-0.03	1.00	
9972.00	90.660	339.790	6499.87	3090.82	3389.19	287.14	1679498.42	14322647.73	39°26'28.730"N	80°51'41.662"W	3401.33	4.843	4.46	0.03	4.46	
10061.00	90.880	342.300	6498.67	3179.79	3473.35	258.23	1679469.53	14322731.86	39°26'29.562"N	80°51'42.029"W	3482.93	4.252	2.83	0.25	2.82	
10151.00	90.630	342.300	6497.48	3269.72	3559.08	230.87	1679442.18	14322817.56	39°26'30.410"N	80°51'42.376"W	3566.56	3.711	0.28	-0.28	0.00	



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900

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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Date Pad		

REFERENCE WELLPATH IDENTIFICATION

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
10241.00	90.760	344.050	6496.39	3359.59	204.82	169416.14	14322903.66	392631.262	80°51'42.706"N	80°51'42.706"W	3650.97	3.216	1.95	0.14	1.94	
10330.00	91.710	343.700	6494.47	3448.38	3730.70	180.11	1679391.44	392632.107	80°51'43.020"N	80°51'43.020"W	3735.04	2.764	1.14	1.07	-0.39	
10420.00	92.080	341.160	6491.50	3538.25	3816.44	152.96	1679364.30	392632.955	80°51'43.364"N	80°51'43.364"W	3819.51	2.295	2.85	0.41	-2.82	
10510.00	90.690	340.320	6489.32	3628.22	3901.38	123.28	1679334.63	392633.795	80°51'43.741"N	80°51'43.741"W	3903.33	1.810	1.80	-1.54	-0.93	
10599.00	90.690	339.960	6488.25	3717.21	3985.08	93.05	1679304.41	392634.623	80°51'44.125"N	80°51'44.125"W	3986.17	1.338	0.40	0.00	-0.40	
10688.00	90.690	341.130	6487.18	3806.20	4068.99	63.41	1679274.78	392635.452	80°51'44.501"N	80°51'44.501"W	4069.48	0.893	1.31	0.00	1.31	
10778.00	90.750	340.750	6486.04	3896.19	4154.05	34.02	1679245.41	392636.293	80°51'44.874"N	80°51'44.874"W	4154.19	0.469	0.43	0.08	-0.42	
10868.00	90.720	340.470	6484.88	3996.18	4238.94	4.14	1679215.54	392637.133	80°51'45.253"N	80°51'45.253"W	4238.94	0.056	0.31	-0.10	-0.43	
10957.00	90.630	340.090	6483.83	4075.17	4322.71	-25.88	1679185.53	392637.961	80°51'45.634"N	80°51'45.634"W	4322.79	359.657	0.44	-0.10	-0.43	
11047.00	90.680	340.630	6482.79	4165.16	4407.47	-56.13	1679155.29	392638.799	80°51'46.018"N	80°51'46.018"W	4407.83	359.270	0.60	0.07	0.60	
11137.00	90.850	341.110	6481.58	4255.15	4492.49	-85.62	1679125.81	392639.640	80°51'46.392"N	80°51'46.392"W	4493.31	358.908	0.56	0.18	0.53	
11226.00	90.720	340.830	6480.36	4344.13	4576.62	-114.64	1679096.81	392640.472	80°51'46.760"N	80°51'46.760"W	4578.06	358.565	0.35	-0.15	-0.31	
11315.00	90.690	339.620	6479.27	4433.12	4660.36	-144.75	1679066.71	392641.300	80°51'47.143"N	80°51'47.143"W	4662.61	358.221	1.36	-0.03	-1.36	
11405.00	90.690	338.430	6478.18	4523.10	4744.39	-176.96	1679034.51	392642.131	80°51'47.522"N	80°51'47.522"W	4747.69	357.864	1.32	0.00	-1.32	
11495.00	90.720	337.960	6477.08	4613.04	4827.95	-210.39	1679001.09	392642.958	80°51'47.976"N	80°51'47.976"W	4832.53	357.505	0.52	0.03	-0.52	
11584.00	90.690	338.510	6475.98	4701.98	4910.59	-243.39	1678968.11	392643.775	80°51'48.395"N	80°51'48.395"W	4916.62	357.163	0.62	-0.03	0.62	
11674.00	90.600	340.460	6474.97	4791.66	4994.88	-274.93	1678936.58	392644.608	80°51'48.795"N	80°51'48.795"W	5002.44	356.850	2.17	-0.10	2.17	
11763.00	90.690	341.360	6473.97	4880.95	5078.98	-304.03	1678907.49	392645.440	80°51'49.165"N	80°51'49.165"W	5088.07	356.574	1.02	0.10	1.01	
11853.00	90.660	340.570	6472.91	4970.93	5164.05	-333.38	1678878.15	392646.281	80°51'49.537"N	80°51'49.537"W	5174.80	356.306	0.88	-0.03	-0.88	
11942.00	90.690	339.810	6471.86	5059.92	5247.78	-363.54	1678848.00	392647.109	80°51'49.920"N	80°51'49.920"W	5260.36	356.037	0.85	0.03	-0.85	
12032.00	90.630	339.280	6470.82	5149.91	5332.10	-394.99	1678816.57	392647.943	80°51'50.319"N	80°51'50.319"W	5346.71	355.763	0.59	-0.07	-0.59	
12121.00	90.630	339.110	6469.84	5238.89	5415.29	-426.60	1678784.97	392648.766	80°51'50.721"N	80°51'50.721"W	5432.06	355.496	0.19	0.00	-0.19	
12211.00	91.460	338.240	6468.20	5328.85	5499.11	-459.33	1678752.26	392649.595	80°51'51.136"N	80°51'51.136"W	5518.26	355.225	1.34	0.92	-0.97	
12301.00	90.230	336.660	6466.87	5418.73	5582.21	-493.84	1678717.76	392650.416	80°51'51.575"N	80°51'51.575"W	5604.01	354.944	2.23	-1.37	-1.77	
12390.00	90.110	337.480	6466.61	5507.60	5664.18	-528.52	1678683.09	392651.227	80°51'52.015"N	80°51'52.015"W	5688.78	354.669	0.94	-0.13	0.93	
12480.00	89.890	340.840	6466.81	5597.57	5748.28	-560.54	1678651.09	392652.059	80°51'52.422"N	80°51'52.422"W	5775.54	354.430	3.74	-0.24	3.73	
12569.00	89.860	342.830	6466.80	5686.53	5832.84	-588.28	1678623.35	392652.895	80°51'52.774"N	80°51'52.774"W	5862.43	354.241	2.24	-0.03	2.24	
12659.00	89.950	345.280	6466.95	5776.32	5919.37	-613.00	1678598.64	392653.750	80°51'53.087"N	80°51'53.087"W	5951.02	354.088	2.72	0.10	2.72	
12748.00	90.450	341.000	6466.64	5865.18	6004.52	-638.81	1678572.84	392654.592	80°51'53.414"N	80°51'53.414"W	6038.41	353.927	4.84	0.56	-4.81	
12838.00	90.510	337.920	6465.89	5955.15	6088.79	-670.38	1678541.28	392655.426	80°51'53.815"N	80°51'53.815"W	6125.58	353.717	3.42	0.07	-3.42	

WELLPATH DATA (354 stations)



Actual Wellpath Report
 Rymer Unit 3H AWP Proj.: 14900
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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler		Rymer Unit 3H AWB
Facility	Date Pad		

WELLPATH DATA (354 stations)												
MD	Inclination	Azimuth	TVD	Vert Sect	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft/100ft)
12927.00	89.890	339.940	6465.58	6044.13	6171.83	-702.38	1678509.30	14325429.26	39°26'56.24"N	80°51'54.22"W	6211.67	353.507
13017.00	89.950	337.640	6465.70	6134.10	6255.73	-734.94	1678476.76	14325513.12	39°26'57.07"N	80°51'54.63"W	6298.75	353.299
13107.00	89.800	335.870	6465.90	6223.93	6338.42	-770.45	1678441.25	14325595.78	39°26'57.89"N	80°51'55.08"W	6385.07	353.070
13196.00	89.920	335.880	6466.12	6312.68	6419.64	-806.83	1678404.89	14325676.97	39°26'58.69"N	80°51'55.54"W	6470.15	352.837
13286.00	89.830	339.590	6466.31	6402.58	6502.92	-840.93	1678370.81	14325760.22	39°26'59.52"N	80°51'55.98"W	6557.07	352.632
13375.00	89.670	342.290	6466.70	6491.57	6587.03	-869.99	1678341.76	14325844.29	39°27'00.35"N	80°51'56.35"W	6644.23	352.476
13465.00	89.980	342.540	6466.98	6581.50	6672.83	-897.18	1678314.58	14325930.05	39°27'01.20"N	80°51'56.69"W	6732.87	352.342
13554.00	90.440	342.230	6466.55	6670.43	6757.65	-924.11	1678287.66	14326014.65	39°27'02.04"N	80°51'57.03"W	6820.54	352.213
13644.00	89.770	340.370	6466.49	6760.41	6842.90	-952.96	1678258.82	14326100.06	39°27'02.88"N	80°51'57.40"W	6908.93	352.072
13733.00	90.010	340.570	6466.66	6849.41	6926.77	-982.72	1678229.08	14326183.90	39°27'03.73"N	80°51'57.78"W	6996.14	351.925
13823.00	88.660	341.790	6467.00	6939.38	7011.95	-1011.75	1678200.06	14326269.05	39°27'04.55"N	80°51'58.14"W	7084.57	351.790
13913.00	88.600	341.650	6469.85	7029.32	7097.39	-1039.97	1678171.85	14326354.45	39°27'05.40"N	80°51'58.50"W	7173.18	351.664
14002.00	88.260	340.860	6472.29	7118.27	7181.63	-1068.56	1678143.27	14326438.66	39°27'06.23"N	80°51'58.87"W	7260.69	351.537
14092.00	88.440	340.760	6474.88	7208.23	7266.60	-1098.13	1678113.71	14326523.59	39°27'07.07"N	80°51'59.24"W	7349.10	351.406
14181.00	88.530	338.240	6477.24	7297.19	7349.93	-1129.28	1678082.57	14326608.88	39°27'07.89"N	80°51'59.64"W	7436.17	351.265
14271.00	88.570	338.310	6479.51	7387.11	7433.51	-1162.59	1678049.28	14326690.43	39°27'08.72"N	80°52'00.06"W	7523.87	351.111
14360.00	89.210	338.340	6481.24	7476.05	7516.20	-1195.45	1678016.43	14326773.09	39°27'09.54"N	80°52'00.48"W	7610.67	350.963
14450.00	89.330	338.450	6482.38	7566.00	7599.87	-1228.59	1677983.30	14326856.73	39°27'10.36"N	80°52'00.90"W	7698.53	350.817
14539.00	89.860	338.760	6483.01	7654.96	7682.73	-1261.05	1677950.85	14326939.66	39°27'11.18"N	80°52'01.31"W	7785.54	350.679
14629.00	90.910	340.980	6482.41	7744.95	7767.23	-1292.02	1677919.89	14327024.02	39°27'12.02"N	80°52'01.70"W	7873.95	350.556
14718.00	89.920	341.690	6481.76	7833.93	7851.54	-1320.51	1677891.42	14327108.30	39°27'12.85"N	80°52'02.07"W	7961.81	350.453
14808.00	89.950	338.980	6481.87	7923.92	7936.28	-1350.79	1677861.15	14327193.01	39°27'13.69"N	80°52'02.45"W	8050.42	350.341
14876.00	90.690	340.580	6481.49	7991.91	8000.09	-1374.29	1677837.66	14327256.79	39°27'14.32"N	80°52'02.75"W	8117.27	350.253
14900.00	90.690	340.580	6481.20	8015.91	8022.72	-1382.27	1677829.68	14327279.41	39°27'14.55"N	80°52'02.85"W	8140.93	350.224
Projected MD at TD: 14900'	0.00											0.00
	-3.01											1.09
	-3.01											2.59



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Dale Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Rymer Unit 3H AWB Ref Wellpath: Rymer Unit 3H AWP Proj: 14900'									
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	-0.01	-0.04
13.375in Casing Surface	19.00	458.00	439.00	19.00	458.00	0.00	0.00	-0.66	-1.30
9.625in Casing Intermediate	19.00	2420.00	2401.00	19.00	2396.40	0.00	0.00	13.73	259.54

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Rymer Unit 3H POE Rev-1	6506.00	521.71	1333.60	1680544.46	14319781.41	39°26'00.373"N	80°51'28.382"W	point
Rymer Unit 3H BHL Rev-1	6528.00	8036.17	-1376.97	1677834.98	14327292.85	39°27'14.683"N	80°52'02.786"W	point
Rymer Unit 3H LP Rev-1	6528.00	666.00	1281.55	1680492.44	14319925.63	39°26'01.800"N	80°51'29.042"W	point

WELLPATH COMPOSITION - Ref Wellbore: Rymer Unit 3H AWB Ref Wellpath: Rymer Unit 3H AWP Proj: 14900'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	5900.51	SDI Keeper v1.04	04 Final Gyro Re-Run SDI Std. Keeper (100.19'-5900.51')	Rymer Unit 3H AWB
5900.51	14876.00	BHI AutoTrak Curve w/ Surcon (MagCAD, Short spacing)	05 BHI AT Curve <8-1/2">(5900.51')(5988'-14876')	Rymer Unit 3H AWB
14876.00	14900.00	Blind Drilling (std)	Projection to bit	Rymer Unit 3H AWB



Actual Wellpath Report

Rymer Unit 3H AWP Proj: 14900'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Rymer Unit 3H
Field	Tyler	Wellbore	Rymer Unit 3H AWB
Facility	Dale Pad		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
100.19	0.220	252.460	100.19	Final Gyro Re-Run SDI Std. Keeper (100.19'-5900.51')	
5988.00	28.310	86.640	5815.28	BHI AT Curve <8-1/2">(5900.51')(5988'-14876')	
6397.00	36.026	19.928	6174.72	Sycamore: 6397' MD	
6617.00	40.947	1.799	6349.55	Middlesex: 6617' MD	
6760.00	53.186	351.185	6448.52	Burkett: 6760' MD	
6820.00	61.587	348.888	6480.87	Tully: 6820' MD	
6911.00	73.281	345.579	6515.54	Marcellus: 6911' MD	
14900.00	90.690	340.580	6481.20	Projected MD at TD: 14900'	

COMMENTS
<p>Wellpath general comments</p> <p>BHI Job #: 8018467</p> <p>API #: 47-095-02275-0000</p> <p>Rig: PD 523</p> <p>Duration: 06.27.2016-07.01.2016</p> <p>Final Gyro Re-Run SDI Std. Keeper (100.19'-5900.51')</p> <p>BHI AT Curve <8-1/2">(5900.51')(5988'-14876')</p> <p>Sycamore: 6397' MD</p> <p>Middlesex: 6617' MD</p> <p>Burkett: 6760' MD</p> <p>Tully: 6820' MD</p> <p>Marcellus: 6911' MD</p> <p>Projected MD at TD: 14900'</p>