



# ANTERO RESOURCES CORPORATION



Location: Ritchie County, WV  
 Field: Ritchie  
 Facility: Husher Pad

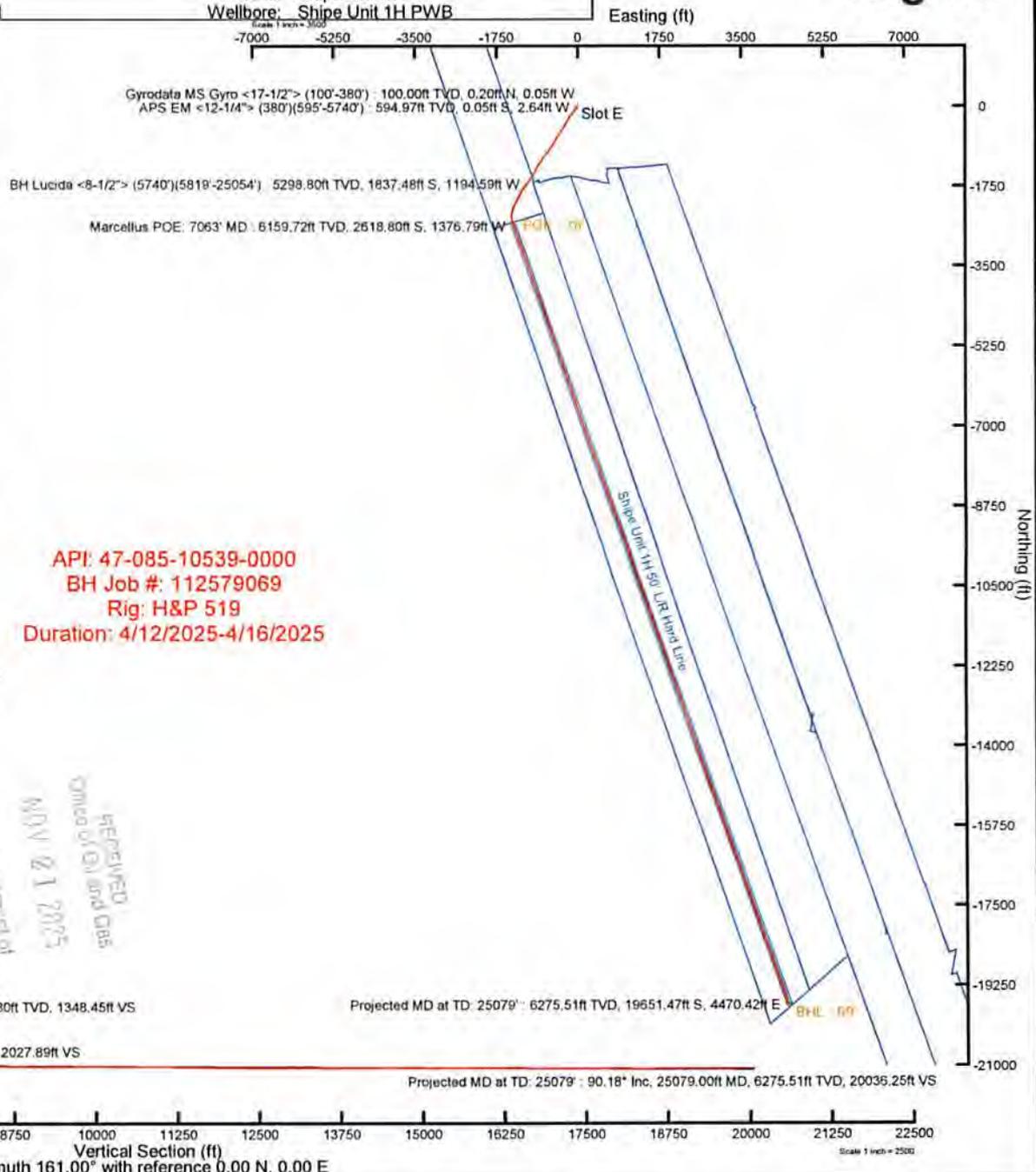
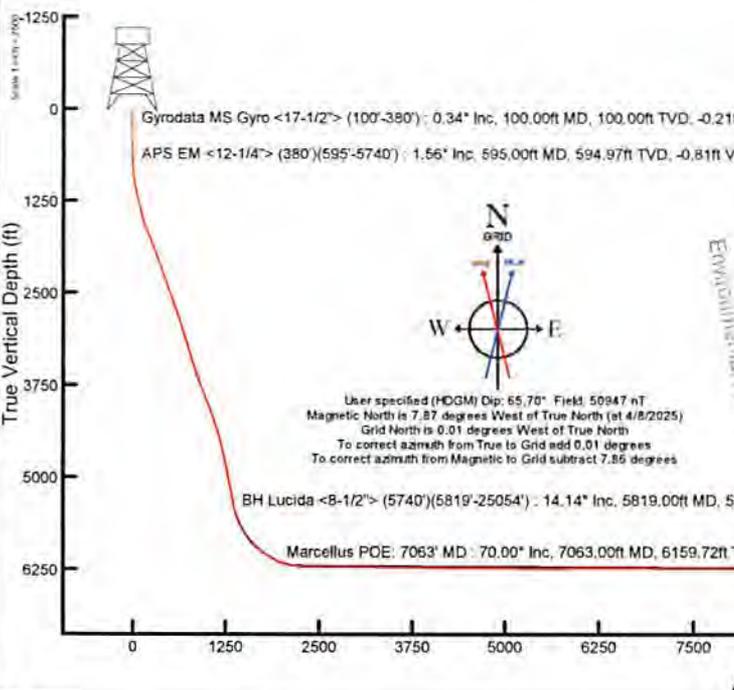
Slot: Slot E  
 Well: Shipe Unit 1H  
 Wellbore: Shipe Unit 1H PWB

P&M reference wellpath is Shipe Unit 1H PWP Rev-B 0	Grid System: NAD2011 / UTM Zone 17 North, US foot
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level 1037 feet	Coordinate axis in feet referenced to S&M
Mean Sea Level to Ground level (At Slot Slot E) -1007 feet	Depths are in feet
Official wellpath MDs are referenced to each path's defined MD datum	Created by subchange on 2025-04-16 Database: WA_MPL_EASTEPH&S_Data

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Husher Pad	1634418.610	14286440.160	39°17'13.2635"N	81°01'16.3141"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot E	-59.40	-4.42	1634410.190	14286360.780
			39°17'12.6763"N	81°01'16.4211"W
Comment	Shipe Unit 1H			
H&P 519 (RKB) to Ground level (At Slot Slot E)	30ft			
Mean Sea Level to Ground level (At Slot Slot E)	-1007ft			
H&P 519 (RKB) to Mean Sea Level	1037ft			

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	V5 (ft)
Tie On	5740.00	15.330	211.240	5222.39	-1819.94	-1164.60	1.39	1335.06
Proj. to Bottom	5804.00	15.330	211.240	5284.12	-1834.41	-1193.58	0.00	1345.68
Curve KDP	5852.00	15.330	211.240	5330.41	-1845.26	-1200.16	0.00	1354.00
Build	6521.24	52.081	206.394	5877.73	-2168.57	-1369.24	5.50	1604.64
POE	7036.32	66.629	161.004	6150.00	-2592.52	-1383.22	8.00	2000.95
Landing Pt.	7267.03	89.700	161.004	6197.00	-2804.59	-1310.21	10.00	2225.23
BHL	25091.62	89.700	161.004	6290.33	-19658.26	4481.61	0.00	20048.58

Well Data			
Slot	Well	Wellbore	Wellpath
Slot E	Shipe Unit 1H	Shipe Unit 1H AWE	Shipe Unit 1H AWP Proj: 25079
Slot E	Shipe Unit 1H	Shipe Unit 1H PWB	Shipe Unit 1H PWP Rev-B 0





# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999600	Report Generated	4/16/2025 at 6:19:18 PM
Convergence at slot	0.01° West	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-59.40	-8.42	1634410.19	14266380.78	39°17'12.6763"N	81°01'16.4211"W
Facility Reference Pt			1634418.61	14266440.16	39°17'13.2635"N	81°01'16.3141"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	1037.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1037.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot E)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.00°

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 Division of Oil and Gas  
 NOV 21 2025  
 WV Department of  
 Environmental Protection



# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Shipe Unit 1H
Field	Ritchie		API	47-085-10539-0000
Facility	Husher Pad		Wellbore	Shipe Unit 1H AWB
Slot	Slot E			

WELLPATH DATA (271 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00†	0.000	347.390	0.00	0.00	0.00	0.00	1634410.19	14266380.78	39°17'12.6763"N	81°01'16.4211"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	347.390	30.00	0.00	0.00	0.00	1634410.19	14266380.78	39°17'12.6763"N	81°01'16.4211"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.340	347.390	100.00	-0.21	0.20	-0.05	1634410.14	14266380.98	39°17'12.6783"N	81°01'16.4216"W	0.21	347.390	0.49	0.49	0.00	Gyrodatta MS Gyro <17-1/2"> (100'-380')
200.00	0.410	348.110	200.00	-0.66	0.84	-0.18	1634410.01	14266381.62	39°17'12.6846"N	81°01'16.4234"W	0.86	347.689	0.07	0.07	0.72	
300.00	0.240	348.310	300.00	-1.42	1.40	-0.30	1634409.69	14266382.18	39°17'12.6901"N	81°01'16.4249"W	1.43	347.885	0.17	-0.17	0.20	
380.00	0.060	11.790	380.00	-1.62	1.60	-0.33	1634409.86	14266382.38	39°17'12.6921"N	81°01'16.4252"W	1.64	348.523	0.23	-0.22	29.35	
595.00	1.560	233.010	594.97	-0.81	-0.05	-2.64	1634407.55	14266380.73	39°17'12.6758"N	81°01'16.4546"W	2.64	268.956	0.75	0.70	-64.55	APS EM <12-1/4"> (380')(595'-5740')
685.00	4.710	224.030	684.82	1.24	-3.44	-6.19	1634404.00	14266377.34	39°17'12.6423"N	81°01'16.4997"W	7.08	240.909	3.53	3.50	-9.88	
775.00	7.560	222.850	774.30	5.71	-10.44	-12.78	1634397.41	14266370.34	39°17'12.5731"N	81°01'16.5836"W	16.51	230.759	3.17	3.17	-1.31	
865.00	10.940	221.170	863.12	12.75	-21.21	-22.43	1634387.76	14266359.57	39°17'12.4666"N	81°01'16.7063"W	30.88	226.693	3.77	3.76	-1.87	
955.00	14.220	219.450	950.84	22.79	-36.18	-35.08	1634375.12	14266344.61	39°17'12.3186"N	81°01'16.8671"W	50.40	224.117	3.67	3.64	-1.91	
1045.00	16.610	210.220	1037.71	36.98	-55.84	-48.59	1634361.62	14266324.96	39°17'12.1243"N	81°01'17.0388"W	74.02	221.027	3.80	2.66	-10.26	
1143.00	18.870	205.720	1131.05	57.39	-62.22	-62.52	1634347.70	14266298.59	39°17'11.8635"N	81°01'17.2159"W	103.29	217.246	2.70	2.31	-4.59	
1238.00	20.120	210.990	1220.61	78.82	-110.08	-77.60	1634332.62	14266270.75	39°17'11.5882"N	81°01'17.4076"W	134.68	215.182	2.27	1.32	5.55	
1333.00	22.980	218.480	1308.98	99.29	-138.60	-97.55	1634312.68	14266242.24	39°17'11.3062"N	81°01'17.6612"W	169.49	215.139	4.16	2.98	7.88	
1428.00	26.470	222.980	1395.28	119.20	-168.81	-123.52	1634286.72	14266212.24	39°17'11.0096"N	81°01'17.9915"W	209.01	216.227	4.19	3.69	4.74	
1523.00	29.830	220.640	1479.03	141.10	-202.03	-153.35	1634258.90	14266178.83	39°17'10.6791"N	81°01'18.3708"W	253.84	217.200	3.72	3.54	-2.46	
1618.00	30.580	213.890	1561.15	167.53	-240.04	-182.23	1634228.04	14266140.84	39°17'10.3034"N	81°01'18.7379"W	301.37	217.205	3.66	0.79	-7.11	
1713.00	30.670	210.140	1642.91	198.06	-281.05	-207.87	1634202.40	14266099.84	39°17'9.8980"N	81°01'19.0539"W	349.57	216.487	2.01	0.09	-3.95	
1807.00	30.120	207.730	1723.99	229.92	-322.66	-230.88	1634179.40	14266058.25	39°17'9.4866"N	81°01'19.3584"W	396.76	215.588	1.42	-0.59	-2.56	
1902.00	29.840	206.380	1806.28	262.86	-364.94	-252.48	1634157.82	14266015.99	39°17'9.0688"N	81°01'19.6309"W	443.76	214.677	0.77	-0.29	-1.42	
1997.00	29.480	205.700	1888.84	296.07	-407.17	-273.11	1634137.18	14265973.77	39°17'8.6513"N	81°01'19.8933"W	490.29	213.852	0.52	-0.38	-0.72	
2082.00	29.530	208.340	1971.52	328.56	-448.85	-294.37	1634115.94	14265932.12	39°17'8.2393"N	81°01'20.1834"W	538.76	213.258	1.37	0.05	2.78	
2187.00	29.630	213.900	2054.16	358.59	-488.95	-318.58	1634091.74	14265892.03	39°17'7.8429"N	81°01'20.4712"W	583.58	213.087	2.89	0.11	5.85	
2281.00	29.000	214.820	2136.12	386.06	-526.94	-344.55	1634065.77	14265854.05	39°17'7.4673"N	81°01'20.8014"W	629.59	213.180	0.82	-0.67	0.98	
2376.00	30.230	214.040	2218.71	414.03	-565.67	-371.09	1634030.25	14265815.34	39°17'7.0845"N	81°01'21.1388"W	676.53	213.266	1.36	1.29	-0.82	
2471.00	30.450	214.140	2300.70	442.85	-605.41	-397.99	1634012.36	14265775.61	39°17'6.6917"N	81°01'21.4607"W	724.51	213.320	0.24	0.23	0.11	
2566.00	30.100	213.470	2382.74	471.80	-645.20	-424.64	1633985.72	14265735.83	39°17'6.2983"N	81°01'21.8195"W	772.40	213.351	0.51	-0.37	-0.71	
2661.00	29.490	212.700	2465.18	500.81	-684.75	-450.41	1633959.96	14265696.30	39°17'5.9073"N	81°01'22.1471"W	819.61	213.335	0.76	-0.64	-0.81	
2755.00	28.980	211.530	2547.21	529.82	-723.83	-474.81	1633935.57	14265657.44	39°17'5.5230"N	81°01'22.4574"W	865.50	213.271	0.81	-0.54	-1.24	

Approved for Release  
 Date: 10/10/2019  
 By: [Signature]  
 Title: [Signature]



# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Shipe Unit 1H
Field	Ritchee		API	47-085-10539-0000
Facility	Husher Pad		Wellbore	Shipe Unit 1H AWB
Slot	Slot E			

WELLPATH DATA (271 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
2850.00	28.440	210.300	2630.53	559.01	-782.78	-498.26	1833912.13	14265618.30	39°17'5.1380"N	81°01'22.7555"W	911.10	213.153	0.84	-0.57	-1.29	
2945.00	28.038	209.140	2714.23	588.65	-801.81	-520.55	1833889.85	14265579.29	39°17'4.7502"N	81°01'23.0387"W	955.96	212.992	0.72	-0.43	-1.22	
3043.00	27.530	211.370	2800.93	618.47	-841.26	-543.55	1833866.86	14265539.86	39°17'4.3802"N	81°01'23.3312"W	1001.58	212.867	1.18	-0.51	2.28	
3138.00	27.080	211.980	2885.34	646.09	-878.36	-566.43	1833843.98	14265502.78	39°17'3.9935"N	81°01'23.6221"W	1045.16	212.817	0.55	-0.46	0.64	
3231.00	27.620	212.970	2969.72	673.27	-915.18	-589.88	1833820.55	14265465.97	39°17'3.8295"N	81°01'23.9201"W	1088.81	212.804	0.74	-0.56	1.04	
3326.00	27.610	214.450	3053.90	699.95	-951.81	-614.31	1833798.12	14265429.36	39°17'3.2674"N	81°01'24.2307"W	1132.84	212.839	0.72	-0.01	1.58	
3422.00	27.780	215.260	3137.14	725.71	-987.64	-639.27	1833771.18	14265393.53	39°17'2.9131"N	81°01'24.5480"W	1176.48	212.914	0.43	0.16	0.86	
3517.00	29.280	219.410	3220.62	750.81	-1023.66	-666.80	1833743.86	14265357.53	39°17'2.5571"N	81°01'24.8980"W	1221.68	213.080	2.63	1.60	4.37	
3612.00	28.830	219.410	3303.66	774.97	-1059.31	-696.09	1833714.38	14265321.90	39°17'2.2047"N	81°01'25.2704"W	1267.55	213.309	0.47	-0.47	0.00	
3706.00	28.100	217.360	3386.30	799.11	-1094.42	-723.91	1833686.57	14265286.90	39°17'1.8576"N	81°01'25.6241"W	1312.17	213.483	1.39	-0.78	-2.18	
3801.00	27.410	215.480	3470.37	824.21	-1130.01	-750.16	1833660.31	14265251.23	39°17'1.5058"N	81°01'25.9580"W	1356.35	213.579	1.17	-0.73	-1.98	
3896.00	28.400	214.370	3554.32	850.39	-1166.46	-775.63	1833634.88	14265214.78	39°17'1.1454"N	81°01'26.2815"W	1400.80	213.621	1.18	1.04	-1.17	
3990.00	29.360	212.230	3636.63	878.16	-1204.41	-800.54	1833609.97	14265176.85	39°17'0.7703"N	81°01'26.5982"W	1446.19	213.611	1.50	1.02	-2.28	
4085.00	30.290	211.500	3719.05	907.99	-1244.54	-825.48	1833585.05	14265136.74	39°17'0.3736"N	81°01'26.9152"W	1493.42	213.555	1.05	0.98	-0.77	
4180.00	30.930	210.220	3800.81	939.17	-1286.07	-850.28	1833560.25	14265099.23	39°16'59.9631"N	81°01'27.2306"W	1541.73	213.471	0.98	0.67	-1.35	
4274.00	30.280	208.740	3881.72	970.89	-1327.72	-873.84	1833536.70	14265053.59	39°16'59.5513"N	81°01'27.5300"W	1589.48	213.351	1.06	-0.69	-1.57	
4369.00	29.580	206.220	3964.05	1003.51	-1369.76	-895.72	1833514.83	14265011.57	39°16'59.1358"N	81°01'27.8081"W	1636.63	213.182	1.51	-0.74	-2.65	
4464.00	28.830	208.790	4046.98	1035.42	-1410.87	-917.11	1833493.45	14264970.48	39°16'58.7294"N	81°01'28.0800"W	1682.75	213.025	1.54	-0.79	2.71	
4558.00	27.820	209.700	4129.72	1065.13	-1449.79	-938.89	1833471.68	14264931.58	39°16'58.3447"N	81°01'28.3569"W	1727.25	212.927	1.17	-1.07	0.97	
4653.00	27.800	211.020	4213.83	1093.90	-1487.90	-961.21	1833449.36	14264893.48	39°16'57.9679"N	81°01'28.6408"W	1771.38	212.863	0.69	-0.23	1.39	
4749.00	25.680	211.110	4326.45	1130.16	-1536.29	-990.36	1833420.22	14264845.10	39°16'57.4895"N	81°01'29.0112"W	1827.85	212.808	1.52	-1.52	0.07	
4843.00	24.450	211.580	4411.59	1155.58	-1579.31	-1011.08	1833399.52	14264811.11	39°16'57.1593"N	81°01'29.2744"W	1867.65	212.776	1.33	-1.31	0.50	
4936.00	24.970	215.940	4487.90	1179.58	-1603.20	-1033.14	1833377.46	14264778.13	39°16'56.8272"N	81°01'29.5559"W	1907.34	212.797	1.99	0.55	4.59	
5033.00	22.710	217.540	4584.79	1201.22	-1634.07	-1056.09	1833354.52	14264747.37	39°16'56.5229"N	81°01'29.8467"W	1945.64	212.874	2.47	-2.38	1.68	
5127.00	22.200	217.200	4671.68	1221.10	-1682.60	-1077.88	1833332.74	14264718.34	39°16'56.2405"N	81°01'30.1237"W	1981.44	212.956	0.58	-0.54	-0.36	
5222.00	20.720	216.150	4760.08	1240.69	-1690.47	-1098.65	1833311.98	14264690.99	39°16'55.9654"N	81°01'30.3877"W	2016.12	213.020	1.61	-1.58	-1.11	
5317.00	19.880	216.740	4849.17	1259.38	-1716.99	-1118.22	1833292.41	14264664.48	39°16'55.7032"N	81°01'30.6365"W	2049.02	213.075	0.91	-0.88	0.62	
5411.00	19.890	215.070	4937.57	1277.76	-1742.88	-1136.97	1833273.67	14264638.80	39°16'55.4473"N	81°01'30.8749"W	2080.95	213.119	0.60	0.01	-1.78	
5506.00	18.400	211.900	5027.32	1296.70	-1768.84	-1154.18	1833256.47	14264612.65	39°16'55.1906"N	81°01'31.0936"W	2112.09	213.125	1.91	-1.57	-3.34	
5600.00	17.280	209.960	5116.60	1315.23	-1793.53	-1169.00	1833241.86	14264587.97	39°16'54.9466"N	81°01'31.2819"W	2140.86	213.096	1.35	-1.19	-2.06	

Antero Resources Corporation  
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# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWP
Slot	Slot E		

WELLPATH DATA (271 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
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	(ft/100ft)	(ft/100ft)	(ft/100ft)	
5724.00	15.510	211.730	5206.97	1332.35	-1816.32	-1182.58	1633228.09	14264565.19	39°16'54.7213"N	81°01'31.4548"W	2167.37	213.068	1.96	-1.88	1.88	
5740.00	15.330	211.240	5222.39	1335.08	-1819.94	-1184.80	1633225.87	14264561.57	39°16'54.6854"N	81°01'31.4828"W	2171.62	213.084	1.39	-1.12	-3.06	
5819.00	14.140	208.930	5298.80	1348.45	-1837.48	-1194.59	1633216.08	14264544.04	39°16'54.5121"N	81°01'31.6072"W	2191.66	213.029	2.05	-1.51	-5.46	BH Lucida <8-1/2"> (5740')(5819'-25054')
5914.00	17.620	205.320	5390.16	1386.81	-1860.83	-1206.00	1633204.68	14264520.70	39°16'54.2813"N	81°01'31.7522"W	2217.45	212.947	3.69	3.66	-1.69	
6009.00	23.710	206.890	5479.00	1390.38	-1890.87	-1220.83	1633189.85	14264490.67	39°16'53.9843"N	81°01'31.9407"W	2250.74	212.848	6.44	6.41	-1.76	
6104.00	29.510	206.550	5563.91	1420.05	-1928.84	-1240.01	1633170.68	14264452.72	39°16'53.6090"N	81°01'32.1845"W	2283.04	212.736	6.11	6.11	-0.36	
6199.00	35.120	206.530	5644.16	1455.57	-1974.23	-1262.72	1633147.97	14264407.34	39°16'53.1603"N	81°01'32.4732"W	2343.52	212.603	5.91	5.91	-0.13	
6294.00	40.490	206.540	5719.19	1496.35	-2026.31	-1288.73	1633121.98	14264355.28	39°16'52.6455"N	81°01'32.8038"W	2401.41	212.456	5.65	5.65	0.01	
6389.00	45.980	206.820	5788.38	1541.79	-2084.43	-1317.95	1633092.77	14264297.18	39°16'52.0709"N	81°01'33.1751"W	2466.14	212.304	5.78	5.78	0.29	
6483.00	51.200	206.910	5850.53	1590.86	-2147.30	-1349.79	1633060.94	14264234.34	39°16'51.4495"N	81°01'33.5799"W	2536.31	212.153	5.55	5.55	0.10	
6578.00	51.820	202.820	5909.67	1644.46	-2214.75	-1381.04	1633029.71	14264166.92	39°16'50.7828"N	81°01'33.9770"W	2610.05	211.946	3.43	0.65	-4.31	
6640.00†	52.927	196.283	5947.55	1682.84	-2260.98	-1397.44	1633013.32	14264120.71	39°16'50.3258"N	81°01'34.1853"W	2657.98	211.719	8.54	1.79	-10.54	Sycamore: 6640' MD
6673.00	53.660	192.890	5967.28	1704.67	-2286.58	-1404.09	1633006.66	14264095.12	39°16'50.0727"N	81°01'34.2699"W	2683.27	211.552	8.54	2.22	-10.28	
6798.00	56.190	184.100	6021.94	1773.77	-2353.36	-1415.47	1632995.29	14264018.37	39°16'49.3139"N	81°01'34.4142"W	2754.61	210.918	8.02	2.66	-9.25	
6799.00†	57.227	181.190	6038.96	1797.85	-2389.24	-1416.66	1632994.10	14263992.50	39°16'49.0581"N	81°01'34.4293"W	2777.69	210.665	8.53	3.34	-9.38	Middlesex: 6799' MD
6863.00	59.570	175.400	6072.51	1849.87	-2443.68	-1415.00	1632995.75	14263938.08	39°16'48.5199"N	81°01'34.4081"W	2823.79	210.073	8.53	3.66	-9.05	
6958.00	63.270	167.530	6116.00	1931.81	-2526.06	-1402.54	1633008.21	14263855.74	39°16'47.7058"N	81°01'34.2492"W	2889.31	209.040	8.25	3.89	-8.28	
6998.00†	65.773	165.173	6135.21	1967.76	-2561.14	-1394.01	1633016.74	14263820.67	39°16'47.3591"N	81°01'34.1407"W	2915.94	208.559	8.21	6.26	-5.89	Burkett: 6998' MD
7053.00	69.270	162.080	6156.24	2018.51	-2609.88	-1379.67	1633031.07	14263771.95	39°16'46.8774"N	81°01'33.9582"W	2952.11	207.863	8.21	6.36	-5.82	Tully: 7053' MD
7063.00†	70.001	162.102	6159.72	2027.89	-2616.80	-1376.79	1633033.95	14263763.03	39°16'46.7892"N	81°01'33.9215"W	2958.66	207.732	7.31	7.31	0.22	Marcellus POE: 7063' MD
7148.00	76.210	162.280	6184.41	2109.16	-2696.20	-1351.93	1633058.80	14263685.67	39°16'46.0243"N	81°01'33.6050"W	3016.16	206.830	7.31	7.31	0.21	
7244.00	83.280	161.970	6201.49	2203.55	-2786.05	-1322.95	1633087.77	14263595.85	39°16'45.1364"N	81°01'33.2362"W	3084.19	205.401	7.37	7.36	-0.32	
7338.00	89.200	162.190	6207.65	2297.29	-2875.25	-1294.10	1633116.61	14263506.68	39°16'44.2547"N	81°01'32.8690"W	3153.06	204.232	6.30	6.30	0.23	
7434.00	89.750	160.200	6208.53	2393.28	-2966.12	-1263.16	1633147.54	14263415.85	39°16'43.3567"N	81°01'32.4752"W	3223.89	203.067	2.16	0.57	-2.07	
7529.00	89.890	160.040	6209.00	2488.26	-3055.46	-1230.86	1633179.83	14263326.55	39°16'42.4738"N	81°01'32.0641"W	3294.06	201.941	0.18	-0.06	-0.17	
7623.00	89.820	159.650	6209.40	2582.24	-3143.70	-1198.47	1633212.20	14263238.34	39°16'41.6017"N	81°01'31.8519"W	3364.40	200.868	0.44	0.14	-0.41	
7716.00	89.910	159.280	6209.62	2677.21	-3232.69	-1165.22	1633245.44	14263149.39	39°16'40.7223"N	81°01'31.2288"W	3436.28	199.822	0.30	0.09	-0.28	
7813.00	87.880	161.270	6211.46	2772.18	-3322.12	-1133.25	1633277.40	14263059.99	39°16'39.8385"N	81°01'30.8219"W	3510.09	198.836	2.92	-2.14	1.99	
7908.00	90.310	161.810	6212.96	2867.15	-3412.21	-1103.17	1633307.46	14262969.94	39°16'38.9481"N	81°01'30.4391"W	3586.11	197.816	2.62	2.56	0.57	
8003.00	90.800	160.190	6212.70	2962.15	-3502.64	-1072.24	1633338.38	14262880.15	39°16'38.0604"N	81°01'30.0455"W	3662.51	197.023	1.74	-0.33	-1.71	



# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

WELLPATH DATA (271 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
8097.00	90.000	180.300	6212.70	3056.14	-3590.50	-1040.47	1633370.14	14262791.72	39°16'37.1861"N	81°01'29.6412"W	3738.22	198.161	0.12	0.00	0.12	
8192.00	90.000	159.980	6212.70	3151.13	-3679.85	-1008.20	1633402.40	14262702.41	39°16'36.3031"N	81°01'29.2305"W	3815.47	195.322	0.34	0.00	-0.34	
8287.00	88.640	158.840	6213.83	3246.09	-3768.77	-974.79	1633435.79	14262613.52	39°16'35.4243"N	81°01'28.8054"W	3892.80	194.502	1.87	-1.43	-1.20	
8382.00	89.540	180.700	6215.33	3341.05	-3857.90	-941.95	1633468.62	14262524.43	39°16'34.5435"N	81°01'28.3874"W	3971.23	193.721	2.17	0.95	1.06	
8478.00	89.870	160.900	6215.74	3435.04	-3946.42	-910.34	1633500.22	14262435.94	39°16'33.6686"N	81°01'27.9652"W	4050.08	192.989	0.87	0.46	-0.74	
8571.00	89.630	160.070	6216.07	3530.02	-4035.71	-877.90	1633532.64	14262346.69	39°16'32.7862"N	81°01'27.5724"W	4130.10	192.273	0.37	-0.36	0.07	
8666.00	88.580	158.040	6217.55	3624.95	-4124.42	-843.95	1633566.58	14262258.02	39°16'31.9095"N	81°01'27.1404"W	4209.88	191.564	2.41	-1.11	-2.14	
8761.00	90.090	160.070	6218.66	3719.88	-4213.13	-809.99	1633600.52	14262169.35	39°16'31.0328"N	81°01'26.7083"W	4290.28	190.883	2.66	1.59	2.14	
8856.00	89.170	159.640	6219.27	3814.86	-4302.31	-777.28	1633633.23	14262080.20	39°16'30.1514"N	81°01'26.2920"W	4371.96	190.241	1.07	-0.97	-0.45	
8951.00	88.610	159.530	6221.11	3909.81	-4391.33	-744.15	1633666.34	14261991.22	39°16'29.2717"N	81°01'25.8704"W	4453.93	189.618	0.60	-0.59	-0.12	
9046.00	89.050	161.170	6223.05	4004.78	-4480.78	-712.21	1633698.27	14261901.81	39°16'28.3877"N	81°01'25.4640"W	4537.02	189.031	1.79	0.46	1.73	
9140.00	89.570	160.930	6224.18	4098.78	-4569.67	-681.68	1633728.78	14261812.94	39°16'27.5092"N	81°01'25.0755"W	4620.24	188.485	0.61	0.55	-0.26	
9235.00	89.450	162.380	6224.99	4193.76	-4659.84	-651.79	1633758.67	14261722.81	39°16'26.6181"N	81°01'24.6951"W	4705.20	187.962	1.53	-0.13	1.53	
9330.00	89.450	162.180	6225.91	4288.74	-4750.33	-622.87	1633787.57	14261632.36	39°16'25.7238"N	81°01'24.3271"W	4790.99	187.470	0.21	0.00	-0.21	
9425.00	89.350	162.040	6226.90	4383.71	-4840.73	-593.69	1633818.74	14261542.00	39°16'24.8303"N	81°01'23.9557"W	4877.00	186.992	0.18	-0.11	-0.15	
9520.00	91.200	164.810	6228.44	4478.61	-4931.77	-566.59	1633843.82	14261450.99	39°16'23.9306"N	81°01'23.6109"W	4964.21	186.554	3.51	1.95	2.92	
9615.00	89.630	161.330	6225.76	4573.53	-5022.63	-538.94	1633871.47	14261360.17	39°16'23.0326"N	81°01'23.2589"W	5051.46	186.124	4.02	-1.65	-3.86	
9710.00	89.720	161.570	6226.29	4668.53	-5112.70	-508.71	1633901.68	14261270.14	39°16'22.1425"N	81°01'22.8743"W	5137.94	185.682	0.27	0.03	0.25	
9805.00	90.120	162.250	6228.43	4763.51	-5203.00	-479.22	1633931.17	14261179.87	39°16'21.2501"N	81°01'22.4990"W	5225.02	185.262	0.83	0.42	0.72	
9899.00	88.210	159.040	6227.80	4857.49	-5291.66	-448.07	1633962.30	14261091.25	39°16'20.3738"N	81°01'22.1027"W	5310.60	184.840	3.97	-2.03	-3.41	
9994.00	89.880	161.770	6229.38	4952.46	-5381.14	-416.22	1633994.14	14261001.81	39°16'19.4896"N	81°01'21.6974"W	5397.21	184.423	3.37	1.76	2.87	
10089.00	90.250	162.270	6229.27	5047.44	-5471.50	-386.90	1634023.45	14260911.48	39°16'18.5965"N	81°01'21.3242"W	5485.16	184.045	0.65	0.39	0.53	
10184.00	87.600	159.400	6231.06	5142.40	-5561.20	-355.72	1634054.61	14260821.82	39°16'17.7100"N	81°01'20.9278"W	5572.56	183.660	4.11	-2.79	-3.02	
10279.00	91.020	161.820	6232.20	5237.37	-5650.78	-324.19	1634086.13	14260732.27	39°16'16.8247"N	81°01'20.5263"W	5660.08	183.284	4.41	3.60	2.55	
10374.00	89.690	160.990	6231.61	5332.37	-5740.82	-293.80	1634116.41	14260642.27	39°16'15.9348"N	81°01'20.1408"W	5748.34	182.931	1.65	-1.40	-0.87	
10469.00	90.490	162.130	6231.46	5427.36	-5830.94	-263.85	1634146.45	14260552.18	39°16'15.0442"N	81°01'19.7585"W	5836.91	182.591	1.47	0.84	1.20	
10563.00	90.060	161.550	6231.01	5521.35	-5920.26	-234.55	1634175.73	14260462.90	39°16'14.1615"N	81°01'19.3858"W	5924.90	182.269	0.77	-0.46	-0.62	
10658.00	89.720	161.290	6231.19	5616.35	-6010.30	-204.28	1634205.99	14260372.89	39°16'13.2715"N	81°01'19.0008"W	6013.77	181.947	0.45	-0.36	-0.27	
10753.00	90.310	161.810	6231.17	5711.34	-6100.42	-174.22	1634236.04	14260282.81	39°16'12.3809"N	81°01'18.6180"W	6102.91	181.636	0.83	0.62	0.55	
10848.00	90.250	161.960	6230.70	5806.33	-6190.71	-144.68	1634265.57	14260192.56	39°16'11.4886"N	81°01'18.2422"W	6192.40	181.339	0.17	-0.06	0.16	

Environmental Services  
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# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

WELLPATH DATA (271 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
10943.00	90.030	151.850	6230.47	5901.32	-6261.01	-115.16	1634295.06	14260102.29	39°16'10.5961"N	81°01'17.8668"W	6282.07	181.051	0.26	-0.23	-0.12	
11037.00	90.120	160.710	6230.35	5995.31	-6370.04	-85.01	1634325.22	14260013.30	39°16'9.7163"N	81°01'17.4829"W	6370.60	180.765	1.22	0.10	-1.21	
11132.00	91.080	160.970	6229.35	6090.31	-6459.77	-53.83	1634356.38	14259923.61	39°16'8.8205"N	81°01'17.0862"W	6459.99	180.477	1.05	1.01	0.27	
11227.00	89.880	160.890	6228.58	6185.30	-6549.55	-22.79	1634387.41	14259833.86	39°16'7.0422"N	81°01'16.6913"W	6549.59	180.199	1.27	-1.26	-0.08	
11322.00	89.910	160.930	6228.73	6280.30	-6639.33	8.28	1634418.06	14259744.12	39°16'7.0549"N	81°01'16.2160"W	6639.33	179.929	0.05	0.03	0.04	
11417.00	89.910	160.890	6228.88	6375.30	-6729.10	39.35	1634449.52	14259654.38	39°16'6.1677"N	81°01'15.8007"W	6729.22	179.665	0.04	0.00	-0.04	
11512.00	89.940	160.820	6229.01	6470.30	-6818.85	70.50	1634480.67	14259564.67	39°16'5.2807"N	81°01'15.5043"W	6819.21	179.408	0.08	0.03	-0.07	
11607.00	89.690	160.890	6229.31	6565.30	-6908.59	101.86	1634511.81	14259474.97	39°16'4.3938"N	81°01'15.1079"W	6909.34	179.157	0.27	-0.26	0.07	
11701.00	89.940	160.790	6229.62	6659.30	-6997.38	132.51	1634542.65	14259386.21	39°16'3.5163"N	81°01'14.7154"W	6998.64	178.915	0.29	0.27	-0.11	
11796.00	89.820	160.590	6229.82	6754.30	-7087.04	163.93	1634574.05	14259298.59	39°16'2.6302"N	81°01'14.3157"W	7088.93	178.675	0.26	-0.13	-0.21	
11891.00	89.850	161.030	6230.09	6849.30	-7176.76	195.15	1634605.26	14259206.90	39°16'1.7435"N	81°01'13.9184"W	7179.41	178.442	0.46	0.03	0.46	
11986.00	89.720	160.520	6230.45	6944.29	-7266.46	226.43	1634636.53	14259117.24	39°16'0.8570"N	81°01'13.5204"W	7269.99	178.215	0.55	-0.14	-0.54	
12081.00	89.780	161.100	6230.86	7039.29	-7356.18	257.66	1634667.75	14259027.56	39°15'59.8703"N	81°01'13.1231"W	7360.69	177.994	0.61	0.06	0.61	
12176.00	90.030	161.040	6231.02	7134.29	-7446.04	288.48	1634698.55	14258937.73	39°15'59.0822"N	81°01'12.7310"W	7451.63	177.781	0.27	0.26	-0.06	
12270.00	89.660	161.070	6231.27	7228.29	-7534.95	319.00	1634729.06	14258848.86	39°15'58.2035"N	81°01'12.3428"W	7541.70	177.576	0.39	-0.39	0.03	
12365.00	89.510	160.880	6231.96	7323.29	-7624.70	350.12	1634760.17	14258759.14	39°15'57.3165"N	81°01'11.9468"W	7632.74	177.371	0.44	-0.16	-0.41	
12460.00	89.630	160.900	6232.67	7418.28	-7714.41	381.38	1634791.41	14258669.47	39°15'56.4299"N	81°01'11.5492"W	7723.83	177.170	0.26	0.13	0.23	
12555.00	89.720	160.670	6233.21	7513.28	-7804.12	412.64	1634822.67	14258579.80	39°15'55.5433"N	81°01'11.1514"W	7815.02	176.973	0.26	0.09	-0.24	
12650.00	89.750	160.830	6233.65	7608.28	-7893.81	443.96	1634853.97	14258490.15	39°15'54.6569"N	81°01'10.7529"W	7906.28	176.781	0.17	0.03	0.17	
12745.00	89.780	161.150	6234.04	7703.28	-7983.62	474.91	1634884.91	14258400.37	39°15'53.7692"N	81°01'10.3593"W	7997.74	176.596	0.34	0.03	0.34	
12839.00	89.820	161.060	6234.37	7797.28	-8072.56	505.35	1634915.33	14258311.47	39°15'52.8903"N	81°01'9.9720"W	8088.36	176.418	0.10	0.04	-0.10	
12934.00	89.750	160.830	6234.73	7892.28	-8162.30	536.52	1634946.49	14258221.76	39°15'52.0034"N	81°01'9.5754"W	8179.91	176.239	0.46	-0.07	-0.45	
13029.00	89.780	160.320	6235.11	7987.27	-8251.83	568.27	1634978.23	14258132.26	39°15'51.1185"N	81°01'9.1715"W	8271.38	176.060	0.33	0.03	-0.33	
13124.00	89.970	160.230	6235.32	8082.26	-8341.26	600.33	1635010.28	14258042.87	39°15'50.2347"N	81°01'8.7636"W	8362.83	175.883	0.22	0.20	-0.09	
13219.00	90.060	160.260	6235.30	8177.28	-8430.67	632.45	1635042.32	14257953.50	39°15'49.3611"N	81°01'8.3551"W	8454.35	175.710	0.10	0.09	0.02	
13314.00	90.030	160.110	6235.22	8272.25	-8520.04	664.66	1635074.58	14257864.17	39°15'48.4679"N	81°01'7.9453"W	8545.92	175.539	0.15	-0.03	-0.15	
13408.00	89.750	160.100	6235.40	8366.23	-8608.43	696.65	1635106.56	14257775.81	39°15'47.5943"N	81°01'7.5384"W	8636.57	175.373	0.30	-0.30	-0.01	
13503.00	89.690	160.660	6235.87	8461.23	-8697.91	728.55	1635138.45	14257686.37	39°15'46.7099"N	81°01'7.1326"W	8728.37	175.212	0.59	-0.06	0.59	
13598.00	90.090	160.920	6236.05	8556.23	-8787.62	759.81	1635169.69	14257596.59	39°15'45.8233"N	81°01'6.7350"W	8820.41	175.058	0.50	0.42	0.27	
13693.00	89.600	159.900	6236.31	8651.22	-8877.12	791.98	1635201.53	14257507.23	39°15'44.9388"N	81°01'6.3298"W	8912.35	174.904	1.19	-0.52	-1.07	

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# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Shipe Unit 1H
Field	Ritchie		API	47-085-10539-0000
Facility	Husher Pad		Wellbore	Shipe Unit 1H AWB
Slot	Slot E			

WELLPATH DATA (271 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
13785.00	89.690	161.000	6236.90	8746.21	-8966.64	823.45	1635233.31	14257417.74	39°15'44.0541"N	81°01'5.9254"W	9004.37	174.753	1.16	0.03	1.16	
13863.00	89.170	161.050	6237.84	8641.21	-10056.47	854.33	1635284.18	14257327.95	39°15'43.1652"N	81°01'5.5325"W	9096.66	174.611	0.55	-0.55	0.05	
13977.00	89.200	161.020	6239.18	8925.20	-9145.36	884.89	1635294.71	14257239.10	39°15'42.2878"N	81°01'5.1439"W	9186.07	174.473	0.05	0.03	-0.03	
14072.00	89.140	161.090	6240.55	9030.19	-9235.21	915.72	1635325.54	14257149.29	39°15'41.3998"N	81°01'4.7516"W	9280.49	174.337	0.10	-0.06	0.07	
14167.00	89.110	161.170	6242.00	9125.18	-9325.09	946.44	1635356.25	14257059.44	39°15'40.5115"N	81°01'4.3808"W	9372.99	174.205	0.09	-0.03	0.08	
14262.00	89.080	161.130	6243.50	9220.16	-9414.98	977.13	1635386.93	14256969.58	39°15'39.6231"N	81°01'3.9704"W	9465.55	174.075	0.05	-0.03	-0.04	
14357.00	89.230	160.940	6244.91	9315.15	-9504.82	1008.00	1635417.79	14256879.78	39°15'38.7352"N	81°01'3.5777"W	9558.12	173.946	0.25	0.16	-0.20	
14452.00	91.380	159.740	6244.40	9410.14	-9594.27	1039.98	1635449.73	14256790.37	39°15'37.8511"N	81°01'3.1712"W	9650.47	173.814	2.59	2.26	-1.26	
14547.00	91.320	160.860	6242.16	9505.10	-9683.68	1071.98	1635481.73	14256700.99	39°15'36.9675"N	81°01'2.7640"W	9742.84	173.683	1.18	-0.06	1.18	
14642.00	90.950	160.400	6240.28	9600.08	-9773.29	1103.48	1635513.22	14256611.42	39°15'36.0819"N	81°01'2.3632"W	9835.39	173.556	0.62	-0.39	-0.48	
14737.00	90.830	159.740	6238.80	9695.04	-9862.30	1136.63	1635546.37	14256522.45	39°15'35.2022"N	81°01'1.9415"W	9927.58	173.426	1.75	-0.13	-1.75	
14831.00	90.920	160.660	6237.37	9789.00	-9950.45	1169.24	1635578.96	14256434.33	39°15'34.3310"N	81°01'1.5268"W	10018.91	173.296	2.04	0.10	2.04	
14926.00	90.890	160.630	6235.87	9883.98	-10040.07	1200.72	1635610.43	14256344.75	39°15'33.4453"N	81°01'1.1263"W	10111.61	173.180	0.04	-0.03	-0.03	
15021.00	90.430	161.010	6234.77	9978.08	-10129.79	1231.93	1635641.62	14256255.07	39°15'32.5586"N	81°01'0.7294"W	10204.42	173.066	0.63	-0.48	0.40	
15116.00	90.120	160.970	6234.32	10073.98	-10219.60	1262.87	1635672.56	14256165.29	39°15'31.6709"N	81°01'0.3358"W	10297.34	172.955	0.33	-0.33	-0.04	
15211.00	89.450	161.030	6234.67	10168.98	-10309.43	1293.80	1635703.47	14256075.50	39°15'30.7832"N	81°00'59.9424"W	10390.29	172.847	0.71	-0.71	0.06	
15306.00	89.570	160.750	6235.49	10263.97	-10399.19	1324.90	1635734.56	14255985.77	39°15'29.8960"N	81°00'59.5468"W	10483.25	172.739	0.32	0.13	-0.29	
15401.00	89.570	161.080	6236.20	10358.97	-10488.96	1355.98	1635765.62	14255896.04	39°15'29.0088"N	81°00'59.1515"W	10576.24	172.634	0.33	0.00	0.33	
15495.00	89.350	160.960	6237.09	10452.96	-10577.84	1386.55	1635796.18	14255807.19	39°15'28.1304"N	81°00'58.7627"W	10668.33	172.532	0.25	-0.23	-0.09	
15590.00	89.290	161.180	6238.21	10547.96	-10667.70	1417.37	1635828.99	14255717.37	39°15'27.2423"N	81°00'58.3707"W	10761.45	172.432	0.20	-0.04	0.19	
15685.00	89.380	160.960	6239.32	10642.95	-10757.55	1448.20	1635861.81	14255627.55	39°15'26.3543"N	81°00'57.9795"W	10854.59	172.333	0.23	0.01	-0.21	
15780.00	89.350	161.110	6240.37	10737.94	-10847.39	1479.07	1635898.67	14255537.75	39°15'25.4664"N	81°00'57.5858"W	10947.76	172.235	0.16	-0.03	0.16	
15875.00	89.280	161.060	6241.52	10832.94	-10937.25	1509.87	1635931.45	14255447.93	39°15'24.5783"N	81°00'57.1942"W	11040.96	172.140	0.11	-0.09	-0.05	
15970.00	89.380	161.140	6242.65	10927.93	-11027.12	1540.64	1635960.21	14255358.09	39°15'23.6901"N	81°00'56.8028"W	11134.23	172.047	0.15	0.13	0.08	
16065.00	88.890	160.780	6244.08	11022.92	-11116.91	1571.62	1635991.18	14255268.33	39°15'22.8026"N	81°00'56.4087"W	11227.46	171.953	0.64	-0.52	-0.38	
16160.00	88.890	161.150	6245.92	11117.90	-11206.70	1602.60	1636021.15	14255178.58	39°15'21.9152"N	81°00'56.0147"W	11320.71	171.862	0.39	0.00	0.39	
16255.00	88.890	161.170	6247.76	11212.88	-11296.50	1633.27	1636042.81	14255088.72	39°15'21.0268"N	81°00'55.6246"W	11414.06	171.773	0.02	0.00	0.02	
16350.00	88.950	161.050	6249.55	11307.87	-11386.47	1664.02	1636073.54	14254998.89	39°15'20.1386"N	81°00'55.2335"W	11507.41	171.686	0.13	0.06	-0.12	
16444.00	88.920	160.940	6251.30	11401.85	-11476.33	1694.62	1636104.12	14254910.06	39°15'19.2603"N	81°00'54.8444"W	11599.78	171.600	0.13	-0.03	-0.13	
16539.00	88.860	160.950	6253.14	11496.83	-11566.11	1725.62	1636135.12	14254820.32	39°15'18.3730"N	81°00'54.4500"W	11693.14	171.514	0.06	-0.06	0.01	



# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Shipe Unit 1H
Field	Ritchie		API	47-085-10539-0000
Facility	Husher Pad		Wellbore	Shipe Unit 1H AWB
Slot	Slot E			

WELLPATH DATA (271 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
16634.00	88.830	160.660	6255.08	11591.81	-11654.81	1756.85	1636166.34	14254730.06	39°18'17.4865"N	81°00'54.0528"W	11786.48	171.428	0.31	-0.03	-0.31	
16729.00	88.920	160.910	6258.92	11686.79	-11744.50	1708.11	1636197.58	14254641.00	39°15'16.6001"N	81°00'53.6553"W	11879.84	171.343	0.28	0.09	0.28	
16824.00	88.830	160.720	6258.79	11781.77	-11834.20	1819.33	1636228.78	14254561.33	39°15'15.7135"N	81°00'53.2583"W	11973.23	171.260	0.22	-0.08	-0.20	
16919.00	88.860	160.520	6260.70	11876.75	-11923.80	1850.84	1636260.29	14254461.77	39°15'14.8280"N	81°00'52.8574"W	12066.59	171.177	0.21	0.03	-0.21	
17014.00	89.380	160.840	6262.18	11971.74	-12013.44	1882.27	1636291.70	14254372.17	39°15'13.9421"N	81°00'52.4578"W	12160.01	171.095	0.64	0.55	0.34	
17109.00	89.600	161.060	6263.01	12066.74	-12103.24	1913.28	1636322.70	14254282.41	39°15'13.0546"N	81°00'52.0634"W	12253.53	171.017	0.33	0.23	0.23	
17204.00	89.750	160.950	6263.56	12161.73	-12193.06	1944.20	1636353.60	14254192.62	39°15'12.1668"N	81°00'51.6702"W	12347.09	170.940	0.20	0.16	-0.12	
17299.00	89.820	162.190	6263.90	12256.73	-12283.19	1974.23	1636383.63	14254102.53	39°15'11.2761"N	81°00'51.2882"W	12440.83	170.869	1.31	0.07	1.31	
17394.00	89.820	161.990	6264.20	12351.71	-12373.58	2003.44	1636412.83	14254012.17	39°15'10.3827"N	81°00'50.9167"W	12534.72	170.803	0.21	0.00	-0.21	
17489.00	89.780	162.130	6264.53	12446.69	-12463.98	2032.71	1636442.08	14253921.83	39°15'9.4894"N	81°00'50.5445"W	12628.63	170.737	0.15	-0.04	0.15	
17584.00	89.820	162.070	6264.86	12541.67	-12554.36	2061.90	1636471.27	14253831.46	39°15'8.5960"N	81°00'50.1732"W	12722.56	170.673	0.08	0.04	-0.06	
17679.00	89.750	161.960	6265.22	12635.66	-12643.77	2090.93	1636500.28	14253742.08	39°15'7.7123"N	81°00'49.8041"W	12815.49	170.610	0.14	-0.07	-0.12	
17773.00	89.760	161.840	6265.63	12730.65	-12734.07	2120.44	1636529.78	14253651.83	39°15'6.8199"N	81°00'49.4287"W	12909.41	170.546	0.13	0.00	-0.13	
17868.00	89.780	161.840	6266.02	12825.64	-12824.34	2150.05	1636559.38	14253561.60	39°15'5.9278"N	81°00'49.0522"W	13003.32	170.483	0.03	0.03	0.00	
17963.00	89.690	162.260	6266.46	12920.62	-12914.71	2179.33	1636588.64	14253471.26	39°15'5.0346"N	81°00'48.6798"W	13097.30	170.422	0.45	-0.09	0.44	
18058.00	89.910	162.030	6266.79	13015.60	-13005.13	2208.46	1636617.75	14253380.87	39°15'4.1409"N	81°00'48.3094"W	13191.31	170.362	0.34	0.23	-0.24	
18153.00	89.940	162.240	6266.92	13110.58	-13095.55	2237.60	1636646.89	14253290.49	39°15'3.2472"N	81°00'47.9388"W	13285.34	170.304	0.22	0.03	0.22	
18248.00	89.910	161.870	6267.04	13205.56	-13185.93	2266.87	1636676.15	14253200.15	39°15'2.3540"N	81°00'47.5665"W	13379.37	170.245	0.39	-0.03	-0.39	
18343.00	89.910	161.770	6267.19	13300.55	-13276.19	2296.51	1636705.78	14253109.93	39°15'1.4620"N	81°00'47.1896"W	13473.35	170.186	0.11	0.00	-0.11	
18438.00	89.880	162.000	6267.36	13395.54	-13366.48	2326.05	1636735.30	14253019.67	39°15'0.5696"N	81°00'46.8140"W	13567.36	170.128	0.24	-0.03	0.24	
18533.00	89.940	162.050	6267.51	13490.53	-13456.84	2355.36	1636764.61	14252929.35	39°14'59.6765"N	81°00'46.4412"W	13661.42	170.072	0.08	0.06	0.05	
18628.00	90.310	161.890	6267.31	13585.51	-13547.18	2384.77	1636794.00	14252839.05	39°14'58.7837"N	81°00'46.0672"W	13755.48	170.016	0.42	0.39	-0.17	
18723.00	89.940	161.260	6267.10	13680.51	-13637.31	2414.79	1636824.01	14252748.95	39°14'57.8929"N	81°00'45.6854"W	13849.45	169.959	0.77	-0.39	-0.66	
18817.00	90.220	162.060	6266.97	13774.50	-13726.53	2444.37	1636853.58	14252658.77	39°14'57.0111"N	81°00'45.3093"W	13942.48	169.903	0.90	0.30	0.88	
18912.00	90.180	162.000	6266.84	13868.48	-13816.90	2473.68	1636882.88	14252568.44	39°14'56.1180"N	81°00'44.9366"W	14036.59	169.850	0.08	-0.04	-0.06	
19007.00	90.060	161.780	6266.44	13964.47	-13907.18	2503.23	1636912.41	14252478.19	39°14'55.2256"N	81°00'44.5609"W	14130.67	169.796	0.28	-0.13	-0.25	
19102.00	90.480	161.930	6266.01	14059.46	-13997.45	2532.83	1636942.00	14252388.95	39°14'54.3334"N	81°00'44.1844"W	14224.77	169.743	0.46	0.42	0.18	
19197.00	90.460	161.980	6265.24	14154.44	-14087.78	2562.25	1636971.41	14252298.66	39°14'53.4407"N	81°00'43.8102"W	14318.89	169.692	0.05	0.00	0.05	
19292.00	90.400	162.280	6264.53	14249.42	-14178.19	2591.40	1637000.55	14252208.29	39°14'52.5471"N	81°00'43.4396"W	14413.07	169.642	0.32	-0.06	0.32	
19386.00	90.430	162.020	6263.85	14343.40	-14267.67	2620.22	1637029.35	14252118.85	39°14'51.6628"N	81°00'43.0732"W	14506.27	169.594	0.28	0.03	-0.28	

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# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

## WELLPATH DATA (271 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
19481.00	89.880	161.930	6263.59	14438.39	-14358.00	2649.61	1637058.74	14252026.55	39°14'50.7700"N	81°00'42.6994"W	14600.43	169.544	0.59	-0.58	-0.09	
19576.00	89.910	161.830	6263.77	14533.38	-14448.29	2679.16	1637088.27	14251938.30	39°14'49.8777"N	81°00'42.3237"W	14694.59	169.495	0.11	0.03	-0.11	
19671.00	89.850	162.350	6263.96	14628.36	-14538.69	2708.37	1637117.47	14251847.94	39°14'48.9842"N	81°00'41.9522"W	14788.80	169.447	0.55	-0.06	0.55	
19766.00	90.030	161.340	6264.06	14723.35	-14628.96	2737.97	1637147.06	14251757.70	39°14'48.0921"N	81°00'41.5758"W	14882.97	169.399	1.08	0.19	-1.06	
19861.00	89.860	160.600	6264.16	14818.35	-14718.76	2768.95	1637176.03	14251667.93	39°14'47.2045"N	81°00'41.1819"W	14976.95	169.348	0.80	-0.19	-0.78	
19956.00	89.910	160.810	6264.36	14913.34	-14808.43	2800.34	1637209.40	14251576.31	39°14'46.3183"N	81°00'40.7828"W	15070.88	169.292	0.23	0.06	0.22	
20050.00	89.880	160.560	6264.53	15007.34	-14897.14	2831.43	1637240.48	14251489.63	39°14'45.4416"N	81°00'40.3874"W	15163.63	169.238	0.27	-0.03	-0.27	
20145.00	89.660	160.930	6264.92	15102.34	-14986.82	2862.76	1637271.80	14251399.98	39°14'44.5552"N	81°00'39.9891"W	15257.79	169.186	0.45	-0.23	0.39	
20240.00	89.630	160.860	6265.50	15197.34	-15076.59	2893.85	1637302.88	14251310.25	39°14'43.6680"N	81°00'39.5938"W	15351.80	169.135	0.08	-0.03	-0.07	
20335.00	89.680	160.830	6266.07	15292.34	-15166.33	2925.02	1637334.04	14251220.55	39°14'42.7811"N	81°00'39.1974"W	15445.81	169.084	0.07	0.06	-0.03	
20430.00	89.660	161.030	6266.61	15387.34	-15256.11	2956.06	1637365.06	14251130.80	39°14'41.8937"N	81°00'38.8028"W	15539.86	169.034	0.21	-0.03	0.21	
20525.00	89.750	160.990	6267.10	15482.33	-15345.94	2986.97	1637395.96	14251041.01	39°14'41.0059"N	81°00'38.4097"W	15633.93	168.986	0.10	0.09	-0.04	
20620.00	89.680	160.900	6267.50	15577.33	-15435.73	3017.99	1637426.97	14250951.25	39°14'40.1184"N	81°00'38.0154"W	15728.00	168.937	0.13	-0.06	-0.09	
20715.00	89.690	160.900	6268.12	15672.33	-15525.50	3049.07	1637458.04	14250861.52	39°14'39.2312"N	81°00'37.6201"W	15822.07	168.889	0.03	0.03	0.00	
20810.00	89.660	160.800	6268.68	15767.33	-15615.24	3080.24	1637489.19	14250771.81	39°14'38.3442"N	81°00'37.2239"W	15916.14	168.841	0.11	-0.03	-0.11	
20905.00	89.690	160.860	6269.20	15862.33	-15704.97	3111.43	1637520.37	14250682.12	39°14'37.4574"N	81°00'36.8273"W	16010.22	168.794	0.07	0.03	0.06	
21000.00	89.750	160.930	6269.67	15957.33	-15794.74	3142.53	1637551.45	14250592.39	39°14'36.5702"N	81°00'36.4320"W	16104.32	168.747	0.10	0.06	0.07	
21095.00	89.660	160.840	6270.16	16052.32	-15884.50	3173.63	1637582.55	14250502.66	39°14'35.6830"N	81°00'36.0364"W	16198.43	168.701	0.13	-0.09	-0.09	
21189.00	89.600	160.850	6270.76	16146.32	-15973.29	3204.48	1637613.38	14250413.91	39°14'34.8055"N	81°00'35.6443"W	16291.56	168.656	0.06	-0.06	0.01	
21284.00	89.380	160.740	6271.61	16241.32	-16063.00	3235.73	1637644.82	14250324.23	39°14'33.9188"N	81°00'35.2470"W	16385.66	168.611	0.26	-0.23	-0.13	
21379.00	89.420	160.910	6272.60	16336.31	-16152.73	3266.93	1637675.81	14250234.55	39°14'33.0320"N	81°00'34.8503"W	16479.79	168.566	0.18	0.04	0.18	
21475.00	89.420	160.860	6273.57	16432.31	-16243.43	3298.36	1637707.23	14250143.88	39°14'32.1356"N	81°00'34.4506"W	16574.93	168.522	0.05	0.00	-0.05	
21569.00	89.480	160.780	6274.48	16526.30	-16332.21	3329.24	1637738.10	14250055.14	39°14'31.2582"N	81°00'34.0580"W	16668.08	168.478	0.11	0.06	-0.09	
21664.00	89.380	160.920	6275.42	16621.30	-16421.95	3360.41	1637769.25	14249965.43	39°14'30.3712"N	81°00'33.6618"W	16762.24	168.435	0.18	-0.11	0.15	
21759.00	90.000	161.030	6275.94	16716.29	-16511.78	3391.37	1637800.20	14249875.66	39°14'29.4836"N	81°00'33.2681"W	16856.44	168.393	0.66	0.65	0.12	
21854.00	89.880	160.930	6276.04	16811.29	-16601.57	3422.33	1637831.15	14249785.88	39°14'28.5959"N	81°00'32.8745"W	16950.65	168.352	0.16	-0.13	-0.11	
21949.00	89.940	161.020	6276.19	16906.29	-16691.38	3453.30	1637862.10	14249696.11	39°14'27.7083"N	81°00'32.4808"W	17044.87	168.311	0.11	0.06	0.09	
22043.00	89.940	160.800	6276.28	17000.29	-16780.21	3484.05	1637892.84	14249607.32	39°14'26.8303"N	81°00'32.0900"W	17138.09	168.270	0.23	0.00	-0.23	
22138.00	89.600	160.770	6276.66	17095.29	-16869.92	3515.31	1637924.09	14249517.54	39°14'25.9437"N	81°00'31.6925"W	17232.28	168.229	0.36	-0.36	-0.03	
22233.00	89.690	160.820	6277.25	17190.29	-16959.66	3546.46	1637955.25	14249427.94	39°14'25.0566"N	81°00'31.2962"W	17326.50	168.189	0.18	0.09	0.16	

WellPath Data  
 Generated by  
 Antero Resources Corporation  
 10/1/2019 10:00 AM



# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

WELLPATH DATA (271 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
22328.00	89.690	161.000	6277.77	17285.29	-17049.46	3577.47	1637986.23	14249336.18	39°14'24.1693"N	81°00'30.8022"W	17420.74	168.150	0.08	0.00	0.08	
22423.00	89.780	161.240	6278.21	17380.29	-17139.34	3608.21	1638016.95	14249248.33	39°14'23.2808"N	81°00'30.5114"W	17515.03	168.112	0.27	0.09	0.25	
22518.00	89.720	160.970	6276.62	17475.29	-17229.22	3638.98	1638047.71	14249158.48	39°14'22.3925"N	81°00'30.1203"W	17609.32	168.074	0.29	-0.06	-0.28	
22613.00	89.630	160.960	6279.16	17570.29	-17319.03	3669.96	1638078.68	14249068.71	39°14'21.5049"N	81°00'29.7264"W	17703.60	168.036	0.10	-0.09	-0.01	
22708.00	89.660	160.870	6279.75	17665.28	-17408.80	3701.02	1638109.73	14248978.97	39°14'20.6176"N	81°00'29.3315"W	17797.87	167.998	0.10	0.03	-0.00	
22802.00	89.750	160.830	6280.23	17759.28	-17497.60	3731.86	1638140.55	14248890.21	39°14'19.7400"N	81°00'28.9395"W	17891.14	167.960	0.10	0.10	-0.04	
22897.00	89.820	161.220	6280.59	17854.28	-17587.44	3762.75	1638171.43	14248800.41	39°14'18.8521"N	81°00'28.5469"W	17985.45	167.924	0.42	0.07	0.41	
22992.00	89.910	161.130	6280.81	17949.28	-17677.36	3793.40	1638202.07	14248710.53	39°14'17.9634"N	81°00'28.1572"W	18079.79	167.889	0.13	0.09	-0.09	
23087.00	89.050	161.380	6281.68	18044.27	-17767.31	3823.93	1638232.58	14248620.61	39°14'17.0743"N	81°00'27.7691"W	18174.15	167.854	0.94	-0.91	0.26	
23182.00	90.370	161.060	6282.16	18139.27	-17857.25	3854.51	1638263.15	14248530.71	39°14'16.1854"N	81°00'27.3803"W	18268.52	167.820	1.43	1.39	-0.34	
23277.00	90.150	160.990	6281.73	18234.27	-17947.09	3885.40	1638294.03	14248440.91	39°14'15.2975"N	81°00'26.9876"W	18362.85	167.784	0.24	-0.23	-0.07	
23371.00	90.180	160.900	6281.45	18329.27	-18035.94	3916.09	1638324.71	14248352.09	39°14'14.4194"N	81°00'26.5975"W	18456.19	167.750	0.10	0.03	-0.10	
23466.00	90.180	160.910	6281.16	18423.27	-18125.71	3947.17	1638355.77	14248262.36	39°14'13.5321"N	81°00'26.2025"W	18550.51	167.715	0.01	0.00	0.01	
23561.00	90.310	161.200	6280.75	18518.27	-18215.56	3978.01	1638386.60	14248172.54	39°14'12.6440"N	81°00'25.8104"W	18644.87	167.681	0.33	0.14	0.31	
23656.00	90.260	161.060	6280.29	18613.27	-18305.45	4008.74	1638417.31	14248082.88	39°14'11.7556"N	81°00'25.4198"W	18739.26	167.648	0.16	-0.08	-0.15	
23751.00	90.280	161.110	6279.85	18708.26	-18395.33	4039.53	1638448.10	14247992.85	39°14'10.8673"N	81°00'25.0284"W	18833.63	167.615	0.08	0.03	0.05	
23846.00	90.310	161.120	6279.36	18803.26	-18485.21	4070.28	1638478.83	14247903.00	39°14'9.9789"N	81°00'24.6375"W	18928.03	167.582	0.03	0.03	0.01	
23941.00	90.310	161.060	6278.84	18898.26	-18575.08	4101.07	1638509.61	14247813.16	39°14'9.0907"N	81°00'24.2461"W	19022.42	167.550	0.06	0.00	-0.06	
24036.00	90.220	161.000	6278.40	18993.26	-18664.92	4131.95	1638540.48	14247723.36	39°14'8.2028"N	81°00'23.8536"W	19116.81	167.517	0.11	-0.09	-0.06	
24131.00	90.150	160.950	6278.10	19088.26	-18754.73	4162.92	1638571.43	14247633.59	39°14'7.3151"N	81°00'23.4599"W	19211.19	167.485	0.09	-0.07	-0.05	
24225.00	90.120	160.840	6277.88	19182.26	-18843.55	4193.63	1638602.19	14247544.80	39°14'6.4372"N	81°00'23.0689"W	19304.57	167.453	0.12	-0.03	-0.12	
24320.00	90.220	161.110	6277.59	19277.26	-18933.36	4224.65	1638633.14	14247455.03	39°14'5.5496"N	81°00'22.6752"W	19398.97	167.421	0.30	0.11	0.28	
24415.00	90.180	161.290	6277.26	19372.26	-19023.30	4255.27	1638663.74	14247365.13	39°14'4.6607"N	81°00'22.2861"W	19493.41	167.391	0.19	-0.04	0.19	
24509.00	90.150	160.870	6276.99	19466.26	-19112.22	4285.74	1638694.21	14247275.25	39°14'3.7819"N	81°00'21.8987"W	19588.84	167.361	0.45	-0.03	-0.45	
24604.00	90.120	161.090	6276.77	19561.26	-19202.03	4316.70	1638725.16	14247186.47	39°14'2.8942"N	81°00'21.5061"W	19681.26	167.330	0.23	-0.03	0.23	
24699.00	90.150	161.130	6276.54	19656.26	-19291.91	4347.46	1638755.90	14247096.62	39°14'2.0058"N	81°00'21.1142"W	19775.70	167.300	0.05	0.03	0.04	
24794.00	90.030	160.880	6276.39	19751.26	-19381.74	4378.38	1638786.81	14247006.83	39°14'1.1180"N	81°00'20.7211"W	19870.13	167.270	0.29	-0.13	-0.26	
24889.00	90.250	161.030	6276.16	19846.26	-19471.54	4409.36	1638817.80	14246917.07	39°14'0.2305"N	81°00'20.3271"W	19964.56	167.240	0.28	0.23	0.16	
24983.00	90.180	161.350	6275.81	19940.26	-19560.52	4439.69	1638848.10	14246828.12	39°13'59.3511"N	81°00'19.9419"W	20058.03	167.212	0.35	-0.07	0.34	
25054.00	90.180	161.320	6275.69	20011.25	-19627.78	4462.41	1638879.81	14246739.89	39°13'58.6862"N	81°00'19.5531"W	20128.66	167.191	0.04	0.00	-0.04	



# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

WELLPATH DATA (271 stations) † = interpolated, ‡ = extrapolated station																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
25079.00‡	90.180	161.320	6275.51	20036.25	-19651.47	4470.42	1638878.81	14246737.21	39°13'58.4522"N	81°00'19.5513"W	20153.53	167.184	0.00	0.00	0.00	Projected MD at TD: 25079'

DIRECTIONAL DIFFICULTY INDEX			
Directional Difficulty Index @ TD = 7.39		Reference: IADC/SPE 59196	
Values	Wellpath characterized as:	Values	Wellpath characterized as:
< 6.0	Relatively short or simple profiles with low tortuosity	6.4-6.8	Longer with relatively tortuous well paths
< 6.0-6.4	Shorter with high tortuosity or longer with lower tortuosity	> 6.8	Long tortuous profiles, high degree of difficulty

HOLE & CASING SECTIONS - Ref Wellbore: Shipe Unit 1H AWB Ref Wellpath: Shipe Unit 1H AWP Proj: 25079'									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	30.00	130.00	100.00	30.00	130.00	0.00	0.00	0.38	-0.09
17.5in Open Hole	130.00	508.00	378.00	130.00	507.99	0.38	-0.09	1.07	-1.13
13.375in Casing Surface	30.00	488.00	458.00	30.00	487.99	0.00	0.00	1.24	-0.90
12.25in Open Hole	508.00	5804.00	5296.00	507.99	5284.26	1.07	-1.13	-1834.20	-1192.89
9.625in Casing Intermediate	30.00	5774.00	5744.00	30.00	5255.23	0.00	0.00	-1827.57	-1189.27
8.5in Open Hole	5804.00	25079.00	19275.00	5284.26	6275.51	-1834.20	-1192.89	-19651.47	4470.42
5.5in Casing Production	30.00	25059.00	25029.00	30.00	6275.57	0.00	0.00	-19632.52	4464.01

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# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Shipe Unit 1H POE Rev-2	6150.00	-2592.52	-1383.22	1633027.53	14263789.30	39°16'47.0489"N	81°01'34.0033"W	point
Shipe Unit 1H LP Rev-2	6197.00	-2804.59	-1310.21	1633100.50	14263577.32	39°16'44.9531"N	81°01'33.0741"W	point
Shipe Unit 1H BHL Rev-2	6290.33	-19658.26	4491.61	1638899.99	14246730.42	39°13'58.3850"N	81°00'19.2821"W	point
Shipe Unit 1H 50' L/R Hard Line	7000.00	-11125.39	1554.20	1635963.76	14255259.86	39°15'22.7188"N	81°00'56.6302"W	rectangle
2D Rectangle 18048.6 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Shipe Unit 1H AWB Ref Wellpath: Shipe Unit 1H AWP Proj: 25079'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	380.00	Gyrodata 2015 - GC+WR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-380')	Shipe Unit 1H AWB	3/7/2025
380.00	5740.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (380')(595'-5740')	Shipe Unit 1H AWB	3/7/2025
5740.00	25079.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	03 BH Lucida <8-1/2"> (5740')(5819'-25054')	Shipe Unit 1H AWB	3/7/2025

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# Actual Wellpath Report

Shipe Unit 1H AWP Proj: 25079'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Shipe Unit 1H
Field	Ritchie	API	47-085-10539-0000
Facility	Husher Pad	Wellbore	Shipe Unit 1H AWB
Slot	Slot E		

## COMMENTS

### Wellpath general comments

API: 47-085-10539-0000  
BH Job #: 112579069  
Rig: H&P 519  
Duration: 4/12/2025-4/16/2025  
Gyrodax MS Gyro <17-1/2"> (100'-380')  
APS EM <12-1/4"> (380')(595'-5740')  
BH Lucida <8-1/2"> (5740')(5819'-25054')  
Sycamore: 6640' MD  
Middlesex: 6799' MD  
Burkett: 6998' MD  
Tully: 7053' MD  
Marcellus POE: 7063' MD  
Projected MD at TD: 25079'

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