



# ANTERO RESOURCES CORPORATION



Location: Wetzel County, WV  
 Field: Wetzel  
 Facility: Journeyman Pad

Slot: Slot D  
 Well: Ryland Unit 2H  
 Wellbore: Ryland Unit 2H PWB

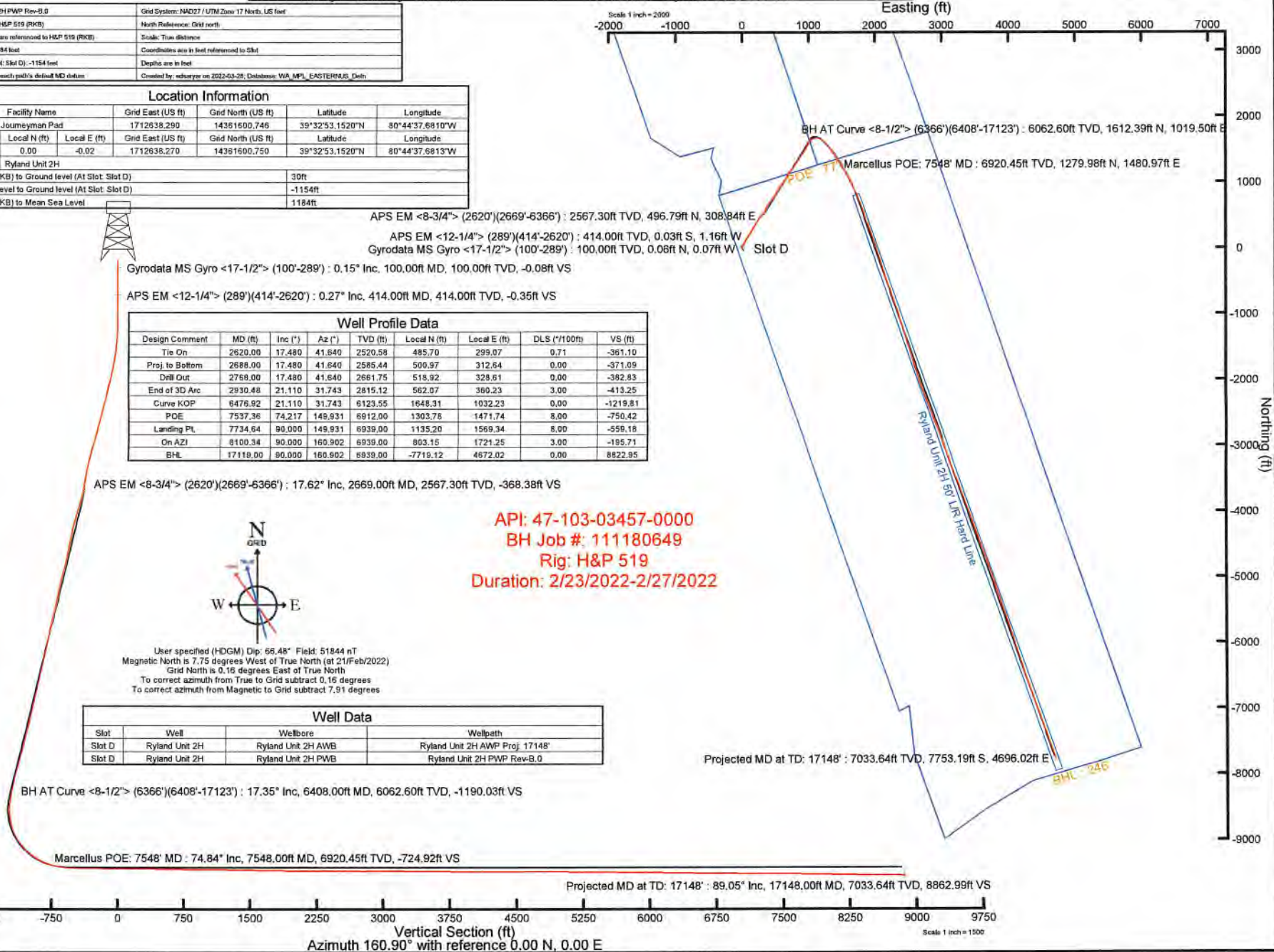
Plot reference wellpath is Ryland Unit 2H PWB Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US Feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid North
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Gas Level: 1184 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot D): -1154 feet	Depths are in feet
Offset wellpath MDs are referenced to each pad's default MD station	Created by: sethcyper on 2022-03-29, Database: WA_MPL_EASTERNUS_Coln

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Journeyman Pad	1712638.290	14361600.746	39°32'53.1520"N	80°44'37.6810"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot D	0.00	-0.02	1712638.270	14361600.750
			Latitude	Longitude
			39°32'53.1520"N	80°44'37.6813"W
Comment	Ryland Unit 2H			
H&P 519 (RKB) to Ground level (At Slot Slot D)	30ft			
Mean Sea Level to Ground level (At Slot Slot D)	-1154ft			
H&P 519 (RKB) to Mean Sea Level	1184ft			

Scale 1 inch = 1000'

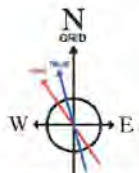
True Vertical Depth (ft)

Northing (ft)



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	2620.00	17.480	41.840	2520.58	485.70	299.07	0.71	-361.10
Proj. to Bottom	2688.00	17.480	41.840	2585.44	500.97	312.64	0.00	-371.09
Drill Out	2768.00	17.480	41.840	2661.75	-518.92	328.81	0.00	-382.83
End of 3D Arc	2930.48	21.110	31.743	2815.12	562.07	390.23	3.00	-413.25
Curve KOP	8476.92	21.110	31.743	6123.55	1648.31	1032.23	0.00	-1219.81
PDE	7537.36	74.217	149.931	6912.00	1303.76	1471.74	8.00	-750.42
Landing PL	7734.64	90.000	149.931	6939.00	1135.20	1569.34	8.00	-559.18
On AZJ	8100.34	90.000	160.902	6939.00	803.15	1721.25	3.00	-195.71
BHL	17119.00	90.000	160.902	6939.00	-7719.12	4672.02	0.00	8822.95

API: 47-103-03457-0000  
 BH Job #: 111180649  
 Rig: H&P 519  
 Duration: 2/23/2022-2/27/2022



User specified (HDGM) Dip: 66.48° Field: 51844 nT  
 Magnetic North is 7.75 degrees West of True North (at 21/Feb/2022)  
 Grid North is 0.16 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.16 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.91 degrees

Well Data			
Slot	Well	Wellbore	Wellpath
Slot D	Ryland Unit 2H	Ryland Unit 2H AWB	Ryland Unit 2H AWP Proj: 17148'
Slot D	Ryland Unit 2H	Ryland Unit 2H PWB	Ryland Unit 2H PWP Rev-B.0

Vertical Section (ft)  
 Azimuth 160.90° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500'



## Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

### REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999606	Report Generated	28/Mar/2022 at 17:18
Convergence at slot	0.16° East	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	0.00	-0.02	1712638.27	14361600.75	39°32'53.1520"N	80°44'37.6813"W
Facility Reference Pt			1712638.29	14361600.75	39°32'53.1520"N	80°44'37.6810"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	1184.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1184.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot D)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.90°



# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Ryland Unit 2H
Field	Wetzel		API	47-103-03457-0000
Facility	Journeyman Pad		Wellbore	Ryland Unit 2H AWP
Slot	Slot D			

WELLPATH DATA (190 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination [°]	Azimuth [°]	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00	0.00	312.590	0.00	0.00	0.00	0.00	1712638.27	14361600.75	39°32'53.1520"N	80°44'37.6813"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	312.590	30.00	0.00	0.00	0.00	1712638.27	14361600.75	39°32'53.1520"N	80°44'37.6813"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.150	312.590	100.00	-0.08	0.06	-0.07	1712638.20	14361600.81	39°32'53.1527"N	80°44'37.6821"W	0.09	312.590	0.21	0.21	0.00	Gyrodata MS Gyro <17-1/2"> (100'-289')
200.00	0.190	330.340	200.00	-0.36	0.29	-0.25	1712638.02	14361601.04	39°32'53.1550"N	80°44'37.6844"W	0.38	320.158	0.07	0.04	17.75	
289.00	0.360	247.700	289.00	-0.49	0.32	-0.58	1712637.69	14361601.07	39°32'53.1552"N	80°44'37.6886"W	0.66	298.745	0.43	0.19	-92.85	
414.00	0.270	227.790	414.00	-0.35	-0.03	-1.16	1712637.11	14361600.72	39°32'53.1518"N	80°44'37.6961"W	1.16	268.514	0.11	-0.07	-15.93	APS EM <12-1/4"> (289')(414'-2620')
596.00	0.240	198.100	596.00	0.12	-0.68	-1.60	1712636.68	14361600.07	39°32'53.1454"N	80°44'37.7017"W	1.73	246.896	0.07	-0.02	-16.31	
688.00	1.690	56.620	687.98	-0.06	-0.12	-0.52	1712637.75	14361600.63	39°32'53.1509"N	80°44'37.6879"W	0.54	257.347	2.05	1.58	-153.78	
779.00	4.150	48.420	778.86	-1.65	2.81	3.06	1712641.33	14361603.56	39°32'53.1797"N	80°44'37.6421"W	4.15	47.491	2.74	2.70	-9.01	
870.00	5.990	35.840	869.50	-5.64	8.84	8.31	1712646.57	14361609.59	39°32'53.2392"N	80°44'37.5749"W	12.13	43.210	2.35	2.02	-13.82	
962.00	7.600	31.250	960.85	-12.28	17.94	14.27	1712652.54	14361618.68	39°32'53.3289"N	80°44'37.4984"W	22.92	38.514	1.85	1.75	-4.99	
1052.00	9.620	25.480	1049.84	-21.43	29.81	20.60	1712658.86	14361630.55	39°32'53.4461"N	80°44'37.4173"W	36.24	34.639	2.44	2.24	-6.41	
1147.00	12.840	23.670	1143.00	-34.84	46.65	28.25	1712666.51	14361647.38	39°32'53.6123"N	80°44'37.3189"W	54.54	31.198	3.41	3.39	-1.91	
1241.00	14.850	24.090	1234.27	-51.29	67.22	37.36	1712675.62	14361667.94	39°32'53.8153"N	80°44'37.2019"W	76.90	29.068	2.14	2.14	0.45	
1336.00	17.410	26.440	1325.52	-70.12	91.06	48.66	1712685.91	14361691.77	39°32'54.0506"N	80°44'37.0568"W	103.25	28.120	2.78	2.69	2.47	
1431.00	20.000	30.090	1415.50	-90.70	117.85	63.14	1712701.38	14361718.55	39°32'54.3150"N	80°44'36.8710"W	133.70	28.180	2.99	2.73	3.84	
1525.00	22.060	30.920	1503.23	-112.55	146.90	80.27	1712718.51	14361747.59	39°32'54.6017"N	80°44'36.6513"W	167.40	28.653	2.21	2.19	0.88	
1620.00	23.380	33.350	1590.86	-135.50	177.95	99.80	1712738.03	14361778.63	39°32'54.9080"N	80°44'36.4008"W	204.03	29.284	1.70	1.39	2.56	
1715.00	23.020	33.140	1678.18	-158.36	209.25	120.32	1712758.54	14361809.92	39°32'55.2168"N	80°44'36.1377"W	241.38	29.898	0.39	-0.38	-0.22	
1810.00	21.940	31.620	1765.96	-180.98	239.92	139.78	1712777.99	14361840.68	39°32'55.5193"N	80°44'35.8882"W	277.67	30.225	1.29	-1.14	-1.60	
1904.00	21.510	30.720	1853.28	-203.21	269.69	157.79	1712796.00	14361870.33	39°32'55.8130"N	80°44'35.6572"W	312.46	30.331	0.58	-0.46	-0.96	
1999.00	21.560	29.800	1941.65	-225.92	299.81	175.36	1712813.56	14361900.44	39°32'56.1102"N	80°44'35.4318"W	347.33	30.323	0.36	0.05	-0.97	
2093.00	21.410	28.400	2029.12	-248.87	329.89	192.10	1712830.30	14361930.51	39°32'56.4070"N	80°44'35.2170"W	381.75	30.213	0.57	-0.16	-1.49	
2188.00	22.400	27.960	2117.26	-272.92	361.13	208.84	1712847.02	14361961.74	39°32'56.7153"N	80°44'35.0022"W	417.17	30.040	1.06	1.04	-0.46	
2283.00	22.120	31.780	2205.19	-296.53	392.33	226.74	1712864.93	14361992.92	39°32'57.0231"N	80°44'34.7725"W	453.14	30.026	1.55	-0.29	4.02	
2377.00	22.450	36.540	2292.17	-317.83	421.79	246.75	1712884.93	14362022.38	39°32'57.3138"N	80°44'34.5160"W	488.67	30.328	1.95	0.35	5.06	
2472.00	20.870	38.810	2380.46	-337.06	449.55	268.16	1712906.32	14362050.13	39°32'57.5875"N	80°44'34.2417"W	523.46	30.816	1.88	-1.66	2.39	
2567.00	17.850	41.430	2470.08	-353.22	473.66	288.41	1712926.56	14362074.23	39°32'57.8252"N	80°44'33.9823"W	554.56	31.337	3.31	-3.18	2.76	
2620.00	17.480	41.640	2520.58	-361.10	485.70	299.07	1712937.22	14362086.26	39°32'57.9439"N	80°44'33.8458"W	570.39	31.623	0.71	-0.70	0.40	
2669.00	17.620	41.120	2567.30	-368.38	496.79	308.84	1712946.98	14362097.34	39°32'58.0532"N	80°44'33.7207"W	584.96	31.868	0.43	0.29	-1.06	APS EM <8-3/4"> (2620')(2669'-6366')



# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

WELLPATH DATA (190 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
2764.00	19.840	33.580	2657.28	-385.30	521.06	327.21	1712965.35	14362121.60	39°32'58.2926"N	80°44'33.4852"W	615.28	32.128	3.45	2.34	-7.94	
2858.00	22.190	29.330	2745.03	-406.76	549.83	344.74	1712982.87	14362150.36	39°32'58.5764"N	80°44'33.2605"W	648.96	32.087	2.98	2.50	-4.52	
2953.00	24.060	24.850	2832.40	-432.61	583.05	361.66	1712999.79	14362183.57	39°32'58.9042"N	80°44'33.0432"W	686.11	31.811	2.70	1.97	-4.72	
3048.00	22.980	25.170	2919.50	-459.83	617.40	377.69	1713015.81	14362217.91	39°32'59.2433"N	80°44'32.8373"W	723.77	31.456	1.14	-1.14	0.34	
3143.00	21.110	29.900	3007.56	-484.33	649.02	394.11	1713032.22	14362249.52	39°32'59.5554"N	80°44'32.6266"W	759.31	31.267	2.71	-1.97	4.98	
3241.00	19.880	36.780	3099.37	-505.26	677.67	412.88	1713050.99	14362278.15	39°32'59.8380"N	80°44'32.3858"W	793.55	31.353	2.76	-1.26	7.02	
3336.00	20.390	37.770	3188.56	-523.37	703.69	432.69	1713070.79	14362304.16	39°33'0.0946"N	80°44'32.1320"W	826.08	31.587	0.65	0.54	1.04	
3430.00	21.200	33.730	3276.44	-542.59	730.77	452.16	1713090.25	14362331.23	39°33'0.3617"N	80°44'31.8825"W	859.35	31.747	1.75	0.86	-4.30	
3525.00	20.490	36.970	3365.23	-562.25	758.34	471.70	1713109.78	14362358.79	39°33'0.6336"N	80°44'31.6320"W	893.08	31.882	1.43	-0.75	3.41	
3619.00	20.590	35.940	3453.25	-580.90	784.87	491.30	1713129.37	14362385.31	39°33'0.8952"N	80°44'31.3809"W	925.96	32.045	0.40	0.11	-1.10	
3714.00	20.660	31.780	3542.17	-601.05	812.64	509.93	1713148.00	14362413.07	39°33'1.1692"N	80°44'31.1420"W	959.38	32.108	1.54	0.07	-4.38	
3809.00	20.860	27.190	3631.01	-623.31	841.94	526.48	1713164.55	14362442.35	39°33'1.4582"N	80°44'30.9296"W	993.00	32.019	1.73	0.21	-4.83	
3904.00	19.780	29.600	3720.09	-645.61	870.96	542.15	1713180.21	14362471.37	39°33'1.7446"N	80°44'30.7285"W	1025.92	31.901	1.44	-1.14	2.54	
3999.00	19.740	36.240	3809.51	-665.35	897.88	559.58	1713197.63	14362498.27	39°33'2.0102"N	80°44'30.5051"W	1057.98	31.932	2.36	-0.04	6.99	
4094.00	20.070	34.080	3898.84	-684.24	924.32	578.20	1713216.24	14362524.71	39°33'2.2710"N	80°44'30.2664"W	1090.27	32.028	0.85	0.35	-2.27	
4189.00	20.480	30.160	3987.96	-704.86	952.19	595.68	1713233.72	14362552.57	39°33'2.5460"N	80°44'30.0422"W	1123.17	32.030	1.49	0.43	-4.13	
4283.00	20.760	32.820	4075.94	-725.86	980.41	612.97	1713251.00	14362580.77	39°33'2.8244"N	80°44'29.8204"W	1156.26	32.014	1.04	0.30	2.83	
4378.00	20.530	38.650	4164.84	-745.14	1007.57	632.51	1713270.53	14362607.93	39°33'3.0923"N	80°44'29.5701"W	1189.65	32.119	2.18	-0.24	6.14	
4473.00	20.530	36.470	4253.81	-763.45	1033.98	652.81	1713290.82	14362634.32	39°33'3.3527"N	80°44'29.3099"W	1222.82	32.267	0.80	0.00	-2.29	
4567.00	18.890	29.030	4342.32	-782.93	1060.55	670.00	1713308.00	14362660.88	39°33'3.6147"N	80°44'29.0895"W	1254.45	32.283	3.19	-1.74	-7.91	
4662.00	18.910	29.170	4432.19	-803.44	1087.43	684.96	1713322.96	14362687.75	39°33'3.8800"N	80°44'28.8975"W	1285.18	32.206	0.05	0.02	0.15	
4757.00	20.220	33.490	4521.71	-823.66	1114.57	701.53	1713339.52	14362714.88	39°33'4.1478"N	80°44'28.6850"W	1316.97	32.187	2.05	1.38	4.55	
4852.00	20.300	32.630	4610.83	-843.84	1142.14	719.47	1713357.46	14362742.44	39°33'4.4197"N	80°44'28.4549"W	1349.86	32.208	0.32	0.08	-0.91	
4947.00	20.780	33.840	4699.79	-864.20	1170.02	737.74	1713375.72	14362770.30	39°33'4.6947"N	80°44'28.2207"W	1383.18	32.233	0.67	0.51	1.27	
5041.00	21.030	35.880	4787.61	-883.93	1197.53	756.91	1713394.88	14362797.81	39°33'4.9661"N	80°44'27.9749"W	1416.69	32.295	0.82	0.27	2.17	
5136.00	19.960	30.880	4876.60	-904.14	1225.26	775.23	1713413.19	14362825.53	39°33'5.2397"N	80°44'27.7401"W	1449.91	32.322	2.16	-1.13	-5.26	
5230.00	20.350	31.310	4964.84	-924.88	1253.00	791.96	1713429.91	14362853.25	39°33'5.5133"N	80°44'27.5255"W	1482.29	32.295	0.44	0.41	0.46	
5325.00	21.340	36.520	5053.63	-945.17	1281.00	810.83	1713448.78	14362881.25	39°33'5.7896"N	80°44'27.2836"W	1516.05	32.332	2.21	1.04	5.48	
5419.00	20.680	34.210	5141.38	-964.74	1308.48	830.34	1713468.28	14362908.71	39°33'6.0605"N	80°44'27.0335"W	1549.70	32.399	1.13	-0.70	-2.46	
5514.00	19.520	31.920	5230.60	-984.75	1335.82	848.16	1713486.10	14362936.04	39°33'6.3303"N	80°44'26.8049"W	1582.34	32.413	1.48	-1.22	-2.41	



# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

### WELLPATH DATA (190 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
5609.00	21.210	32.070	5319.66	-1005.51	1363.86	865.68	1713503.61	14362964.07	39°33'6.6068"N	80°44'26.5803"W	1615.40	32.405	1.78	1.78	0.16	
5703.00	23.330	35.800	5406.64	-1026.88	1393.37	885.60	1713523.52	14362993.57	39°33'6.8979"N	80°44'26.3249"W	1650.99	32.439	2.71	2.26	3.97	
5798.00	22.060	32.660	5494.29	-1048.74	1423.65	906.23	1713544.14	14363023.83	39°33'7.1966"N	80°44'26.0604"W	1687.61	32.479	1.85	-1.34	-3.31	
5893.00	22.600	33.430	5582.17	-1070.88	1453.90	925.92	1713563.82	14363054.07	39°33'7.4950"N	80°44'25.8080"W	1723.70	32.491	0.65	0.57	0.81	
5988.00	24.340	35.050	5669.30	-1093.48	1485.16	947.22	1713585.11	14363085.33	39°33'7.8034"N	80°44'25.5349"W	1761.51	32.529	1.95	1.83	1.71	
6082.00	22.760	31.260	5755.48	-1116.40	1516.57	967.78	1713605.67	14363116.72	39°33'8.1132"N	80°44'25.2712"W	1799.05	32.544	2.33	-1.68	-4.03	
6177.00	20.160	24.660	5843.90	-1139.96	1547.16	984.15	1713622.03	14363147.30	39°33'8.4151"N	80°44'25.0611"W	1833.65	32.460	3.73	-2.74	-6.95	
6272.00	18.790	26.300	5933.46	-1162.53	1575.76	997.76	1713635.64	14363175.89	39°33'8.6974"N	80°44'24.8863"W	1865.09	32.342	1.55	-1.44	1.73	
6366.00	18.220	32.930	6022.61	-1182.20	1601.67	1012.46	1713650.33	14363201.78	39°33'8.9530"N	80°44'24.6977"W	1894.84	32.298	2.32	-0.61	7.05	
6408.00	17.350	33.680	6062.60	-1190.03	1612.39	1019.50	1713657.37	14363212.50	39°33'9.0588"N	80°44'24.6074"W	1907.67	32.305	2.14	-2.07	1.79	BH AT Curve <8-1/2"> (6366)-(6408-17123')
6466.00	16.660	37.920	6118.07	-1199.79	1626.15	1029.41	1713667.27	14363226.25	39°33'9.1945"N	80°44'24.4804"W	1924.59	32.335	2.45	-1.19	7.31	
6561.00	20.500	56.100	6208.18	-1211.46	1646.19	1051.61	1713689.46	14363246.29	39°33'9.3919"N	80°44'24.1962"W	1953.42	32.571	7.27	4.04	19.14	
6656.00	21.080	71.220	6297.05	-1215.62	1660.98	1081.62	1713719.46	14363261.07	39°33'9.5372"N	80°44'23.8126"W	1982.11	33.072	5.67	0.61	15.92	
6750.00	22.530	90.850	6384.44	-1209.37	1666.16	1115.67	1713753.50	14363266.25	39°33'9.5875"N	80°44'23.3776"W	2005.20	33.807	7.87	1.54	20.88	
6845.00	25.390	103.810	6471.31	-1192.08	1661.03	1153.68	1713791.50	14363261.12	39°33'9.5356"N	80°44'22.8926"W	2022.37	34.782	6.29	3.01	13.64	
6940.00	31.080	117.520	6555.06	-1163.14	1644.80	1195.29	1713833.08	14363244.90	39°33'9.3741"N	80°44'22.3621"W	2033.25	36.006	9.05	5.99	14.43	
6975.00†	32.989	123.494	6584.74	-1149.00	1635.37	1211.25	1713849.04	14363235.47	39°33'9.2804"N	80°44'22.1586"W	2035.08	36.526	10.56	5.45	17.07	Sycamore: 6975' MD
7035.00	36.830	132.320	6633.96	-1120.20	1614.23	1238.20	1713875.98	14363214.34	39°33'9.0707"N	80°44'21.8154"W	2034.42	37.490	10.56	6.40	14.71	
7129.00	43.080	140.280	6706.03	-1065.32	1570.49	1279.61	1713917.37	14363170.62	39°33'8.6373"N	80°44'21.2883"W	2025.80	39.173	8.58	6.65	8.47	
7136.00†	43.588	140.485	6711.12	-1060.82	1566.79	1282.67	1713920.44	14363166.92	39°33'8.6006"N	80°44'21.2493"W	2024.87	39.306	7.53	7.26	2.93	Middlesex: 7136' MD
7224.00	50.000	142.780	6771.34	-1000.29	1516.49	1322.41	1713960.16	14363116.64	39°33'8.1023"N	80°44'20.7439"W	2012.09	41.089	7.53	7.29	2.61	
7290.00†	55.165	144.216	6811.43	-950.28	1474.36	1353.56	1713991.29	14363074.52	39°33'7.6850"N	80°44'20.3478"W	2001.46	42.554	8.01	7.83	2.18	Burkett: 7290' MD
7319.00	57.440	144.790	6827.52	-927.14	1454.72	1367.57	1714005.30	14363054.89	39°33'7.4905"N	80°44'20.1697"W	1996.61	43.231	8.01	7.84	1.98	
7344.00†	59.263	145.379	6840.64	-906.66	1437.26	1379.75	1714017.47	14363037.45	39°33'7.3177"N	80°44'20.0149"W	1992.34	43.830	7.56	7.29	2.36	Tully: 7344' MD
7414.00	64.380	146.920	6873.68	-847.01	1386.03	1414.09	1714051.80	14362986.23	39°33'6.8103"N	80°44'19.5784"W	1980.08	45.574	7.56	7.31	2.20	
7508.00	71.590	148.030	6908.90	-762.30	1312.59	1460.89	1714098.59	14362912.82	39°33'6.0831"N	80°44'18.9836"W	1963.95	48.061	7.75	7.67	1.18	
7548.00†	74.843	148.739	6920.45	-724.92	1279.98	1480.97	1714118.65	14362880.22	39°33'5.7603"N	80°44'18.7285"W	1957.45	49.164	8.31	8.13	1.77	Marcellus POE: 7548' MD
7603.00	79.320	149.680	6932.74	-672.43	1233.94	1508.40	1714146.07	14362834.20	39°33'5.3045"N	80°44'18.3801"W	1948.81	50.715	8.31	8.14	1.71	
7698.00	86.860	149.780	6944.16	-579.98	1152.55	1555.90	1714193.56	14362752.84	39°33'4.4987"N	80°44'17.7766"W	1936.28	53.471	7.94	7.94	0.11	
7792.00	89.080	151.840	6947.49	-487.50	1070.54	1601.71	1714239.35	14362670.87	39°33'3.6869"N	80°44'17.1949"W	1926.54	56.242	3.22	2.36	2.19	



# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

## WELLPATH DATA (190 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
7887.00	88.920	154.090	6949.15	-393.43	985.94	1644.88	1714282.50	14362586.30	39°33'2.8495"N	80°44'16.6469"W	1917.74	59.062	2.37	-0.17	2.37	
7982.00	89.080	154.230	6950.81	-299.10	900.45	1686.28	1714323.88	14362500.85	39°33'2.0034"N	80°44'16.1215"W	1911.64	61.898	0.22	0.17	0.15	
8077.00	88.710	156.450	6952.64	-204.57	814.14	1725.91	1714363.50	14362414.57	39°33'1.1492"N	80°44'15.6189"W	1908.29	64.746	2.37	-0.39	2.34	
8171.00	89.080	158.420	6954.45	-110.77	727.36	1761.97	1714399.54	14362327.82	39°33'0.2905"N	80°44'15.1617"W	1906.20	67.569	2.13	0.39	2.10	
8266.00	90.000	160.950	6955.21	-15.80	638.28	1794.95	1714432.51	14362238.77	39°32'59.4091"N	80°44'14.7441"W	1905.06	70.425	2.83	0.97	2.66	
8361.00	89.720	160.710	6955.45	79.20	548.55	1826.14	1714463.69	14362149.08	39°32'58.5214"N	80°44'14.3492"W	1906.75	73.281	0.39	-0.29	-0.25	
8456.00	89.260	161.670	6956.29	174.19	458.62	1856.77	1714494.31	14362059.19	39°32'57.6318"N	80°44'13.9615"W	1912.58	76.126	1.12	-0.48	1.01	
8550.00	90.310	158.450	6956.64	268.17	370.27	1888.83	1714526.35	14361970.88	39°32'56.7577"N	80°44'13.5557"W	1924.78	78.909	3.60	1.12	-3.43	
8645.00	89.170	159.810	6957.08	363.12	281.51	1922.67	1714560.18	14361882.15	39°32'55.8794"N	80°44'13.1269"W	1943.17	81.670	1.87	-1.20	1.43	
8740.00	89.230	159.660	6958.40	458.09	192.40	1955.57	1714593.07	14361793.07	39°32'54.9978"N	80°44'12.7103"W	1965.01	84.381	0.17	0.06	-0.16	
8834.00	88.890	160.780	6959.94	552.07	103.96	1987.38	1714624.86	14361704.67	39°32'54.1228"N	80°44'12.3076"W	1990.09	87.006	1.25	-0.36	1.19	
8929.00	89.200	163.380	6961.53	647.03	13.59	2016.60	1714654.07	14361614.33	39°32'53.2288"N	80°44'11.9379"W	2016.65	89.614	2.76	0.33	2.74	
9023.00	89.020	160.390	6962.99	740.99	-75.73	2045.82	1714683.28	14361525.05	39°32'52.3452"N	80°44'11.5682"W	2047.22	92.120	3.19	-0.19	-3.18	
9118.00	89.940	162.290	6963.85	835.98	-165.73	2076.21	1714713.66	14361435.09	39°32'51.4548"N	80°44'11.1836"W	2082.82	94.564	2.22	0.97	2.00	
9213.00	88.980	162.780	6964.75	930.94	-258.35	2104.72	1714742.16	14361344.51	39°32'50.5584"N	80°44'10.8230"W	2120.28	96.944	1.13	-1.01	0.52	
9308.00	89.630	164.640	6965.90	1025.81	-347.52	2131.37	1714768.79	14361253.37	39°32'49.6566"N	80°44'10.4863"W	2159.51	99.261	2.07	0.68	1.96	
9402.00	89.480	162.130	6966.63	1119.71	-437.59	2158.24	1714795.66	14361163.34	39°32'48.7656"N	80°44'10.1466"W	2202.15	101.461	2.67	-0.16	-2.67	
9497.00	89.630	160.070	6967.37	1214.70	-527.46	2189.01	1714826.41	14361073.50	39°32'47.8765"N	80°44'9.7572"W	2251.66	103.548	2.17	0.16	-2.17	
9592.00	87.970	158.910	6969.36	1309.65	-616.41	2222.29	1714859.68	14360984.58	39°32'46.9964"N	80°44'9.3358"W	2306.19	105.503	2.13	-1.75	-1.22	
9687.00	90.180	163.720	6970.89	1404.60	-706.36	2252.71	1714890.08	14360894.67	39°32'46.1065"N	80°44'8.9508"W	2360.85	107.409	5.57	2.33	5.06	
9782.00	88.740	159.240	6971.79	1499.56	-796.41	2282.87	1714920.24	14360804.65	39°32'45.2157"N	80°44'8.5692"W	2417.80	109.232	4.95	-1.52	-4.72	
9876.00	88.340	162.580	6974.18	1593.52	-885.20	2313.60	1714950.95	14360715.90	39°32'44.3373"N	80°44'8.1802"W	2477.16	110.937	3.58	-0.43	3.55	
9971.00	89.260	161.410	6976.17	1688.48	-975.52	2342.96	1714980.30	14360625.61	39°32'43.4437"N	80°44'7.8089"W	2537.93	112.605	1.57	0.97	-1.23	
10066.00	89.450	161.930	6977.24	1783.46	-1065.70	2372.83	1715010.16	14360535.47	39°32'42.5516"N	80°44'7.4309"W	2601.16	114.186	0.58	0.20	0.55	
10160.00	89.660	162.540	6977.97	1877.43	-1155.21	2401.51	1715038.83	14360445.99	39°32'41.6661"N	80°44'7.0682"W	2664.92	115.689	0.69	0.22	0.65	
10255.00	90.150	163.650	6978.13	1972.36	-1246.11	2429.14	1715066.44	14360355.14	39°32'40.7670"N	80°44'6.7190"W	2730.11	117.157	1.28	0.52	1.17	
10350.00	89.880	163.110	6978.10	2067.27	-1337.14	2456.31	1715093.60	14360264.14	39°32'39.8665"N	80°44'6.3755"W	2796.67	118.562	0.64	-0.28	-0.57	
10445.00	89.170	162.100	6978.89	2162.23	-1427.79	2484.71	1715121.99	14360173.53	39°32'38.9698"N	80°44'6.0164"W	2865.72	119.883	1.30	-0.75	-1.06	
10540.00	89.230	161.970	6980.22	2257.20	-1518.15	2514.01	1715151.28	14360083.20	39°32'38.0759"N	80°44'5.6458"W	2936.83	121.127	0.15	0.06	-0.14	
10635.00	90.030	162.840	6980.83	2352.16	-1608.70	2542.72	1715179.98	14359992.69	39°32'37.1801"N	80°44'5.2827"W	3008.88	122.320	1.24	0.84	0.92	



# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

WELLPATH DATA (190 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
10729.00	90.120	164.060	6980.71	2446.07	-1698.80	2569.50	1715206.75	14359902.62	39°32'36.2888"N	80°44'4.9443"W	3080.30	123.470	1.30	0.10	1.30	
10824.00	89.230	161.820	6981.25	2541.00	-1789.61	2597.36	1715234.61	14359811.84	39°32'35.3905"N	80°44'4.5920"W	3154.21	124.567	2.54	-0.94	-2.36	
10918.00	90.000	163.730	6981.88	2634.94	-1879.39	2625.20	1715262.43	14359722.10	39°32'34.5024"N	80°44'4.2401"W	3228.59	125.599	2.19	0.82	2.03	
11013.00	89.080	162.350	6982.64	2729.87	-1970.25	2652.91	1715290.13	14359631.28	39°32'33.6035"N	80°44'3.8898"W	3304.52	126.600	1.75	-0.97	-1.45	
11107.00	90.430	161.990	6983.04	2823.84	-2059.74	2681.69	1715318.90	14359541.83	39°32'32.7183"N	80°44'3.5258"W	3381.42	127.527	1.49	1.44	-0.38	
11202.00	90.370	160.080	6982.38	2918.84	-2149.57	2712.56	1715349.76	14359452.03	39°32'31.8295"N	80°44'3.1351"W	3461.02	128.395	2.01	-0.06	-2.01	
11297.00	89.820	159.130	6982.22	3013.81	-2238.62	2745.67	1715382.85	14359363.02	39°32'30.9485"N	80°44'2.7159"W	3542.61	129.191	1.16	-0.58	-1.00	
11391.00	89.630	160.020	6982.67	3107.78	-2326.70	2778.47	1715415.64	14359274.97	39°32'30.0770"N	80°44'2.3005"W	3624.01	129.943	0.97	-0.20	0.95	
11486.00	90.060	160.140	6982.93	3202.77	-2416.02	2810.84	1715447.99	14359185.69	39°32'29.1933"N	80°44'1.8908"W	3706.48	130.680	0.47	0.45	0.13	
11581.00	88.830	157.360	6983.85	3297.69	-2504.55	2845.26	1715482.41	14359097.20	39°32'28.3174"N	80°44'1.4547"W	3790.55	131.356	3.20	-1.29	-2.93	
11676.00	89.850	159.460	6984.95	3392.59	-2592.87	2880.22	1715517.34	14359008.91	39°32'27.4434"N	80°44'1.0119"W	3875.38	131.995	2.46	1.07	2.21	
11770.00	89.320	159.630	6985.63	3486.56	-2680.94	2913.06	1715550.18	14358920.87	39°32'26.5721"N	80°44'0.5959"W	3958.96	132.624	0.59	-0.56	0.18	
11865.00	89.540	158.820	6986.57	3581.51	-2769.76	2946.76	1715583.86	14358832.09	39°32'25.6933"N	80°44'0.1692"W	4044.12	133.227	0.88	0.23	-0.85	
11960.00	89.450	159.020	6987.41	3676.45	-2858.40	2980.93	1715618.02	14358743.49	39°32'24.8162"N	80°43'59.7364"W	4129.93	133.798	0.23	-0.09	0.21	
12055.00	89.690	160.020	6988.12	3771.42	-2947.39	3014.16	1715651.24	14358654.53	39°32'23.9357"N	80°43'59.3156"W	4215.72	134.358	1.08	0.25	1.05	
12150.00	89.850	159.680	6988.50	3866.40	-3036.57	3046.89	1715683.95	14358565.38	39°32'23.0533"N	80°43'58.9012"W	4301.66	134.903	0.40	0.17	-0.36	
12244.00	90.430	161.220	6988.27	3960.40	-3125.15	3078.34	1715715.39	14358476.84	39°32'22.1770"N	80°43'58.5031"W	4386.66	135.432	1.75	0.62	1.64	
12339.00	89.540	158.750	6988.30	4055.38	-3214.40	3110.86	1715747.89	14358387.62	39°32'21.2939"N	80°43'58.0915"W	4473.23	135.938	2.76	-0.94	-2.60	
12434.00	90.180	160.080	6988.53	4150.34	-3303.34	3144.26	1715781.28	14358298.72	39°32'20.4140"N	80°43'57.6686"W	4560.52	136.413	1.55	0.67	1.40	
12529.00	88.770	158.940	6989.40	4245.31	-3392.32	3177.51	1715814.52	14358209.77	39°32'19.5336"N	80°43'57.2475"W	4648.05	136.873	1.91	-1.48	-1.20	
12623.00	90.280	159.610	6990.18	4339.26	-3480.23	3210.77	1715847.77	14358121.90	39°32'18.6637"N	80°43'56.8263"W	4735.09	137.306	1.76	1.61	0.71	
12718.00	89.570	157.580	6990.30	4434.18	-3568.67	3245.44	1715882.42	14358033.49	39°32'17.7886"N	80°43'56.3872"W	4823.72	137.716	2.26	-0.75	-2.14	
12813.00	90.250	160.770	6990.45	4529.12	-3657.45	3279.21	1715916.18	14357944.74	39°32'16.9102"N	80°43'55.9595"W	4912.25	138.121	3.43	0.72	3.36	
12908.00	89.720	160.290	6990.48	4624.12	-3747.02	3310.87	1715947.83	14357855.21	39°32'16.0240"N	80°43'55.5588"W	5000.20	138.536	0.75	-0.56	-0.51	
13003.00	89.600	159.900	6991.04	4719.11	-3836.34	3343.22	1715980.16	14357765.93	39°32'15.1403"N	80°43'55.1493"W	5088.68	138.929	0.43	-0.13	-0.41	
13097.00	90.490	160.130	6990.97	4813.10	-3924.68	3375.34	1716012.28	14357677.62	39°32'14.2663"N	80°43'54.7426"W	5176.49	139.303	0.98	0.95	0.24	
13192.00	89.570	159.410	6990.92	4908.08	-4013.82	3408.19	1716045.11	14357588.52	39°32'13.3843"N	80°43'54.3268"W	5265.60	139.665	1.23	-0.97	-0.76	
13287.00	89.350	159.400	6991.81	5003.04	-4102.74	3441.61	1716078.51	14357499.63	39°32'12.5045"N	80°43'53.9036"W	5355.11	140.008	0.23	-0.23	-0.01	
13382.00	89.050	159.910	6993.14	5098.01	-4191.81	3474.63	1716111.53	14357410.60	39°32'11.6233"N	80°43'53.4855"W	5444.66	140.344	0.62	-0.32	0.54	
13477.00	89.540	160.710	6994.31	5192.99	-4281.25	3506.64	1716143.52	14357321.20	39°32'10.7384"N	80°43'53.0804"W	5534.04	140.680	0.99	0.52	0.84	



# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

## WELLPATH DATA (190 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
13571.00	89.200	160.420	6995.34	5286.99	-4369.88	3537.91	1716174.78	14357232.60	39°32'9.6614"N	80°43'52.6846"W	5622.52	141.006	0.48	-0.36	-0.31	
13666.00	89.820	159.730	6996.16	5381.97	-4459.19	3570.29	1716207.14	14357143.32	39°32'8.9778"N	80°43'52.2748"W	5712.39	141.317	0.98	0.65	-0.73	
13761.00	89.780	159.770	6996.49	5476.95	-4548.32	3603.17	1716240.01	14357054.23	39°32'8.0960"N	80°43'51.8586"W	5802.59	141.614	0.06	-0.04	0.04	
13856.00	89.230	160.090	6997.31	5571.93	-4637.55	3635.77	1716272.60	14356965.04	39°32'7.2132"N	80°43'51.4459"W	5892.85	141.904	0.67	-0.58	0.34	
13950.00	89.320	160.670	6998.50	5665.92	-4726.08	3667.33	1716304.15	14356876.54	39°32'6.3372"N	80°43'51.0465"W	5982.07	142.189	0.62	0.10	0.62	
14045.00	89.630	160.550	6999.37	5760.92	-4815.69	3698.87	1716335.67	14356786.97	39°32'5.4507"N	80°43'50.6474"W	6072.27	142.473	0.35	0.33	-0.13	
14140.00	88.980	159.130	7000.52	5855.89	-4904.86	3731.60	1716368.40	14356697.83	39°32'4.5684"N	80°43'50.2329"W	6163.00	142.736	1.64	-0.68	-1.49	
14235.00	89.420	160.180	7001.85	5950.86	-4993.93	3764.63	1716401.41	14356608.80	39°32'3.6872"N	80°43'49.8148"W	6253.94	142.989	1.20	0.46	1.11	
14329.00	90.430	163.620	7001.97	6044.83	-5083.26	3793.83	1716430.60	14356519.50	39°32'2.8034"N	80°43'49.4456"W	6342.92	143.265	3.81	1.07	3.66	
14424.00	88.680	162.430	7002.71	6139.75	-5174.11	3821.56	1716458.32	14356428.69	39°32'1.9047"N	80°43'49.0951"W	6432.40	143.551	2.23	-1.84	-1.25	
14519.00	88.800	161.990	7004.80	6234.71	-5264.55	3850.58	1716487.32	14356338.29	39°32'1.0100"N	80°43'48.7282"W	6522.46	143.818	0.48	0.13	-0.46	
14614.00	89.200	160.850	7006.45	6329.69	-5354.58	3880.84	1716517.58	14356248.29	39°32'0.1193"N	80°43'48.3454"W	6613.05	144.066	1.27	0.42	-1.20	
14708.00	89.880	162.570	7007.21	6423.67	-5443.82	3910.34	1716547.06	14356159.08	39°31'59.2364"N	80°43'47.9723"W	6702.69	144.310	1.97	0.72	1.83	
14803.00	88.980	162.140	7008.15	6518.63	-5534.35	3939.14	1716575.85	14356068.59	39°31'58.3409"N	80°43'47.6083"W	6793.07	144.558	1.05	-0.95	-0.45	
14898.00	88.120	160.340	7010.56	6613.60	-5624.27	3969.68	1716606.37	14355978.71	39°31'57.4513"N	80°43'47.2220"W	6884.09	144.785	2.10	-0.91	-1.89	
14992.00	90.550	161.560	7011.65	6707.58	-5713.11	4000.35	1716637.04	14355889.91	39°31'56.5723"N	80°43'46.8339"W	6974.41	145.000	2.89	2.59	1.30	
15087.00	89.780	162.450	7011.38	6802.56	-5803.46	4029.70	1716666.37	14355799.59	39°31'55.6785"N	80°43'46.4628"W	7065.31	145.225	1.24	-0.81	0.94	
15181.00	89.290	162.060	7012.14	6896.53	-5892.98	4058.35	1716695.01	14355710.10	39°31'54.7929"N	80°43'46.1006"W	7155.24	145.446	0.67	-0.52	-0.41	
15276.00	89.570	161.930	7013.08	6991.51	-5983.33	4087.71	1716724.36	14355619.79	39°31'53.8991"N	80°43'45.7293"W	7246.35	145.660	0.32	0.29	-0.14	
15371.00	89.820	162.290	7013.59	7086.49	-6073.73	4116.89	1716753.53	14355529.42	39°31'53.0048"N	80°43'45.3603"W	7337.51	145.870	0.46	0.26	0.38	
15465.00	89.750	162.800	7013.94	7180.45	-6163.40	4145.09	1716781.72	14355439.79	39°31'52.1177"N	80°43'45.0039"W	7427.60	146.078	0.55	-0.07	0.54	
15560.00	90.580	162.950	7013.67	7275.39	-6254.19	4173.06	1716809.68	14355349.04	39°31'51.2196"N	80°43'44.6504"W	7518.60	146.287	0.89	0.87	0.16	
15655.00	89.080	162.830	7013.95	7370.33	-6344.98	4201.01	1716837.62	14355258.28	39°31'50.3214"N	80°43'44.2972"W	7609.68	146.491	1.58	-1.58	-0.13	
15750.00	89.320	162.960	7015.28	7465.26	-6435.77	4228.95	1716865.55	14355167.53	39°31'49.4233"N	80°43'43.9441"W	7700.85	146.691	0.29	0.25	0.14	
15845.00	89.600	160.940	7016.17	7560.24	-6526.09	4258.38	1716894.97	14355077.25	39°31'48.5298"N	80°43'43.5720"W	7792.54	146.875	2.15	0.29	-2.13	
15940.00	89.020	160.280	7017.32	7655.23	-6615.69	4289.92	1716926.49	14354987.68	39°31'47.6433"N	80°43'43.1730"W	7884.84	147.039	0.92	-0.61	-0.69	
16034.00	89.200	160.330	7018.78	7749.21	-6704.18	4321.60	1716958.15	14354899.22	39°31'46.7678"N	80°43'42.7721"W	7976.35	147.194	0.20	0.19	0.05	
16128.00	88.680	160.320	7020.51	7843.19	-6792.68	4353.24	1716989.78	14354810.76	39°31'45.8922"N	80°43'42.3717"W	8067.91	147.345	0.55	-0.55	-0.01	
16223.00	89.720	161.200	7021.84	7938.18	-6882.36	4384.54	1717021.07	14354721.12	39°31'45.0049"N	80°43'41.9757"W	8160.34	147.500	1.43	1.09	0.93	
16318.00	88.950	160.000	7022.94	8033.17	-6971.96	4416.09	1717052.61	14354631.55	39°31'44.1184"N	80°43'41.5765"W	8252.88	147.650	1.50	-0.81	-1.26	





# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

WELLPATH DATA (190 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
16412.00	89.140	160.190	7024.51	8127.15	-7060.33	4448.09	1717084.60	14354543.22	39°31'43.2441"N	80°43'41.1715"W	8344.69	147.789	0.29	0.20	0.20	
16507.00	88.920	160.290	7026.12	8222.13	-7149.72	4480.20	1717116.70	14354453.86	39°31'42.3596"N	80°43'40.7651"W	8437.46	147.928	0.25	-0.23	0.11	
16602.00	89.020	160.090	7027.83	8317.10	-7239.09	4512.39	1717148.88	14354364.53	39°31'41.4755"N	80°43'40.3578"W	8530.30	148.063	0.24	0.11	-0.21	
16696.00	89.450	160.100	7029.08	8411.09	-7327.46	4544.40	1717180.87	14354276.19	39°31'40.6011"N	80°43'39.9528"W	8622.25	148.193	0.46	0.46	0.01	
16791.00	89.630	160.750	7029.84	8506.08	-7416.97	4576.22	1717212.68	14354186.72	39°31'39.7155"N	80°43'39.5501"W	8715.12	148.326	0.71	0.19	0.68	
16886.00	90.680	161.730	7029.59	8601.07	-7506.92	4606.77	1717243.22	14354096.80	39°31'38.8256"N	80°43'39.1636"W	8807.74	148.464	1.51	1.11	1.03	
16980.00	88.860	159.480	7029.96	8695.06	-7595.57	4637.99	1717274.42	14354008.18	39°31'37.9484"N	80°43'38.7688"W	8899.64	148.591	3.08	-1.94	-2.39	
17074.00	88.460	159.640	7032.16	8789.01	-7683.63	4670.80	1717307.22	14353920.16	39°31'37.0772"N	80°43'38.3533"W	8991.92	148.705	0.46	-0.43	0.17	
17123.00	89.050	160.290	7033.23	8837.99	-7729.66	4687.59	1717324.00	14353874.16	39°31'36.6218"N	80°43'38.1409"W	9039.97	148.766	1.79	1.20	1.33	
17148.00‡	89.050	160.290	7033.64	8862.99	-7753.19	4696.02	1717332.43	14353850.63	39°31'36.3890"N	80°43'38.0343"W	9064.46	148.797	0.00	0.00	0.00	Projected MD at TD: 17148'

HOLE & CASING SECTIONS - Ref Wellbore: Ryland Unit 2H AWB Ref Wellpath: Ryland Unit 2H AWP Proj: 17148'									
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	0.12	-0.12
17.5in Open Hole	130.00	393.00	263.00	130.00	393.00	0.12	-0.12	0.04	-1.08
13.375in Casing Surface	30.00	363.00	333.00	30.00	363.00	0.00	0.00	0.12	-0.96
12.25in Open Hole	393.00	2688.00	2295.00	393.00	2585.39	0.04	-1.08	501.23	312.60
9.625in Casing Intermediate	30.00	2658.00	2628.00	30.00	2556.82	0.00	0.00	494.28	306.65
8.75in Open Hole	2688.00	6433.00	3745.00	2585.39	6086.49	501.23	312.60	1618.48	1023.69
8.5in Open Hole	6433.00	17148.00	10715.00	6086.49	7033.64	1618.48	1023.69	-7753.19	4696.02
5.5in Casing Production	30.00	17128.00	17098.00	30.00	7033.31	0.00	0.00	-7734.36	4689.27



# Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Ryland Unit 2H POE Rev-2	6912.00	1303.78	1471.74	1714109.43	14362904.01	39°33'5.9957"N	80°44'18.8454"W	point
Ryland Unit 2H AZI Rev-2	6939.00	803.15	1721.25	1714358.84	14362403.58	39°33'1.0408"N	80°44'15.6788"W	point
Ryland Unit 2H BHL Rev-2	6939.00	-7940.77	4748.77	1717385.16	14353663.12	39°31'34.5334"N	80°43'37.3683"W	point
Ryland Unit 2H BHL Rev-3	6939.00	-7719.12	4672.03	1717308.44	14353884.69	39°31'36.7264"N	80°43'38.3391"W	point
Ryland Unit 2H LP Rev-2	6939.00	1135.19	1569.34	1714206.99	14362735.50	39°33'4.3268"N	80°44'17.6057"W	point
Ryland Unit 2H 50' L/R Hard Line	7250.00	-3569.39	3235.21	1715872.20	14358032.77	39°32'17.7818"N	80°43'56.5177"W	rectangle
2D Rectangle 9252 x 100.								

## WELLPATH COMPOSITION - Ref Wellbore: Ryland Unit 2H AWB Ref Wellpath: Ryland Unit 2H AWP Proj: 17148'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	289.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-289')	Ryland Unit 2H AWB	16/Jan/2022
289.00	2620.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (289')(414'-2620')	Ryland Unit 2H AWB	16/Jan/2022
2620.00	6366.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (2620')(2669'-6366')	Ryland Unit 2H AWB	22/Feb/2022
6366.00	17148.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (6366')(6408'-17123')	Ryland Unit 2H AWB	22/Feb/2022



## Actual Wellpath Report

Ryland Unit 2H AWP Proj: 17148'

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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 2H
Field	Wetzel	API	47-103-03457-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 2H AWB
Slot	Slot D		

### COMMENTS

#### Wellpath general comments

API: 47-103-03457-0000

BH Job #: 111180649

Rig: H&P 519

Duration: 2/23/2022-2/27/2022

Gyrodata MS Gyro <17-1/2"> (100'-289')

APS EM <12-1/4"> (289')(414'-2620')

APS EM <8-3/4"> (2620')(2669'-6366')

BH AT Curve <8-1/2"> (6366')(6408'-17123')

Sycamore: 6975' MD

Middlesex: 7136' MD

Burkett: 7290' MD

Tully: 7344' MD

Marcellus POE: 7548' MD

Projected MD at TD: 17148'