



ANTERO RESOURCES CORPORATION

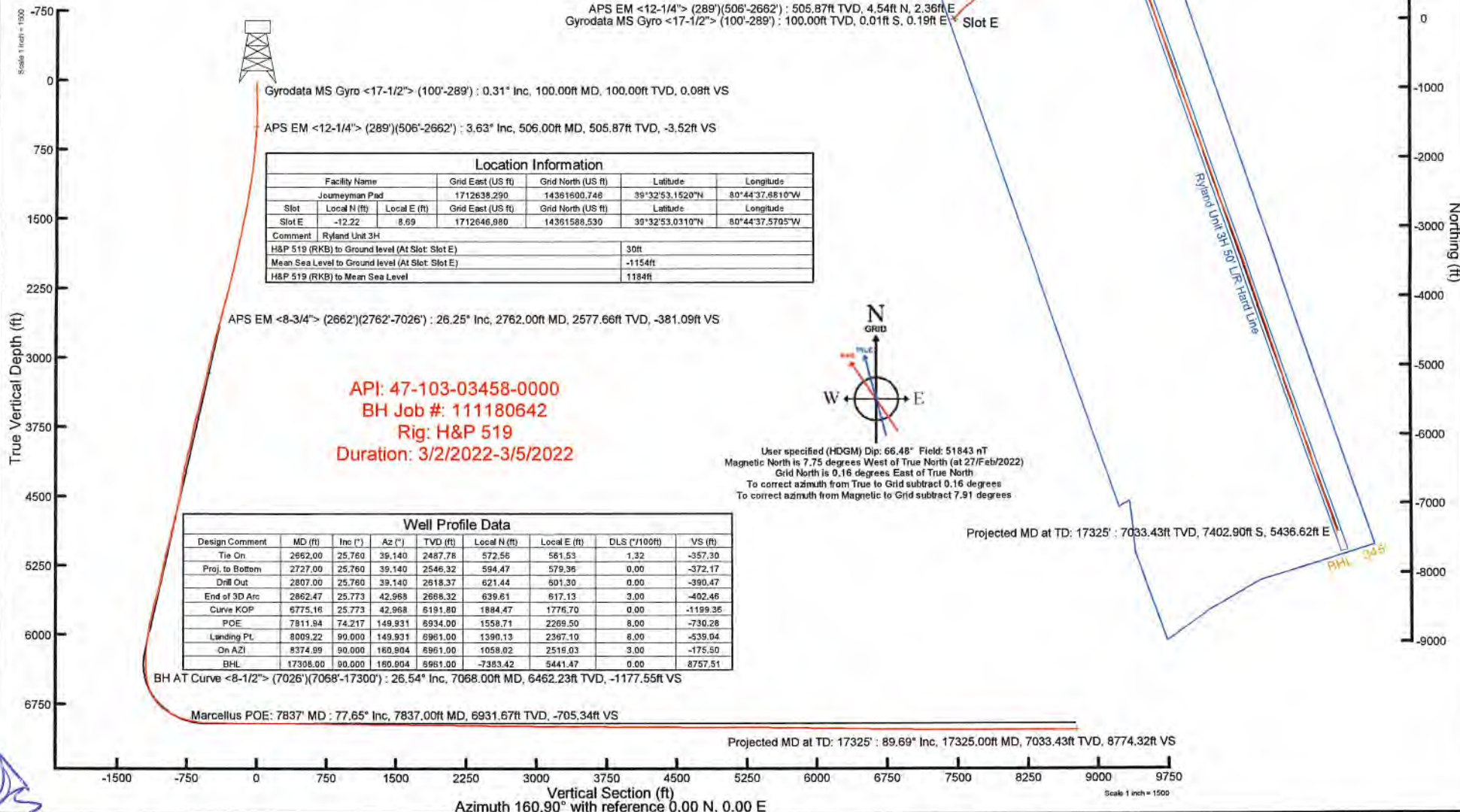


Location: Wetzel County, WV
 Field: Wetzel
 Facility: Journeyman Pad

Slot: Slot E
 Well: Ryland Unit 3H
 Wellbore: Ryland Unit 3H PWB

PHI reference wellpath is Ryland Unit 3H PWB Rev-B.0	Grid System: NAD22 / 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 Sea Level: 1184 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot E): -1154 feet	Depth is in feet
Official wellpath MDs are referenced to each path's default MD datum	Created by: enhancer on 2022-03-28; Database: WA_MPL_EASTERNUS_Defn

Well Data			
Slot	Well	Wellbore	Wellpath
Slot E	Ryland Unit 3H	Ryland Unit 3H AWP	Ryland Unit 3H AWP Proj. 17325'
Slot E	Ryland Unit 3H	Ryland Unit 3H PWB	Ryland Unit 3H PWB Rev-B.0



Well Data			
Slot	Well	Wellbore	Wellpath
Slot E	Ryland Unit 3H	Ryland Unit 3H AWP	Ryland Unit 3H AWP Proj. 17325'
Slot E	Ryland Unit 3H	Ryland Unit 3H PWB	Ryland Unit 3H PWB Rev-B.0

Location Information					
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Journeyman Pad		1712638.290	14361500.748	39°32'53.1520"N	80°44'37.8810"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot E	-12.22	8.89	1712646.980	14361588.530	39°32'53.0310"N
Comment: Ryland Unit 3H					
H&P 519 (RKB) to Ground level (At Slot: Slot E)		30ft			
Mean Sea Level to Ground level (At Slot: Slot E)		-1154ft			
H&P 519 (RKB) to Mean Sea Level		1184ft			

APS EM <8-3/4'> (2662')(2762'-7026') : 26.25° Inc, 2762.00ft MD, 2577.66ft TVD, -381.09ft VS

APS EM <12-1/4'> (289')(506'-2662') : 3.63° Inc, 506.00ft MD, 505.87ft TVD, -3.52ft VS

Gyrodata MS Gyro <17-1/2'> (100'-289') : 0.31° Inc, 100.00ft MD, 100.00ft TVD, 0.09ft VS

APS EM <8-3/4'> (2662')(2762'-7026') : 2577.66ft TVD, 607.09ft N, 588.53ft E

APS EM <12-1/4'> (289')(506'-2662') : 505.87ft TVD, 4.54ft N, 2.36ft E

Gyrodata MS Gyro <17-1/2'> (100'-289') : 100.00ft TVD, 0.01ft S, 0.19ft E

BH AT Curve <8-1/2'> (7026')(7068'-17300') : 6462.23ft TVD, 1898.35ft N, 1883.44ft E

Marcellus POE: 7837' MD : 6931.67ft TVD, 1541.27ft N, 2295.36ft E

API: 47-103-03458-0000
 BH Job #: 111180642
 Rig: H&P 519
 Duration: 3/2/2022-3/5/2022

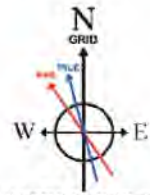
Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local E (ft)	Local N (ft)	VS (ft)
Tie On	2662.00	25.760	39.140	2487.78	572.56	561.53	-57.30
Proj. to Bottom	2727.00	25.760	39.140	2546.32	594.47	579.36	-372.17
Drill Out	2807.00	25.760	39.140	2618.37	621.44	601.30	-390.47
End of 3D Arc	2862.47	25.773	42.968	2668.32	639.61	617.13	-402.46
Curve KOP	6775.16	25.773	42.968	6181.80	1884.47	1776.70	-1199.36
POE	7811.94	74.217	149.931	6934.00	1558.71	2269.50	-730.28
Landing PL	8009.22	90.000	149.931	6961.00	1390.13	2367.10	-539.04
On AZI	8374.99	90.000	180.904	6961.00	1058.02	2516.03	-175.50
BHL	17308.00	90.000	180.904	6961.00	-7383.42	5441.47	8757.51

BH AT Curve <8-1/2'> (7026')(7068'-17300') : 26.54° Inc, 7068.00ft MD, 6462.23ft TVD, -1177.55ft VS

Marcellus POE: 7837' MD : 77.65° Inc, 7837.00ft MD, 6931.67ft TVD, -705.34ft VS

Projected MD at TD: 17325' : 89.69° Inc, 17325.00ft MD, 7033.43ft TVD, 8774.32ft VS

Projected MD at TD: 17325' : 7033.43ft TVD, 7402.90ft S, 5436.62ft E



User specified (HDGM) Dip: 66.48° Field: 51843 nT
 Magnetic North is 7.75 degrees West of True North (at 27/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

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

Scale 1 inch = 1500



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 3H
Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H 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	0.999606	Report Generated	28/Mar/2022 at 17:52
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	-12.22	8.69	1712646.98	14361588.53	39°32'53.0310"N	80°44'37.5705"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 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	160.90°



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 3H
Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H AWB
Slot	Slot E		

WELLPATH DATA (191 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	94.490	0.00	0.00	0.00	0.00	1712646.98	14361588.53	39°32'53.0310"N	80°44'37.5705"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	94.490	30.00	0.00	0.00	0.00	1712646.98	14361588.53	39°32'53.0310"N	80°44'37.5705"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.310	94.490	100.00	0.08	-0.01	0.19	1712647.17	14361588.52	39°32'53.0308"N	80°44'37.5681"W	0.19	94.490	0.44	0.44	0.00	Gyrodata MS Gyro <17-1/2"> (100'-289')
200.00	0.210	246.600	200.00	0.20	-0.11	0.29	1712647.27	14361588.42	39°32'53.0299"N	80°44'37.5668"W	0.31	110.543	0.51	-0.10	152.11	
289.00	0.640	221.300	289.00	0.46	-0.55	-0.19	1712646.79	14361587.98	39°32'53.0256"N	80°44'37.5729"W	0.58	198.917	0.52	0.48	-28.43	
506.00	3.630	29.180	505.87	-3.52	4.54	2.36	1712649.34	14361593.07	39°32'53.0758"N	80°44'37.5402"W	5.12	27.484	1.96	1.38	77.36	APS EM <12-1/4"> (289')(506'-2662')
596.00	6.060	34.330	595.54	-8.25	10.95	6.43	1712653.41	14361599.48	39°32'53.1391"N	80°44'37.4880"W	12.70	30.420	2.74	2.70	5.72	
688.00	7.940	36.590	686.85	-14.72	20.07	12.96	1712659.93	14361608.59	39°32'53.2289"N	80°44'37.4043"W	23.89	32.853	2.06	2.04	2.46	
779.00	10.030	37.650	776.73	-22.61	31.39	21.55	1712668.52	14361619.91	39°32'53.3406"N	80°44'37.2943"W	38.07	34.467	2.30	2.30	1.16	
871.00	11.730	41.360	867.08	-31.61	44.75	32.62	1712679.59	14361633.27	39°32'53.4724"N	80°44'37.1524"W	55.38	36.089	2.00	1.85	4.03	
962.00	13.850	42.140	955.81	-41.42	59.77	46.04	1712693.00	14361648.28	39°32'53.6204"N	80°44'36.9805"W	75.45	37.607	2.34	2.33	0.86	
1052.00	16.200	40.670	1042.73	-52.92	77.29	61.45	1712708.41	14361665.79	39°32'53.7931"N	80°44'36.7832"W	98.74	38.490	2.65	2.61	-1.63	
1147.00	19.060	42.210	1133.26	-67.04	98.83	80.52	1712727.46	14361687.32	39°32'54.0055"N	80°44'36.5391"W	127.48	39.169	3.05	3.01	1.62	
1241.00	20.820	45.760	1221.63	-81.51	121.86	102.80	1712749.74	14361710.34	39°32'54.2324"N	80°44'36.2538"W	159.43	40.151	2.27	1.87	3.78	
1336.00	23.710	49.030	1309.54	-95.80	146.17	129.32	1712776.25	14361734.64	39°32'54.4719"N	80°44'35.9143"W	195.16	41.501	3.31	3.04	3.44	
1431.00	26.610	48.940	1395.51	-110.88	172.67	159.79	1712806.71	14361761.13	39°32'54.7330"N	80°44'35.5244"W	235.26	42.782	3.05	3.05	-0.09	
1525.00	28.170	48.770	1478.97	-127.11	201.12	192.36	1712839.26	14361789.57	39°32'55.0133"N	80°44'35.1076"W	278.30	43.724	1.66	1.66	-0.18	
1620.00	28.610	47.640	1562.55	-144.54	231.23	226.03	1712872.92	14361819.67	39°32'55.3099"N	80°44'34.6767"W	323.35	44.348	0.73	0.46	-1.19	
1715.00	28.830	47.510	1645.86	-162.61	262.02	259.73	1712906.60	14361850.45	39°32'55.6133"N	80°44'34.2454"W	368.94	44.747	0.24	0.23	-0.14	
1810.00	28.430	46.710	1729.25	-180.97	293.00	293.08	1712939.94	14361881.42	39°32'55.9185"N	80°44'33.8185"W	414.42	45.007	0.58	-0.42	-0.84	
1904.00	28.750	46.710	1811.78	-199.41	323.85	325.82	1712972.67	14361912.25	39°32'56.2224"N	80°44'33.3994"W	459.39	45.174	0.34	0.34	0.00	
1999.00	27.340	45.220	1895.63	-218.22	354.88	357.94	1713004.77	14361943.27	39°32'56.5283"N	80°44'32.9883"W	504.04	45.245	1.66	-1.48	-1.57	
2093.00	27.170	44.730	1979.19	-237.04	385.33	388.36	1713035.19	14361973.71	39°32'56.8284"N	80°44'32.5988"W	547.09	45.224	0.30	-0.18	-0.52	
2188.00	27.380	44.680	2063.63	-256.26	416.28	418.99	1713065.80	14362004.64	39°32'57.1333"N	80°44'32.2067"W	590.62	45.186	0.22	0.22	-0.05	
2283.00	26.250	43.130	2148.41	-275.70	447.14	448.71	1713095.51	14362035.49	39°32'57.4375"N	80°44'31.8261"W	633.46	45.100	1.40	-1.19	-1.63	
2377.00	26.340	42.810	2232.69	-295.20	477.61	477.09	1713123.88	14362065.95	39°32'57.7378"N	80°44'31.4627"W	675.08	44.969	0.18	0.10	-0.34	
2472.00	26.810	42.650	2317.65	-315.27	508.83	505.93	1713152.71	14362097.16	39°32'58.0456"N	80°44'31.0934"W	717.55	44.836	0.50	0.49	-0.17	
2567.00	26.590	41.270	2402.52	-335.92	540.57	534.47	1713181.24	14362128.88	39°32'58.3584"N	80°44'30.7279"W	760.18	44.675	0.69	-0.23	-1.45	
2662.00	25.760	39.140	2487.78	-357.30	572.56	561.53	1713208.28	14362160.86	39°32'58.6739"N	80°44'30.3813"W	801.96	44.443	1.32	-0.87	-2.24	
2762.00	26.250	36.940	2577.86	-381.09	607.09	588.53	1713235.28	14362195.38	39°32'59.0144"N	80°44'30.0353"W	845.54	44.111	1.08	0.49	-2.20	APS EM <8-3/4"> (2662')(2762'-7026')



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H AWB
Slot	Slot E		

WELLPATH DATA (191 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
2857.00	28.270	39.080	2662.10	-404.69	641.35	615.35	1713262.08	14362229.63	39°32'59.3522"N	80°44'29.6918"W	888.81	43.815	2.36	2.13	2.25	
2952.00	28.400	43.320	2745.73	-427.02	675.25	645.03	1713291.76	14362263.52	39°32'59.6864"N	80°44'29.3116"W	933.83	43.689	2.12	0.14	4.46	
3047.00	29.850	42.440	2828.72	-448.74	709.14	676.49	1713323.20	14362297.39	39°33'0.0205"N	80°44'28.9088"W	980.06	43.650	1.59	1.53	-0.93	
3142.00	29.510	43.690	2911.25	-470.71	743.51	708.60	1713355.30	14362331.74	39°33'0.3592"N	80°44'28.4975"W	1027.09	43.623	0.74	-0.36	1.32	
3237.00	27.480	48.800	2994.75	-489.66	774.87	741.27	1713387.95	14362363.09	39°33'0.6682"N	80°44'28.0794"W	1072.33	43.730	3.34	-2.14	5.38	
3331.00	28.400	48.820	3077.80	-506.22	803.88	774.41	1713421.08	14362392.09	39°33'0.9540"N	80°44'27.6552"W	1116.21	43.930	0.98	0.98	0.02	
3426.00	30.020	46.080	3160.72	-524.69	835.24	808.53	1713455.19	14362423.44	39°33'1.2630"N	80°44'27.2184"W	1162.48	44.069	2.21	1.71	-2.88	
3521.00	28.570	45.870	3243.57	-544.28	867.54	841.96	1713488.60	14362455.73	39°33'1.5813"N	80°44'26.7906"W	1208.93	44.143	1.53	-1.53	-0.22	
3615.00	28.330	44.530	3326.21	-563.70	899.09	873.73	1713520.37	14362487.27	39°33'1.8922"N	80°44'26.3838"W	1253.70	44.180	0.73	-0.26	-1.43	
3713.00	26.030	42.570	3413.39	-584.23	931.51	904.59	1713551.21	14362519.67	39°33'2.2117"N	80°44'25.9886"W	1298.46	44.160	2.52	-2.35	-2.00	
3808.00	24.820	40.020	3499.19	-604.36	962.13	931.52	1713578.13	14362550.28	39°33'2.5136"N	80°44'25.6438"W	1339.19	44.074	1.72	-1.27	-2.68	
3902.00	25.490	35.680	3584.28	-626.15	993.67	956.00	1713602.60	14362581.81	39°33'2.8246"N	80°44'25.3300"W	1378.89	43.893	2.09	0.71	-4.62	
3997.00	26.030	38.990	3669.84	-648.96	1026.48	981.04	1713627.63	14362614.61	39°33'3.1482"N	80°44'25.0092"W	1419.90	43.703	1.62	0.57	3.48	
4092.00	25.660	46.080	3755.36	-668.62	1056.96	1008.98	1713655.56	14362645.07	39°33'3.4486"N	80°44'24.6514"W	1461.24	43.670	3.27	-0.39	7.46	
4187.00	26.020	48.340	3840.87	-685.25	1085.08	1039.37	1713685.93	14362673.18	39°33'3.7256"N	80°44'24.2625"W	1502.56	43.767	1.10	0.38	2.38	
4282.00	27.010	45.390	3925.88	-702.53	1114.08	1070.29	1713716.85	14362702.17	39°33'4.0114"N	80°44'23.8666"W	1544.90	43.852	1.73	1.04	-3.11	
4377.00	28.210	42.260	4010.06	-722.59	1145.85	1100.75	1713747.30	14362733.93	39°33'4.3245"N	80°44'23.4766"W	1588.91	43.850	1.98	1.26	-3.29	
4472.00	25.890	39.620	4094.67	-744.12	1178.45	1129.08	1713775.62	14362766.52	39°33'4.6459"N	80°44'23.1137"W	1632.05	43.774	2.75	-2.44	-2.78	
4566.00	23.300	40.310	4180.13	-764.24	1208.44	1154.20	1713800.72	14362796.49	39°33'4.9415"N	80°44'22.7919"W	1671.08	43.685	2.77	-2.76	0.73	
4661.00	21.560	43.280	4267.94	-781.90	1235.48	1178.33	1713824.84	14362823.52	39°33'5.2081"N	80°44'22.4829"W	1707.30	43.644	2.19	-1.83	3.13	
4756.00	21.470	48.340	4356.33	-796.66	1259.75	1203.28	1713849.79	14362847.78	39°33'5.4472"N	80°44'22.1634"W	1742.08	43.687	1.96	-0.09	5.33	
4850.00	22.830	49.310	4443.39	-809.97	1283.07	1229.96	1713876.46	14362871.09	39°33'5.6769"N	80°44'21.8220"W	1777.38	43.789	1.50	1.45	1.03	
4945.00	25.800	48.330	4529.96	-824.69	1308.84	1259.39	1713905.87	14362896.85	39°33'5.9308"N	80°44'21.4454"W	1816.35	43.897	3.15	3.13	-1.03	
5040.00	26.300	43.960	4615.31	-842.16	1337.73	1289.44	1713935.91	14362925.73	39°33'6.2155"N	80°44'21.0606"W	1858.01	43.947	2.09	0.53	-4.60	
5135.00	25.210	38.880	4700.88	-862.43	1368.64	1316.76	1713963.21	14362956.63	39°33'6.5201"N	80°44'20.7108"W	1899.21	43.893	2.59	-1.15	-5.35	
5229.00	24.490	40.100	4786.18	-883.02	1399.13	1341.87	1713988.32	14362987.10	39°33'6.8207"N	80°44'20.3890"W	1938.60	43.803	0.94	-0.77	1.30	
5324.00	26.400	42.720	4871.96	-903.08	1429.71	1368.89	1714015.32	14363017.67	39°33'7.1222"N	80°44'20.0430"W	1979.37	43.755	2.33	2.01	2.76	
5418.00	26.430	40.310	4956.15	-923.59	1461.01	1396.60	1714043.02	14363048.97	39°33'7.4308"N	80°44'19.6881"W	2021.15	43.709	1.14	0.03	-2.56	
5513.00	26.130	35.340	5041.34	-946.52	1494.20	1422.38	1714068.80	14363082.14	39°33'7.7581"N	80°44'19.3577"W	2062.96	43.589	2.34	-0.32	-5.23	
5608.00	23.780	37.410	5127.47	-969.26	1526.49	1446.12	1714092.53	14363114.41	39°33'8.0765"N	80°44'19.0535"W	2102.72	43.451	2.64	-2.47	2.18	



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 3H
Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H AWB
Slot	Slot E		

WELLPATH DATA (191 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
5702.00	23.220	43.160	5213.69	-988.34	1555.06	1470.31	1714116.71	14363142.98	39°33'8.3582"N	80°44'18.7436"W	2140.10	43.395	2.51	-0.60	6.12	
5796.00	23.680	45.070	5299.92	-1005.19	1581.91	1496.35	1714142.74	14363169.82	39°33'8.6228"N	80°44'18.4101"W	2177.50	43.408	0.95	0.49	2.03	
5893.00	26.040	45.080	5387.93	-1022.96	1610.71	1525.22	1714171.60	14363198.60	39°33'8.9066"N	80°44'18.0405"W	2218.26	43.439	2.43	2.43	0.01	
5988.00	26.500	41.610	5473.12	-1042.41	1641.28	1554.06	1714200.43	14363229.16	39°33'9.2079"N	80°44'17.6712"W	2260.29	43.437	1.69	0.48	-3.65	
6083.00	26.290	36.950	5558.23	-1064.53	1673.94	1580.79	1714227.14	14363261.81	39°33'9.5300"N	80°44'17.3288"W	2302.38	43.361	2.19	-0.22	-4.91	
6177.00	26.110	37.470	5642.57	-1087.55	1707.00	1605.88	1714252.23	14363294.85	39°33'9.8559"N	80°44'17.0072"W	2343.65	43.252	0.31	-0.19	0.55	
6272.00	24.670	43.440	5728.41	-1108.21	1737.99	1632.24	1714278.57	14363325.83	39°33'10.1615"N	80°44'16.6695"W	2384.28	43.203	3.09	-1.52	6.28	
6366.00	23.690	42.090	5814.16	-1126.36	1766.25	1658.39	1714304.71	14363354.08	39°33'10.4400"N	80°44'16.3347"W	2422.78	43.196	1.20	-1.04	-1.44	
6461.00	22.030	43.240	5901.69	-1143.83	1793.39	1683.39	1714329.70	14363381.21	39°33'10.7076"N	80°44'16.0145"W	2459.68	43.188	1.81	-1.75	1.21	
6555.00	21.040	48.700	5989.14	-1158.39	1817.38	1708.14	1714354.45	14363405.19	39°33'10.9439"N	80°44'15.6976"W	2494.11	43.225	2.38	-1.05	5.81	
6650.00	21.860	49.380	6077.56	-1171.32	1840.15	1734.38	1714380.67	14363427.95	39°33'11.1682"N	80°44'15.3618"W	2528.68	43.305	0.90	0.86	0.72	
6744.00	20.770	55.440	6165.14	-1182.19	1861.00	1761.39	1714407.68	14363448.79	39°33'11.3735"N	80°44'15.0161"W	2562.39	43.425	2.61	-1.16	6.45	
6838.00	22.080	68.110	6252.69	-1187.49	1877.05	1791.53	1714437.80	14363464.83	39°33'11.5312"N	80°44'14.6308"W	2594.78	43.665	5.11	1.39	13.48	
6933.00	23.990	75.230	6340.13	-1186.90	1888.63	1826.78	1714473.04	14363476.41	39°33'11.6447"N	80°44'14.1803"W	2627.56	44.046	3.55	2.01	7.49	
7026.00	25.740	81.610	6424.52	-1181.72	1896.40	1865.05	1714511.29	14363484.18	39°33'11.7204"N	80°44'13.6915"W	2659.84	44.523	3.44	1.88	6.86	
7068.00	26.540	86.200	6462.23	-1177.55	1898.35	1883.44	1714529.67	14363486.13	39°33'11.7391"N	80°44'13.4566"W	2674.15	44.774	5.18	1.90	10.93	BH AT Curve <8-1/2"> (7026)(7068-17300)
7123.00	28.000	91.450	6511.12	-1169.77	1898.84	1908.61	1714554.84	14363486.62	39°33'11.7432"N	80°44'13.1353"W	2692.28	45.147	5.11	2.65	9.55	
7217.00†	32.939	106.344	6592.23	-1147.16	1891.07	1955.29	1714601.50	14363478.86	39°33'11.6651"N	80°44'12.5397"W	2720.17	45.956	9.57	5.25	15.85	Sycamore: 7217' MD
7218.00	33.000	106.480	6593.07	-1146.85	1890.92	1955.81	1714602.02	14363478.70	39°33'11.6636"N	80°44'12.5330"W	2720.44	45.966	9.57	6.09	13.56	
7313.00	38.290	117.250	6670.32	-1110.44	1870.07	2006.87	1714653.08	14363457.86	39°33'11.4560"N	80°44'11.8819"W	2743.12	47.021	8.62	5.57	11.34	
7381.00†	43.723	126.941	6721.67	-1075.64	1846.26	2044.45	1714690.62	14363434.06	39°33'11.2196"N	80°44'11.4031"W	2754.71	47.916	12.28	7.99	14.25	Middlesex: 7381' MD
7407.00	45.990	130.130	6740.10	-1060.15	1834.83	2058.78	1714704.95	14363422.63	39°33'11.1062"N	80°44'11.2205"W	2757.75	48.292	12.28	8.72	12.26	
7502.00	53.420	138.040	6801.55	-995.50	1784.33	2110.53	1714756.67	14363372.15	39°33'10.6056"N	80°44'10.5618"W	2763.72	49.787	10.06	7.82	8.33	
7536.00†	56.113	139.245	6821.16	-969.80	1763.48	2128.87	1714775.01	14363351.31	39°33'10.3991"N	80°44'10.3284"W	2764.41	50.363	8.43	7.92	3.55	Burkett: 7536' MD
7591.00†	60.491	141.044	6850.06	-926.04	1727.56	2158.84	1714804.98	14363315.40	39°33'10.0432"N	80°44'9.9472"W	2764.97	51.332	8.43	7.96	3.27	Tully: 7591' MD
7597.00	60.970	141.230	6852.99	-921.12	1723.48	2162.12	1714808.25	14363311.33	39°33'10.0028"N	80°44'9.9054"W	2764.99	51.441	8.43	7.98	3.11	
7692.00	69.830	144.010	6892.51	-839.17	1654.88	2214.44	1714860.55	14363242.75	39°33'9.3232"N	80°44'9.2400"W	2764.49	53.229	9.70	9.33	2.93	
7787.00	76.110	144.310	6920.31	-752.23	1581.28	2267.60	1714913.68	14363169.18	39°33'8.5943"N	80°44'8.5642"W	2764.50	55.111	6.62	6.61	0.32	
7837.00†	77.647	146.176	6931.67	-705.34	1541.27	2295.36	1714941.43	14363129.19	39°33'8.1981"N	80°44'8.2113"W	2764.81	56.120	4.76	3.07	3.73	Marcellus POE: 7837' MD
7881.00	79.010	147.800	6940.57	-663.52	1505.14	2318.83	1714964.89	14363093.07	39°33'7.8403"N	80°44'7.9130"W	2764.49	57.013	4.76	3.10	3.69	



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Ryland Unit 3H
Field	Wetzel		API	47-103-03458-0000
Facility	Journeyman Pad		Wellbore	Ryland Unit 3H AWB
Slot	Slot E			

WELLPATH DATA (191 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
7976.00	85.190	153.050	6953.63	-571.06	1423.36	2365.21	1715011.25	14363011.32	39°33'7.0307"N	80°44'7.3240"W	2760.46	58.961	8.50	6.51	5.53	
8070.00	89.660	152.580	6957.85	-478.11	1339.85	2408.10	1715054.12	14362927.84	39°33'6.2041"N	80°44'6.7796"W	2755.74	60.909	4.78	4.76	-0.50	
8165.00	89.260	154.970	6958.75	-383.86	1254.63	2450.07	1715096.08	14362842.67	39°33'5.3607"N	80°44'6.2470"W	2752.63	62.884	2.55	-0.42	2.52	
8259.00	89.290	156.960	6959.93	-290.22	1168.80	2488.35	1715134.35	14362756.86	39°33'4.5112"N	80°44'5.7615"W	2749.18	64.840	2.12	0.03	2.12	
8354.00	89.540	159.820	6960.90	-195.32	1080.49	2523.34	1715169.32	14362668.59	39°33'3.6374"N	80°44'5.3182"W	2744.94	66.820	3.02	0.26	3.01	
8448.00	89.450	161.780	6961.73	-101.33	991.72	2554.25	1715200.21	14362579.86	39°33'2.7592"N	80°44'4.9270"W	2740.02	68.781	2.09	-0.10	2.09	
8543.00	89.720	161.550	6962.42	-6.34	901.55	2584.13	1715230.09	14362489.72	39°33'1.8672"N	80°44'4.5489"W	2736.88	70.767	0.37	0.28	-0.24	
8638.00	89.630	161.730	6962.96	88.65	811.39	2614.05	1715260.00	14362399.59	39°33'0.9752"N	80°44'4.1703"W	2737.08	72.756	0.21	-0.09	0.19	
8732.00	89.880	161.790	6963.36	182.64	722.11	2643.47	1715289.41	14362310.35	39°33'0.0920"N	80°44'3.7980"W	2740.33	74.721	0.27	0.27	0.06	
8827.00	89.350	160.980	6964.00	277.63	632.08	2673.80	1715319.72	14362220.36	39°32'59.2014"N	80°44'3.4143"W	2747.49	76.700	1.02	-0.56	-0.85	
8922.00	89.940	161.840	6964.59	372.62	542.04	2704.08	1715349.99	14362130.36	39°32'58.3106"N	80°44'3.0311"W	2757.87	78.665	1.10	0.62	0.91	
9016.00	89.660	162.230	6964.92	466.60	452.63	2733.08	1715378.97	14362040.98	39°32'57.4260"N	80°44'2.6644"W	2770.30	80.597	0.51	-0.30	0.41	
9111.00	88.980	161.520	6966.04	561.58	362.35	2762.63	1715408.51	14361950.73	39°32'56.5329"N	80°44'2.2905"W	2786.29	82.528	1.03	-0.72	-0.75	
9206.00	88.920	161.770	6967.79	656.56	272.20	2792.54	1715438.41	14361860.62	39°32'55.6410"N	80°44'1.9121"W	2805.77	84.433	0.27	-0.06	0.26	
9300.00	88.950	161.260	6969.53	750.54	183.06	2822.34	1715468.20	14361771.52	39°32'54.7592"N	80°44'1.5351"W	2828.27	86.289	0.54	0.03	-0.54	
9395.00	89.230	160.880	6971.04	845.52	93.21	2853.15	1715499.00	14361681.70	39°32'53.8703"N	80°44'1.1451"W	2854.67	88.129	0.50	0.29	-0.40	
9490.00	89.540	161.050	6972.06	940.52	3.41	2884.13	1715529.97	14361591.94	39°32'52.9819"N	80°44'0.7530"W	2884.13	89.932	0.37	0.33	0.18	
9584.00	89.910	161.760	6972.51	1034.51	-85.68	2914.11	1715559.93	14361502.88	39°32'52.1005"N	80°44'0.3737"W	2915.37	91.684	0.85	0.39	0.76	
9679.00	89.140	161.340	6973.30	1129.50	-175.79	2944.17	1715589.98	14361412.81	39°32'51.2090"N	80°43'59.9934"W	2949.41	93.417	0.92	-0.81	-0.44	
9774.00	88.800	160.830	6975.01	1224.48	-265.65	2974.96	1715620.76	14361322.99	39°32'50.3201"N	80°43'59.6037"W	2986.80	95.103	0.65	-0.36	-0.54	
9868.00	89.750	161.590	6976.20	1318.47	-354.63	3005.24	1715651.03	14361234.04	39°32'49.4398"N	80°43'59.2206"W	3026.09	96.730	1.29	1.01	0.81	
9963.00	89.690	161.030	6976.66	1413.47	-444.62	3035.68	1715681.46	14361144.09	39°32'48.5495"N	80°43'58.8354"W	3068.07	98.333	0.59	-0.05	-0.59	
10057.00	89.350	161.590	6977.45	1507.46	-533.66	3065.80	1715711.56	14361055.08	39°32'47.6686"N	80°43'58.4543"W	3111.90	99.874	0.70	-0.36	0.60	
10151.00	88.890	160.410	6978.89	1601.45	-622.52	3096.40	1715742.15	14360966.25	39°32'46.7894"N	80°43'58.0671"W	3158.36	101.368	1.35	-0.49	-1.26	
10246.00	88.890	160.480	6980.73	1696.43	-712.03	3128.19	1715773.93	14360876.78	39°32'45.9039"N	80°43'57.6646"W	3208.20	102.823	0.07	0.00	0.07	
10341.00	89.630	161.340	6981.96	1791.42	-801.79	3159.26	1715804.98	14360787.05	39°32'45.0158"N	80°43'57.2715"W	3259.41	104.241	1.19	0.78	0.91	
10435.00	89.380	163.260	6982.77	1885.38	-891.34	3187.83	1715833.55	14360697.55	39°32'44.1300"N	80°43'56.9101"W	3310.10	105.621	2.06	-0.27	2.04	
10530.00	91.320	159.890	6982.19	1980.36	-981.45	3217.85	1715863.56	14360607.47	39°32'43.2385"N	80°43'56.5303"W	3364.20	106.962	4.09	2.04	-3.55	
10624.00	88.120	156.010	6982.65	2074.20	-1068.54	3253.13	1715898.82	14360520.41	39°32'42.3767"N	80°43'56.0833"W	3424.13	108.184	5.35	-3.40	-4.13	
10718.00	88.860	161.130	6985.13	2168.06	-1155.99	3287.45	1715933.13	14360433.00	39°32'41.5115"N	80°43'55.6485"W	3484.77	109.374	5.50	0.79	5.45	



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Ryland Unit 3H
Field	Wetzel		API	47-103-03458-0000
Facility	Journeyman Pad		Wellbore	Ryland Unit 3H AWB
Slot	Slot E			

WELLPATH DATA (191 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
10813.00	89.290	160.610	6986.66	2263.05	-1245.73	3318.58	1715964.24	14350343.30	39°32'40.6236"N	80°43'55.2546"W	3544.69	110.575	0.71	0.45	-0.55	
10907.00	89.570	161.130	6987.60	2357.04	-1334.53	3349.38	1715995.03	14360254.53	39°32'39.7450"N	80°43'54.8648"W	3605.46	111.724	0.63	0.30	0.55	
11002.00	88.800	160.260	6988.95	2452.03	-1424.18	3380.78	1716026.42	14360164.91	39°32'38.8581"N	80°43'54.4673"W	3668.51	112.844	1.22	-0.81	-0.92	
11096.00	89.260	160.640	6990.54	2546.01	-1512.75	3412.23	1716057.86	14360076.38	39°32'37.9818"N	80°43'54.0692"W	3732.53	113.909	0.63	0.49	0.40	
11191.00	89.230	159.020	6991.79	2640.98	-1601.91	3444.99	1716090.60	14359987.25	39°32'37.0997"N	80°43'53.6546"W	3799.22	114.938	1.71	-0.03	-1.71	
11285.00	89.570	161.440	6992.78	2734.97	-1690.36	3476.78	1716122.38	14359898.84	39°32'36.2246"N	80°43'53.2521"W	3865.91	115.928	2.60	0.36	2.57	
11380.00	89.380	160.930	6993.65	2829.96	-1780.28	3507.42	1716153.01	14359808.96	39°32'35.3350"N	80°43'52.8645"W	3933.36	116.911	0.57	-0.20	-0.54	
11474.00	89.600	161.210	6994.48	2923.96	-1869.19	3537.91	1716183.49	14359720.08	39°32'34.4553"N	80°43'52.4786"W	4001.33	117.849	0.38	0.23	0.30	
11569.00	89.660	161.090	6995.10	3018.95	-1959.09	3568.60	1716214.17	14359630.21	39°32'33.5659"N	80°43'52.0903"W	4070.99	118.766	0.14	0.06	-0.13	
11663.00	89.600	161.170	6995.71	3112.95	-2048.04	3599.00	1716244.56	14359541.30	39°32'32.6859"N	80°43'51.7056"W	4140.93	119.642	0.11	-0.06	0.09	
11758.00	89.630	160.750	6996.34	3207.95	-2137.84	3629.99	1716275.54	14359451.54	39°32'31.7975"N	80°43'51.3135"W	4212.74	120.495	0.44	0.03	-0.44	
11852.00	89.630	161.440	6996.95	3301.95	-2226.77	3660.45	1716305.98	14359362.64	39°32'30.9177"N	80°43'50.9281"W	4284.55	121.313	0.73	0.00	0.73	
11947.00	89.480	161.000	6997.69	3396.94	-2316.71	3691.03	1716336.55	14359272.74	39°32'30.0279"N	80°43'50.5412"W	4357.85	122.115	0.49	-0.16	-0.46	
12041.00	89.110	160.640	6998.85	3490.93	-2405.48	3721.91	1716367.42	14359184.00	39°32'29.1496"N	80°43'50.1504"W	4431.59	122.875	0.55	-0.39	-0.38	
12136.00	90.090	161.570	6999.51	3585.93	-2495.36	3752.67	1716398.17	14359094.16	39°32'28.2604"N	80°43'49.7612"W	4506.59	123.622	1.42	1.03	0.98	
12231.00	89.910	160.770	6999.51	3680.93	-2585.27	3783.34	1716428.82	14359004.28	39°32'27.3709"N	80°43'49.3732"W	4582.28	124.346	0.86	-0.19	-0.84	
12325.00	89.540	160.110	6999.96	3774.92	-2673.85	3814.81	1716460.28	14358915.74	39°32'26.4945"N	80°43'48.9749"W	4658.56	125.027	0.80	-0.39	-0.70	
12420.00	89.320	158.820	7000.90	3869.88	-2762.80	3848.13	1716493.58	14358826.82	39°32'25.6144"N	80°43'48.5530"W	4737.21	125.677	1.38	-0.23	-1.36	
12515.00	90.150	161.100	7001.34	3964.86	-2852.04	3880.68	1716526.12	14358737.62	39°32'24.7314"N	80°43'48.1410"W	4816.00	126.313	2.55	0.87	2.40	
12609.00	90.000	161.110	7001.22	4058.86	-2940.98	3911.12	1716556.55	14358648.72	39°32'23.8515"N	80°43'47.7558"W	4893.49	126.941	0.16	-0.16	0.01	
12704.00	89.850	160.440	7001.35	4153.86	-3030.68	3942.40	1716587.82	14358559.05	39°32'22.9641"N	80°43'47.3600"W	4972.68	127.551	0.72	-0.16	-0.71	
12798.00	89.290	158.350	7002.05	4247.82	-3118.66	3975.48	1716620.88	14358471.11	39°32'22.0936"N	80°43'46.9411"W	5052.77	128.113	2.30	-0.60	-2.22	
12893.00	89.570	162.140	7003.00	4342.79	-3208.05	4007.58	1716652.97	14358381.75	39°32'21.2092"N	80°43'46.5348"W	5133.45	128.677	4.00	0.29	3.99	
12987.00	89.630	160.940	7003.65	4436.78	-3297.21	4037.34	1716682.73	14358292.63	39°32'20.3271"N	80°43'46.1584"W	5212.65	129.238	1.28	0.06	-1.28	
13081.00	89.320	159.870	7004.51	4530.77	-3385.76	4068.87	1716714.24	14358204.11	39°32'19.4510"N	80°43'45.7594"W	5293.30	129.764	1.19	-0.33	-1.14	
13176.00	89.450	158.790	7005.53	4625.73	-3474.64	4102.40	1716747.75	14358115.27	39°32'18.5716"N	80°43'45.3348"W	5376.13	130.264	1.14	0.14	-1.14	
13271.00	89.940	161.140	7006.04	4720.71	-3563.88	4134.94	1716780.28	14358026.06	39°32'17.6886"N	80°43'44.9229"W	5458.84	130.758	2.53	0.52	2.47	
13366.00	90.340	160.930	7005.81	4815.71	-3653.72	4165.82	1716811.15	14357936.25	39°32'16.7998"N	80°43'44.5323"W	5541.09	131.253	0.48	0.42	-0.22	
13460.00	89.630	160.210	7005.83	4909.71	-3742.37	4197.09	1716842.40	14357847.64	39°32'15.9227"N	80°43'44.1366"W	5623.24	131.722	1.08	-0.76	-0.77	
13555.00	90.430	161.960	7005.78	5004.70	-3832.23	4227.88	1716873.19	14357757.81	39°32'15.0336"N	80°43'43.7470"W	5706.22	132.190	2.03	0.84	1.84	



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 3H
Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H AWB
Slot	Slot E		

WELLPATH DATA (191 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
13649.00	89.850	161.390	7005.55	5098.69	-3921.47	4257.43	1716902.73	14357668.62	39°32'14.1509"N	80°43'43.3732"W	5788.23	132.648	0.87	-0.62	-0.61	
13744.00	89.600	161.160	7006.01	5193.69	-4011.44	4287.93	1716933.21	14357578.68	39°32'13.2608"N	80°43'42.9874"W	5871.79	133.092	0.36	-0.26	-0.24	
13838.00	89.320	161.170	7006.89	5287.68	-4100.40	4318.28	1716963.55	14357489.76	39°32'12.3806"N	80°43'42.6035"W	5954.90	133.517	0.30	-0.30	0.01	
13933.00	89.140	160.640	7008.17	5382.68	-4190.16	4349.35	1716994.61	14357400.03	39°32'11.4925"N	80°43'42.2103"W	6039.40	133.932	0.59	-0.19	-0.56	
14027.00	89.290	161.430	7009.46	5476.67	-4279.05	4379.90	1717025.14	14357311.17	39°32'10.6131"N	80°43'41.8239"W	6123.22	134.333	0.86	0.16	0.84	
14122.00	89.570	161.480	7010.40	5571.66	-4369.11	4410.11	1717055.34	14357221.15	39°32'9.7221"N	80°43'41.4418"W	6207.92	134.732	0.30	0.29	0.05	
14216.00	89.290	161.220	7011.34	5665.65	-4458.17	4440.17	1717085.39	14357132.12	39°32'8.8410"N	80°43'41.0615"W	6292.09	135.116	0.41	-0.30	-0.28	
14311.00	88.950	160.970	7012.80	5760.64	-4548.04	4470.95	1717116.15	14357042.29	39°32'7.9519"N	80°43'40.6722"W	6377.62	135.490	0.44	-0.36	-0.26	
14405.00	89.750	161.450	7013.86	5854.63	-4637.02	4501.22	1717146.42	14356953.35	39°32'7.0716"N	80°43'40.2892"W	6462.43	135.851	0.99	0.85	0.51	
14500.00	88.980	161.080	7014.92	5949.62	-4726.98	4531.73	1717176.92	14356863.42	39°32'6.1816"N	80°43'39.9033"W	6548.35	136.208	0.90	-0.81	-0.39	
14595.00	89.170	161.230	7016.45	6044.61	-4816.88	4562.41	1717207.59	14356773.56	39°32'5.2922"N	80°43'39.5152"W	6634.60	136.554	0.25	0.20	0.16	
14689.00	89.480	161.200	7017.56	6138.60	-4905.86	4592.68	1717237.84	14356684.61	39°32'4.4118"N	80°43'39.1323"W	6720.14	136.888	0.33	0.33	-0.03	
14784.00	89.320	161.680	7018.55	6233.59	-4995.92	4622.92	1717268.07	14356594.59	39°32'3.5209"N	80°43'38.7499"W	6806.66	137.221	0.53	-0.17	0.51	
14878.00	89.110	161.480	7019.84	6327.57	-5085.09	4652.62	1717297.75	14356505.45	39°32'2.6386"N	80°43'38.3743"W	6892.39	137.543	0.31	-0.22	-0.21	
14973.00	89.170	161.250	7021.27	6422.56	-5175.10	4682.97	1717328.09	14356415.48	39°32'1.7481"N	80°43'37.9904"W	6979.39	137.858	0.25	0.06	-0.24	
15067.00	88.430	160.900	7023.24	6516.54	-5264.00	4713.45	1717358.56	14356326.61	39°32'0.8686"N	80°43'37.6048"W	7065.86	138.158	0.87	-0.79	-0.37	
15162.00	88.550	160.240	7025.74	6611.50	-5353.56	4745.04	1717390.14	14356237.09	39°31'59.9826"N	80°43'37.2051"W	7153.74	138.448	0.71	0.13	-0.69	
15256.00	89.450	161.290	7027.38	6705.49	-5442.30	4776.00	1717421.09	14356148.39	39°31'59.1046"N	80°43'36.8133"W	7240.77	138.731	1.47	0.96	1.12	
15351.00	89.750	161.660	7028.04	6800.48	-5532.37	4806.18	1717451.26	14356058.35	39°31'58.2135"N	80°43'36.4316"W	7328.47	139.018	0.50	0.32	0.39	
15445.00	89.570	162.260	7028.60	6894.46	-5621.75	4835.29	1717480.36	14355969.01	39°31'57.3293"N	80°43'36.0636"W	7415.13	139.301	0.67	-0.19	0.64	
15540.00	89.450	161.450	7029.41	6989.44	-5712.02	4864.88	1717509.93	14355878.77	39°31'56.4362"N	80°43'35.6895"W	7502.95	139.579	0.86	-0.13	-0.85	
15634.00	89.820	161.950	7030.01	7083.43	-5801.26	4894.39	1717539.43	14355789.56	39°31'55.5533"N	80°43'35.3163"W	7590.11	139.846	0.66	0.39	0.53	
15729.00	89.540	160.720	7030.54	7178.42	-5891.26	4924.79	1717569.82	14355699.60	39°31'54.6629"N	80°43'34.9318"W	7678.58	140.106	1.33	-0.29	-1.29	
15824.00	89.750	161.260	7031.13	7273.42	-5981.08	4955.74	1717600.76	14355609.82	39°31'53.7743"N	80°43'34.5403"W	7767.41	140.356	0.61	0.22	0.57	
15918.00	90.120	161.400	7031.24	7367.42	-6070.13	4985.83	1717630.84	14355520.80	39°31'52.8932"N	80°43'34.1597"W	7855.25	140.601	0.42	0.39	0.15	
16013.00	89.940	161.040	7031.19	7462.42	-6160.08	5016.41	1717661.41	14355430.89	39°31'52.0034"N	80°43'33.7729"W	7944.24	140.843	0.42	-0.19	-0.38	
16108.00	90.120	162.200	7031.14	7557.41	-6250.23	5046.37	1717691.35	14355340.78	39°31'51.1115"N	80°43'33.3941"W	8033.13	141.083	1.24	0.19	1.22	
16202.00	89.690	160.950	7031.29	7651.40	-6339.41	5076.08	1717721.05	14355251.63	39°31'50.2292"N	80°43'33.0184"W	8121.25	141.315	1.41	-0.46	-1.33	
16297.00	90.060	161.350	7031.50	7746.40	-6429.31	5106.77	1717751.73	14355161.76	39°31'49.3398"N	80°43'32.6302"W	8210.67	141.540	0.57	0.39	0.42	
16392.00	89.690	161.270	7031.71	7841.40	-6519.30	5137.21	1717782.16	14355071.81	39°31'48.4494"N	80°43'32.2452"W	8300.14	141.762	0.40	-0.39	-0.08	



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 3H
Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H AWB
Slot	Slot E		

WELLPATH DATA (191 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
16487.00	89.720	161.470	7032.20	7936.39	-6609.32	5167.56	1717812.49	14354981.82	39°31'47.5588"N	80°43'31.8614"W	8389.69	141.980	0.21	0.03	0.21	
16581.00	89.750	161.280	7032.63	8030.39	-6698.40	5197.58	1717842.50	14354892.78	39°31'46.6776"N	80°43'31.4817"W	8478.41	142.191	0.20	0.03	-0.20	
16676.00	89.850	161.120	7032.96	8125.38	-6788.33	5228.20	1717873.11	14354802.89	39°31'45.7878"N	80°43'31.0945"W	8568.28	142.397	0.20	0.11	-0.17	
16771.00	89.170	160.330	7033.78	8220.38	-6878.00	5259.56	1717904.45	14354713.25	39°31'44.9007"N	80°43'30.6978"W	8658.51	142.595	1.10	-0.72	-0.83	
16866.00	90.060	161.630	7034.41	8315.37	-6967.81	5290.51	1717935.40	14354623.48	39°31'44.0121"N	80°43'30.3062"W	8748.71	142.791	1.66	0.94	1.37	
16961.00	90.030	161.400	7034.34	8410.37	-7057.91	5320.63	1717965.51	14354533.42	39°31'43.1207"N	80°43'29.9254"W	8838.73	142.989	0.24	-0.03	-0.24	
17055.00	89.570	160.600	7034.67	8504.37	-7146.78	5351.24	1717996.10	14354444.58	39°31'42.2414"N	80°43'29.5383"W	8928.17	143.176	0.98	-0.49	-0.85	
17150.00	91.260	162.570	7033.98	8599.35	-7236.91	5381.24	1718026.09	14354354.49	39°31'41.3498"N	80°43'29.1588"W	9018.35	143.366	2.73	1.78	2.07	
17244.00	89.850	161.150	7033.07	8693.33	-7326.23	5410.51	1718055.34	14354265.20	39°31'40.4661"N	80°43'28.7889"W	9107.54	143.554	2.13	-1.50	-1.51	
17300.00	89.690	161.220	7033.29	8749.33	-7379.24	5428.57	1718073.40	14354212.22	39°31'39.9417"N	80°43'28.5605"W	9160.92	143.660	0.31	-0.29	0.12	
17325.00‡	89.690	161.220	7033.43	8774.32	-7402.90	5436.62	1718081.44	14354188.56	39°31'39.7075"N	80°43'28.4587"W	9184.76	143.707	0.00	0.00	0.00	Projected MD at TD: 17325'

HOLE & CASING SECTIONS - Ref Wellbore: Ryland Unit 3H AWB Ref Wellpath: Ryland Unit 3H AWP Proj: 17325'									
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	-0.03	0.31
17.5in Open Hole	130.00	364.00	234.00	130.00	363.99	-0.03	0.31	-0.35	-0.24
13.375in Casing Surface	30.00	344.00	314.00	30.00	344.00	0.00	0.00	-0.56	-0.33
12.25in Open Hole	364.00	2727.00	2363.00	363.99	2546.24	-0.35	-0.24	594.82	579.18
9.625in Casing Intermediate	30.00	2709.00	2679.00	30.00	2530.07	0.00	0.00	588.59	574.33
8.75in Open Hole	2727.00	7093.00	4366.00	2546.24	6484.53	594.82	579.18	1898.86	1894.72
8.5in Open Hole	7093.00	17325.00	10232.00	6484.53	7033.43	1898.86	1894.72	-7402.90	5436.62
5.5in Casing Production	30.00	17305.00	17275.00	30.00	7033.32	0.00	0.00	-7383.97	5430.18



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 3H
Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H AWB
Slot	Slot E		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Ryland Unit 3H POE Rev-2	6934.00	1558.71	2269.50	1714915.58	14363146.62	39°33'8.3712"N	80°44'8.5408"W	point
Ryland Unit 3H AZI Rev-2	6961.00	1058.02	2519.03	1715165.01	14362646.13	39°33'3.4155"N	80°44'5.3741"W	point
Ryland Unit 3H BHL Rev-2	6961.00	-7678.46	5543.62	1718188.40	14353913.11	39°31'36.9809"N	80°43'27.1039"W	point
Ryland Unit 3H BHL Rev-3	6961.00	-7383.42	5441.47	1718086.30	14354208.03	39°31'39.8999"N	80°43'28.3959"W	point
Ryland Unit 3H LP Rev-2	6961.00	1390.13	2367.10	1715013.14	14362978.11	39°33'6.7022"N	80°44'7.3011"W	point
Ryland Unit 3H 50' L/R Hard Line	7250.00	-3310.80	4031.52	1716676.90	14358279.04	39°32'20.1929"N	80°43'46.2332"W	rectangle
2D Rectangle 9244 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Ryland Unit 3H AWB Ref Wellpath: Ryland Unit 3H AWP Proj: 17325'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	289.00	Gyrodatta 2015 - GC+WIR+DPIPE	01 Gyrodatta MS Gyro <17-1/2"> (100'-289')	Ryland Unit 3H AWB	13/Jan/2022
289.00	2662.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (289')(506'-2662')	Ryland Unit 3H AWB	13/Jan/2022
2662.00	7026.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (2662')(2762'-7026')	Ryland Unit 3H AWB	27/Feb/2022
7026.00	17325.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (7026')(7068'-17300')	Ryland Unit 3H AWB	27/Feb/2022



Actual Wellpath Report

Ryland Unit 3H AWP Proj: 17325'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 3H
Field	Wetzel	API	47-103-03458-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 3H AWB
Slot	Slot E		

COMMENTS
<p>Wellpath general comments API: 47-103-03458-0000 BH Job #: 111180642 Rig: H&P 519 Duration: 3/2/2022-3/5/2022 Gyrodata MS Gyro <17-1/2"> (100'-289') APS EM <12-1/4"> (289')(506'-2662') APS EM <8-3/4"> (2662')(2762'-7026') BH AT Curve <8-1/2"> (7026')(7068'-17300') Sycamore: 7217' MD Middlesex: 7381' MD Burkett: 7536' MD Tully: 7591' MD Marcellus POE: 7837' MD Projected MD at TD: 17325'</p>