



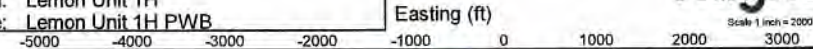
# ANTERO RESOURCES CORPORATION

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

Slot: Slot #05  
Well: Lemon Unit 1H  
Wellbore: Lemon Unit 1H PWB



Plot reference wellpath & Lemon Unit 1H PWB Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 317 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 317 (RKB)	Scale: True distance
H&P 317 (RKB) to Mean Sea Level: 1096.5 feet	Coordinates are in feet referenced to SSI
Mean Sea Level to Ground level (At Slot: Slot #05) : -1041 feet	Depths are in feet
Other wellpath MDs are referenced to each path's default MD datum	Created by: edoanar on 2020-12-29, Database: WA_MPL_EASTERNUS_Data



Projected MD at TD: 19075' : 6562.08ft TVD, 11840.57ft N, 1508.53ft W

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Margery Pad	1688470.750	14350316.150	39°31'2.1450"N	80°49'46.5860"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #05	-7.61	-12.92	1688457.840	14350308.540
Comment	Lemon Unit 1H		Latitude	Longitude
H&P 317 (RKB) to Ground level (At Slot: Slot #05)			25.5ft	
Mean Sea Level to Ground level (At Slot: Slot #05)			-1041ft	
H&P 317 (RKB) to Mean Sea Level			1096.5ft	

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #05	Lemon Unit 1H	Lemon Unit 1H AWB	Lemon Unit 1H AWP Proj: 19075'
Slot #05	Lemon Unit 1H	Lemon Unit 1H PWB	Lemon Unit 1H PWP Rev-B.0

Gyrodatta MS Gyro <17-1/2"> (100'-381') : 0.55° Inc, 100.00ft MD, 100.00ft TVD, 0.30ft VS

APS EM <12-1/4"> (381')(509'-2664') : 1.78° Inc, 509.00ft MD, 508.97ft TVD, 2.66ft VS

API: 47-095-02703-0000  
BH Job #: 110631508-B  
Rig: H&P 317  
Duration: 12/15/2020-12/20/2020

APS EM <8-3/4"> (2664')(2741'-5303') : 25.86° Inc, 2741.00ft MD, 2607.50ft TVD, -177.31ft VS

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (/100ft)	VS (ft)
Tie Cn	2664.00	26.890	79.680	2638.51	40.70	654.48	0.32	-173.05
Proj. to Bottom	2757.00	26.890	79.680	2621.46	48.23	695.66	0.00	-179.30
Drill Out	2837.00	26.890	79.680	2592.81	54.71	731.46	0.00	-184.67
End of 3D Arc	3006.23	24.428	85.052	2845.36	64.59	803.99	2.00	-198.77
Curve KOP	6353.08	24.428	85.052	5892.59	183.97	2182.95	0.00	-531.55
POE	7375.55	74.817	341.144	6620.00	772.77	2245.06	8.00	5.55
Landing Pt.	7565.44	90.000	341.144	6645.00	950.26	2184.43	8.00	193.13
BHL	19080.58	90.000	341.144	6645.00	11847.44	-1537.17	0.00	11708.27

BH AT Curve <8-1/2"> (5303')(5409'-19050') : 17.51° Inc, 5409.00ft MD, 5046.07ft TVD, -401.62ft VS

Marcellus POE: 7412' MD : 78.85° Inc, 7412.00ft MD, 6622.03ft TVD, 32.12ft VS



User specified (HDGM) Dip: 66.46° Field: 51782 nT  
Magnetic North is 7.57 degrees West of True North (at 14/Dec/2020)  
Grid North is 0.11 degrees East of True North  
To correct azimuth from True to Grid subtract 0.11 degrees  
To correct azimuth from Magnetic to Grid subtract 7.68 degrees

Marcellus POE: 7412' MD : 6622.03ft TVD, 800.64ft N, 2244.47ft E

BH AT Curve <8-1/2"> (5303')(5409'-19050') : 5046.07ft TVD, 173.40ft N, 1750.03ft E  
APS EM <8-3/4"> (2664')(2741'-5303') : 2607.50ft TVD, 47.64ft N, 687.97ft E  
APS EM <12-1/4"> (381')(509'-2664') : 508.97ft TVD, 3.37ft N, 1.66ft E  
Gyrodatta MS Gyro <17-1/2"> (100'-381') : 100.00ft TVD, 0.35ft N, 0.09ft E

Slot #05

Projected MD at TD: 19075' : 90.92° Inc, 19075.00ft MD, 6562.08ft TVD, 11692.51ft VS

Scale 1 inch = 100'

True Vertical Depth (ft)

Vertical Section (ft)

Azimuth 341.14° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500'

Northing (ft)





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'  
Page 1 of 11



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

## REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999603	Report Generated	26/Dec/2020 at 22:57
Convergence at slot	0.11° 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	-7.61	-12.92	1688457.84	14350308.54	39°31'2.0700"N	80°49'46.7530"W
Facility Reference Pt			1688470.75	14350316.15	39°31'2.1450"N	80°49'46.5880"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 317 (RKB) to Facility Vertical Datum	1066.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1066.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #05)	25.50ft
MD Reference Pt	H&P 317 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.14°





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'

Page 2 of 11



REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Lemon Unit 1H
Field	Tyler		API	47-095-02703-0000
Facility	Margery Pad		Wellbore	Lemon Unit 1H AWB
Slot	Slot #05			

WELLPATH DATA (206 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]
0.00†	0.000	14.260	0.00	0.00	0.00	0.00	1688457.84	14350308.54	39°31'2.0700"N	80°49'46.7530"W	0.00	0.000	0.00	0.00	0.00
25.50	0.000	14.260	25.50	0.00	0.00	0.00	1688457.84	14350308.54	39°31'2.0700"N	80°49'46.7530"W	0.00	0.000	0.00	0.00	0.00
100.00	0.550	14.260	100.00	0.30	0.35	0.09	1688457.93	14350308.89	39°31'2.0735"N	80°49'46.7519"W	0.36	14.260	0.74	0.74	0.00
200.00	0.450	329.740	200.00	1.09	1.15	0.01	1688457.85	14350309.69	39°31'2.0814"N	80°49'46.7529"W	1.15	0.419	0.39	-0.10	-44.52
300.00	0.260	350.410	299.99	1.70	1.71	-0.23	1688457.61	14350310.25	39°31'2.0870"N	80°49'46.7559"W	1.73	352.446	0.23	-0.19	20.67
381.00	0.350	11.040	380.99	2.09	2.14	-0.21	1688457.63	14350310.68	39°31'2.0912"N	80°49'46.7557"W	2.15	354.376	0.17	0.11	25.47
509.00	1.780	64.630	508.97	2.66	3.37	1.66	1688459.50	14350311.91	39°31'2.1034"N	80°49'46.7318"W	3.76	26.211	1.25	1.12	41.87
602.00	3.430	72.410	601.87	2.76	4.83	5.62	1688463.46	14350313.37	39°31'2.1177"N	80°49'46.6812"W	7.41	49.295	1.81	1.77	8.37
690.00	4.660	72.500	689.65	2.61	6.70	11.54	1688469.37	14350315.24	39°31'2.1361"N	80°49'46.6057"W	13.34	59.841	1.40	1.40	0.10
781.00	6.280	76.650	780.23	2.05	8.96	19.91	1688477.74	14350317.50	39°31'2.1583"N	80°49'46.4988"W	21.83	65.755	1.83	1.78	4.56
871.00	8.430	82.080	869.49	0.32	11.01	31.23	1688489.06	14350319.55	39°31'2.1783"N	80°49'46.3543"W	33.11	70.580	2.51	2.39	6.03
962.00	10.250	84.130	959.28	-2.76	12.76	45.89	1688503.71	14350321.29	39°31'2.1953"N	80°49'46.1671"W	47.63	74.464	2.03	2.00	2.25
1052.00	10.620	83.880	1047.79	-6.39	14.46	62.10	1688519.92	14350323.00	39°31'2.2118"N	80°49'45.9602"W	63.77	76.892	0.41	0.41	-0.28
1147.00	11.850	85.210	1140.97	-10.69	16.21	80.53	1688538.34	14350324.74	39°31'2.2287"N	80°49'45.7251"W	82.14	78.620	1.32	1.29	1.40
1242.00	13.590	87.630	1233.63	-16.23	17.48	101.40	1688559.20	14350326.02	39°31'2.2410"N	80°49'45.4587"W	102.90	80.217	1.92	1.83	2.55
1336.00	14.770	89.880	1324.77	-23.22	17.97	124.42	1688582.21	14350326.50	39°31'2.2453"N	80°49'45.1650"W	125.71	81.783	1.39	1.26	2.39
1431.00	16.250	90.250	1416.30	-31.46	17.93	149.82	1688607.60	14350326.47	39°31'2.2445"N	80°49'44.8409"W	150.89	83.174	1.56	1.56	0.39
1526.00	18.080	91.120	1507.07	-40.85	17.59	177.86	1688635.62	14350326.12	39°31'2.2405"N	80°49'44.4832"W	178.72	84.352	1.95	1.93	0.92
1621.00	20.060	93.420	1596.85	-52.06	16.33	208.86	1688666.62	14350324.86	39°31'2.2275"N	80°49'44.0876"W	209.50	85.530	2.23	2.08	2.42
1716.00	22.570	92.280	1685.35	-64.82	14.63	243.35	1688701.09	14350323.16	39°31'2.2101"N	80°49'43.6476"W	243.79	86.559	2.68	2.64	-1.20
1811.00	24.740	91.910	1772.36	-78.44	13.24	281.44	1688739.16	14350321.78	39°31'2.1956"N	80°49'43.1616"W	281.75	87.306	2.29	2.28	-0.39
1905.00	25.330	90.710	1857.53	-92.16	12.34	321.20	1688778.91	14350320.87	39°31'2.1860"N	80°49'42.6542"W	321.44	87.800	0.83	0.63	-1.28
2000.00	25.050	88.580	1943.50	-104.99	12.58	361.63	1688819.32	14350321.12	39°31'2.1876"N	80°49'42.1384"W	361.85	88.007	1.00	-0.29	-2.24
2095.00	25.800	88.460	2029.30	-117.17	13.64	402.40	1688860.08	14350322.17	39°31'2.1973"N	80°49'41.6181"W	402.63	88.059	0.79	0.79	-0.13
2190.00	26.350	88.390	2114.63	-129.58	14.79	444.14	1688901.80	14350323.32	39°31'2.2078"N	80°49'41.0855"W	444.39	88.093	0.58	0.58	-0.07
2284.00	26.660	85.280	2198.75	-140.92	17.11	486.01	1688943.66	14350325.64	39°31'2.2300"N	80°49'40.5511"W	486.32	87.984	1.51	0.33	-3.31
2379.00	26.580	82.910	2283.68	-150.46	21.48	528.35	1688985.98	14350330.02	39°31'2.2725"N	80°49'40.0108"W	528.78	87.671	1.12	-0.08	-2.49
2474.00	26.320	82.470	2368.74	-158.93	26.87	570.32	1689027.93	14350335.40	39°31'2.3249"N	80°49'39.4752"W	570.95	87.303	0.34	-0.27	-0.46
2569.00	26.750	80.280	2453.73	-166.47	33.24	612.27	1689069.87	14350341.76	39°31'2.3870"N	80°49'38.9397"W	613.17	86.893	1.12	0.45	-2.31
2664.00	26.890	79.680	2538.51	-173.05	40.70	654.48	1689112.06	14350349.22	39°31'2.4599"N	80°49'38.4009"W	655.74	86.442	0.32	0.15	-0.63





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'  
Page 3 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

WELLPATH DATA (206 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]
2741.00	25.860	76.850	2607.50	-177.31	47.64	687.97	1689145.53	14350356.16	39°31'2.5279"N	80°49'37.9735"W	689.61	86.039	2.11	-1.34	-3.68
2835.00	26.390	77.240	2691.90	-181.57	56.91	728.30	1689185.85	14350365.43	39°31'2.6188"N	80°49'37.4586"W	730.52	85.532	0.59	0.56	0.41
2929.00	26.610	83.190	2776.03	-188.19	64.03	769.59	1689227.12	14350372.54	39°31'2.6883"N	80°49'36.9316"W	772.25	85.244	2.83	0.23	6.33
3024.00	27.740	88.910	2860.56	-199.38	66.97	812.83	1689270.34	14350375.48	39°31'2.7166"N	80°49'36.3798"W	815.58	85.290	2.99	1.19	6.02
3119.00	28.350	94.700	2944.42	-215.14	65.54	857.42	1689314.92	14350374.06	39°31'2.7016"N	80°49'35.8108"W	859.92	85.629	2.94	0.64	6.09
3214.00	29.300	93.580	3027.65	-233.03	62.24	903.10	1689360.58	14350370.76	39°31'2.6682"N	80°49'35.2280"W	905.25	86.057	1.15	1.00	-1.18
3311.00	30.360	88.330	3111.81	-249.34	61.47	951.31	1689408.77	14350369.99	39°31'2.6596"N	80°49'34.6130"W	953.29	86.303	2.90	1.09	-5.41
3406.00	28.670	85.790	3194.48	-262.20	63.85	998.04	1689455.48	14350372.36	39°31'2.6822"N	80°49'34.0166"W	1000.08	86.340	2.21	-1.78	-2.67
3501.00	24.490	79.220	3279.44	-270.74	69.21	1040.13	1689497.56	14350377.72	39°31'2.7344"N	80°49'33.4793"W	1042.43	86.193	5.37	-4.40	-6.92
3596.00	22.250	75.000	3366.65	-274.72	77.55	1076.86	1689534.27	14350386.06	39°31'2.8161"N	80°49'33.0105"W	1079.65	85.881	2.94	-2.36	-4.44
3691.00	19.910	75.800	3455.29	-277.24	86.17	1109.92	1689567.31	14350394.68	39°31'2.9007"N	80°49'32.5885"W	1113.26	85.561	2.48	-2.46	0.84
3785.00	21.590	81.950	3543.20	-281.79	92.52	1142.56	1689599.95	14350401.02	39°31'2.9628"N	80°49'32.1718"W	1146.30	85.371	2.92	1.79	6.54
3880.00	21.640	86.690	3631.52	-289.76	95.98	1177.36	1689634.73	14350404.48	39°31'2.9964"N	80°49'31.7277"W	1181.26	85.340	1.84	0.05	4.99
3975.00	22.550	89.480	3719.55	-300.19	97.16	1213.06	1689670.42	14350405.66	39°31'3.0073"N	80°49'31.2721"W	1216.95	85.421	1.46	0.96	2.94
4070.00	22.730	87.210	3807.23	-311.00	98.21	1249.61	1689706.95	14350406.72	39°31'3.0171"N	80°49'30.8057"W	1253.46	85.506	0.94	0.19	-2.39
4164.00	22.810	84.150	3893.91	-320.13	100.96	1285.88	1689743.20	14350409.46	39°31'3.0435"N	80°49'30.3429"W	1289.83	85.511	1.26	0.09	-3.26
4259.00	21.880	80.920	3981.78	-327.29	105.63	1321.68	1689778.99	14350414.12	39°31'3.0889"N	80°49'29.8860"W	1325.89	85.431	1.62	-0.98	-3.40
4354.00	21.720	78.990	4069.98	-332.69	111.78	1356.41	1689813.71	14350420.27	39°31'3.1491"N	80°49'29.4426"W	1361.01	85.289	0.77	-0.17	-2.03
4449.00	22.280	83.150	4158.07	-338.84	117.28	1391.55	1689848.83	14350425.78	39°31'3.2028"N	80°49'28.9941"W	1396.48	85.182	1.74	0.59	4.38
4544.00	24.480	82.270	4245.27	-346.39	122.08	1428.94	1689886.21	14350430.57	39°31'3.2495"N	80°49'28.5169"W	1434.14	85.117	2.34	2.32	-0.93
4639.00	24.450	79.590	4331.74	-353.08	128.28	1467.78	1689925.03	14350436.77	39°31'3.3100"N	80°49'28.0211"W	1473.38	85.005	1.17	-0.03	-2.82
4734.00	24.350	78.190	4418.25	-358.37	135.84	1506.29	1689963.53	14350444.33	39°31'3.3840"N	80°49'27.5296"W	1512.40	84.847	0.62	-0.11	-1.47
4829.00	23.020	83.170	4505.26	-364.65	142.06	1543.91	1690001.13	14350450.54	39°31'3.4447"N	80°49'27.0494"W	1550.43	84.743	2.53	-1.40	5.24
4923.00	22.270	81.440	4592.01	-371.66	146.89	1579.77	1690036.98	14350455.38	39°31'3.4918"N	80°49'26.5917"W	1586.58	84.688	1.07	-0.80	-1.84
5018.00	22.580	82.370	4679.83	-378.43	152.00	1615.65	1690072.84	14350460.48	39°31'3.5415"N	80°49'26.1338"W	1622.78	84.626	0.50	0.33	0.98
5113.00	22.690	85.940	4767.52	-386.67	155.71	1652.00	1690109.18	14350464.19	39°31'3.5776"N	80°49'25.6698"W	1659.33	84.615	1.45	0.12	3.76
5208.00	21.050	79.990	4855.69	-393.97	159.98	1687.09	1690144.26	14350468.45	39°31'3.6191"N	80°49'25.2220"W	1694.66	84.583	2.90	-1.73	-6.26
5303.00	18.190	75.980	4945.17	-397.85	166.54	1718.28	1690175.44	14350475.01	39°31'3.6833"N	80°49'24.8238"W	1726.34	84.464	3.33	-3.01	-4.22
5409.00	17.510	79.700	5046.07	-401.62	173.40	1750.03	1690207.17	14350481.87	39°31'3.7505"N	80°49'24.4186"W	1758.60	84.341	1.25	-0.64	3.51
5504.00	24.820	84.670	5134.60	-408.42	177.81	1783.99	1690241.12	14350486.28	39°31'3.7934"N	80°49'23.9851"W	1792.83	84.308	7.92	7.69	5.23





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'  
Page 4 of 11



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

## WELLPATH DATA (206 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]
5599.00	27.950	89.430	5219.71	-420.08	179.89	1826.12	1690283.23	14350488.35	39°31'3.8131"N	80°49'23.4474"W	1834.96	84.374	3.97	3.29	5.01
5694.00	27.940	91.640	5303.63	-434.86	179.47	1870.63	1690327.72	14350487.94	39°31'3.8081"N	80°49'22.8795"W	1879.22	84.520	1.09	-0.01	2.33
5788.00	27.940	88.130	5386.68	-449.01	179.56	1914.66	1690371.73	14350488.03	39°31'3.8082"N	80°49'22.3177"W	1923.06	84.642	1.75	0.00	-3.73
5883.00	27.950	88.530	5470.60	-462.16	180.86	1959.16	1690416.21	14350489.32	39°31'3.8201"N	80°49'21.7499"W	1967.49	84.726	0.20	0.01	0.42
5978.00	28.070	88.190	5554.48	-475.37	182.13	2003.75	1690460.79	14350490.60	39°31'3.8319"N	80°49'21.1808"W	2012.01	84.806	0.21	0.13	-0.36
6073.00	28.190	87.500	5638.26	-488.25	183.82	2048.51	1690505.53	14350492.28	39°31'3.8477"N	80°49'20.6097"W	2056.74	84.872	0.36	0.13	-0.73
6168.00	27.810	88.510	5722.14	-501.18	185.37	2093.08	1690550.09	14350493.84	39°31'3.8622"N	80°49'20.0409"W	2101.27	84.939	0.64	-0.40	1.06
6263.00	27.950	88.340	5806.11	-514.38	186.59	2137.49	1690594.47	14350495.06	39°31'3.8734"N	80°49'19.4742"W	2145.62	85.011	0.17	0.15	-0.18
6357.00	26.960	86.900	5889.52	-526.68	188.38	2180.79	1690637.76	14350496.85	39°31'3.8902"N	80°49'18.9217"W	2188.91	85.063	1.27	-1.05	-1.53
6452.00	25.660	68.760	5974.82	-531.69	197.02	2221.53	1690678.48	14350505.48	39°31'3.9747"N	80°49'18.4016"W	2230.25	84.932	8.54	-1.37	-19.09
6547.00	27.300	50.760	6059.99	-523.23	218.28	2257.64	1690714.57	14350526.74	39°31'4.1842"N	80°49'17.9404"W	2268.16	84.477	8.59	1.73	-18.95
6642.00	27.750	41.980	6144.27	-504.86	248.52	2289.32	1690746.24	14350556.96	39°31'4.4824"N	80°49'17.5354"W	2302.77	83.804	4.29	0.47	-9.24
6737.00	29.540	17.050	6227.94	-475.01	287.49	2311.06	1690767.97	14350595.92	39°31'4.8672"N	80°49'17.2570"W	2328.87	82.909	12.64	1.88	-26.24
6832.00	34.000	0.590	6308.84	-430.89	336.56	2318.21	1690775.13	14350644.97	39°31'5.3520"N	80°49'17.1644"W	2342.52	81.739	10.22	4.69	-17.33
6927.00	41.170	353.520	6384.10	-375.20	394.29	2314.95	1690771.87	14350702.67	39°31'5.9226"N	80°49'17.2046"W	2348.29	80.334	8.80	7.55	-7.44
7022.00	49.060	353.810	6451.09	-309.55	461.14	2307.54	1690764.46	14350769.49	39°31'6.5834"N	80°49'17.2974"W	2353.17	78.699	8.31	8.31	0.31
7116.00	55.380	351.670	6508.65	-236.80	534.79	2298.10	1690755.02	14350843.11	39°31'7.3115"N	80°49'17.4160"W	2359.50	76.900	6.96	6.72	-2.28
7211.00	63.880	349.190	6556.65	-155.98	615.51	2284.41	1690741.34	14350923.81	39°31'8.1096"N	80°49'17.5887"W	2365.88	74.920	9.23	8.95	-2.61
7258.00	67.040	348.500	6576.16	-113.62	657.45	2276.14	1690733.07	14350965.73	39°31'8.5243"N	80°49'17.6932"W	2369.19	73.889	6.85	6.72	-1.47
7306.00	69.400	347.940	6593.97	-69.39	701.08	2267.04	1690723.97	14351009.34	39°31'8.9557"N	80°49'17.8082"W	2372.97	72.816	5.03	4.92	-1.17
7353.00	74.420	347.380	6608.56	-25.02	744.71	2257.49	1690714.43	14351052.96	39°31'9.3871"N	80°49'17.9289"W	2377.15	71.743	10.74	10.68	-1.19
7401.00	78.350	346.640	6619.86	21.38	790.16	2247.00	1690703.94	14351098.39	39°31'9.8365"N	80°49'18.0616"W	2381.88	70.626	8.32	8.19	-1.54
7496.00	82.720	343.090	6635.48	114.85	880.58	2222.53	1690679.48	14351188.76	39°31'10.7305"N	80°49'18.3716"W	2390.62	68.386	5.89	4.60	-3.74
7591.00	90.150	340.180	6641.39	209.59	970.49	2192.67	1690649.63	14351278.64	39°31'11.6197"N	80°49'18.7503"W	2397.84	66.126	8.40	7.82	-3.06
7686.00	89.750	337.000	6641.47	304.48	1058.92	2157.99	1690614.97	14351367.04	39°31'12.4944"N	80°49'19.1906"W	2403.80	63.863	3.37	-0.42	-3.35
7780.00	89.600	339.700	6642.00	398.36	1146.28	2123.32	1690580.31	14351454.36	39°31'13.3585"N	80°49'19.6308"W	2412.97	61.637	2.88	-0.16	2.87
7875.00	89.820	341.100	6642.48	493.35	1235.77	2091.45	1690548.46	14351543.82	39°31'14.2436"N	80°49'20.0352"W	2429.26	59.423	1.49	0.23	1.47
7970.00	90.310	341.140	6642.38	588.35	1325.66	2060.71	1690517.73	14351633.67	39°31'15.1326"N	80°49'20.4252"W	2450.29	57.247	0.52	0.52	0.04
8065.00	90.150	341.130	6642.00	683.35	1415.56	2029.99	1690487.02	14351723.53	39°31'16.0217"N	80°49'20.8149"W	2474.81	55.111	0.17	-0.17	-0.01
8159.00	90.860	341.410	6641.17	777.34	1504.57	1999.81	1690456.85	14351812.51	39°31'16.9020"N	80°49'21.1978"W	2502.60	53.044	0.81	0.76	0.30





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'

Page 5 of 11



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

## WELLPATH DATA (206 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]
8254.00	91.140	341.590	6639.51	872.33	1594.65	1969.67	1690426.73	14351902.55	39°31'17.7929"N	80°49'21.5802"W	2534.27	51.006	0.35	0.29	0.19
8349.00	90.980	341.980	6637.75	967.30	1684.87	1939.98	1690397.05	14351992.74	39°31'18.6852"N	80°49'21.9568"W	2569.50	49.026	0.44	-0.17	0.41
8444.00	90.550	341.750	6636.48	1062.29	1775.15	1910.42	1690367.49	14352082.98	39°31'19.5779"N	80°49'22.3318"W	2607.84	47.102	0.51	-0.45	-0.24
8539.00	90.830	341.400	6635.34	1157.28	1865.27	1880.39	1690337.48	14352173.07	39°31'20.4692"N	80°49'22.7127"W	2648.60	45.231	0.47	0.29	-0.37
8634.00	90.890	341.150	6633.91	1252.27	1955.23	1849.90	1690307.00	14352262.99	39°31'21.3589"N	80°49'23.0995"W	2691.66	43.414	0.27	0.06	-0.26
8729.00	90.400	340.040	6632.84	1347.25	2044.83	1818.34	1690275.45	14352352.55	39°31'22.2451"N	80°49'23.5000"W	2736.36	41.645	1.28	-0.52	-1.17
8824.00	90.150	339.990	6632.39	1442.23	2134.11	1785.87	1690243.00	14352441.79	39°31'23.1281"N	80°49'23.9121"W	2782.76	39.923	0.27	-0.26	-0.05
8918.00	90.950	340.250	6631.49	1536.21	2222.50	1753.91	1690211.05	14352530.15	39°31'24.0023"N	80°49'24.3178"W	2831.20	38.279	0.89	0.85	0.28
9013.00	90.740	341.910	6630.08	1631.20	2312.35	1723.11	1690180.26	14352619.97	39°31'24.8909"N	80°49'24.7086"W	2883.76	36.693	1.76	-0.22	1.75
9108.00	90.340	341.260	6629.19	1726.19	2402.48	1693.10	1690150.26	14352710.07	39°31'25.7823"N	80°49'25.0893"W	2939.13	35.173	0.80	-0.42	-0.68
9203.00	90.460	341.070	6628.53	1821.19	2492.40	1662.43	1690119.60	14352799.94	39°31'26.6715"N	80°49'25.4784"W	2995.95	33.703	0.24	0.13	-0.20
9298.00	90.150	340.480	6628.02	1916.19	2582.10	1631.15	1690088.34	14352889.60	39°31'27.5587"N	80°49'25.8753"W	3054.15	32.281	0.70	-0.33	-0.62
9393.00	90.800	340.510	6627.23	2011.18	2671.64	1599.43	1690056.63	14352979.11	39°31'28.4443"N	80°49'26.2779"W	3113.81	30.908	0.68	0.68	0.03
9488.00	90.370	340.120	6626.26	2106.16	2761.08	1567.43	1690024.64	14353068.52	39°31'29.3289"N	80°49'26.6840"W	3174.97	29.583	0.61	-0.45	-0.41
9582.00	90.520	340.020	6625.53	2200.14	2849.45	1535.39	1689992.62	14353156.85	39°31'30.2029"N	80°49'27.0906"W	3236.79	28.317	0.19	0.16	-0.11
9677.00	91.450	340.830	6623.90	2295.12	2938.95	1503.57	1689960.81	14353246.31	39°31'31.0880"N	80°49'27.4945"W	3301.23	27.094	1.30	0.98	0.85
9772.00	91.110	341.290	6621.78	2390.09	3028.78	1472.74	1689929.99	14353336.11	39°31'31.9764"N	80°49'27.8857"W	3367.86	25.931	0.60	-0.36	0.48
9867.00	90.370	341.350	6620.55	2485.09	3118.77	1442.31	1689899.58	14353426.06	39°31'32.8664"N	80°49'28.2717"W	3436.13	24.819	0.78	-0.78	0.06
9962.00	90.580	341.560	6619.76	2580.08	3208.83	1412.10	1689869.38	14353516.09	39°31'33.7571"N	80°49'28.6550"W	3505.80	23.753	0.31	0.22	0.22
10057.00	90.740	340.720	6618.67	2675.07	3298.72	1381.39	1689838.68	14353605.95	39°31'34.6461"N	80°49'29.0447"W	3576.29	22.722	0.90	0.17	-0.88
10151.00	90.060	340.710	6618.01	2769.07	3387.45	1350.35	1689807.65	14353694.63	39°31'35.5236"N	80°49'29.4386"W	3646.67	21.734	0.72	-0.72	-0.01
10246.00	91.080	340.640	6617.07	2864.06	3477.09	1318.91	1689776.23	14353784.24	39°31'36.4102"N	80°49'29.8376"W	3718.83	20.773	1.08	1.07	-0.07
10341.00	90.220	341.580	6615.99	2959.05	3566.96	1288.16	1689745.49	14353874.08	39°31'37.2990"N	80°49'30.2278"W	3792.44	19.856	1.34	-0.91	0.99
10436.00	90.310	341.770	6615.55	3054.05	3657.14	1258.29	1689715.63	14353964.22	39°31'38.1909"N	80°49'30.6068"W	3867.56	18.986	0.22	0.09	0.20
10531.00	90.120	339.290	6615.19	3149.03	3746.70	1226.63	1689683.98	14354053.75	39°31'39.0766"N	80°49'31.0086"W	3942.39	18.128	2.62	-0.20	-2.61
10626.00	90.650	340.370	6614.56	3244.00	3835.88	1193.87	1689651.24	14354142.88	39°31'39.9586"N	80°49'31.4244"W	4017.37	17.288	1.27	0.56	1.14
10720.00	90.460	340.020	6613.64	3337.99	3924.31	1162.03	1689619.40	14354231.28	39°31'40.8332"N	80°49'31.8287"W	4092.74	16.495	0.42	-0.20	-0.37
10815.00	90.180	342.000	6613.11	3432.98	4014.13	1131.12	1689588.50	14354321.07	39°31'41.7215"N	80°49'32.2209"W	4170.46	15.737	2.10	-0.29	2.08
10910.00	89.720	340.290	6613.20	3527.98	4104.03	1100.42	1689557.82	14354410.93	39°31'42.6106"N	80°49'32.6105"W	4249.00	15.010	1.86	-0.48	-1.80
11004.00	90.710	340.670	6612.84	3621.97	4192.63	1069.01	1689526.42	14354499.49	39°31'43.4868"N	80°49'33.0091"W	4326.77	14.304	1.13	1.05	0.40





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'  
Page 6 of 11



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

## WELLPATH DATA (206 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]
11099.00	90.060	341.000	6612.21	3716.96	4282.36	1037.82	1689495.25	14354589.19	39°31'44.3743"N	80°49'33.4049"W	4406.32	13.623	0.77	-0.68	0.35
11194.00	91.480	343.200	6610.93	3811.93	4372.75	1008.63	1689466.06	14354679.54	39°31'45.2682"N	80°49'33.7753"W	4487.56	12.989	2.76	1.49	2.32
11289.00	90.090	341.520	6609.63	3906.90	4463.27	979.84	1689437.29	14354770.02	39°31'46.1633"N	80°49'34.1404"W	4569.55	12.382	2.30	-1.46	-1.77
11384.00	89.660	340.930	6609.83	4001.90	4553.21	949.27	1689406.73	14354859.93	39°31'47.0529"N	80°49'34.5284"W	4651.11	11.777	0.77	-0.45	-0.62
11478.00	89.480	340.760	6610.54	4095.89	4642.00	918.42	1689375.90	14354948.69	39°31'47.9310"N	80°49'34.9198"W	4731.99	11.191	0.26	-0.19	-0.18
11573.00	89.820	341.340	6611.12	4190.89	4731.85	887.57	1689345.06	14355038.50	39°31'48.8196"N	80°49'35.3113"W	4814.37	10.624	0.71	0.36	0.61
11668.00	90.250	340.720	6611.06	4285.89	4821.69	856.69	1689314.19	14355128.31	39°31'49.7081"N	80°49'35.7032"W	4897.21	10.075	0.79	0.45	-0.65
11763.00	90.180	341.920	6610.71	4380.89	4911.68	826.27	1689283.78	14355218.26	39°31'50.5981"N	80°49'36.0893"W	4980.70	9.549	1.27	-0.07	1.26
11858.00	90.120	342.170	6610.46	4475.87	5002.06	796.98	1689254.50	14355308.60	39°31'51.4919"N	80°49'36.4609"W	5065.15	9.053	0.27	-0.06	0.26
11952.00	90.400	341.120	6610.03	4569.87	5091.27	767.38	1689224.91	14355397.78	39°31'52.3742"N	80°49'36.8364"W	5148.78	8.571	1.16	0.30	-1.12
12047.00	90.580	341.560	6609.22	4664.86	5181.28	736.99	1689194.53	14355487.75	39°31'53.2643"N	80°49'37.2221"W	5233.43	8.095	0.50	0.19	0.46
12142.00	90.310	340.820	6608.48	4759.86	5271.20	706.36	1689163.91	14355577.63	39°31'54.1536"N	80°49'37.6108"W	5318.31	7.632	0.83	-0.28	-0.78
12237.00	90.000	341.170	6608.22	4854.86	5361.02	675.42	1689132.99	14355667.42	39°31'55.0419"N	80°49'38.0035"W	5403.40	7.181	0.49	-0.33	0.37
12332.00	89.630	341.440	6608.53	4949.86	5451.01	644.97	1689102.55	14355757.37	39°31'55.9318"N	80°49'38.3899"W	5489.03	6.748	0.48	-0.39	0.28
12427.00	89.970	341.490	6608.86	5044.86	5541.08	614.77	1689072.37	14355847.41	39°31'56.8226"N	80°49'38.7731"W	5575.08	6.331	0.36	0.36	0.05
12521.00	89.940	341.550	6608.94	5138.85	5630.23	584.98	1689042.58	14355936.52	39°31'57.7043"N	80°49'39.1512"W	5660.54	5.932	0.07	-0.03	0.06
12616.00	90.250	341.460	6608.78	5233.85	5720.32	554.84	1689012.46	14356026.58	39°31'58.5953"N	80°49'39.5336"W	5747.17	5.540	0.34	0.33	-0.09
12711.00	90.680	341.520	6608.01	5328.85	5810.41	524.68	1688982.31	14356116.63	39°31'59.4862"N	80°49'39.9163"W	5834.05	5.160	0.46	0.45	0.06
12806.00	90.310	341.460	6607.19	5423.84	5900.49	494.52	1688952.17	14356206.67	39°32'0.3770"N	80°49'40.2990"W	5921.17	4.791	0.39	-0.39	-0.06
12901.00	90.550	342.620	6606.47	5518.82	5990.85	465.23	1688922.88	14356297.00	39°32'1.2707"N	80°49'40.6707"W	6008.89	4.440	1.25	0.25	1.22
12996.00	90.650	341.990	6605.48	5613.80	6081.35	436.36	1688894.02	14356387.47	39°32'2.1657"N	80°49'41.0370"W	6096.99	4.104	0.67	0.11	-0.66
13091.00	90.520	341.730	6604.51	5708.79	6171.63	406.78	1688864.46	14356477.70	39°32'3.0584"N	80°49'41.4122"W	6185.02	3.771	0.31	-0.14	-0.27
13185.00	90.680	341.780	6603.52	5802.78	6260.90	377.35	1688835.04	14356566.94	39°32'3.9413"N	80°49'41.7857"W	6272.26	3.449	0.18	0.17	0.05
13280.00	90.650	340.540	6602.42	5897.77	6350.80	346.68	1688804.38	14356656.80	39°32'4.8304"N	80°49'42.1750"W	6360.26	3.125	1.31	-0.03	-1.31
13375.00	90.460	341.090	6601.50	5992.76	6440.52	315.46	1688773.17	14356746.49	39°32'5.7177"N	80°49'42.5712"W	6448.24	2.804	0.61	-0.20	0.58
13470.00	90.340	341.100	6600.84	6087.76	6530.39	284.68	1688742.41	14356836.32	39°32'6.6065"N	80°49'42.9619"W	6536.59	2.496	0.13	-0.13	0.01
13565.00	89.910	340.950	6600.63	6182.76	6620.23	253.79	1688711.53	14356926.13	39°32'7.4950"N	80°49'43.3539"W	6625.09	2.195	0.48	-0.45	-0.16
13659.00	90.370	341.610	6600.40	6276.76	6709.26	223.62	1688681.37	14357015.12	39°32'8.3754"N	80°49'43.7368"W	6712.98	1.909	0.86	0.49	0.70
13754.00	90.680	341.150	6599.53	6371.75	6799.28	193.29	1688651.06	14357105.10	39°32'9.2657"N	80°49'44.1218"W	6802.03	1.628	0.58	0.33	-0.48
13849.00	90.310	341.510	6598.71	6466.75	6889.28	162.88	1688620.66	14357195.07	39°32'10.1558"N	80°49'44.5077"W	6891.20	1.354	0.54	-0.39	0.38





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'

Page 7 of 11



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

## WELLPATH DATA (206 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]
13944.00	90.580	341.430	6597.97	6561.74	6979.35	132.69	1688590.48	14357285.10	39°32'11.0465"N	80°49'44.8909"W	6980.61	1.089	0.30	0.28	-0.08
14039.00	90.680	341.000	6596.93	6656.74	7069.28	102.10	1688559.90	14357375.00	39°32'11.9360"N	80°49'45.2791"W	7070.02	0.827	0.46	0.11	-0.45
14133.00	90.430	341.160	6596.02	6750.73	7158.20	71.62	1688529.44	14357463.88	39°32'12.8153"N	80°49'45.6660"W	7158.56	0.573	0.32	-0.27	0.17
14228.00	90.340	341.190	6595.38	6845.73	7248.12	40.97	1688498.79	14357553.76	39°32'13.7046"N	80°49'46.0550"W	7248.23	0.324	0.10	-0.09	0.03
14323.00	90.430	341.090	6594.74	6940.73	7338.01	10.26	1688468.10	14357643.62	39°32'14.5936"N	80°49'46.4448"W	7338.02	0.080	0.14	0.09	-0.11
14418.00	90.710	341.240	6593.80	7035.72	7427.92	-20.41	1688437.44	14357733.50	39°32'15.4828"N	80°49'46.8341"W	7427.95	359.843	0.33	0.29	0.16
14513.00	90.580	341.870	6592.73	7130.71	7518.04	-50.46	1688407.40	14357823.57	39°32'16.3740"N	80°49'47.2155"W	7518.21	359.615	0.68	-0.14	0.66
14608.00	90.680	341.380	6591.68	7225.70	7608.19	-80.41	1688377.46	14357913.69	39°32'17.2655"N	80°49'47.5956"W	7608.61	359.394	0.53	0.11	-0.52
14703.00	90.310	341.140	6590.86	7320.70	7698.15	-110.93	1688346.96	14358003.61	39°32'18.1552"N	80°49'47.9829"W	7698.95	359.174	0.46	-0.39	-0.25
14798.00	90.400	341.070	6590.27	7415.70	7788.03	-141.69	1688316.21	14358093.46	39°32'19.0440"N	80°49'48.3734"W	7789.31	358.958	0.12	0.09	-0.07
14893.00	90.550	341.590	6589.48	7510.69	7878.02	-172.10	1688285.81	14358183.42	39°32'19.9341"N	80°49'48.7594"W	7879.90	358.749	0.57	0.16	0.55
14987.00	90.980	341.730	6588.23	7604.68	7967.24	-201.68	1688256.24	14358272.60	39°32'20.8164"N	80°49'49.1348"W	7969.79	358.550	0.48	0.46	0.15
15082.00	90.460	341.390	6587.04	7699.67	8057.35	-231.72	1688226.21	14358362.68	39°32'21.7076"N	80°49'49.5161"W	8060.69	358.353	0.65	-0.55	-0.36
15177.00	90.650	341.710	6586.12	7794.66	8147.47	-261.79	1688196.16	14358452.75	39°32'22.5987"N	80°49'49.8977"W	8151.67	358.160	0.39	0.20	0.34
15272.00	90.280	341.790	6585.34	7889.66	8237.69	-291.54	1688166.42	14358542.94	39°32'23.4910"N	80°49'50.2752"W	8242.84	357.973	0.40	-0.39	0.08
15367.00	90.120	340.770	6585.01	7984.65	8327.66	-322.03	1688135.94	14358632.87	39°32'24.3807"N	80°49'50.6622"W	8333.88	357.786	1.09	-0.17	-1.07
15462.00	90.310	341.130	6584.66	8079.65	8417.45	-353.03	1688104.95	14358722.63	39°32'25.2688"N	80°49'51.0559"W	8424.85	357.598	0.43	0.20	0.38
15556.00	90.950	341.430	6583.62	8173.65	8506.48	-383.20	1688074.79	14358811.62	39°32'26.1492"N	80°49'51.4388"W	8515.10	357.421	0.75	0.68	0.32
15651.00	90.460	341.550	6582.45	8268.64	8596.55	-413.36	1688044.65	14358901.66	39°32'27.0400"N	80°49'51.8215"W	8606.49	357.247	0.53	-0.52	0.13
15746.00	90.980	341.740	6581.26	8363.62	8686.71	-443.27	1688014.75	14358991.78	39°32'27.9316"N	80°49'52.2012"W	8698.02	357.079	0.58	0.55	0.20
15841.00	90.310	341.080	6580.19	8458.62	8776.75	-473.55	1687984.48	14359081.79	39°32'28.8221"N	80°49'52.5856"W	8789.52	356.912	0.99	-0.71	-0.69
15936.00	90.430	341.270	6579.58	8553.61	8866.67	-504.21	1687953.83	14359171.67	39°32'29.7113"N	80°49'52.9747"W	8880.99	356.745	0.24	0.13	0.20
16030.00	90.680	341.940	6578.67	8647.61	8955.86	-533.87	1687924.19	14359260.82	39°32'30.5933"N	80°49'53.3512"W	8971.76	356.589	0.76	0.27	0.71
16125.00	90.580	341.680	6577.62	8742.59	9046.11	-563.52	1687894.54	14359351.03	39°32'31.4858"N	80°49'53.7276"W	9063.64	356.435	0.29	-0.11	-0.27
16220.00	90.580	341.430	6576.66	8837.59	9136.22	-593.58	1687864.50	14359441.11	39°32'32.3770"N	80°49'54.1091"W	9155.48	356.283	0.26	0.00	-0.26
16315.00	90.550	341.380	6575.72	8932.58	9226.26	-623.87	1687834.22	14359531.11	39°32'33.2674"N	80°49'54.4936"W	9247.33	356.132	0.06	-0.03	-0.05
16410.00	90.580	340.990	6574.79	9027.58	9316.18	-654.51	1687803.59	14359621.00	39°32'34.1567"N	80°49'54.8825"W	9339.14	355.981	0.41	0.03	-0.41
16505.00	90.120	340.940	6574.21	9122.57	9405.98	-685.49	1687772.62	14359710.76	39°32'35.0448"N	80°49'55.2758"W	9430.93	355.832	0.49	-0.48	-0.05
16599.00	90.090	341.750	6574.03	9216.57	9495.04	-715.56	1687742.57	14359799.79	39°32'35.9256"N	80°49'55.6575"W	9521.96	355.690	0.86	-0.03	0.86
16694.00	90.280	340.990	6573.73	9311.57	9585.06	-745.91	1687712.23	14359889.77	39°32'36.8158"N	80°49'56.0428"W	9614.04	355.550	0.82	0.20	-0.80





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'

Page 8 of 11



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

## WELLPATH DATA (206 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]
16789.00	90.060	341.000	6573.45	9406.57	9674.88	-776.84	1687681.31	14359979.56	39°32'37.7041"N	80°49'56.4355"W	9706.02	355.409	0.23	-0.23	0.01
16884.00	90.250	341.600	6573.19	9501.57	9764.87	-807.30	1687650.86	14360069.51	39°32'38.5940"N	80°49'56.8222"W	9798.18	355.274	0.66	0.20	0.63
16979.00	90.150	341.270	6572.86	9596.57	9854.92	-837.55	1687620.63	14360159.53	39°32'39.4846"N	80°49'57.2061"W	9890.45	355.142	0.36	-0.11	-0.35
17073.00	90.250	341.320	6572.53	9690.57	9943.96	-867.69	1687590.49	14360248.53	39°32'40.3651"N	80°49'57.5888"W	9981.74	355.013	0.12	0.11	0.05
17168.00	90.250	341.210	6572.11	9785.56	10033.92	-898.20	1687559.99	14360338.46	39°32'41.2549"N	80°49'57.9762"W	10074.04	354.885	0.12	0.00	-0.12
17263.00	90.220	341.260	6571.72	9880.56	10123.87	-928.76	1687529.45	14360428.37	39°32'42.1444"N	80°49'58.3641"W	10166.38	354.758	0.06	-0.03	0.05
17357.00	90.310	341.270	6571.29	9974.56	10212.89	-958.96	1687499.27	14360517.35	39°32'43.0248"N	80°49'58.7474"W	10257.81	354.636	0.10	0.10	0.01
17452.00	90.120	341.290	6570.93	10069.56	10302.86	-989.45	1687468.79	14360607.29	39°32'43.9146"N	80°49'59.1345"W	10350.27	354.514	0.20	-0.20	0.02
17547.00	90.250	341.020	6570.63	10164.56	10392.77	-1020.13	1687438.12	14360697.16	39°32'44.8037"N	80°49'59.5240"W	10442.72	354.394	0.32	0.14	-0.28
17642.00	90.220	341.610	6570.24	10259.56	10482.76	-1050.57	1687407.69	14360787.12	39°32'45.6937"N	80°49'59.9104"W	10535.27	354.277	0.62	-0.03	0.62
17737.00	90.280	341.460	6569.82	10354.56	10572.87	-1080.65	1687377.62	14360877.19	39°32'46.5848"N	80°50'0.2924"W	10627.95	354.164	0.17	0.06	-0.16
17831.00	90.090	340.930	6569.52	10448.55	10661.85	-1110.95	1687347.33	14360966.13	39°32'47.4648"N	80°50'0.6771"W	10719.58	354.051	0.60	-0.20	-0.56
17926.00	90.150	341.520	6569.32	10543.55	10751.80	-1141.53	1687316.77	14361056.04	39°32'48.3543"N	80°50'1.0652"W	10812.23	353.940	0.62	0.06	0.62
18021.00	90.150	341.160	6569.07	10638.55	10841.80	-1171.93	1687286.38	14361146.01	39°32'49.2444"N	80°50'1.4511"W	10904.96	353.831	0.38	0.00	-0.38
18116.00	90.180	341.380	6568.80	10733.55	10931.77	-1202.43	1687255.89	14361235.95	39°32'50.1341"N	80°50'1.8384"W	10997.70	353.723	0.23	0.03	0.23
18210.00	90.280	341.120	6568.42	10827.55	11020.78	-1232.65	1687225.69	14361324.92	39°32'51.0144"N	80°50'2.2220"W	11089.50	353.618	0.30	0.11	-0.28
18305.00	90.280	341.330	6567.96	10922.55	11110.73	-1263.22	1687195.12	14361414.83	39°32'51.9039"N	80°50'2.6102"W	11182.31	353.514	0.22	0.00	0.22
18400.00	90.150	341.620	6567.60	11017.55	11200.80	-1293.40	1687164.95	14361504.87	39°32'52.7947"N	80°50'2.9934"W	11275.23	353.413	0.33	-0.14	0.31
18495.00	90.150	341.300	6567.35	11112.55	11290.87	-1323.61	1687134.76	14361594.90	39°32'53.6854"N	80°50'3.3769"W	11368.19	353.314	0.34	0.00	-0.34
18589.00	90.280	341.570	6567.00	11206.54	11379.98	-1353.54	1687104.84	14361683.98	39°32'54.5666"N	80°50'3.7568"W	11460.19	353.217	0.32	0.14	0.29
18683.00	90.280	341.280	6566.54	11300.54	11469.08	-1383.48	1687074.91	14361773.04	39°32'55.4478"N	80°50'4.1370"W	11552.22	353.122	0.31	0.00	-0.31
18777.00	90.460	341.560	6565.93	11394.54	11558.18	-1413.43	1687044.97	14361862.10	39°32'56.3289"N	80°50'4.5172"W	11644.28	353.028	0.35	0.19	0.30
18871.00	90.550	341.550	6565.10	11488.53	11647.35	-1443.17	1687015.24	14361951.24	39°32'57.2107"N	80°50'4.8948"W	11736.42	352.937	0.10	0.10	-0.01
18965.00	90.950	341.070	6563.87	11582.52	11736.38	-1473.29	1686985.14	14362040.24	39°32'58.0912"N	80°50'5.2772"W	11828.49	352.845	0.66	0.43	-0.51
19050.00	90.920	341.470	6562.49	11667.51	11816.87	-1500.58	1686957.86	14362120.69	39°32'58.8872"N	80°50'5.6237"W	11911.77	352.763	0.47	-0.04	0.47
19075.00	90.920	341.470	6562.08	11692.51	11840.57	-1508.53	1686949.92	14362144.38	39°32'59.1216"N	80°50'5.7246"W	11936.28	352.739	0.00	0.00	0.00





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'

Page 9 of 11



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

## HOLE & CASING SECTIONS - Ref Wellbore: Lemon Unit 1H AWB Ref Wellpath: Lemon Unit 1H AWP Proj: 19075'

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	25.50	105.50	80.00	25.50	105.50	0.00	0.00	0.40	0.10
17.5in Open Hole	105.50	392.00	286.50	105.50	391.99	0.40	0.10	2.21	-0.18
13.375in Casing Surface	25.50	370.00	344.50	25.50	369.99	0.00	0.00	2.07	-0.22
12.25in Open Hole	392.00	2757.00	2365.00	391.99	2621.89	2.21	-0.18	49.22	694.77
9.625in Casing Intermediate	25.50	2699.30	2673.80	25.50	2570.06	0.00	0.00	43.70	670.02
8.75in Open Hole	2757.00	5368.00	2611.00	2621.89	5006.99	49.22	694.77	171.02	1737.84
8.5in Open Hole	5368.00	19075.00	13707.00	5006.99	6562.08	171.02	1737.84	11840.57	-1508.53
5.5in Casing Production	25.50	19075.00	19049.50	25.50	6562.08	0.00	0.00	11840.57	-1508.53

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Lemon Unit 1H POE Rev-2	6620.00	772.77	2245.06	1690702.00	14351081.00	39°31'9.6646"N	80°49'18.0869"W	point
Lemon Unit 1H BHL Rev-2	6645.00	11847.44	-1537.17	1686921.29	14362151.25	39°32'59.1900"N	80°50'6.0900"W	point
Lemon Unit 1H LP Rev-2	6645.00	950.28	2184.43	1690641.40	14351258.44	39°31'11.4202"N	80°49'18.8559"W	point
Lemon Unit 1H 50' L/R Hard Line	7000.00	6310.11	353.95	1688811.64	14356616.13	39°32'4.4281"N	80°49'42.0832"W	rectangle
	2D Rectangle 11702.7 x 100.							





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'

Page 10 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

WELLPATH COMPOSITION - Ref Wellbore: Lemon Unit 1H AWB Ref Wellpath: Lemon Unit 1H AWP Proj: 19075'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	381.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-381')	Lemon Unit 1H AWB	08/Nov/2020
381.00	2664.00	BH NaviTrak (2019) (Axial)	02 APS EM <12-1/4"> (381')(509'-2664')	Lemon Unit 1H AWB	08/Nov/2020
2664.00	5303.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (2664')(2741'-5303')	Lemon Unit 1H AWB	14/Dec/2020
5303.00	19075.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (5303')(5409'-19050')	Lemon Unit 1H AWB	14/Dec/2020





# Actual Wellpath Report

Lemon Unit 1H AWP Proj: 19075'  
Page 11 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lemon Unit 1H
Field	Tyler	API	47-095-02703-0000
Facility	Margery Pad	Wellbore	Lemon Unit 1H AWB
Slot	Slot #05		

COMMENTS
<p><b>Wellpath general comments</b> API: 47-095-02703-0000 BH Job #: 110631508-B Rig: H&amp;P 317 Duration: 12/15/2020-12/20/2020 Gyrodatta MS Gyro &lt;17-1/2"&gt; (100'-381') APS EM &lt;12-1/4"&gt; (381')(509'-2664') APS EM &lt;8-3/4"&gt; (2664')(2741'-5303') BH AT Curve &lt;8-1/2"&gt; (5303')(5409'-19050') Sycamore: 6859' MD Middlesex: 7006' MD Burkett: 7173' MD Tully: 7229' MD Marcellus POE: 7412' MD Projected MD at TD: 19075'</p>

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Office of Oil and Gas  
MAR 28 2023  
West Virginia Department of  
Environmental Protection