



# ANTERO RESOURCES CORPORATION



Location: Wetzel County, WV  
 Field: Wetzel  
 Facility: Big Run Pad

Slot: Slot D  
 Well: Gump Unit 1H  
 Wellbore: Gump Unit 1H PWB

Easting (ft)

Pkt reference wellpath is Gump Unit 1H PWP Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 531 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 531 (RKB)	Scale: True distance
H&P 531 (RKB) to Mean Sea Level: 1280 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot D): -1250 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edasayan on 2023-12-19; Database: WA_MPL_EASTERNUS_Def

### Location Information

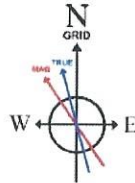
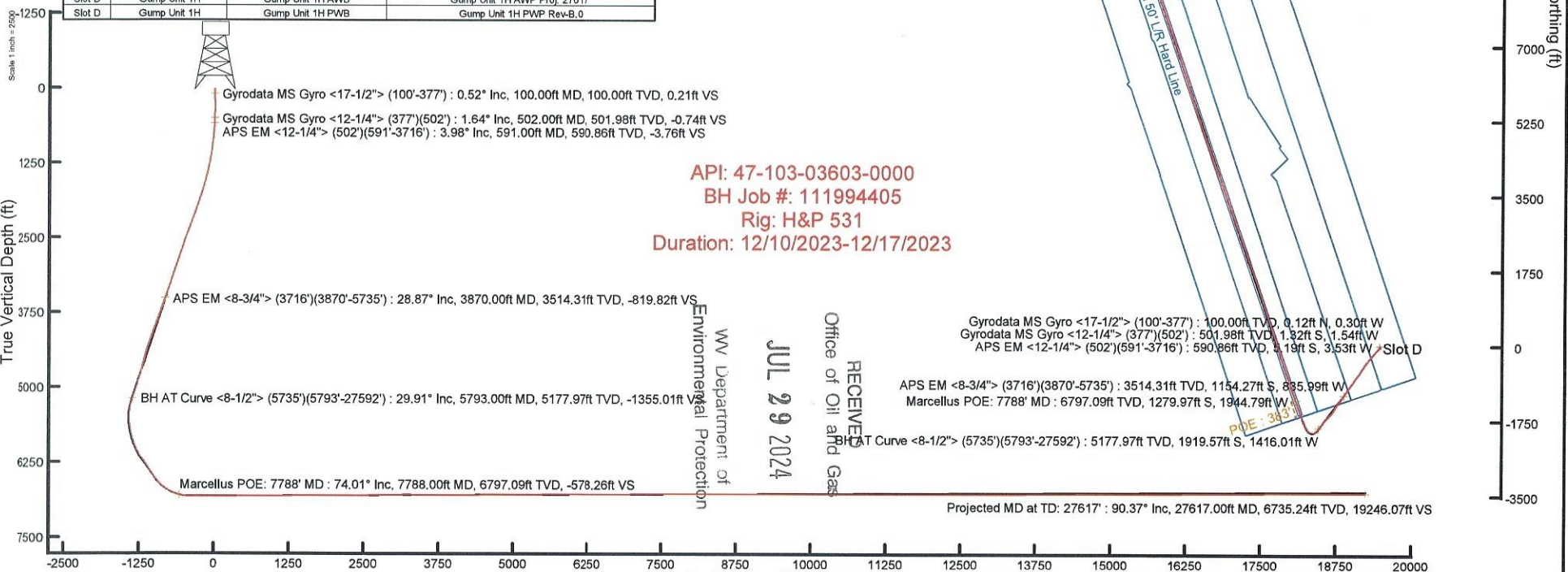
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Big Run Pad	1691442.110	14364002.040	39°33'17.4032"N	80°49'8.3073"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot D	14.23	-4.76	1691437.350	14364016.260
Comment	Gump Unit 1H			
H&P 531 (RKB) to Ground level (At Slot: Slot D)	30ft			
Mean Sea Level to Ground level (At Slot: Slot D)	-1250ft			
H&P 531 (RKB) to Mean Sea Level	1280ft			

### Well Profile Data

Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	3716.00	28.490	213.640	3379.19	-1091.68	-796.72	0.46	-773.40
Proj. to Bottom	3786.00	28.490	213.640	3440.72	-1119.48	-815.21	0.00	-793.68
Drill Out	3866.00	28.490	213.640	3511.03	-1151.25	-836.35	0.00	-816.85
Adj. Inc / Azi	3942.91	30.222	216.751	3578.06	-1182.04	-858.10	3.00	-838.89
Curve KOP	5810.68	30.222	216.751	5191.97	-1935.32	-1420.62	0.00	-1368.40
Turn	6938.17	35.000	339.000	6225.66	-1854.15	-1731.81	5.00	-1190.49
Hold / AC	7288.17	35.000	339.000	6512.36	-1666.73	-1803.75	0.00	-989.86
POE	7775.11	73.923	341.034	6790.00	-1300.92	-1934.92	8.00	-601.27
Landing Pt.	7979.82	90.300	341.034	6818.00	-1109.80	-2000.60	8.00	-399.19
BHL	27629.32	90.300	341.034	6715.12	17472.68	-8386.81	0.00	19250.04

### Well Data

Slot	Well	Wellbore	Wellpath
Slot D	Gump Unit 1H	Gump Unit 1H AWB	Gump Unit 1H AWP Proj: 27617
Slot D	Gump Unit 1H	Gump Unit 1H PWB	Gump Unit 1H PWP Rev-B.0



User specified (HDGM) Dip: 66.25° Field: 51546 nT  
 Magnetic North is 7.50 degrees West of True North (at 12/9/2023)  
 Grid North is 0.12 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.12 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.62 degrees

API: 47-103-03603-0000  
 BH Job #: 111994405  
 Rig: H&P 531  
 Duration: 12/10/2023-12/17/2023

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Gyrodatta MS Gyro <17-1/2"> (100'-377') : 100.00ft TVD, 0.12ft N, 0.30ft W  
 Gyrodatta MS Gyro <12-1/4"> (377')(502') : 501.98ft TVD, 1.32ft S, 1.54ft W  
 APS EM <12-1/4"> (502')(591'-3716') : 590.86ft TVD, 5.19ft S, 3.53ft W  
 Slot D  
 APS EM <8-3/4"> (3716')(3870'-5735') : 3514.31ft TVD, 1154.27ft S, 895.99ft W  
 Marcellus POE: 7788' MD : 6797.09ft TVD, 1279.97ft S, 1944.79ft W  
 BH AT Curve <8-1/2"> (5735')(5793'-27592') : 5177.97ft TVD, 1919.57ft S, 1416.01ft W

Vertical Section (ft)  
 Azimuth 341.03° with reference 0.00 N, 0.00 E

Scale 1 inch = 2500



# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H 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	0.999603	Report Generated	12/19/2023 at 10:18:46 PM
Convergence at slot	0.12° 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	14.23	-4.76	1691437.35	14364016.26	39°33'17.5439"N	80°49'8.3678"W
Facility Reference Pt			1691442.11	14364002.04	39°33'17.4032"N	80°49'8.3073"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 531 (RKB) to Facility Vertical Datum	1280.00ft
Horizontal Reference Pt	Slot	H&P 531 (RKB) to Mean Sea Level	1280.00ft
Vertical Reference Pt	H&P 531 (RKB)	H&P 531 (RKB) to Ground Level at Slot (Slot D)	30.00ft
MD Reference Pt	H&P 531 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.03°

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Gump Unit 1H
Field	Wetzel		API	47-103-03603-0000
Facility	Big Run Pad		Wellbore	Gump Unit 1H AWB
Slot	Slot D			

**WELLPATH DATA (295 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	291.490	0.00	0.00	0.00	0.00	1691437.35	14364016.26	39°33'17.5439"N	80°49'8.3678"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	291.490	30.00	0.00	0.00	0.00	1691437.35	14364016.26	39°33'17.5439"N	80°49'8.3678"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.520	291.490	100.00	0.21	0.12	-0.30	1691437.05	14364016.38	39°33'17.5450"N	80°49'8.3715"W	0.32	291.490	0.74	0.74	0.00	Gyrodata MS Gyro <17-1/2"> (100'-377')
200.00	0.340	295.010	200.00	0.71	0.41	-0.99	1691436.36	14364016.67	39°33'17.5479"N	80°49'8.3804"W	1.07	292.468	0.18	-0.18	3.52	
300.00	0.150	337.680	300.00	1.04	0.65	-1.31	1691436.05	14364016.91	39°33'17.5504"N	80°49'8.3844"W	1.46	296.633	0.25	-0.19	42.67	
377.00	0.340	131.700	376.99	0.94	0.60	-1.17	1691436.18	14364016.86	39°33'17.5498"N	80°49'8.3827"W	1.32	296.929	0.62	0.25	200.03	
502.00	1.640	201.230	501.98	-0.74	-1.32	-1.54	1691435.81	14364014.94	39°33'17.5309"N	80°49'8.3875"W	2.03	229.504	1.24	1.04	55.62	Gyrodata MS Gyro <12-1/4"> (377')(502')
591.00	3.980	209.640	590.86	-3.76	-5.19	-3.53	1691433.82	14364011.07	39°33'17.4927"N	80°49'8.4130"W	6.28	214.240	2.66	2.63	9.45	APS EM <12-1/4"> (502')(591'-3716')
682.00	6.420	211.580	681.48	-9.08	-12.27	-7.76	1691429.59	14364003.99	39°33'17.4228"N	80°49'8.4672"W	14.52	212.308	2.69	2.68	2.13	
772.00	8.460	212.980	770.72	-16.36	-22.11	-14.00	1691423.36	14363994.16	39°33'17.3256"N	80°49'8.5471"W	26.17	212.338	2.28	2.27	1.56	
861.00	10.100	212.700	858.55	-25.24	-34.17	-21.78	1691415.58	14363982.10	39°33'17.2066"N	80°49'8.6467"W	40.52	212.511	1.84	1.84	-0.31	
950.00	12.220	214.850	945.86	-35.64	-48.47	-31.38	1691405.98	14363967.81	39°33'17.0655"N	80°49'8.7696"W	57.74	212.918	2.43	2.38	2.42	
1040.00	14.510	216.290	1033.42	-47.69	-65.38	-43.50	1691393.87	14363950.91	39°33'16.8986"N	80°49'8.9248"W	78.52	213.637	2.57	2.54	1.60	
1134.00	16.720	218.040	1123.95	-61.76	-85.52	-58.80	1691378.57	14363930.77	39°33'16.6998"N	80°49'9.1207"W	103.78	214.511	2.40	2.35	1.86	
1229.00	19.520	219.310	1214.23	-77.55	-108.57	-77.28	1691360.10	14363907.74	39°33'16.4724"N	80°49'9.3572"W	133.26	215.444	2.98	2.95	1.34	
1323.00	22.270	220.080	1302.04	-94.97	-134.35	-98.70	1691338.69	14363881.96	39°33'16.2180"N	80°49'9.6313"W	166.71	216.303	2.94	2.93	0.82	
1418.00	25.290	221.590	1388.96	-114.21	-163.31	-123.77	1691313.63	14363853.02	39°33'15.9323"N	80°49'9.9521"W	204.91	217.157	3.24	3.18	1.59	
1512.00	28.320	221.560	1472.85	-135.05	-195.02	-151.89	1691285.52	14363821.32	39°33'15.6195"N	80°49'10.3120"W	247.19	217.914	3.22	3.22	-0.03	
1607.00	29.000	221.740	1556.21	-157.40	-229.06	-182.17	1691255.25	14363787.29	39°33'15.2836"N	80°49'10.6994"W	292.67	218.495	0.72	0.72	0.19	
1701.00	28.180	219.030	1638.75	-180.31	-263.31	-211.32	1691226.11	14363753.06	39°33'14.9457"N	80°49'11.0724"W	337.62	218.749	1.63	-0.87	-2.88	
1796.00	30.140	219.020	1721.71	-204.84	-299.27	-240.47	1691196.98	14363717.11	39°33'14.5909"N	80°49'11.4454"W	383.91	218.783	2.06	2.06	-0.01	
1890.00	30.980	218.730	1802.65	-230.28	-336.48	-270.46	1691167.00	14363679.92	39°33'14.2238"N	80°49'11.8293"W	431.70	218.793	0.91	0.89	-0.31	
1984.00	30.970	217.480	1883.25	-256.58	-374.54	-300.31	1691137.15	14363641.87	39°33'13.8481"N	80°49'12.2114"W	480.07	218.723	0.68	-0.01	-1.33	
2078.00	30.880	216.350	1963.88	-283.67	-413.16	-329.33	1691108.15	14363603.26	39°33'13.4670"N	80°49'12.5828"W	528.36	218.558	0.63	-0.10	-1.20	
2173.00	30.780	214.130	2045.46	-312.14	-452.92	-357.42	1691080.07	14363563.52	39°33'13.0746"N	80°49'12.9424"W	576.96	218.278	1.20	-0.11	-2.34	
2267.00	30.380	212.260	2126.39	-341.46	-492.93	-383.60	1691053.90	14363523.52	39°33'12.6797"N	80°49'13.2777"W	624.61	217.890	1.10	-0.43	-1.99	
2362.00	30.280	211.330	2208.39	-371.80	-533.70	-408.88	1691028.64	14363482.77	39°33'12.2772"N	80°49'13.6014"W	672.33	217.456	0.51	-0.11	-0.98	
2457.00	31.500	213.390	2289.91	-402.26	-574.89	-434.99	1691002.53	14363441.60	39°33'11.8707"N	80°49'13.9358"W	720.91	217.113	1.70	1.28	2.17	
2551.00	31.840	213.290	2369.92	-432.43	-616.12	-462.12	1690975.42	14363400.39	39°33'11.4638"N	80°49'14.2832"W	770.16	216.871	0.37	0.36	-0.11	
2646.00	31.520	215.670	2450.76	-462.15	-657.24	-490.35	1690947.19	14363359.28	39°33'11.0579"N	80°49'14.6447"W	820.01	216.726	1.36	-0.34	2.51	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

### WELLPATH DATA (295 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
2741.00	30.650	214.900	2532.12	-490.79	-697.28	-518.69	1690918.87	14363319.26	39°33'10.6628"N	80°49'15.0075"W	869.04	216.645	1.01	-0.92	-0.81	
2835.00	30.160	216.990	2613.20	-518.14	-735.79	-546.60	1690890.96	14363280.76	39°33'10.2827"N	80°49'15.3648"W	916.60	216.608	1.24	-0.52	2.22	
2930.00	29.790	216.530	2695.49	-544.87	-773.81	-575.01	1690862.57	14363242.75	39°33'9.9075"N	80°49'15.7284"W	964.07	216.616	0.46	-0.39	-0.48	
3024.00	30.870	216.180	2776.62	-571.87	-812.04	-603.15	1690834.44	14363204.54	39°33'9.5302"N	80°49'16.0886"W	1011.53	216.603	1.16	1.15	-0.37	
3118.00	30.120	214.970	2857.62	-599.54	-850.84	-630.90	1690806.70	14363165.76	39°33'9.1473"N	80°49'16.4439"W	1059.23	216.557	1.03	-0.80	-1.29	
3215.00	29.660	213.230	2941.72	-628.57	-890.86	-658.00	1690779.61	14363125.76	39°33'8.7523"N	80°49'16.7909"W	1107.52	216.450	1.01	-0.47	-1.79	
3309.00	29.500	214.280	3023.47	-656.68	-929.44	-683.78	1690753.84	14363087.20	39°33'8.3715"N	80°49'17.1210"W	1153.87	216.342	0.58	-0.17	1.12	
3404.00	29.720	215.690	3106.06	-684.29	-967.89	-710.70	1690726.94	14363048.76	39°33'7.9920"N	80°49'17.4656"W	1200.79	216.289	0.77	0.23	1.48	
3498.00	29.280	216.890	3187.88	-710.67	-1005.20	-738.09	1690699.56	14363011.46	39°33'7.6238"N	80°49'17.8162"W	1247.08	216.289	0.78	-0.47	1.28	
3593.00	28.400	212.970	3271.10	-737.64	-1042.74	-764.33	1690673.32	14362973.94	39°33'7.2533"N	80°49'18.1522"W	1292.87	216.242	2.19	-0.93	-4.13	
3687.00	28.580	213.850	3353.72	-765.01	-1080.16	-789.02	1690648.64	14362936.53	39°33'6.8839"N	80°49'18.4683"W	1337.65	216.147	0.49	0.19	0.94	
3716.00	28.490	213.640	3379.19	-773.40	-1091.68	-796.72	1690640.95	14362925.01	39°33'6.7702"N	80°49'18.5669"W	1351.49	216.122	0.46	-0.31	-0.72	
3870.00	28.870	210.600	3514.31	-819.82	-1154.27	-835.99	1690601.69	14362862.45	39°33'6.1525"N	80°49'19.0698"W	1425.21	215.914	0.98	0.25	-1.97	APS EM <8-3/4"> (3716')(3870'-5735')
3964.00	31.910	214.550	3595.39	-849.32	-1194.27	-861.64	1690576.05	14362822.46	39°33'5.7576"N	80°49'19.3983"W	1472.66	215.810	3.87	3.23	4.20	
4059.00	31.860	214.630	3676.06	-879.12	-1235.58	-890.13	1690547.58	14362781.17	39°33'5.3498"N	80°49'19.7630"W	1522.83	215.769	0.07	-0.05	0.08	
4154.00	32.910	218.730	3756.29	-907.79	-1276.35	-920.53	1690517.19	14362740.42	39°33'4.9475"N	80°49'20.1521"W	1573.67	215.800	2.56	1.11	4.32	
4248.00	32.660	218.470	3835.32	-935.09	-1316.13	-952.28	1690485.45	14362700.65	39°33'4.5550"N	80°49'20.5585"W	1624.51	215.887	0.31	-0.27	-0.28	
4343.00	32.590	215.210	3915.33	-963.86	-1357.11	-982.98	1690454.76	14362659.69	39°33'4.1506"N	80°49'20.9515"W	1675.71	215.917	1.85	-0.07	-3.43	
4437.00	31.600	212.670	3994.97	-993.96	-1398.53	-1010.88	1690426.88	14362618.29	39°33'3.7418"N	80°49'21.3086"W	1725.61	215.860	1.78	-1.05	-2.70	
4532.00	29.520	210.300	4076.77	-1024.68	-1439.69	-1036.12	1690401.64	14362577.14	39°33'3.3354"N	80°49'21.6319"W	1773.77	215.742	2.53	-2.19	-2.49	
4626.00	28.870	210.440	4158.83	-1054.56	-1479.25	-1059.30	1690378.47	14362537.60	39°33'2.9449"N	80°49'21.9289"W	1819.43	215.607	0.70	-0.69	0.15	
4721.00	28.020	212.020	4242.36	-1083.53	-1517.95	-1082.76	1690355.03	14362498.92	39°33'2.5629"N	80°49'22.2292"W	1864.54	215.500	1.19	-0.89	1.66	
4815.00	28.130	212.070	4325.30	-1111.36	-1555.44	-1106.23	1690331.56	14362461.44	39°33'2.1928"N	80°49'22.5298"W	1908.70	215.420	0.12	0.12	0.05	
4910.00	28.970	222.370	4408.80	-1136.49	-1591.44	-1133.64	1690304.16	14362425.45	39°33'1.8376"N	80°49'22.8807"W	1953.93	215.464	5.25	0.88	10.84	
5004.00	27.910	223.310	4491.46	-1157.64	-1624.27	-1164.07	1690273.74	14362392.64	39°33'1.5137"N	80°49'23.2700"W	1998.33	215.628	1.22	-1.13	1.00	
5099.00	27.970	222.370	4575.38	-1178.67	-1656.91	-1194.34	1690243.49	14362360.01	39°33'1.1917"N	80°49'23.6572"W	2042.50	215.785	0.47	0.06	-0.99	
5193.00	28.740	223.310	4658.10	-1199.76	-1689.64	-1224.70	1690213.14	14362327.30	39°33'0.8688"N	80°49'24.0455"W	2086.81	215.936	0.95	0.82	1.00	
5288.00	29.290	223.790	4741.18	-1221.02	-1723.03	-1256.45	1690181.41	14362293.91	39°33'0.5394"N	80°49'24.4517"W	2132.49	216.100	0.63	0.58	0.51	
5382.00	29.120	221.520	4823.23	-1242.81	-1756.76	-1287.52	1690150.34	14362260.20	39°33'0.2067"N	80°49'24.8492"W	2178.05	216.238	1.19	-0.18	-2.41	
5479.00	29.820	219.550	4907.68	-1267.03	-1793.03	-1318.52	1690119.35	14362223.95	39°32'59.8488"N	80°49'25.2459"W	2225.64	216.329	1.23	0.72	-2.03	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

## WELLPATH DATA (295 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
5573.00	30.450	219.390	4988.98	-1291.73	-1829.46	-1348.52	1690089.37	14362187.53	39°32'59.4893"N	80°49'25.6298"W	2272.76	216.394	0.68	0.67	-0.17	
5668.00	31.230	217.000	5070.55	-1318.14	-1867.73	-1378.62	1690059.28	14362149.27	39°32'59.1116"N	80°49'26.0150"W	2321.43	216.432	1.53	0.82	-2.52	
5735.00	30.900	216.180	5127.94	-1337.69	-1895.49	-1399.23	1690038.68	14362121.53	39°32'58.8377"N	80°49'26.2788"W	2356.00	216.434	0.80	-0.49	-1.22	
5793.00	29.910	213.520	5177.97	-1355.01	-1919.57	-1416.01	1690021.91	14362097.46	39°32'58.6001"N	80°49'26.4935"W	2385.33	216.415	2.88	-1.71	-4.59	BH AT Curve <8-1/2"> (5735')(5793'-27592')
5888.00	27.320	220.760	5261.38	-1380.43	-1955.85	-1443.33	1689994.59	14362061.20	39°32'58.2421"N	80°49'26.8433"W	2430.75	216.426	4.55	-2.73	7.62	
5982.00	23.550	229.420	5346.28	-1398.23	-1984.42	-1471.70	1689966.24	14362032.63	39°32'57.9602"N	80°49'27.2061"W	2470.59	216.562	5.62	-4.01	9.21	
6077.00	20.480	237.780	5434.37	-1409.04	-2005.64	-1500.19	1689937.76	14362011.42	39°32'57.7510"N	80°49'27.5703"W	2504.62	216.796	4.61	-3.23	8.80	
6171.00	18.890	256.840	5522.96	-1411.27	-2017.88	-1528.95	1689909.01	14361999.18	39°32'57.6306"N	80°49'27.9378"W	2531.71	217.151	7.00	-1.69	20.28	
6266.00	18.890	271.440	5612.90	-1404.35	-2021.00	-1559.31	1689878.66	14361996.07	39°32'57.6004"N	80°49'28.3255"W	2552.63	217.652	4.96	0.00	15.37	
6360.00	18.790	285.240	5701.91	-1390.52	-2016.64	-1589.15	1689848.84	14362000.43	39°32'57.6441"N	80°49'28.7062"W	2567.53	218.239	4.73	-0.11	14.68	
6455.00	18.780	299.550	5791.89	-1370.45	-2005.07	-1617.23	1689820.77	14362011.99	39°32'57.7590"N	80°49'29.0644"W	2575.99	218.889	4.84	-0.01	15.06	
6549.00	19.750	311.520	5880.66	-1345.28	-1987.07	-1642.29	1689795.71	14362029.99	39°32'57.9373"N	80°49'29.3839"W	2577.90	219.573	4.32	1.03	12.73	
6643.00	21.980	321.200	5968.52	-1314.90	-1962.82	-1665.21	1689772.80	14362054.22	39°32'58.1774"N	80°49'29.6759"W	2574.02	220.311	4.36	2.37	10.30	
6738.00	26.590	328.450	6055.11	-1277.40	-1930.82	-1687.50	1689750.53	14362086.21	39°32'58.4941"N	80°49'29.9596"W	2564.32	221.153	5.77	4.85	7.63	
6832.00	31.580	334.780	6137.25	-1232.36	-1890.59	-1709.01	1689729.02	14362126.42	39°32'58.8921"N	80°49'30.2332"W	2548.54	222.112	6.23	5.31	6.73	
6927.00	33.730	337.940	6217.24	-1181.28	-1843.63	-1729.52	1689708.52	14362173.36	39°32'59.3566"N	80°49'30.4939"W	2527.89	223.171	2.89	2.26	3.33	
7022.00	33.710	337.790	6296.25	-1128.63	-1794.78	-1749.39	1689688.66	14362222.19	39°32'59.8398"N	80°49'30.7464"W	2506.31	224.266	0.09	-0.02	-0.16	
7116.00	33.950	337.860	6374.34	-1076.38	-1746.32	-1769.14	1689668.91	14362270.64	39°33'0.3191"N	80°49'30.9973"W	2485.86	225.372	0.26	0.26	0.07	
7211.00	33.730	337.940	6453.24	-1023.55	-1697.30	-1789.05	1689649.02	14362319.63	39°33'0.8039"N	80°49'31.2502"W	2466.08	226.507	0.24	-0.23	0.08	
7277.00†	35.488	338.202	6507.56	-986.12	-1662.53	-1803.04	1689635.03	14362354.39	39°33'1.1479"N	80°49'31.4280"W	2452.54	227.322	2.67	2.66	0.40	Sycamore: 7277' MD
7306.00	36.260	338.310	6531.06	-969.14	-1646.75	-1809.34	1689628.73	14362370.17	39°33'1.3040"N	80°49'31.5080"W	2446.52	227.693	2.67	2.66	0.37	
7400.00	43.140	338.800	6603.34	-909.19	-1590.89	-1831.26	1689606.82	14362426.01	39°33'1.8565"N	80°49'31.7864"W	2425.79	229.018	7.33	7.32	0.52	
7421.00†	45.247	338.863	6618.40	-894.56	-1577.24	-1836.55	1689601.54	14362439.65	39°33'1.9915"N	80°49'31.8536"W	2420.86	229.344	10.03	10.03	0.30	Middlesex: 7421' MD
7494.00	52.570	339.050	6666.35	-839.62	-1525.92	-1856.28	1689581.81	14362490.95	39°33'2.4990"N	80°49'32.1043"W	2402.96	230.579	10.03	10.03	0.26	
7575.00†	58.602	339.111	6712.10	-772.87	-1463.53	-1880.13	1689557.97	14362553.31	39°33'3.1161"N	80°49'32.4072"W	2382.61	232.102	7.45	7.45	0.08	Burkett: 7575' MD
7588.00	59.570	339.120	6718.78	-761.72	-1453.11	-1884.11	1689553.99	14362563.73	39°33'3.2192"N	80°49'32.4577"W	2379.37	232.359	7.45	7.45	0.07	
7612.00†	61.381	339.653	6730.61	-740.85	-1433.57	-1891.46	1689546.65	14362583.27	39°33'3.4125"N	80°49'32.5510"W	2373.34	232.841	7.79	7.55	2.22	Tully: 7612' MD
7683.00	66.750	341.130	6761.65	-677.02	-1373.44	-1912.86	1689525.25	14362643.37	39°33'4.0072"N	80°49'32.8228"W	2354.86	234.322	7.79	7.56	2.08	
7777.00	73.010	341.140	6793.97	-588.81	-1289.96	-1941.38	1689496.74	14362726.82	39°33'4.8328"N	80°49'33.1848"W	2330.87	236.398	6.66	6.66	0.01	
7788.00†	74.012	341.148	6797.09	-578.26	-1279.97	-1944.79	1689493.33	14362736.80	39°33'4.9315"N	80°49'33.2281"W	2328.21	236.649	9.11	9.11	0.08	Marcellus POE: 7788' MD

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Gump Unit 1H
Field	Wetzel		API	47-103-03603-0000
Facility	Big Run Pad		Wellbore	Gump Unit 1H AWP
Slot	Slot D			

WELLPATH DATA (295 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
7871.00	81.570	341.210	6814.63	-497.19	-1203.24	-1970.94	1689467.19	14362813.50	39°33'5.6903"N	80°49'33.5601"W	2309.20	238.596	9.11	9.11	0.07	
7966.00	90.310	341.040	6821.35	-402.52	-1113.67	-2001.57	1689436.58	14362903.04	39°33'6.5763"N	80°49'33.9489"W	2290.53	240.909	9.20	9.20	-0.18	
8061.00	89.970	341.470	6821.12	-307.53	-1023.71	-2032.10	1689406.06	14362992.96	39°33'7.4659"N	80°49'34.3364"W	2275.39	243.263	0.58	-0.36	0.45	
8155.00	90.250	341.470	6820.94	-213.53	-934.58	-2061.97	1689376.20	14363082.05	39°33'8.3474"N	80°49'34.7155"W	2263.88	245.618	0.30	0.30	0.00	
8249.00	89.940	341.740	6820.78	-119.53	-845.38	-2091.64	1689346.55	14363171.21	39°33'9.2295"N	80°49'35.0920"W	2256.02	247.993	0.44	-0.33	0.29	
8343.00	89.820	341.470	6820.98	-25.54	-756.19	-2121.30	1689316.90	14363260.38	39°33'10.1116"N	80°49'35.4685"W	2252.05	250.380	0.31	-0.13	-0.29	
8437.00	89.850	342.600	6821.25	68.44	-666.77	-2150.29	1689287.92	14363349.76	39°33'10.9959"N	80°49'35.8365"W	2251.30	252.772	1.20	0.03	1.20	
8531.00	91.110	340.900	6820.46	162.43	-577.51	-2179.73	1689258.49	14363438.98	39°33'11.8786"N	80°49'36.2100"W	2254.93	255.161	2.25	1.34	-1.81	
8626.00	89.820	341.060	6819.69	257.42	-487.70	-2210.68	1689227.55	14363528.76	39°33'12.7668"N	80°49'36.6031"W	2263.84	257.559	1.37	-1.36	0.17	
8720.00	91.360	341.310	6818.72	351.41	-398.73	-2241.00	1689197.25	14363617.69	39°33'13.6467"N	80°49'36.9879"W	2276.19	259.911	1.66	1.64	0.27	
8814.00	89.750	340.690	6817.81	445.41	-309.86	-2271.60	1689166.66	14363706.53	39°33'14.5256"N	80°49'37.3764"W	2292.64	262.233	1.84	-1.71	-0.66	
8908.00	91.720	343.480	6816.61	539.37	-220.44	-2300.51	1689137.76	14363795.91	39°33'15.4100"N	80°49'37.7432"W	2311.05	264.527	3.63	2.10	2.97	
9002.00	90.980	340.380	6814.39	633.32	-131.11	-2329.65	1689108.63	14363885.20	39°33'16.2934"N	80°49'38.1131"W	2333.34	266.779	3.39	-0.79	-3.30	
9096.00	89.820	341.160	6813.74	727.31	-42.36	-2360.61	1689077.68	14363973.92	39°33'17.1711"N	80°49'38.5062"W	2360.99	268.972	1.49	-1.23	0.83	
9191.00	90.430	342.190	6813.53	822.31	47.82	-2390.48	1689047.82	14364064.06	39°33'18.0629"N	80°49'38.8853"W	2390.96	271.146	1.26	0.64	1.08	
9285.00	90.400	341.780	6812.85	916.29	137.21	-2419.55	1689018.77	14364153.42	39°33'18.9469"N	80°49'39.2543"W	2423.44	273.246	0.44	-0.03	-0.44	
9380.00	90.620	342.880	6812.00	1011.26	227.72	-2448.38	1688989.94	14364243.89	39°33'19.8421"N	80°49'39.6202"W	2458.95	275.314	1.18	0.23	1.16	
9474.00	90.490	341.160	6811.09	1105.24	317.13	-2477.40	1688960.94	14364333.26	39°33'20.7262"N	80°49'39.9884"W	2497.61	277.295	1.83	-0.14	-1.83	
9569.00	89.880	342.460	6810.79	1200.23	407.38	-2507.05	1688931.30	14364423.47	39°33'21.6187"N	80°49'40.3648"W	2539.94	279.229	1.51	-0.64	1.37	
9663.00	91.050	341.940	6810.02	1294.20	496.87	-2535.79	1688902.57	14364512.93	39°33'22.5038"N	80°49'40.7295"W	2584.01	281.086	1.36	1.24	-0.55	
9758.00	90.150	340.140	6809.03	1389.19	586.71	-2566.65	1688871.72	14364602.73	39°33'23.3922"N	80°49'41.1213"W	2632.85	282.876	2.12	-0.95	-1.89	
9852.00	90.150	342.650	6808.78	1483.18	675.79	-2596.64	1688841.75	14364691.78	39°33'24.2732"N	80°49'41.5020"W	2683.14	284.588	2.67	0.00	2.67	
9947.00	89.970	341.490	6808.68	1578.16	766.17	-2625.88	1688812.51	14364782.13	39°33'25.1670"N	80°49'41.8732"W	2735.38	286.266	1.24	-0.19	-1.22	
10042.00	90.890	342.890	6807.97	1673.14	856.61	-2654.94	1688783.47	14364872.53	39°33'26.0614"N	80°49'42.2419"W	2789.71	287.882	1.76	0.97	1.47	
10137.00	90.280	342.580	6807.00	1768.09	947.33	-2683.13	1688755.29	14364963.21	39°33'26.9585"N	80°49'42.5997"W	2845.46	289.447	0.72	-0.64	-0.33	
10231.00	90.550	340.030	6806.32	1862.08	1036.36	-2713.26	1688725.17	14365052.21	39°33'27.8390"N	80°49'42.9821"W	2904.45	290.905	2.73	0.29	-2.71	
10326.00	90.580	342.120	6805.38	1957.07	1126.21	-2744.07	1688694.38	14365142.02	39°33'28.7276"N	80°49'43.3733"W	2966.19	292.314	2.20	0.03	2.20	
10420.00	89.600	341.190	6805.23	2051.06	1215.43	-2773.65	1688664.81	14365231.21	39°33'29.6100"N	80°49'43.7488"W	3028.27	293.663	1.44	-1.04	-0.99	
10515.00	90.280	340.390	6805.33	2146.06	1305.14	-2804.91	1688633.56	14365320.88	39°33'30.4972"N	80°49'44.1457"W	3093.69	294.953	1.11	0.72	-0.84	
10609.00	90.860	342.860	6804.40	2240.04	1394.34	-2834.54	1688603.94	14365410.04	39°33'31.3793"N	80°49'44.5218"W	3158.92	296.193	2.70	0.62	2.63	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

## WELLPATH DATA (295 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
10703.00	89.570	341.770	6804.05	2334.02	1483.89	-2863.09	1688575.40	14365499.56	39°33'32.2649"N	80°49'44.8842"W	3224.78	297.397	1.80	-1.37	-1.16	
10797.00	91.570	340.820	6803.11	2428.00	1572.92	-2893.23	1688545.27	14365588.55	39°33'33.1453"N	80°49'45.2669"W	3293.16	298.531	2.36	2.13	-1.01	
10892.00	89.820	340.370	6801.96	2522.99	1662.51	-2924.79	1688513.72	14365678.11	39°33'34.0314"N	80°49'45.6677"W	3364.28	299.615	1.90	-1.84	-0.47	
10986.00	91.690	340.240	6800.72	2616.97	1751.00	-2956.47	1688482.06	14365766.56	39°33'34.9065"N	80°49'46.0700"W	3436.09	300.637	1.99	1.99	-0.14	
11081.00	90.340	339.560	6799.04	2711.93	1840.20	-2989.11	1688449.43	14365855.72	39°33'35.7887"N	80°49'46.4846"W	3510.14	301.618	1.59	-1.42	-0.72	
11175.00	91.660	340.050	6797.40	2805.90	1928.40	-3021.55	1688417.00	14365943.89	39°33'36.6611"N	80°49'46.8967"W	3584.48	302.547	1.50	1.40	0.52	
11270.00	89.690	338.160	6796.28	2900.83	2017.14	-3055.43	1688383.14	14366032.60	39°33'37.5387"N	80°49'47.3271"W	3661.22	303.432	2.87	-2.07	-1.99	
11365.00	89.780	342.100	6796.72	2995.80	2106.47	-3087.71	1688350.87	14366121.89	39°33'38.4222"N	80°49'47.7371"W	3737.80	304.302	4.15	0.09	4.15	
11460.00	92.400	341.960	6794.91	3090.76	2196.81	-3117.02	1688321.58	14366212.19	39°33'39.3156"N	80°49'48.1090"W	3813.37	305.175	2.76	2.76	-0.15	
11554.00	90.120	338.430	6792.84	3184.70	2285.21	-3148.85	1688289.76	14366300.56	39°33'40.1898"N	80°49'48.5134"W	3890.69	305.969	4.47	-2.43	-3.76	
11649.00	89.720	340.380	6792.97	3279.66	2374.13	-3182.27	1688256.35	14366389.44	39°33'41.0693"N	80°49'48.9379"W	3970.30	306.725	2.10	-0.42	2.05	
11744.00	88.890	340.130	6794.13	3374.64	2463.54	-3214.36	1688224.27	14366478.82	39°33'41.9535"N	80°49'49.3455"W	4049.83	307.467	0.91	-0.87	-0.26	
11838.00	90.120	341.360	6794.94	3468.63	2552.27	-3245.35	1688193.29	14366567.51	39°33'42.8311"N	80°49'49.7391"W	4128.73	308.183	1.85	1.31	1.31	
11932.00	89.350	340.150	6795.37	3562.63	2641.02	-3276.34	1688162.32	14366656.22	39°33'43.7088"N	80°49'50.1325"W	4208.25	308.872	1.53	-0.82	-1.29	
12027.00	90.490	340.530	6795.51	3657.62	2730.48	-3308.30	1688130.37	14366745.65	39°33'44.5935"N	80°49'50.5385"W	4289.56	309.534	1.26	1.20	0.40	
12121.00	89.170	340.410	6795.78	3751.61	2819.07	-3339.72	1688098.96	14366834.20	39°33'45.4696"N	80°49'50.9375"W	4370.45	310.168	1.41	-1.40	-0.13	
12216.00	90.830	340.710	6795.78	3846.61	2908.65	-3371.34	1688067.36	14366923.75	39°33'46.3556"N	80°49'51.3391"W	4452.66	310.786	1.78	1.75	0.32	
12310.00	89.510	340.120	6795.51	3940.60	2997.21	-3402.85	1688035.86	14367012.27	39°33'47.2314"N	80°49'51.7393"W	4534.60	311.373	1.54	-1.40	-0.63	
12405.00	90.740	340.200	6795.30	4035.59	3086.57	-3435.09	1688003.63	14367101.59	39°33'48.1152"N	80°49'52.1488"W	4618.09	311.941	1.30	1.29	0.08	
12499.00	90.090	341.300	6794.62	4129.58	3175.31	-3466.08	1687972.66	14367190.30	39°33'48.9928"N	80°49'52.5424"W	4700.67	312.493	1.36	-0.69	1.17	
12594.00	90.800	339.000	6793.88	4224.56	3264.65	-3498.33	1687940.41	14367279.61	39°33'49.8764"N	80°49'52.9521"W	4785.01	313.021	2.53	0.75	-2.42	
12689.00	89.750	340.960	6793.42	4319.54	3353.91	-3530.85	1687907.91	14367368.83	39°33'50.7591"N	80°49'53.3652"W	4869.87	313.528	2.34	-1.11	2.06	
12783.00	90.340	339.760	6793.35	4413.53	3442.43	-3562.45	1687876.33	14367457.32	39°33'51.6347"N	80°49'53.7664"W	4953.93	314.018	1.42	0.63	-1.28	
12878.00	91.260	339.410	6792.02	4508.49	3531.46	-3595.58	1687843.20	14367546.31	39°33'52.5151"N	80°49'54.1874"W	5039.78	314.485	1.04	0.97	-0.37	
12972.00	89.750	340.220	6791.20	4602.46	3619.68	-3628.01	1687810.79	14367634.49	39°33'53.3876"N	80°49'54.5994"W	5124.89	314.934	1.82	-1.61	0.86	
13066.00	91.350	339.810	6790.29	4696.44	3708.01	-3660.14	1687778.67	14367722.79	39°33'54.2612"N	80°49'55.0075"W	5210.18	315.372	1.76	1.70	-0.44	
13161.00	90.150	339.410	6789.05	4791.40	3797.05	-3693.23	1687745.59	14367811.79	39°33'55.1418"N	80°49'55.4279"W	5296.94	315.794	1.33	-1.26	-0.42	
13255.00	90.340	341.220	6788.65	4885.38	3885.55	-3724.89	1687713.94	14367900.26	39°33'56.0171"N	80°49'55.8301"W	5382.60	316.209	1.94	0.20	1.93	
13350.00	90.280	339.430	6788.13	4980.37	3975.00	-3756.88	1687681.97	14367989.67	39°33'56.9017"N	80°49'56.2364"W	5469.44	316.616	1.89	-0.06	-1.88	
13444.00	90.830	340.470	6787.22	5074.35	4063.30	-3789.10	1687649.76	14368077.94	39°33'57.7750"N	80°49'56.6457"W	5555.87	317.000	1.25	0.59	1.11	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

**WELLPATH DATA (295 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
13539.00	89.750	339.970	6786.74	5169.34	4152.69	-3821.25	1687617.62	14368167.29	39°33'58.6590"N	80°49'57.0541"W	5643.29	317.380	1.25	-1.14	-0.53	
13633.00	90.950	339.290	6786.17	5263.30	4240.81	-3853.97	1687584.92	14368255.37	39°33'59.5305"N	80°49'57.4698"W	5730.40	317.736	1.47	1.28	-0.72	
13728.00	90.180	340.880	6785.23	5358.28	4330.12	-3886.32	1687552.58	14368344.65	39°34'0.4138"N	80°49'57.8808"W	5818.37	318.092	1.86	-0.81	1.67	
13822.00	90.250	340.430	6784.88	5452.28	4418.81	-3917.46	1687521.45	14368433.31	39°34'1.2910"N	80°49'58.2763"W	5905.28	318.442	0.48	0.07	-0.48	
13917.00	89.970	339.740	6784.70	5547.27	4508.13	-3949.82	1687489.10	14368522.59	39°34'2.1743"N	80°49'58.6874"W	5993.69	318.777	0.78	-0.29	-0.73	
14011.00	90.920	340.810	6783.97	5641.25	4596.61	-3981.55	1687457.39	14368611.03	39°34'3.0493"N	80°49'59.0904"W	6081.24	319.101	1.52	1.01	1.14	
14105.00	89.880	339.760	6783.31	5735.24	4685.09	-4013.25	1687425.70	14368699.48	39°34'3.9244"N	80°49'59.4932"W	6168.98	319.417	1.57	-1.11	-1.12	
14199.00	90.830	338.920	6782.73	5829.20	4773.04	-4046.42	1687392.55	14368787.40	39°34'4.7943"N	80°49'59.9146"W	6257.43	319.710	1.35	1.01	-0.89	
14293.00	90.550	340.540	6781.60	5923.16	4861.21	-4078.98	1687360.00	14368875.53	39°34'5.6663"N	80°50'0.3283"W	6345.82	320.000	1.75	-0.30	1.72	
14388.00	90.710	342.840	6780.55	6018.14	4951.39	-4108.82	1687330.17	14368965.68	39°34'6.5581"N	80°50'0.7072"W	6434.18	320.313	2.43	0.17	2.42	
14482.00	90.120	339.980	6779.87	6112.13	5040.48	-4138.78	1687300.22	14369054.72	39°34'7.4391"N	80°50'1.0877"W	6521.96	320.610	3.11	-0.63	-3.04	
14576.00	89.170	342.590	6780.45	6206.12	5129.49	-4168.94	1687270.07	14369143.71	39°34'8.3194"N	80°50'1.4707"W	6609.98	320.898	2.95	-1.01	2.78	
14671.00	91.110	341.550	6780.22	6301.09	5219.87	-4198.19	1687240.84	14369234.05	39°34'9.2132"N	80°50'1.8420"W	6698.65	321.191	2.32	2.04	-1.09	
14765.00	89.780	342.180	6779.49	6395.08	5309.20	-4227.44	1687211.59	14369323.34	39°34'10.0966"N	80°50'2.2135"W	6786.67	321.472	1.57	-1.41	0.67	
14860.00	91.290	341.770	6778.60	6490.06	5399.53	-4256.84	1687182.21	14369413.64	39°34'10.9899"N	80°50'2.5867"W	6875.72	321.749	1.65	1.59	-0.43	
14954.00	89.570	341.810	6777.90	6584.04	5488.82	-4286.21	1687152.85	14369502.89	39°34'11.8728"N	80°50'2.9596"W	6964.10	322.014	1.83	-1.83	0.04	
15049.00	90.650	343.510	6777.71	6679.00	5579.50	-4314.52	1687124.55	14369593.53	39°34'12.7695"N	80°50'3.3191"W	7053.07	322.286	2.12	1.14	1.79	
15143.00	89.420	341.770	6777.66	6772.96	5669.21	-4342.57	1687096.52	14369683.21	39°34'13.6567"N	80°50'3.6751"W	7141.28	322.548	2.27	-1.31	-1.85	
15238.00	91.050	341.790	6777.27	6867.95	5759.44	-4372.27	1687066.83	14369773.40	39°34'14.5490"N	80°50'4.0522"W	7231.04	322.796	1.72	1.72	0.02	
15332.00	89.940	341.350	6776.46	6961.94	5848.62	-4401.99	1687037.12	14369862.54	39°34'15.4309"N	80°50'4.4296"W	7320.09	323.033	1.27	-1.18	-0.47	
15427.00	90.520	341.550	6776.07	7056.93	5938.68	-4432.21	1687006.91	14369952.57	39°34'16.3216"N	80°50'4.8134"W	7410.29	323.265	0.65	0.61	0.21	
15521.00	90.340	341.740	6775.37	7150.93	6027.89	-4461.81	1686977.32	14370041.75	39°34'17.2038"N	80°50'5.1893"W	7499.55	323.491	0.28	-0.19	0.20	
15616.00	90.740	343.620	6774.47	7245.88	6118.58	-4490.09	1686949.05	14370132.40	39°34'18.1006"N	80°50'5.5483"W	7589.33	323.727	2.02	0.42	1.98	
15711.00	90.800	341.150	6773.20	7340.83	6209.11	-4518.83	1686920.32	14370222.89	39°34'18.9959"N	80°50'5.9133"W	7679.38	323.954	2.60	0.06	-2.60	
15805.00	89.880	342.930	6772.64	7434.81	6298.52	-4547.81	1686891.35	14370312.27	39°34'19.8801"N	80°50'6.2813"W	7768.78	324.169	2.13	-0.98	1.89	
15900.00	90.250	343.080	6772.53	7529.76	6389.37	-4575.58	1686863.59	14370403.08	39°34'20.7785"N	80°50'6.6337"W	7858.76	324.393	0.42	0.39	0.16	
15994.00	89.420	341.310	6772.80	7623.73	6478.87	-4604.32	1686834.86	14370492.54	39°34'21.6635"N	80°50'6.9987"W	7948.30	324.600	2.08	-0.88	-1.88	
16089.00	90.280	340.770	6773.05	7718.73	6568.71	-4635.19	1686804.01	14370582.35	39°34'22.5520"N	80°50'7.3907"W	8039.46	324.791	1.07	0.91	-0.57	
16184.00	90.090	342.250	6772.74	7813.72	6658.80	-4665.32	1686773.90	14370672.41	39°34'23.4429"N	80°50'7.7733"W	8130.49	324.984	1.57	-0.20	1.56	
16279.00	90.030	342.430	6772.64	7908.70	6749.33	-4694.14	1686745.09	14370762.89	39°34'24.3381"N	80°50'8.1393"W	8221.21	325.182	0.20	-0.06	0.19	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (295 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
16373.00	89.780	340.600	6772.80	8002.69	6838.47	-4723.94	1686715.30	14370852.00	39°34'25.2197"N	80°50'8.5178"W	8311.46	325.364	1.96	-0.27	-1.95	
16468.00	89.750	340.850	6773.19	8097.69	6928.15	-4755.30	1686683.95	14370941.64	39°34'26.1065"N	80°50'8.9161"W	8403.10	325.535	0.27	-0.03	0.26	
16562.00	90.860	340.440	6772.69	8191.68	7016.83	-4786.45	1686652.81	14371030.29	39°34'26.9836"N	80°50'9.3119"W	8493.88	325.701	1.26	1.18	-0.44	
16657.00	90.000	341.650	6771.98	8286.68	7106.67	-4817.31	1686621.97	14371120.10	39°34'27.8721"N	80°50'9.7039"W	8585.53	325.868	1.56	-0.91	1.27	
16752.00	89.750	341.050	6772.18	8381.68	7196.69	-4847.69	1686591.60	14371210.07	39°34'28.7622"N	80°50'10.0897"W	8677.12	326.036	0.68	-0.26	-0.63	
16846.00	89.630	340.620	6772.69	8475.68	7285.47	-4878.54	1686560.75	14371298.83	39°34'29.6403"N	80°50'10.4817"W	8768.03	326.193	0.47	-0.13	-0.46	
16941.00	90.430	340.920	6772.64	8570.67	7375.17	-4909.83	1686529.48	14371388.49	39°34'30.5274"N	80°50'10.8792"W	8860.00	326.347	0.90	0.84	0.32	
17035.00	89.230	340.680	6772.92	8664.67	7463.94	-4940.75	1686498.57	14371477.22	39°34'31.4053"N	80°50'11.2719"W	8951.06	326.497	1.30	-1.28	-0.26	
17130.00	90.150	340.460	6773.44	8759.66	7553.53	-4972.35	1686466.99	14371566.77	39°34'32.2913"N	80°50'11.6734"W	9043.23	326.644	1.00	0.97	-0.23	
17224.00	90.370	340.930	6773.01	8853.66	7642.24	-5003.42	1686435.92	14371655.45	39°34'33.1686"N	80°50'12.0682"W	9134.45	326.787	0.55	0.23	0.50	
17319.00	90.120	341.290	6772.60	8948.66	7732.12	-5034.18	1686405.18	14371745.30	39°34'34.0575"N	80°50'12.4589"W	9226.52	326.933	0.46	-0.26	0.38	
17413.00	90.250	340.900	6772.30	9042.66	7821.05	-5064.64	1686374.74	14371834.19	39°34'34.9369"N	80°50'12.8458"W	9317.69	327.074	0.44	0.14	-0.41	
17508.00	90.060	340.980	6772.04	9137.66	7910.84	-5095.66	1686343.72	14371923.95	39°34'35.8249"N	80°50'13.2399"W	9409.95	327.213	0.22	-0.20	0.08	
17602.00	89.600	340.990	6772.32	9231.66	7999.71	-5126.28	1686313.11	14372012.78	39°34'36.7038"N	80°50'13.6290"W	9501.28	327.348	0.49	-0.49	0.01	
17696.00	89.510	339.690	6773.05	9325.65	8088.23	-5157.91	1686281.50	14372101.26	39°34'37.5792"N	80°50'14.0308"W	9592.89	327.474	1.39	-0.10	-1.38	
17790.00	90.340	340.840	6773.17	9419.64	8176.71	-5189.65	1686249.77	14372189.70	39°34'38.4542"N	80°50'14.4341"W	9684.58	327.597	1.51	0.88	1.22	
17885.00	90.220	341.620	6772.71	9514.63	8266.65	-5220.22	1686219.22	14372279.61	39°34'39.3437"N	80°50'14.8224"W	9776.92	327.728	0.83	-0.13	0.82	
17979.00	89.630	340.970	6772.83	9608.63	8355.69	-5250.36	1686189.08	14372368.61	39°34'40.2241"N	80°50'15.2053"W	9868.32	327.856	0.93	-0.63	-0.69	
18074.00	90.430	340.660	6772.78	9703.63	8445.41	-5281.58	1686157.88	14372458.30	39°34'41.1114"N	80°50'15.6019"W	9960.93	327.979	0.90	0.84	-0.33	
18168.00	89.350	341.310	6772.96	9797.63	8534.28	-5312.21	1686127.26	14372547.13	39°34'41.9903"N	80°50'15.9910"W	10052.53	328.100	1.34	-1.15	0.69	
18262.00	90.150	340.200	6773.37	9891.62	8623.02	-5343.19	1686096.29	14372635.84	39°34'42.8679"N	80°50'16.3846"W	10144.27	328.216	1.46	0.85	-1.18	
18357.00	89.690	340.540	6773.51	9986.62	8712.50	-5375.10	1686064.39	14372725.29	39°34'43.7528"N	80°50'16.7902"W	10237.16	328.328	0.60	-0.48	0.36	
18452.00	89.750	340.530	6773.97	10081.61	8802.07	-5406.76	1686032.75	14372814.82	39°34'44.6386"N	80°50'17.1924"W	10330.03	328.439	0.06	0.06	-0.01	
18546.00	90.280	340.270	6773.95	10175.61	8890.62	-5438.29	1686001.23	14372903.34	39°34'45.5144"N	80°50'17.5931"W	10422.01	328.546	0.63	0.56	-0.28	
18640.00	90.490	341.200	6773.31	10269.60	8979.36	-5469.30	1685970.23	14372992.03	39°34'46.3919"N	80°50'17.9871"W	10513.90	328.655	1.01	0.22	0.99	
18734.00	90.000	341.720	6772.91	10363.60	9068.48	-5499.19	1685940.35	14373081.12	39°34'47.2732"N	80°50'18.3668"W	10605.58	328.767	0.76	-0.52	0.55	
18829.00	90.180	341.720	6772.76	10458.59	9158.68	-5528.99	1685910.57	14373171.29	39°34'48.1653"N	80°50'18.7453"W	10698.19	328.881	0.19	0.19	0.00	
18923.00	89.780	341.050	6772.80	10552.59	9247.76	-5559.00	1685880.57	14373260.33	39°34'49.0462"N	80°50'19.1264"W	10789.98	328.989	0.83	-0.43	-0.71	
19017.00	89.820	341.170	6773.12	10646.59	9336.70	-5589.43	1685850.15	14373349.24	39°34'49.9257"N	80°50'19.5131"W	10881.90	329.093	0.13	0.04	0.13	
19112.00	89.570	341.280	6773.63	10741.59	9426.65	-5620.00	1685819.59	14373439.14	39°34'50.8152"N	80°50'19.9015"W	10974.79	329.197	0.29	-0.26	0.12	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (295 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
19207.00	89.750	341.820	6774.19	10836.58	9516.76	-5650.07	1685789.54	14373529.22	39°34'51.7064"N	80°50'20.2834"W	11067.61	329.303	0.60	0.19	0.57	
19301.00	89.750	339.970	6774.60	10930.57	9605.58	-5680.83	1685758.78	14373618.01	39°34'52.5847"N	80°50'20.6743"W	11159.70	329.400	1.97	0.00	-1.97	
19395.00	90.520	341.390	6774.38	11024.57	9694.28	-5711.93	1685727.70	14373706.67	39°34'53.4619"N	80°50'21.0694"W	11251.90	329.493	1.72	0.82	1.51	
19489.00	90.030	340.660	6773.93	11118.57	9783.17	-5742.50	1685697.15	14373795.53	39°34'54.3410"N	80°50'21.4578"W	11344.02	329.588	0.94	-0.52	-0.78	
19584.00	89.970	341.000	6773.93	11213.57	9872.90	-5773.69	1685665.96	14373885.22	39°34'55.2284"N	80°50'21.8541"W	11437.21	329.681	0.36	-0.06	0.36	
19678.00	90.280	340.990	6773.73	11307.57	9961.78	-5804.30	1685635.36	14373974.06	39°34'56.1073"N	80°50'22.2431"W	11529.40	329.772	0.33	0.33	-0.01	
19772.00	90.550	340.200	6773.05	11401.56	10050.44	-5835.53	1685604.15	14374062.69	39°34'56.9841"N	80°50'22.6399"W	11621.73	329.859	0.89	0.29	-0.84	
19866.00	89.970	341.170	6772.62	11495.56	10139.14	-5866.62	1685573.07	14374151.36	39°34'57.8613"N	80°50'23.0350"W	11714.07	329.946	1.20	-0.62	1.03	
19960.00	89.820	341.270	6772.79	11589.56	10228.14	-5896.88	1685542.82	14374240.32	39°34'58.7414"N	80°50'23.4195"W	11806.27	330.035	0.19	-0.16	0.11	
20055.00	90.060	341.260	6772.89	11684.55	10318.10	-5927.40	1685512.32	14374330.25	39°34'59.6311"N	80°50'23.8071"W	11899.47	330.124	0.25	0.25	-0.01	
20149.00	89.850	340.980	6772.96	11778.55	10407.05	-5957.81	1685481.91	14374419.15	39°35'0.5107"N	80°50'24.1936"W	11991.75	330.210	0.37	-0.22	-0.30	
20244.00	90.370	340.420	6772.78	11873.55	10496.71	-5989.21	1685450.53	14374508.78	39°35'1.3974"N	80°50'24.5926"W	12085.18	330.292	0.80	0.55	-0.59	
20339.00	89.850	340.500	6772.60	11968.55	10586.24	-6020.99	1685418.77	14374598.27	39°35'2.2828"N	80°50'24.9964"W	12178.70	330.371	0.55	-0.55	0.08	
20433.00	89.690	340.800	6772.98	12062.54	10674.92	-6052.13	1685387.63	14374686.93	39°35'3.1598"N	80°50'25.3922"W	12271.20	330.449	0.36	-0.17	0.32	
20528.00	89.510	340.750	6773.64	12157.54	10764.62	-6083.41	1685356.36	14374776.59	39°35'4.0469"N	80°50'25.7896"W	12364.67	330.528	0.20	-0.19	-0.05	
20622.00	89.720	340.630	6774.27	12251.54	10853.33	-6114.50	1685325.29	14374865.26	39°35'4.9242"N	80°50'26.1846"W	12457.20	330.604	0.26	0.22	-0.13	
20716.00	90.090	340.840	6774.43	12345.53	10942.07	-6145.51	1685294.29	14374953.96	39°35'5.8017"N	80°50'26.5787"W	12549.75	330.680	0.45	0.39	0.22	
20811.00	90.120	340.920	6774.25	12440.53	11031.83	-6176.63	1685263.19	14375043.69	39°35'6.6894"N	80°50'26.9741"W	12643.26	330.756	0.09	0.03	0.08	
20905.00	90.340	341.330	6773.88	12534.53	11120.77	-6207.04	1685232.79	14375132.60	39°35'7.5690"N	80°50'27.3605"W	12735.73	330.832	0.49	0.23	0.44	
21000.00	90.150	341.010	6773.47	12629.53	11210.69	-6237.70	1685202.14	14375222.48	39°35'8.4582"N	80°50'27.7501"W	12829.20	330.908	0.39	-0.20	-0.34	
21094.00	90.090	341.120	6773.27	12723.53	11299.60	-6268.20	1685171.65	14375311.35	39°35'9.3374"N	80°50'28.1377"W	12921.74	330.982	0.13	-0.06	0.12	
21189.00	90.000	340.670	6773.20	12818.53	11389.37	-6299.29	1685140.57	14375401.08	39°35'10.2252"N	80°50'28.5328"W	13015.33	331.054	0.48	-0.09	-0.47	
21283.00	90.030	340.420	6773.17	12912.53	11478.00	-6330.60	1685109.27	14375489.68	39°35'11.1017"N	80°50'28.9307"W	13108.05	331.121	0.27	0.03	-0.27	
21378.00	90.550	340.560	6772.69	13007.52	11567.55	-6362.33	1685077.56	14375579.19	39°35'11.9872"N	80°50'29.3339"W	13201.79	331.189	0.57	0.55	0.15	
21472.00	90.430	341.040	6771.89	13101.52	11656.31	-6393.24	1685046.66	14375667.92	39°35'12.8651"N	80°50'29.7268"W	13294.48	331.256	0.53	-0.13	0.51	
21567.00	90.680	340.680	6770.97	13196.51	11746.06	-6424.39	1685015.53	14375757.63	39°35'13.7526"N	80°50'30.1226"W	13388.15	331.324	0.46	0.26	-0.38	
21661.00	90.620	340.570	6769.90	13290.50	11834.73	-6455.57	1684984.36	14375846.27	39°35'14.6295"N	80°50'30.5189"W	13480.92	331.389	0.13	-0.06	-0.12	
21756.00	90.060	340.340	6769.34	13385.50	11924.25	-6487.35	1684952.59	14375935.75	39°35'15.5148"N	80°50'30.9228"W	13574.74	331.452	0.64	-0.59	-0.24	
21945.00	90.490	340.650	6768.43	13574.49	12102.40	-6550.46	1684889.51	14376113.83	39°35'17.2766"N	80°50'31.7248"W	13761.42	331.575	0.28	0.23	0.16	
22040.00	90.620	340.410	6767.51	13669.48	12191.97	-6582.12	1684857.86	14376203.36	39°35'18.1623"N	80°50'32.1272"W	13855.26	331.637	0.29	0.14	-0.25	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWP
Slot	Slot D		

WELLPATH DATA (295 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
22135.00	90.920	341.040	6766.23	13764.47	12281.63	-6613.48	1684826.51	14376292.99	39°35'19.0491"N	80°50'32.5257"W	13949.07	331.698	0.73	0.32	0.66	
22229.00	90.490	341.370	6765.08	13858.46	12370.61	-6643.76	1684796.24	14376381.94	39°35'19.9290"N	80°50'32.9106"W	14041.78	331.762	0.58	-0.46	0.35	
22324.00	90.400	341.560	6764.34	13953.45	12460.68	-6673.96	1684766.06	14376471.97	39°35'20.8197"N	80°50'33.2943"W	14135.43	331.826	0.22	-0.09	0.20	
22418.00	90.710	340.900	6763.43	14047.45	12549.68	-6704.20	1684735.82	14376560.93	39°35'21.6998"N	80°50'33.6786"W	14228.17	331.888	0.78	0.33	-0.70	
22513.00	90.830	340.720	6762.15	14142.44	12639.39	-6735.43	1684704.61	14376650.61	39°35'22.5870"N	80°50'34.0754"W	14322.02	331.947	0.23	0.13	-0.19	
22607.00	90.520	341.380	6761.05	14236.43	12728.29	-6765.95	1684674.10	14376739.47	39°35'23.4661"N	80°50'34.4633"W	14414.83	332.006	0.78	-0.33	0.70	
22796.00	90.250	341.100	6759.78	14425.43	12907.25	-6826.73	1684613.34	14376918.36	39°35'25.2358"N	80°50'35.2357"W	14601.41	332.125	0.21	-0.14	-0.15	
22891.00	90.180	341.680	6759.42	14520.42	12997.28	-6857.05	1684583.04	14377008.35	39°35'26.1261"N	80°50'35.6209"W	14695.18	332.185	0.61	-0.07	0.61	
22986.00	90.060	341.000	6759.22	14615.42	13087.28	-6887.44	1684552.66	14377098.32	39°35'27.0162"N	80°50'36.0072"W	14788.98	332.244	0.73	-0.13	-0.72	
23080.00	89.940	341.280	6759.22	14709.42	13176.24	-6917.83	1684522.28	14377187.24	39°35'27.8958"N	80°50'36.3933"W	14881.85	332.299	0.32	-0.13	0.30	
23175.00	90.030	340.950	6759.25	14804.42	13266.12	-6948.58	1684491.55	14377277.09	39°35'28.7847"N	80°50'36.7841"W	14975.74	332.355	0.36	0.09	-0.35	
23269.00	89.880	341.330	6759.32	14898.42	13355.08	-6978.96	1684461.17	14377366.01	39°35'29.6644"N	80°50'37.1703"W	15068.64	332.410	0.43	-0.16	0.40	
23458.00	90.030	340.140	6759.47	15087.41	13533.49	-7041.32	1684398.84	14377544.35	39°35'31.4288"N	80°50'37.9628"W	15255.67	332.513	0.63	0.08	-0.63	
23553.00	90.090	339.880	6759.37	15182.40	13622.76	-7073.80	1684366.38	14377633.59	39°35'32.3117"N	80°50'38.3757"W	15349.86	332.559	0.28	0.06	-0.27	
23647.00	90.950	340.320	6758.51	15276.38	13711.15	-7105.79	1684334.39	14377721.94	39°35'33.1857"N	80°50'38.7824"W	15443.05	332.605	1.03	0.91	0.47	
23742.00	90.520	340.720	6757.30	15371.37	13800.70	-7137.47	1684302.73	14377811.45	39°35'34.0713"N	80°50'39.1851"W	15537.14	332.653	0.62	-0.45	0.42	
23836.00	90.090	340.680	6756.80	15465.37	13889.42	-7168.54	1684271.67	14377900.14	39°35'34.9487"N	80°50'39.5800"W	15630.22	332.701	0.46	-0.46	-0.04	
23930.00	90.060	340.290	6756.67	15559.36	13978.02	-7199.94	1684240.29	14377988.70	39°35'35.8248"N	80°50'39.9791"W	15723.36	332.747	0.42	-0.03	-0.41	
24025.00	90.580	341.860	6756.14	15654.36	14067.88	-7230.75	1684209.49	14378078.52	39°35'36.7135"N	80°50'40.3707"W	15817.36	332.797	1.74	0.55	1.65	
24119.00	90.430	341.350	6755.31	15748.35	14157.07	-7260.41	1684179.84	14378167.68	39°35'37.5955"N	80°50'40.7476"W	15910.25	332.849	0.57	-0.16	-0.54	
24214.00	90.680	341.470	6754.39	15843.34	14247.11	-7290.69	1684149.57	14378257.68	39°35'38.4859"N	80°50'41.1325"W	16004.20	332.900	0.29	0.26	0.13	
24309.00	90.650	342.110	6753.29	15938.33	14337.34	-7320.38	1684119.89	14378347.88	39°35'39.3782"N	80°50'41.5097"W	16098.06	332.952	0.67	-0.03	0.67	
24403.00	90.310	341.930	6752.50	16032.31	14426.75	-7349.39	1684090.89	14378437.25	39°35'40.2623"N	80°50'41.8784"W	16190.88	333.004	0.41	-0.36	-0.19	
24497.00	90.310	341.860	6751.99	16126.30	14516.10	-7378.60	1684061.69	14378526.56	39°35'41.1458"N	80°50'42.2495"W	16283.76	333.056	0.07	0.00	-0.07	
24591.00	90.490	341.980	6751.34	16220.28	14605.45	-7407.78	1684032.53	14378615.88	39°35'42.0294"N	80°50'42.6202"W	16376.64	333.106	0.23	0.19	0.13	
24685.00	90.710	342.080	6750.35	16314.26	14694.86	-7436.78	1684003.54	14378705.26	39°35'42.9136"N	80°50'42.9887"W	16469.50	333.157	0.26	0.23	0.11	
24780.00	90.490	341.720	6749.36	16409.25	14785.16	-7466.29	1683974.04	14378795.52	39°35'43.8065"N	80°50'43.3637"W	16563.40	333.207	0.44	-0.23	-0.38	
24874.00	90.090	341.820	6748.88	16503.24	14874.44	-7495.69	1683944.65	14378884.76	39°35'44.6894"N	80°50'43.7374"W	16656.36	333.255	0.44	-0.43	0.11	
24968.00	90.340	341.960	6748.53	16597.23	14963.78	-7524.91	1683915.44	14378974.07	39°35'45.5729"N	80°50'44.1087"W	16749.30	333.303	0.30	0.27	0.15	
25062.00	90.310	341.790	6748.00	16691.21	15053.11	-7554.15	1683886.21	14379063.37	39°35'46.4563"N	80°50'44.4802"W	16842.25	333.351	0.18	-0.03	-0.18	

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

**WELLPATH DATA (295 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
25250.00	90.370	342.020	6746.88	16879.19	15231.81	-7612.55	1683827.84	14379241.99	39°35'48.2234"N	80°50'45.2222"W	17028.18	333.445	0.13	0.03	0.12	
25345.00	90.220	342.140	6746.39	16974.17	15322.20	-7641.78	1683798.62	14379332.35	39°35'49.1172"N	80°50'45.5937"W	17122.11	333.493	0.20	-0.16	0.13	
25439.00	90.280	341.670	6745.98	17068.16	15411.55	-7670.97	1683769.44	14379421.66	39°35'50.0008"N	80°50'45.9647"W	17215.10	333.539	0.50	0.06	-0.50	
25534.00	90.250	341.770	6745.54	17163.15	15501.76	-7700.77	1683739.65	14379511.83	39°35'50.8928"N	80°50'46.3433"W	17309.14	333.583	0.11	-0.03	0.11	
25628.00	90.460	341.740	6744.96	17257.14	15591.03	-7730.20	1683710.24	14379601.07	39°35'51.7756"N	80°50'46.7173"W	17402.19	333.627	0.23	0.22	-0.03	
25722.00	90.310	341.730	6744.33	17351.13	15680.29	-7759.66	1683680.79	14379690.29	39°35'52.6583"N	80°50'47.0917"W	17495.25	333.671	0.16	-0.16	-0.01	
25817.00	90.250	341.690	6743.87	17446.12	15770.49	-7789.47	1683650.99	14379780.46	39°35'53.5502"N	80°50'47.4706"W	17589.32	333.714	0.08	-0.06	-0.04	
25911.00	90.340	340.740	6743.38	17540.12	15859.48	-7819.74	1683620.73	14379869.41	39°35'54.4302"N	80°50'47.8554"W	17682.52	333.754	1.02	0.10	-1.01	
26006.00	90.280	340.670	6742.87	17635.12	15949.14	-7851.13	1683589.35	14379959.04	39°35'55.3169"N	80°50'48.2544"W	17776.82	333.791	0.10	-0.06	-0.07	
26099.00	90.370	340.420	6742.34	17728.11	16036.83	-7882.10	1683558.39	14380046.69	39°35'56.1841"N	80°50'48.6482"W	17869.18	333.826	0.29	0.10	-0.27	
26194.00	90.090	340.720	6741.96	17823.11	16126.42	-7913.71	1683526.80	14380136.25	39°35'57.0700"N	80°50'49.0500"W	17963.52	333.861	0.43	-0.29	0.32	
26383.00	90.430	341.150	6741.10	18012.11	16305.05	-7975.44	1683465.09	14380314.81	39°35'58.8365"N	80°50'49.8347"W	18151.10	333.935	0.29	0.18	0.23	
26478.00	90.280	340.820	6740.51	18107.11	16394.87	-8006.39	1683434.15	14380404.58	39°35'59.7247"N	80°50'50.2282"W	18245.38	333.972	0.38	-0.16	-0.35	
26572.00	90.060	340.890	6740.23	18201.10	16483.67	-8037.22	1683403.34	14380493.35	39°36'0.6028"N	80°50'50.6201"W	18338.71	334.007	0.25	-0.23	0.07	
26761.00	90.250	340.360	6739.72	18390.10	16661.96	-8099.92	1683340.66	14380671.57	39°36'2.3660"N	80°50'51.4172"W	18526.46	334.074	0.30	0.10	-0.28	
26855.00	90.250	340.850	6739.31	18484.09	16750.63	-8131.14	1683309.46	14380760.20	39°36'3.2428"N	80°50'51.8141"W	18619.85	334.107	0.52	0.00	0.52	
26949.00	90.430	340.590	6738.75	18578.09	16839.35	-8162.17	1683278.43	14380848.89	39°36'4.1202"N	80°50'52.2087"W	18713.23	334.140	0.34	0.19	-0.28	
27044.00	90.150	340.590	6738.27	18673.09	16928.95	-8193.74	1683246.88	14380938.46	39°36'5.0063"N	80°50'52.6101"W	18807.63	334.173	0.29	-0.29	0.00	
27138.00	90.280	341.090	6737.92	18767.09	17017.74	-8224.59	1683216.04	14381027.21	39°36'5.8844"N	80°50'53.0023"W	18900.99	334.206	0.55	0.14	0.53	
27232.00	90.340	340.620	6737.41	18861.08	17106.54	-8255.42	1683185.22	14381115.98	39°36'6.7625"N	80°50'53.3942"W	18994.36	334.239	0.50	0.06	-0.50	
27326.00	90.340	340.990	6736.85	18955.08	17195.32	-8286.33	1683154.33	14381204.71	39°36'7.6404"N	80°50'53.7871"W	19087.75	334.271	0.39	0.00	0.39	
27420.00	90.280	340.650	6736.35	19049.08	17284.10	-8317.21	1683123.46	14381293.46	39°36'8.5183"N	80°50'54.1797"W	19181.14	334.303	0.37	-0.06	-0.36	
27515.00	90.310	340.710	6735.86	19144.08	17373.75	-8348.64	1683092.04	14381383.07	39°36'9.4048"N	80°50'54.5793"W	19275.55	334.334	0.07	0.03	0.06	
27592.00	90.370	340.680	6735.40	19221.07	17446.41	-8374.09	1683066.60	14381455.71	39°36'10.1235"N	80°50'54.9030"W	19352.08	334.359	0.09	0.08	-0.04	
27617.00‡	90.370	340.680	6735.24	19246.07	17470.01	-8382.37	1683058.33	14381479.30	39°36'10.3568"N	80°50'55.0081"W	19376.92	334.368	0.00	0.00	0.00	Projected MD at TD: 27617'

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# Actual Wellpath Report

Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gump Unit 1H
Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

HOLE & CASING SECTIONS - Ref Wellbore: Gump Unit 1H AWB    Ref Wellpath: Gump Unit 1H AWP Proj: 27617'									
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	0.21	-0.54
17.5in Open Hole	130.00	380.00	250.00	130.00	379.99	0.21	-0.54	0.58	-1.16
13.375in Casing Surface	30.00	360.00	330.00	30.00	360.00	0.00	0.00	0.65	-1.24
12.25in Open Hole	380.00	3786.00	3406.00	379.99	3440.67	0.58	-1.16	-1119.78	-814.92
9.625in Casing Intermediate	30.00	3756.00	3726.00	30.00	3414.34	0.00	0.00	-1107.66	-807.19
8.75in Open Hole	3786.00	5810.00	2024.00	3440.67	5192.74	-1119.78	-814.92	-1926.53	-1420.73
8.5in Open Hole	5810.00	27617.00	21807.00	5192.74	6735.24	-1926.53	-1420.73	17470.01	-8382.37
5.5in Casing Production	30.00	27597.00	27567.00	30.00	6735.37	0.00	0.00	17451.13	-8375.75

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Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
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Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Gump Unit 1H BHL Rev-4	6714.96	17501.52	-8396.72	1683043.98	14381510.80	39°36'10.6685"N	80°50'55.1908"W	point
Gump Unit 1H BHL Rev-5	6715.12	17472.68	-8386.81	1683053.89	14381481.97	39°36'10.3833"N	80°50'55.0648"W	point
Gump Unit 1H POE Rev-2	6785.00	-1593.68	-1834.31	1689603.77	14362423.22	39°33'1.8290"N	80°49'31.8255"W	point
Gump Unit 1H POE Rev-4	6790.00	-1300.92	-1934.92	1689503.20	14362715.86	39°33'4.7243"N	80°49'33.1026"W	point
Gump Unit 1H LP Rev-4	6818.00	-1109.80	-2000.60	1689437.54	14362906.90	39°33'6.6144"N	80°49'33.9364"W	point
Gump Unit 1H 50' L/R Hard Line	7000.00	7953.92	-5115.52	1686323.88	14371967.01	39°34'36.2510"N	80°50'13.4925"W	rectangle
2D Rectangle 20191.4 x 100.								

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Gump Unit 1H AWP Proj: 27617'

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Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

WELLPATH COMPOSITION - Ref Wellbore: Gump Unit 1H AWB Ref Wellpath: Gump Unit 1H AWP Proj: 27617'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	377.00	Gyrodatta 2015 - GC+WIR+DPIPE	01 Gyrodatta MS Gyro <17-1/2"> (100'-377')	Gump Unit 1H AWB	10/9/2023
377.00	502.00	Gyrodatta 2015 - GC+WIR+DPIPE	02 Gyrodatta MS Gyro <12-1/4"> (377')(502')	Gump Unit 1H AWB	10/12/2023
502.00	3716.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <12-1/4"> (502')(591'-3716')	Gump Unit 1H AWB	10/9/2023
3716.00	5735.00	BH NaviTrak (2019) (Axial Corr+HRGM)	04 APS EM <8-3/4"> (3716')(3870'-5735')	Gump Unit 1H AWB	12/6/2023
5735.00	27617.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	05 BH AT Curve <8-1/2"> (5735')(5793'-27592')	Gump Unit 1H AWB	12/6/2023

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 Gump Unit 1H AWP Proj: 27617'  
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REFERENCE WELLPATH IDENTIFICATION			
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Field	Wetzel	API	47-103-03603-0000
Facility	Big Run Pad	Wellbore	Gump Unit 1H AWB
Slot	Slot D		

COMMENTS
<p><b>Wellpath general comments</b>            API: 47-103-03603-0000            BH Job #: 111994405            Rig: H&amp;P 531            Duration: 12/10/2023-12/17/2023            Gyrodata MS Gyro &lt;17-1/2"&gt; (100'-377')            Gyrodata MS Gyro &lt;12-1/4"&gt; (377')(502')            APS EM &lt;12-1/4"&gt; (502')(591'-3716')            APS EM &lt;8-3/4"&gt; (3716')(3870'-5735')            BH AT Curve &lt;8-1/2"&gt; (5735')(5793'-27592')            Sycamore: 7277' MD            Middlesex: 7421' MD            Burkett: 7575' MD            Tully: 7612' MD            Marcellus POE: 7788' MD            Projected MD at TD: 27617'</p>

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