



# ANTERO RESOURCES CORPORATION

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

Slot: Slot #01  
 Well: Grapevine Unit 1H  
 Wellbore: Grapevine Unit 1H PWB



PKI reference wellpath is Grapevine Unit 1H PWP 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: 1066.5 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot #01): -1041 feet	Depths are in feet
Offset wellpath MDs are referenced to north path's default MD datum	Created by: edcaynor on 2020-11-30; Database: VA_MPL_EASTERNJS_Delta

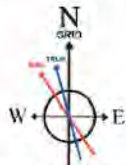
Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Margery Pad	1688470.750	14350316.150	39°31'2.1450"N	80°49'46.5880"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot #01	-38.18	-54.58	1688405.200	14350277.990	39°31'1.7690"N
Comment	Grapevine Unit 1H				
H&P 317 (RKB) to Ground level (At Slot: Slot #01)	25.5ft				
Mean Sea Level to Ground level (At Slot: Slot #01)	-1041ft				
H&P 317 (RKB) to Mean Sea Level	1066.5ft				

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	25.00	0.000	225.160	25.50	0.00	0.00	0.00	0.00
Nudge	455.00	0.000	225.160	455.00	0.00	0.00	0.00	0.00
End of Build	705.00	5.000	225.160	704.68	-7.69	-7.73	2.00	-4.78
Hold	1205.00	5.000	225.160	1202.78	-38.41	-38.53	0.00	-23.88
End of Drop	1455.00	0.000	225.247	1452.46	-46.10	-46.36	2.00	-28.66
KOP	2672.54	0.000	225.247	2670.00	-46.10	-46.36	0.00	-28.66
End of Build	3449.60	15.541	225.247	3437.57	-119.85	-120.74	2.00	-74.43
Curve KOP	5916.47	15.541	225.247	5814.25	-585.19	-590.12	0.00	-363.27
POE	6941.36	74.817	341.160	6577.00	-134.04	-902.56	8.00	164.80
Landing Pt.	7131.15	90.000	341.160	6602.00	43.48	-963.13	8.00	352.17
BHL	18516.76	90.000	341.160	6602.00	10819.12	-4639.77	0.00	11737.78

Gyrodata MS Gyro <17-1/2"> (100'-381') : 0.14° Inc, 100.00ft MD, 100.00ft TVD, -0.09ft VS  
 APS EM <12-1/4"> (381')(422'-2539') : 0.44° Inc, 422.00ft MD, 422.00ft TVD, -0.97ft VS

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #01	Grapevine Unit 1H	Grapevine Unit 1H AWB	Grapevine Unit 1H AWP Proj: 18477'
Slot #01	Grapevine Unit 1H	Grapevine Unit 1H PWB	Grapevine Unit 1H PWP Rev-B.0

APS EM <8-3/4"> (2539')(2666'-5798') : 1.33° Inc, 2666.00ft MD, 2663.38ft TVD, -12.93ft VS

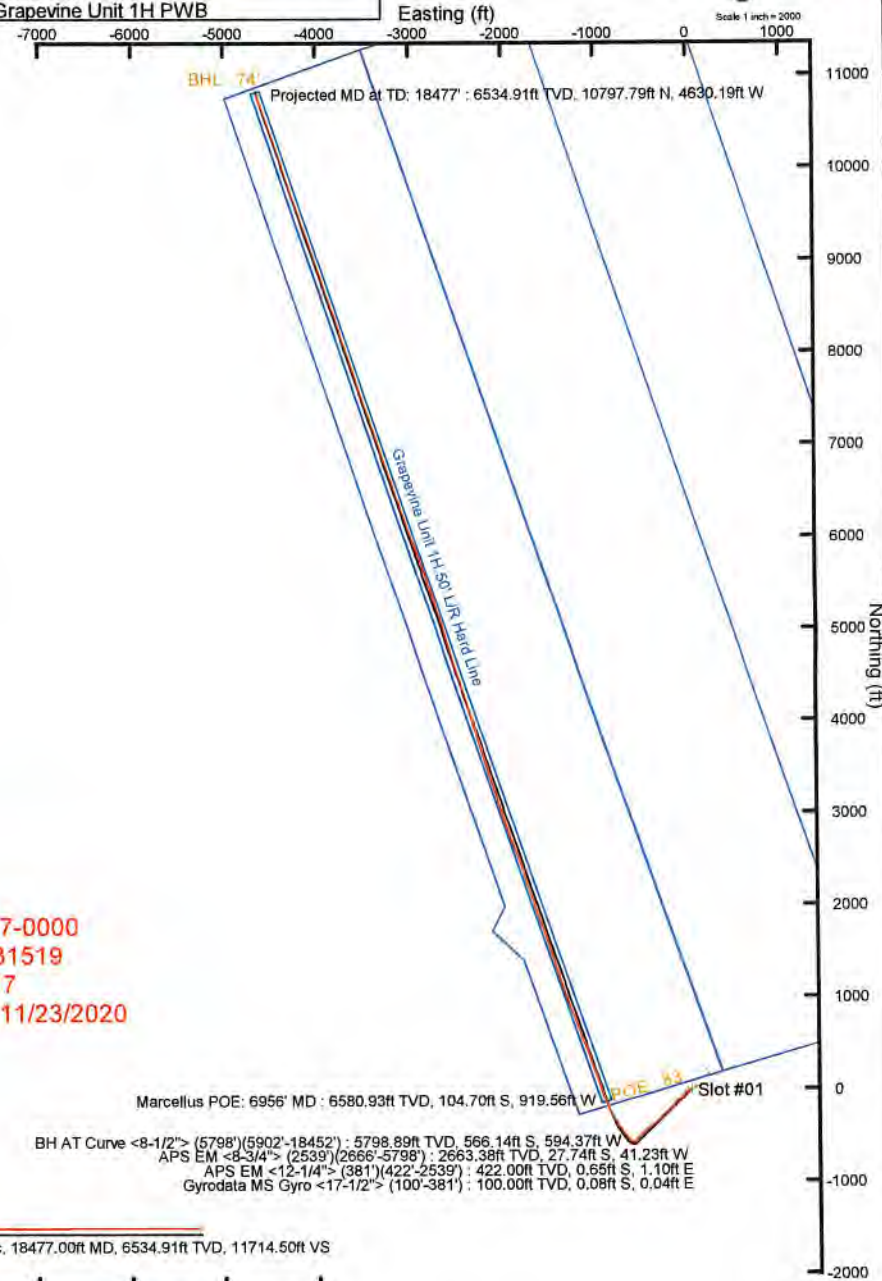


User specified (HDGM) Dip: 68.47° Field: 51790 nT  
 Magnetic North is 7.57 degrees West of True North (at 16/Nov/2020)  
 Grid North is 0.11 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.11 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.68 degrees

BH AT Curve <8-1/2"> (5798')(5902'-18452') : 16.11° Inc, 5902.00ft MD, 5798.89ft TVD, -343.87ft VS

Marcellus POE: 6956' MD : 77.25° Inc, 6956.00ft MD, 6580.93ft TVD, 197.86ft VS

Projected MD at TD: 18477' : 90.28° Inc, 18477.00ft MD, 6534.91ft TVD, 11714.50ft VS



API: 47-095-02707-0000  
 BH Job #: 110631519  
 Rig: H&P 317  
 Duration: 11/17/2020-11/23/2020

Vertical Section (ft)  
 Azimuth 341.16° with reference 0.00 N, 0.00 E

Scale 1 inch = 2000





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

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	30/Nov/2020 at 13:40
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	-38.18	-64.58	1688406.20	14350277.99	39°31'1.7690"N	80°49'47.4129"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 #01)	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	341.16°





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Grapevine Unit 1H
Field	Tyler		API	47-095-02707-0000
Facility	Margery Pad		Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01			

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]	Comments
0.00†	0.000	151.890	0.00	0.00	0.00	0.00	1688406.20	14350277.99	39°31'1.7690"N	80°49'47.4129"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	151.890	25.50	0.00	0.00	0.00	1688406.20	14350277.99	39°31'1.7690"N	80°49'47.4129"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.140	151.890	100.00	-0.09	-0.08	0.04	1688406.24	14350277.91	39°31'1.7682"N	80°49'47.4124"W	0.09	151.890	0.19	0.19	0.00	Gyrodata MS Gyro <17-1/2"> (100'-381')
200.00	0.160	110.880	200.00	-0.30	-0.24	0.23	1688406.43	14350277.75	39°31'1.7666"N	80°49'47.4100"W	0.33	135.844	0.11	0.02	-41.01	
300.00	0.250	119.780	300.00	-0.55	-0.40	0.55	1688406.75	14350277.59	39°31'1.7650"N	80°49'47.4059"W	0.68	125.714	0.10	0.09	8.90	
381.00	0.260	118.680	381.00	-0.82	-0.57	0.87	1688407.06	14350277.42	39°31'1.7633"N	80°49'47.4019"W	1.04	123.461	0.01	0.01	-1.36	
422.00	0.440	102.350	422.00	-0.97	-0.65	1.10	1688407.30	14350277.34	39°31'1.7625"N	80°49'47.3989"W	1.28	120.571	0.50	0.44	-39.83	APS EM <12-1/4"> (381')(422'-2539')
513.00	1.550	205.060	512.99	-2.04	-1.84	0.92	1688407.12	14350276.15	39°31'1.7508"N	80°49'47.4012"W	2.06	153.416	1.87	1.22	112.87	
604.00	3.080	222.540	603.91	-4.10	-4.76	-1.25	1688404.95	14350273.24	39°31'1.7220"N	80°49'47.4291"W	4.92	194.766	1.83	1.68	19.21	
693.00	4.720	228.260	692.70	-6.67	-8.96	-5.60	1688400.60	14350269.04	39°31'1.6805"N	80°49'47.4846"W	10.56	212.029	1.89	1.84	6.43	
783.00	5.490	227.470	782.34	-9.84	-14.33	-11.54	1688394.67	14350263.66	39°31'1.6275"N	80°49'47.5605"W	18.40	218.838	0.86	0.86	-0.88	
874.00	5.460	224.190	872.93	-13.55	-20.38	-17.76	1688388.44	14350257.62	39°31'1.5679"N	80°49'47.6401"W	27.03	221.079	0.35	-0.03	-3.60	
965.00	5.720	221.740	963.50	-17.74	-26.87	-23.80	1688382.41	14350251.13	39°31'1.5039"N	80°49'47.7173"W	35.89	221.538	0.39	0.29	-2.69	
1055.00	5.520	227.350	1053.06	-21.69	-33.15	-29.97	1688376.24	14350244.86	39°31'1.4419"N	80°49'47.7962"W	44.69	222.120	0.65	-0.22	6.23	
1150.00	2.200	222.720	1147.84	-24.41	-37.58	-34.57	1688371.64	14350240.42	39°31'1.3982"N	80°49'47.8550"W	51.06	222.609	3.51	-3.49	-4.87	
1244.00	3.330	201.730	1241.73	-27.34	-41.44	-36.80	1688369.41	14350236.56	39°31'1.3600"N	80°49'47.8836"W	55.43	221.607	1.60	1.20	-22.33	
1339.00	2.090	192.210	1336.62	-30.92	-45.70	-38.19	1688368.02	14350232.31	39°31'1.3180"N	80°49'47.9014"W	59.56	219.886	1.38	-1.31	-10.02	
1434.00	0.770	292.780	1431.60	-31.98	-47.15	-39.15	1688367.07	14350230.86	39°31'1.3037"N	80°49'47.9136"W	61.28	219.704	2.48	-1.39	105.86	
1529.00	1.610	1.030	1526.58	-30.30	-45.57	-39.71	1688366.50	14350232.44	39°31'1.3194"N	80°49'47.9208"W	60.44	221.074	1.58	0.88	71.84	
1624.00	1.570	3.920	1621.54	-27.84	-42.93	-39.60	1688366.62	14350235.07	39°31'1.3454"N	80°49'47.9193"W	58.41	222.687	0.09	-0.04	3.04	
1718.00	1.870	355.190	1715.50	-25.17	-40.12	-39.64	1688366.58	14350237.89	39°31'1.3732"N	80°49'47.9197"W	56.40	224.655	0.42	0.32	-9.29	
1813.00	1.670	14.610	1810.46	-22.51	-37.24	-39.42	1688366.80	14350240.77	39°31'1.4017"N	80°49'47.9168"W	54.23	226.633	0.66	-0.21	20.44	
1908.00	0.520	333.010	1905.44	-20.93	-35.51	-39.27	1688366.95	14350242.49	39°31'1.4187"N	80°49'47.9148"W	52.94	227.875	1.40	-1.21	-43.79	
2003.00	0.390	7.060	2000.44	-20.21	-34.81	-39.42	1688366.79	14350243.20	39°31'1.4257"N	80°49'47.9168"W	52.59	228.559	0.31	-0.14	35.84	
2098.00	0.640	350.650	2095.43	-19.40	-33.96	-39.47	1688366.75	14350244.04	39°31'1.4340"N	80°49'47.9174"W	52.07	229.289	0.30	0.26	-17.27	
2193.00	0.450	1.140	2190.43	-18.52	-33.07	-39.55	1688366.67	14350244.94	39°31'1.4429"N	80°49'47.9184"W	51.55	230.101	0.23	-0.20	11.04	
2287.00	0.240	4.880	2284.43	-18.00	-32.50	-39.52	1688366.69	14350245.50	39°31'1.4485"N	80°49'47.9180"W	51.17	230.570	0.22	-0.22	3.98	
2382.00	0.600	339.690	2379.42	-17.32	-31.84	-39.68	1688366.54	14350246.17	39°31'1.4550"N	80°49'47.9200"W	50.87	231.259	0.42	0.38	-26.52	
2477.00	0.440	303.850	2474.42	-16.53	-31.17	-40.16	1688366.06	14350246.84	39°31'1.4617"N	80°49'47.9261"W	50.83	232.184	0.37	-0.17	-37.73	
2539.00	1.330	2.430	2536.41	-15.67	-30.31	-40.32	1688365.89	14350247.69	39°31'1.4701"N	80°49'47.9282"W	50.45	233.064	1.88	1.44	94.48	





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

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]	Comments
2666.00	1.330	318.660	2663.38	-12.93	-27.74	-41.23	1688364.98	14350250.27	39°31'1.4956"N	80°49'47.9397"W	49.69	236.074	0.78	0.00	-34.46	APS EM <8-3/4"> (2539)(2666'-5798')
2761.00	2.280	244.900	2758.34	-12.12	-27.71	-43.67	1688362.54	14350250.29	39°31'1.4959"N	80°49'47.9709"W	51.72	237.606	2.42	1.00	-77.64	
2856.00	6.790	232.850	2853.02	-14.09	-31.90	-49.86	1688356.36	14350246.10	39°31'1.4546"N	80°49'48.0500"W	59.20	237.388	4.83	4.75	-12.68	
2950.00	9.500	230.410	2946.07	-18.59	-40.21	-60.27	1688345.95	14350237.80	39°31'1.3727"N	80°49'48.1830"W	72.45	236.295	2.91	2.88	-2.60	
3045.00	9.050	223.650	3039.83	-24.82	-50.61	-71.47	1688334.76	14350227.40	39°31'1.2701"N	80°49'48.3261"W	87.58	234.698	1.24	-0.47	-7.12	
3140.00	9.710	222.410	3133.56	-32.12	-61.93	-82.03	1688324.20	14350216.08	39°31'1.1584"N	80°49'48.4612"W	102.78	232.949	0.73	0.69	-1.31	
3235.00	11.810	224.780	3226.88	-40.30	-74.75	-94.29	1688311.95	14350203.27	39°31'1.0320"N	80°49'48.6178"W	120.32	231.594	2.26	2.21	2.49	
3332.00	13.450	229.150	3321.53	-48.93	-89.17	-109.81	1688296.43	14350188.85	39°31'0.8897"N	80°49'48.8163"W	141.46	230.922	1.96	1.69	4.51	
3427.00	15.230	231.830	3413.57	-57.21	-104.11	-127.98	1688278.27	14350173.92	39°31'0.7424"N	80°49'49.0485"W	164.98	230.872	2.00	1.87	2.82	
3522.00	14.900	228.070	3505.31	-66.13	-119.99	-146.88	1688259.38	14350158.05	39°31'0.5858"N	80°49'49.2900"W	189.66	230.754	1.09	-0.35	-3.96	
3617.00	13.980	220.910	3597.31	-76.70	-136.82	-163.48	1688242.78	14350141.22	39°31'0.4198"N	80°49'49.5022"W	213.18	230.073	2.11	-0.97	-7.54	
3712.00	14.080	220.490	3689.48	-88.37	-154.28	-178.50	1688227.77	14350123.77	39°31'0.2475"N	80°49'49.6943"W	235.93	229.162	0.15	0.11	-0.44	
3806.00	14.730	220.830	3780.52	-100.24	-172.02	-193.74	1688212.54	14350106.04	39°31'0.0724"N	80°49'49.8891"W	259.08	228.398	0.70	0.69	0.36	
3901.00	16.320	220.370	3872.05	-113.17	-191.33	-210.28	1688196.00	14350086.74	39°30'59.8819"N	80°49'50.1007"W	284.30	227.702	1.68	1.67	-0.48	
3996.00	16.540	221.890	3963.17	-126.62	-211.56	-227.95	1688178.34	14350066.51	39°30'59.6822"N	80°49'50.3267"W	311.00	227.136	0.51	0.23	1.60	
4091.00	16.490	228.290	4054.26	-138.47	-230.60	-247.05	1688159.25	14350047.48	39°30'59.4944"N	80°49'50.5708"W	337.95	226.972	1.91	-0.05	6.74	
4186.00	14.120	225.770	4145.89	-148.68	-247.66	-265.42	1688140.88	14350030.43	39°30'59.3262"N	80°49'50.8056"W	363.02	226.983	2.59	-2.49	-2.65	
4281.00	14.100	226.970	4238.02	-158.39	-263.64	-282.18	1688124.13	14350014.46	39°30'59.1686"N	80°49'51.0199"W	386.18	226.946	0.31	-0.02	1.26	
4375.00	15.120	229.830	4328.98	-167.54	-279.36	-299.92	1688106.40	14349998.74	39°30'59.0135"N	80°49'51.2466"W	409.87	227.033	1.33	1.09	3.04	
4470.00	16.410	224.530	4420.41	-178.06	-296.92	-318.80	1688087.53	14349981.19	39°30'58.8403"N	80°49'51.4879"W	435.66	227.035	2.03	1.36	-5.58	
4565.00	17.580	221.960	4511.26	-191.08	-317.16	-337.81	1688068.53	14349960.96	39°30'58.6407"N	80°49'51.7309"W	463.36	226.806	1.46	1.23	-2.71	
4660.00	16.650	220.570	4602.06	-205.00	-338.16	-356.25	1688050.09	14349939.96	39°30'58.4334"N	80°49'51.9667"W	491.19	226.492	1.07	-0.98	-1.46	
4755.00	14.940	227.300	4693.47	-216.89	-356.81	-374.10	1688032.24	14349921.32	39°30'58.2494"N	80°49'52.1950"W	516.98	226.355	2.64	-1.80	7.08	
4850.00	15.710	231.630	4785.10	-226.14	-373.10	-393.19	1688013.17	14349905.04	39°30'58.0888"N	80°49'52.4389"W	542.03	226.502	1.45	0.81	4.56	
4945.00	14.680	230.030	4876.78	-234.78	-388.82	-412.50	1687993.87	14349889.33	39°30'57.9338"N	80°49'52.6857"W	566.86	226.693	1.17	-1.08	-1.68	
5039.00	13.260	235.990	4968.00	-241.89	-402.50	-430.56	1687975.81	14349875.65	39°30'57.7989"N	80°49'52.9165"W	589.40	226.930	2.15	-1.51	6.34	
5134.00	15.220	235.730	5060.07	-248.06	-415.62	-449.90	1687956.48	14349862.54	39°30'57.6697"N	80°49'53.1636"W	612.49	227.269	2.06	2.06	-0.27	
5229.00	16.780	224.110	5151.41	-257.62	-432.49	-469.76	1687936.63	14349845.67	39°30'57.5033"N	80°49'53.4173"W	638.53	227.365	3.74	1.64	-12.23	
5324.00	16.260	226.630	5242.49	-269.38	-451.47	-488.97	1687917.42	14349826.70	39°30'57.3160"N	80°49'53.6629"W	665.52	227.284	0.93	-0.55	2.65	
5419.00	16.680	228.710	5333.60	-280.11	-469.60	-508.89	1687897.52	14349808.58	39°30'57.1372"N	80°49'53.9175"W	692.45	227.299	0.76	0.44	2.19	





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

**WELLPATH DATA (206 stations)** † = interpolated, ‡ = extrapolated station

MD	Inclination	Azimuth	TVD	Vert	North	East	Grid East	Grid North	Latitude	Longitude	Closure	Closure	DLS	Build	Turn	Comments
[ft]	[°]	[°]	[ft]	Sect	[ft]	[ft]	[US ft]	[US ft]			Dist	Dir	[°/100ft]	Rate	Rate	
				[ft]							[ft]	[°]		[°/100ft]	[°/100ft]	
5514.00	16.790	226.920	5424.57	-290.95	-487.97	-529.15	1687877.26	14349790.22	39°30'56.9560"N	80°49'54.1765"W	719.80	227.319	0.55	0.12	-1.88	
5608.00	14.980	223.500	5514.98	-302.16	-506.05	-547.43	1687858.99	14349772.14	39°30'56.7776"N	80°49'54.4102"W	745.50	227.249	2.17	-1.93	-3.64	
5703.00	14.210	218.950	5606.92	-314.08	-524.03	-563.21	1687843.21	14349754.17	39°30'56.6003"N	80°49'54.6120"W	769.30	227.064	1.45	-0.81	-4.79	
5798.00	15.340	214.660	5698.78	-327.77	-543.43	-577.69	1687828.74	14349734.77	39°30'56.4087"N	80°49'54.7972"W	793.13	226.750	1.65	1.19	-4.52	
5902.00	16.110	217.850	5798.89	-343.87	-566.14	-594.37	1687812.07	14349712.07	39°30'56.1846"N	80°49'55.0105"W	820.85	226.393	1.11	0.74	3.07	BH AT Curve <8-1/2"> (5798')(5902'-184
5997.00	12.620	251.670	5891.06	-351.04	-579.84	-612.34	1687794.10	14349698.38	39°30'56.0495"N	80°49'55.2402"W	843.32	226.562	9.40	-3.67	35.60	
6092.00	13.390	297.980	5983.87	-342.90	-577.94	-631.96	1687774.49	14349700.28	39°30'56.0687"N	80°49'55.4904"W	856.38	227.557	10.71	0.81	48.75	
6187.00	18.900	314.220	6075.13	-321.13	-562.03	-652.73	1687753.73	14349716.18	39°30'56.2263"N	80°49'55.7550"W	861.36	229.270	7.45	5.80	17.09	
6282.00	24.570	316.640	6163.34	-289.42	-536.92	-677.34	1687729.13	14349741.29	39°30'56.4750"N	80°49'56.0684"W	864.33	231.596	6.04	5.97	2.55	
6376.00	30.910	321.320	6246.51	-248.89	-503.82	-705.88	1687700.61	14349774.37	39°30'56.8026"N	80°49'56.4318"W	867.24	234.482	7.13	6.74	4.98	
6433.00†	34.975	324.750	6294.34	-219.43	-479.04	-724.46	1687682.03	14349799.14	39°30'57.0479"N	80°49'56.6684"W	868.52	236.526	7.84	7.13	6.02	Sycamore: 6433' MD
6471.00	37.730	326.670	6324.94	-197.72	-460.43	-737.14	1687669.35	14349817.74	39°30'57.2321"N	80°49'56.8297"W	869.12	238.011	7.84	7.25	5.05	
6566.00	45.720	329.210	6395.79	-136.20	-406.84	-770.58	1687635.93	14349871.31	39°30'57.7623"N	80°49'57.2551"W	871.38	242.167	8.60	8.41	2.67	
6578.00†	46.652	329.353	6404.10	-127.73	-399.39	-775.00	1687631.51	14349878.76	39°30'57.8360"N	80°49'57.3113"W	871.86	242.736	7.81	7.76	1.20	Middlesex: 6578' MD
6661.00	53.100	330.240	6457.56	-65.54	-344.56	-806.89	1687599.63	14349933.57	39°30'58.3785"N	80°49'57.7169"W	877.38	246.876	7.81	7.77	1.07	
6708.00	56.520	330.280	6484.64	-27.82	-311.22	-825.94	1687580.59	14349966.90	39°30'58.7084"N	80°49'57.9592"W	882.63	249.354	7.28	7.28	0.09	
6741.00†	59.032	331.846	6502.24	-0.34	-286.78	-839.44	1687567.09	14349991.32	39°30'58.9501"N	80°49'58.1309"W	887.08	251.138	8.61	7.61	4.74	Burkett: 6741' MD
6756.00	60.180	332.530	6509.83	12.44	-275.34	-845.48	1687561.06	14350002.76	39°30'59.0633"N	80°49'58.2077"W	889.18	251.961	8.61	7.65	4.56	
6790.00†	63.168	334.840	6525.96	42.11	-248.52	-858.74	1687547.81	14350029.57	39°30'59.3287"N	80°49'58.3762"W	893.97	253.860	10.63	8.79	6.79	Tully: 6790' MD
6803.00	64.320	335.690	6531.71	53.70	-237.93	-863.61	1687542.93	14350040.16	39°30'59.4334"N	80°49'58.4382"W	895.79	254.597	10.63	8.86	6.54	
6851.00	68.740	337.130	6550.82	97.57	-197.58	-881.22	1687525.33	14350080.48	39°30'59.8325"N	80°49'58.6619"W	903.10	257.362	9.61	9.21	3.00	
6898.00	73.200	337.520	6566.14	141.89	-156.60	-898.34	1687508.22	14350121.46	39°31'0.2379"N	80°49'58.8794"W	911.89	260.112	9.52	9.49	0.83	
6946.00	76.550	337.890	6578.67	188.14	-113.73	-915.92	1687490.65	14350164.31	39°31'0.6619"N	80°49'59.1026"W	922.95	262.922	7.02	6.98	0.77	
6956.00†	77.250	338.224	6580.93	197.86	-104.70	-919.56	1687487.01	14350173.34	39°31'0.7512"N	80°49'59.1489"W	925.50	263.505	7.71	7.00	3.34	Marcellus POE: 6956' MD
7041.00	83.210	341.000	6595.35	281.55	-26.21	-948.71	1687457.87	14350251.79	39°31'1.5274"N	80°49'59.5189"W	949.07	268.417	7.71	7.01	3.27	
7135.00	90.310	341.070	6600.66	375.34	62.49	-979.19	1687427.40	14350340.45	39°31'2.4046"N	80°49'59.9058"W	981.18	273.651	7.55	7.55	0.07	
7230.00	90.340	340.650	6600.12	470.34	152.23	-1010.34	1687396.27	14350430.16	39°31'3.2922"N	80°50'0.3011"W	1021.74	278.569	0.44	0.03	-0.44	
7325.00	90.890	339.660	6599.10	565.32	241.58	-1042.58	1687364.03	14350519.48	39°31'4.1759"N	80°50'0.7105"W	1070.21	283.046	1.19	0.58	-1.04	
7420.00	91.350	341.320	6597.25	660.29	331.11	-1074.30	1687332.33	14350608.97	39°31'5.0612"N	80°50'1.1131"W	1124.17	287.130	1.81	0.48	1.75	
7515.00	90.490	340.760	6595.72	755.28	420.94	-1105.17	1687301.48	14350698.76	39°31'5.9497"N	80°50'1.5048"W	1182.62	290.851	1.08	-0.91	-0.59	





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Grapevine Unit 1H
Field	Tyler		API	47-095-02707-0000
Facility	Margery Pad		Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01			

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]	Comments
7610.00	90.220	339.370	6595.13	850.25	510.25	-1137.55	1687269.10	14350788.03	39°31'6.8329"N	80°50'1.9160"W	1246.75	294.158	1.49	-0.28	-1.46	
7705.00	90.490	340.750	6594.54	945.23	599.55	-1169.95	1687236.72	14350877.30	39°31'7.7160"N	80°50'2.3273"W	1314.63	297.133	1.48	0.28	1.45	
7799.00	90.550	338.920	6593.69	1039.20	687.78	-1202.35	1687204.33	14350965.49	39°31'8.5886"N	80°50'2.7386"W	1385.17	299.771	1.95	0.06	-1.95	
7894.00	90.460	338.030	6592.85	1134.09	776.15	-1237.21	1687169.49	14351053.83	39°31'9.4627"N	80°50'3.1813"W	1460.51	302.102	0.94	-0.09	-0.94	
7989.00	90.340	340.110	6592.19	1229.02	864.87	-1271.14	1687135.57	14351142.52	39°31'10.3402"N	80°50'3.6122"W	1537.47	304.231	2.19	-0.13	2.19	
8084.00	90.620	340.230	6591.39	1324.00	954.24	-1303.37	1687103.35	14351231.84	39°31'11.2240"N	80°50'4.0213"W	1615.34	306.209	0.32	0.29	0.13	
8178.00	90.490	339.070	6590.48	1417.96	1042.36	-1336.05	1687070.68	14351319.94	39°31'12.0956"N	80°50'4.4364"W	1694.57	307.961	1.24	-0.14	-1.23	
8273.00	90.030	341.320	6590.05	1512.94	1131.74	-1368.24	1687038.51	14351409.27	39°31'12.9795"N	80°50'4.8450"W	1775.64	309.596	2.42	-0.48	2.37	
8368.00	91.110	343.650	6589.11	1607.91	1222.32	-1396.83	1687009.93	14351499.82	39°31'13.8752"N	80°50'5.2076"W	1856.12	311.188	2.70	1.14	2.45	
8463.00	90.550	343.230	6587.73	1702.82	1313.37	-1423.90	1686982.87	14351590.84	39°31'14.7756"N	80°50'5.5510"W	1937.12	312.688	0.74	-0.59	-0.44	
8558.00	91.350	342.130	6586.16	1797.77	1404.05	-1452.18	1686954.60	14351681.48	39°31'15.6723"N	80°50'5.9097"W	2019.94	314.035	1.43	0.84	-1.16	
8653.00	90.370	340.310	6584.73	1892.75	1493.97	-1482.76	1686924.04	14351771.37	39°31'16.5616"N	80°50'6.2978"W	2104.88	315.216	2.18	-1.03	-1.92	
8748.00	90.490	342.630	6584.02	1987.74	1584.04	-1512.94	1686893.86	14351861.40	39°31'17.4523"N	80°50'6.6809"W	2190.48	316.315	2.45	0.13	2.44	
8843.00	90.830	342.180	6582.92	2082.72	1674.59	-1541.66	1686865.16	14351951.91	39°31'18.3478"N	80°50'7.0452"W	2276.17	317.367	0.59	0.36	-0.47	
8937.00	90.340	339.730	6581.96	2176.70	1763.43	-1572.33	1686834.50	14352040.72	39°31'19.2264"N	80°50'7.4345"W	2362.61	318.279	2.66	-0.52	-2.61	
9032.00	90.310	338.330	6581.42	2271.63	1852.14	-1606.33	1686800.52	14352129.39	39°31'20.1037"N	80°50'7.8663"W	2451.67	319.065	1.47	-0.03	-1.47	
9127.00	90.220	342.510	6580.98	2366.60	1941.62	-1638.16	1686768.70	14352218.84	39°31'20.9887"N	80°50'8.2704"W	2540.36	319.846	4.40	-0.09	4.40	
9222.00	90.950	342.630	6580.01	2461.57	2032.26	-1666.61	1686740.26	14352309.43	39°31'21.8850"N	80°50'8.6314"W	2628.24	320.646	0.78	0.77	0.13	
9317.00	90.250	340.600	6579.02	2556.55	2122.40	-1696.57	1686710.31	14352399.54	39°31'22.7764"N	80°50'9.0116"W	2717.15	321.362	2.26	-0.74	-2.14	
9412.00	90.220	341.450	6578.63	2651.55	2212.23	-1727.46	1686679.43	14352489.34	39°31'23.6648"N	80°50'9.4037"W	2806.79	322.015	0.90	-0.03	0.89	
9507.00	90.400	342.390	6578.12	2746.54	2302.54	-1756.94	1686649.96	14352579.61	39°31'24.5579"N	80°50'9.7778"W	2896.30	322.655	1.01	0.19	0.99	
9601.00	90.220	342.920	6577.61	2840.51	2392.26	-1784.96	1686621.95	14352669.30	39°31'25.4452"N	80°50'10.1333"W	2984.80	323.272	0.60	-0.19	0.56	
9696.00	90.310	340.460	6577.17	2935.50	2482.45	-1814.81	1686592.12	14352759.44	39°31'26.3370"N	80°50'10.5120"W	3075.07	323.831	2.59	0.09	-2.59	
9791.00	90.030	336.620	6576.89	3030.38	2570.84	-1849.56	1686557.38	14352847.81	39°31'27.2113"N	80°50'10.9534"W	3167.03	324.267	4.05	-0.29	-4.04	
9886.00	90.060	337.310	6576.81	3125.12	2658.27	-1886.73	1686520.22	14352935.20	39°31'28.0760"N	80°50'11.4258"W	3259.77	324.634	0.73	0.03	0.73	
9981.00	90.280	341.380	6576.53	3220.05	2747.14	-1920.23	1686486.74	14353024.03	39°31'28.9550"N	80°50'11.8512"W	3351.73	325.047	4.29	0.23	4.28	
10076.00	90.400	342.500	6575.97	3315.04	2837.46	-1949.68	1686457.30	14353114.32	39°31'29.8481"N	80°50'12.2250"W	3442.74	325.506	1.19	0.13	1.18	
10171.00	90.370	342.650	6575.33	3410.01	2928.10	-1978.13	1686428.86	14353204.92	39°31'30.7444"N	80°50'12.5859"W	3533.66	325.958	0.16	-0.03	0.16	
10265.00	90.430	342.870	6574.67	3503.97	3017.87	-2005.99	1686401.01	14353294.66	39°31'31.6322"N	80°50'12.9393"W	3623.75	326.388	0.24	0.06	0.23	
10360.00	90.000	341.790	6574.31	3598.95	3108.39	-2034.82	1686372.19	14353385.14	39°31'32.5273"N	80°50'13.3052"W	3715.18	326.790	1.22	-0.45	-1.14	





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

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]	Comments
10455.00	90.580	343.250	6573.83	3693.92	3199.00	-2063.36	1686343.67	14353475.71	39°31'33.4233"N	80°50'13.6673"W	3806.71	327.178	1.65	0.51	1.54	
10550.00	90.150	342.020	6573.23	3788.88	3289.66	-2091.71	1686315.33	14353566.34	39°31'34.3199"N	80°50'14.0270"W	3898.35	327.550	1.37	-0.45	-1.29	
10645.00	90.000	340.280	6573.10	3883.88	3379.56	-2122.40	1686284.65	14353656.20	39°31'35.2090"N	80°50'14.4166"W	3990.74	327.871	1.84	-0.16	-1.83	
10739.00	90.150	342.750	6572.98	3977.87	3468.71	-2152.20	1686254.86	14353745.31	39°31'36.0906"N	80°50'14.7949"W	4082.15	328.182	2.63	0.16	2.63	
10834.00	91.140	342.260	6571.91	4072.84	3559.31	-2180.76	1686226.31	14353835.87	39°31'36.9865"N	80°50'15.1572"W	4174.25	328.505	1.16	1.04	-0.52	
10929.00	89.970	342.780	6570.99	4167.80	3649.91	-2209.29	1686197.79	14353926.44	39°31'37.8825"N	80°50'15.5193"W	4266.48	328.813	1.35	-1.23	0.55	
11023.00	90.460	342.960	6570.64	4261.76	3739.74	-2236.98	1686170.11	14354016.24	39°31'38.7708"N	80°50'15.8705"W	4357.72	329.114	0.56	0.52	0.19	
11118.00	90.220	342.990	6570.08	4356.71	3830.58	-2264.79	1686142.31	14354107.04	39°31'39.6690"N	80°50'16.2234"W	4450.01	329.407	0.25	-0.25	0.03	
11213.00	90.710	342.160	6569.30	4451.68	3921.21	-2293.24	1686113.87	14354197.64	39°31'40.5653"N	80°50'16.5843"W	4542.56	329.680	1.01	0.52	-0.87	
11308.00	91.020	344.000	6567.87	4546.61	4012.09	-2320.89	1686086.24	14354288.47	39°31'41.4639"N	80°50'16.9350"W	4635.01	329.952	1.96	0.33	1.94	
11403.00	89.970	342.120	6567.05	4641.55	4102.96	-2348.56	1686058.57	14354379.31	39°31'42.3625"N	80°50'17.2862"W	4727.58	330.213	2.27	-1.11	-1.98	
11497.00	90.430	342.750	6566.72	4735.52	4192.57	-2376.93	1686030.22	14354468.89	39°31'43.2487"N	80°50'17.6461"W	4819.49	330.449	0.83	0.49	0.67	
11592.00	90.060	341.010	6566.31	4830.51	4282.86	-2406.48	1686000.69	14354559.14	39°31'44.1416"N	80°50'18.0211"W	4912.63	330.669	1.87	-0.39	-1.83	
11687.00	91.080	343.830	6565.37	4925.47	4373.40	-2435.16	1685972.01	14354649.65	39°31'45.0370"N	80°50'18.3852"W	5005.67	330.890	3.16	1.07	2.97	
11782.00	89.820	339.980	6564.62	5020.44	4463.68	-2464.66	1685942.52	14354739.89	39°31'45.9298"N	80°50'18.7596"W	5098.93	331.094	4.26	-1.33	-4.05	
11877.00	91.450	343.420	6563.57	5115.42	4553.86	-2494.49	1685912.71	14354830.03	39°31'46.8215"N	80°50'19.1381"W	5192.31	331.287	4.01	1.72	3.62	
11971.00	89.720	341.020	6562.61	5209.38	4643.35	-2523.19	1685884.02	14354919.49	39°31'47.7065"N	80°50'19.5023"W	5284.62	331.480	3.15	-1.84	-2.55	
12066.00	90.460	343.330	6562.46	5304.36	4733.79	-2552.26	1685854.95	14355009.88	39°31'48.6008"N	80°50'19.8714"W	5377.99	331.668	2.55	0.78	2.43	
12161.00	89.630	342.150	6562.39	5399.32	4824.50	-2580.45	1685826.78	14355100.57	39°31'49.4979"N	80°50'20.2290"W	5471.25	331.859	1.52	-0.87	-1.24	
12256.00	90.980	342.830	6561.88	5494.29	4915.10	-2609.03	1685798.21	14355191.13	39°31'50.3938"N	80°50'20.5917"W	5564.64	332.040	1.59	1.42	0.72	
12351.00	90.430	343.780	6560.71	5589.22	5006.09	-2636.32	1685770.93	14355282.08	39°31'51.2935"N	80°50'20.9379"W	5657.83	332.228	1.16	-0.58	1.00	
12446.00	89.750	341.900	6560.56	5684.17	5096.85	-2664.35	1685742.92	14355372.81	39°31'52.1911"N	80°50'21.2936"W	5751.23	332.402	2.10	-0.72	-1.98	
12540.00	90.550	340.830	6560.32	5778.17	5185.92	-2694.38	1685712.89	14355461.84	39°31'53.0719"N	80°50'21.6749"W	5844.10	332.546	1.42	0.85	-1.14	
12635.00	90.920	343.000	6559.10	5873.15	5276.22	-2723.87	1685683.42	14355552.10	39°31'53.9648"N	80°50'22.0491"W	5937.84	332.695	2.32	0.39	2.28	
12730.00	90.220	341.940	6558.15	5968.12	5366.80	-2752.48	1685654.82	14355642.64	39°31'54.8606"N	80°50'22.4122"W	6031.47	332.848	1.34	-0.74	-1.12	
12825.00	90.430	342.050	6557.61	6063.10	5457.14	-2781.85	1685625.46	14355732.95	39°31'55.7540"N	80°50'22.7849"W	6125.28	332.989	0.25	0.22	0.12	
12920.00	90.090	341.570	6557.18	6158.10	5547.40	-2811.50	1685595.82	14355823.17	39°31'56.6465"N	80°50'23.1614"W	6219.18	333.123	0.62	-0.36	-0.51	
13110.00	90.090	340.220	6556.88	6348.09	5726.93	-2873.69	1685533.66	14356002.63	39°31'58.4220"N	80°50'23.9510"W	6407.48	333.353	0.71	0.00	-0.71	
13204.00	89.850	341.500	6556.93	6442.09	5815.73	-2904.51	1685502.85	14356091.39	39°31'59.3002"N	80°50'24.3423"W	6500.68	333.461	1.39	-0.26	1.36	
13299.00	91.170	339.020	6556.09	6537.06	5905.13	-2936.59	1685470.78	14356180.76	39°32'0.1843"N	80°50'24.7497"W	6595.01	333.559	2.96	1.39	-2.61	





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

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]	Comments
13394.00	89.970	336.440	6555.14	6631.88	5993.03	-2972.59	1685434.80	14356268.63	39°32'1.0537"N	80°50'25.2071"W	6689.75	333.618	3.00	-1.26	-2.72	
13489.00	89.940	341.040	6555.22	6726.77	6081.54	-3007.03	1685400.38	14356357.10	39°32'1.9291"N	80°50'25.6447"W	6784.35	333.690	4.84	-0.03	4.84	
13584.00	88.800	341.520	6556.26	6821.76	6171.51	-3037.51	1685369.90	14356447.04	39°32'2.8188"N	80°50'26.0317"W	6878.52	333.794	1.30	-1.20	0.51	
13678.00	89.780	340.530	6557.43	6915.75	6260.39	-3068.07	1685339.35	14356535.88	39°32'3.6978"N	80°50'26.4198"W	6971.77	333.892	1.48	1.04	-1.05	
13773.00	90.000	340.790	6557.61	7010.75	6350.03	-3099.54	1685307.90	14356625.49	39°32'4.5843"N	80°50'26.8193"W	7066.12	333.982	0.36	0.23	0.27	
13868.00	89.910	341.130	6557.68	7105.75	6439.84	-3130.53	1685276.92	14356715.25	39°32'5.4724"N	80°50'27.2128"W	7160.42	334.075	0.37	-0.09	0.36	
13963.00	89.720	340.600	6557.99	7200.74	6529.59	-3161.67	1685245.80	14356804.97	39°32'6.3599"N	80°50'27.6083"W	7254.77	334.163	0.59	-0.20	-0.56	
14058.00	89.750	340.820	6558.43	7295.74	6619.25	-3193.05	1685214.42	14356894.60	39°32'7.2467"N	80°50'28.0068"W	7349.15	334.248	0.23	0.03	0.23	
14152.00	89.880	340.900	6558.73	7389.74	6708.05	-3223.87	1685183.62	14356983.37	39°32'8.1249"N	80°50'28.3981"W	7442.54	334.331	0.16	0.14	0.09	
14247.00	89.750	341.220	6559.04	7484.74	6797.91	-3254.71	1685152.79	14357073.19	39°32'9.0135"N	80°50'28.7897"W	7536.89	334.416	0.36	-0.14	0.34	
14342.00	89.690	340.940	6559.50	7579.74	6887.78	-3285.51	1685122.00	14357163.02	39°32'9.9022"N	80°50'29.1808"W	7631.25	334.499	0.30	-0.06	-0.29	
14437.00	90.000	341.210	6559.76	7674.73	6977.64	-3316.32	1685091.20	14357252.84	39°32'10.7909"N	80°50'29.5720"W	7725.64	334.579	0.43	0.33	0.28	
14532.00	89.820	341.080	6559.91	7769.73	7067.54	-3347.02	1685060.52	14357342.71	39°32'11.6800"N	80°50'29.9619"W	7820.02	334.659	0.23	-0.19	-0.14	
14627.00	89.940	341.180	6560.11	7864.73	7157.44	-3377.75	1685029.80	14357432.57	39°32'12.5689"N	80°50'30.3520"W	7914.42	334.736	0.16	0.13	0.11	
14722.00	89.910	341.100	6560.23	7959.73	7247.34	-3408.46	1684999.11	14357522.43	39°32'13.4580"N	80°50'30.7420"W	8008.84	334.812	0.09	-0.03	-0.08	
14817.00	90.060	340.580	6560.26	8054.73	7337.07	-3439.64	1684967.94	14357612.13	39°32'14.3454"N	80°50'31.1379"W	8103.32	334.883	0.57	0.16	-0.55	
14912.00	90.400	341.520	6559.88	8149.73	7426.92	-3470.49	1684937.10	14357701.95	39°32'15.2340"N	80°50'31.5296"W	8197.77	334.954	1.05	0.36	0.99	
15006.00	89.660	340.940	6559.83	8243.73	7515.92	-3500.73	1684906.87	14357790.91	39°32'16.1141"N	80°50'31.9137"W	8291.21	335.025	1.00	-0.79	-0.62	
15101.00	89.720	340.670	6560.34	8338.73	7605.64	-3531.97	1684875.65	14357880.59	39°32'17.0013"N	80°50'32.3104"W	8385.73	335.090	0.29	0.06	-0.28	
15196.00	90.680	341.490	6560.01	8433.72	7695.50	-3562.77	1684844.85	14357970.42	39°32'17.8900"N	80°50'32.7015"W	8480.22	335.157	1.33	1.01	0.86	
15291.00	90.740	341.600	6558.83	8528.71	7785.61	-3592.84	1684814.80	14358060.49	39°32'18.7811"N	80°50'33.0833"W	8574.63	335.228	0.13	0.06	0.12	
15386.00	90.580	341.000	6557.74	8623.71	7875.59	-3623.29	1684784.35	14358150.44	39°32'19.6709"N	80°50'33.4700"W	8669.09	335.294	0.65	-0.17	-0.63	
15481.00	90.370	341.080	6556.95	8718.70	7965.43	-3654.16	1684753.50	14358240.24	39°32'20.5594"N	80°50'33.8620"W	8763.62	335.357	0.24	-0.22	0.08	
15575.00	91.170	341.530	6555.69	8812.69	8054.46	-3684.29	1684723.38	14358329.24	39°32'21.4398"N	80°50'34.2445"W	8857.11	335.420	0.98	0.85	0.48	
15670.00	90.680	341.130	6554.15	8907.68	8144.45	-3714.69	1684692.99	14358419.19	39°32'22.3297"N	80°50'34.6307"W	8951.60	335.482	0.67	-0.52	-0.42	
15765.00	92.770	341.990	6551.29	9002.63	8234.53	-3744.73	1684662.97	14358509.23	39°32'23.2205"N	80°50'35.0120"W	9046.02	335.546	2.38	2.20	0.91	
15860.00	90.680	340.930	6548.44	9097.58	8324.55	-3774.92	1684632.79	14358599.22	39°32'24.1107"N	80°50'35.3954"W	9140.47	335.607	2.47	-2.20	-1.12	
15955.00	90.680	340.810	6547.31	9192.57	8414.30	-3806.05	1684601.67	14358688.93	39°32'24.9983"N	80°50'35.7907"W	9235.07	335.661	0.13	0.00	-0.13	
16050.00	90.490	341.110	6546.34	9287.56	8504.10	-3837.04	1684570.69	14358778.69	39°32'25.8863"N	80°50'36.1843"W	9329.66	335.715	0.37	-0.20	0.32	
16144.00	90.980	340.900	6545.13	9381.56	8592.97	-3867.63	1684540.11	14358867.53	39°32'26.7652"N	80°50'36.5728"W	9423.25	335.768	0.57	0.52	-0.22	





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

### 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]	Comments
16239.00	90.520	341.190	6543.89	9476.55	8682.81	-3898.49	1684509.27	14358957.33	39°32'27.6536"N	80°50'36.9647"W	9517.85	335.820	0.57	-0.48	0.31	
16334.00	89.910	340.910	6543.53	9571.55	8772.66	-3929.34	1684478.43	14359047.15	39°32'28.5422"N	80°50'37.3565"W	9612.45	335.872	0.71	-0.64	-0.29	
16429.00	90.250	340.990	6543.40	9666.54	8862.46	-3960.35	1684447.44	14359136.91	39°32'29.4302"N	80°50'37.7503"W	9707.09	335.922	0.37	0.36	0.08	
16524.00	90.580	341.230	6542.71	9761.54	8952.34	-3991.10	1684416.69	14359226.75	39°32'30.3190"N	80°50'38.1408"W	9801.70	335.972	0.43	0.35	0.25	
16618.00	89.780	340.890	6542.42	9855.54	9041.25	-4021.61	1684386.19	14359315.63	39°32'31.1983"N	80°50'38.5283"W	9895.33	336.020	0.92	-0.85	-0.36	
16713.00	90.150	341.010	6542.47	9950.54	9131.05	-4052.62	1684355.20	14359405.39	39°32'32.0863"N	80°50'38.9221"W	9989.98	336.067	0.41	0.39	0.13	
16808.00	90.120	341.080	6542.25	10045.54	9220.89	-4083.48	1684324.35	14359495.20	39°32'32.9748"N	80°50'39.3140"W	10084.63	336.114	0.08	-0.03	0.07	
16903.00	90.430	340.880	6541.79	10140.54	9310.71	-4114.44	1684293.41	14359584.98	39°32'33.8630"N	80°50'39.7072"W	10179.28	336.159	0.39	0.33	-0.21	
16998.00	90.220	340.980	6541.26	10235.53	9400.49	-4145.48	1684262.38	14359674.73	39°32'34.7509"N	80°50'40.1014"W	10273.96	336.203	0.24	-0.22	0.11	
17092.00	90.280	340.730	6540.84	10329.53	9489.29	-4176.30	1684231.56	14359763.49	39°32'35.6291"N	80°50'40.4930"W	10367.65	336.245	0.27	0.06	-0.27	
17187.00	90.060	340.770	6540.56	10424.53	9578.98	-4207.62	1684200.26	14359853.14	39°32'36.5160"N	80°50'40.8908"W	10462.36	336.286	0.24	-0.23	0.04	
17282.00	90.370	340.770	6540.21	10519.53	9668.68	-4238.91	1684168.98	14359942.81	39°32'37.4031"N	80°50'41.2882"W	10557.07	336.327	0.33	0.33	0.00	
17376.00	90.060	341.040	6539.85	10613.52	9757.50	-4269.66	1684138.24	14360031.60	39°32'38.2815"N	80°50'41.6788"W	10650.77	336.367	0.44	-0.33	0.29	
17471.00	90.280	340.760	6539.57	10708.52	9847.27	-4300.75	1684107.17	14360121.33	39°32'39.1692"N	80°50'42.0736"W	10745.48	336.407	0.37	0.23	-0.29	
17566.00	90.220	340.880	6539.16	10803.52	9937.00	-4331.96	1684075.97	14360211.02	39°32'40.0565"N	80°50'42.4700"W	10840.20	336.446	0.14	-0.06	0.13	
17661.00	90.180	341.000	6538.83	10898.52	10026.79	-4362.98	1684044.96	14360300.78	39°32'40.9445"N	80°50'42.8641"W	10934.91	336.485	0.13	-0.04	0.13	
17756.00	90.180	341.200	6538.53	10993.52	10116.67	-4393.75	1684014.20	14360390.62	39°32'41.8333"N	80°50'43.2549"W	11029.60	336.524	0.21	0.00	0.21	
17850.00	90.340	340.730	6538.10	11087.52	10205.53	-4424.41	1683983.56	14360479.44	39°32'42.7120"N	80°50'43.6443"W	11123.32	336.562	0.53	0.17	-0.50	
17945.00	90.310	340.700	6537.56	11182.51	10295.20	-4455.79	1683952.19	14360569.07	39°32'43.5988"N	80°50'44.0428"W	11218.07	336.597	0.04	-0.03	-0.03	
18040.00	90.340	341.050	6537.02	11277.51	10384.95	-4486.91	1683921.08	14360658.79	39°32'44.4864"N	80°50'44.4382"W	11312.81	336.633	0.37	0.03	0.37	
18135.00	90.060	341.060	6536.69	11372.51	10474.80	-4517.75	1683890.25	14360748.61	39°32'45.3750"N	80°50'44.8299"W	11407.52	336.670	0.29	-0.29	0.01	
18229.00	90.220	340.610	6536.46	11466.51	10563.59	-4548.61	1683859.40	14360837.37	39°32'46.2530"N	80°50'45.2219"W	11501.28	336.704	0.51	0.17	-0.48	
18324.00	90.310	341.000	6536.02	11561.50	10653.31	-4579.85	1683828.18	14360927.05	39°32'47.1402"N	80°50'45.6186"W	11596.04	336.737	0.42	0.09	0.41	
18419.00	90.580	340.700	6535.28	11656.50	10743.05	-4611.01	1683797.03	14361016.75	39°32'48.0277"N	80°50'46.0145"W	11690.79	336.771	0.42	0.28	-0.32	
18452.00	90.280	340.680	6535.04	11689.50	10774.19	-4621.92	1683786.12	14361047.88	39°32'48.3357"N	80°50'46.1531"W	11723.71	336.782	0.91	-0.91	-0.06	
18477.00	90.280	340.680	6534.91	11714.50	10797.79	-4630.19	1683777.86	14361071.46	39°32'48.5690"N	80°50'46.2582"W	11748.65	336.790	0.00	0.00	0.00	Projected MD at TD: 18477'





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

HOLE & CASING SECTIONS - Ref Wellbore: Grapevine Unit 1H AWB Ref Wellpath: Grapevine Unit 1H AWP Proj: 18477'										
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	-0.09	0.05	
17.5in Open Hole	105.50	392.00	286.50	105.50	392.00	-0.09	0.05	-0.60	0.91	
13.375in Casing Surface	25.50	370.00	344.50	25.50	370.00	0.00	0.00	-0.55	0.82	
12.25in Open Hole	392.00	2614.00	2222.00	392.00	2611.39	-0.60	0.91	-28.70	-40.61	
9.625in Casing Intermediate	25.50	2572.54	2547.04	25.50	2569.94	0.00	0.00	-29.56	-40.36	
8.75in Open Hole	2614.00	5864.00	3250.00	2611.39	5762.35	-28.70	-40.61	-557.83	-588.04	
8.5in Open Hole	5864.00	18477.00	12613.00	5762.35	6534.91	-557.83	-588.04	10797.79	-4630.19	
5.5in Casing Production	25.50	18477.00	18451.50	25.50	6534.91	0.00	0.00	10797.79	-4630.19	

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Grapevine Unit 1H POE Rev-2	6577.00	-134.04	-902.56	1687504.00	14350144.00	39°31'0.4609"N	80°49'58.9327"W	point
Grapevine Unit 1H BHL Rev-2	6602.00	10819.12	-4639.77	1683768.28	14361092.79	39°32'48.7800"N	80°50'46.3800"W	point
Grapevine Unit 1H LP Rev-2	6602.00	43.48	-963.13	1687443.45	14350321.46	39°31'2.2165"N	80°49'59.7014"W	point
Grapevine Unit 1H 50' L/R Hard Line	7000.00	5342.54	-2771.17	1685636.14	14355618.40	39°31'54.6212"N	80°50'22.6512"W	rectangle
2D Rectangle 11573.2 x 100.								





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

WELLPATH COMPOSITION - Ref Wellbore: Grapevine Unit 1H AWB Ref Wellpath: Grapevine Unit 1H AWP Proj: 18477'						
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')	Grapevine Unit 1H AWB	16/Nov/2020	
381.00	2539.00	BH NaviTrak (2019) (Axial)	02 APS EM <12-1/4"> (381')(422'-2539')	Grapevine Unit 1H AWB	16/Nov/2020	
2539.00	5798.00	BH NaviTrak (2019) (Axial)	03 APS EM <8-3/4"> (2539')(2666'-5798')	Grapevine Unit 1H AWB	16/Nov/2020	
5798.00	18477.00	BH AutoTrak Curve (2019) (Short spacing)	04 BH AT Curve <8-1/2"> (5798')(5902'-18452')	Grapevine Unit 1H AWB	16/Nov/2020	





# Actual Wellpath Report

Grapevine Unit 1H AWP Proj: 18477'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Grapevine Unit 1H
Field	Tyler	API	47-095-02707-0000
Facility	Margery Pad	Wellbore	Grapevine Unit 1H AWB
Slot	Slot #01		

## COMMENTS

### Wellpath general comments

API: 47-095-02707-0000

BH Job #: 110631519

Rig: H&P 317

Duration: 11/17/2020-11/23/2020

Gyrodata MS Gyro <17-1/2"> (100'-381')

APS EM <12-1/4"> (381')(422'-2539')

APS EM <8-3/4"> (2539')(2666'-5798')

BH AT Curve <8-1/2"> (5798')(5902'-18452')

Sycamore: 6433' MD

Middlesex: 6578' MD

Burkett: 6741' MD

Tully: 6790' MD

Marcellus POE: 6956' MD

Projected MD at TD: 18477'

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Environmental Protection

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