



ANTERO RESOURCES CORPORATION

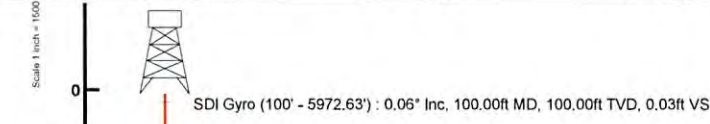
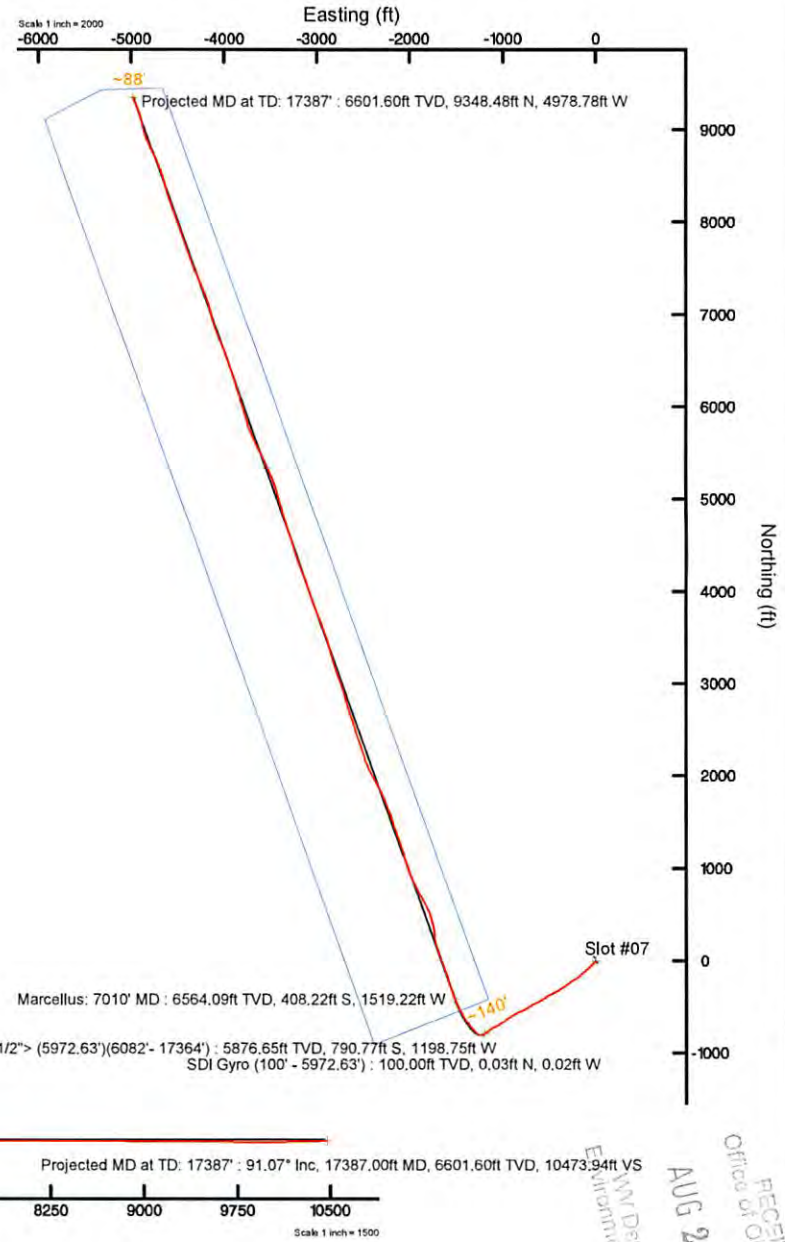
Location: Tyler County, WV
 Field: Tyler
 Facility: Estlack Pad

Slot: Slot #07
 Well: Melvin Unit 2H
 Wellbore: Melvin Unit 2H PWB

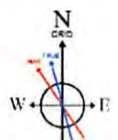


Plot reference wellpath is Melvin Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 32 (KB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Frontier 32 (KB)	North Reference: Grid north
Frontier 32 (KB) to Mean Sea Level: 1173 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #07): -1141 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: harekuk on 2016-05-09
	Database: WA_MPL_EASTERNUS_Defn

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #07	Melvin Unit 2H	Melvin Unit 2H AWB	Melvin Unit 2H AWP Proj: 17387
Slot #07	Melvin Unit 2H	Melvin Unit 2H PWB	Melvin Unit 2H PWP Rev-A.0

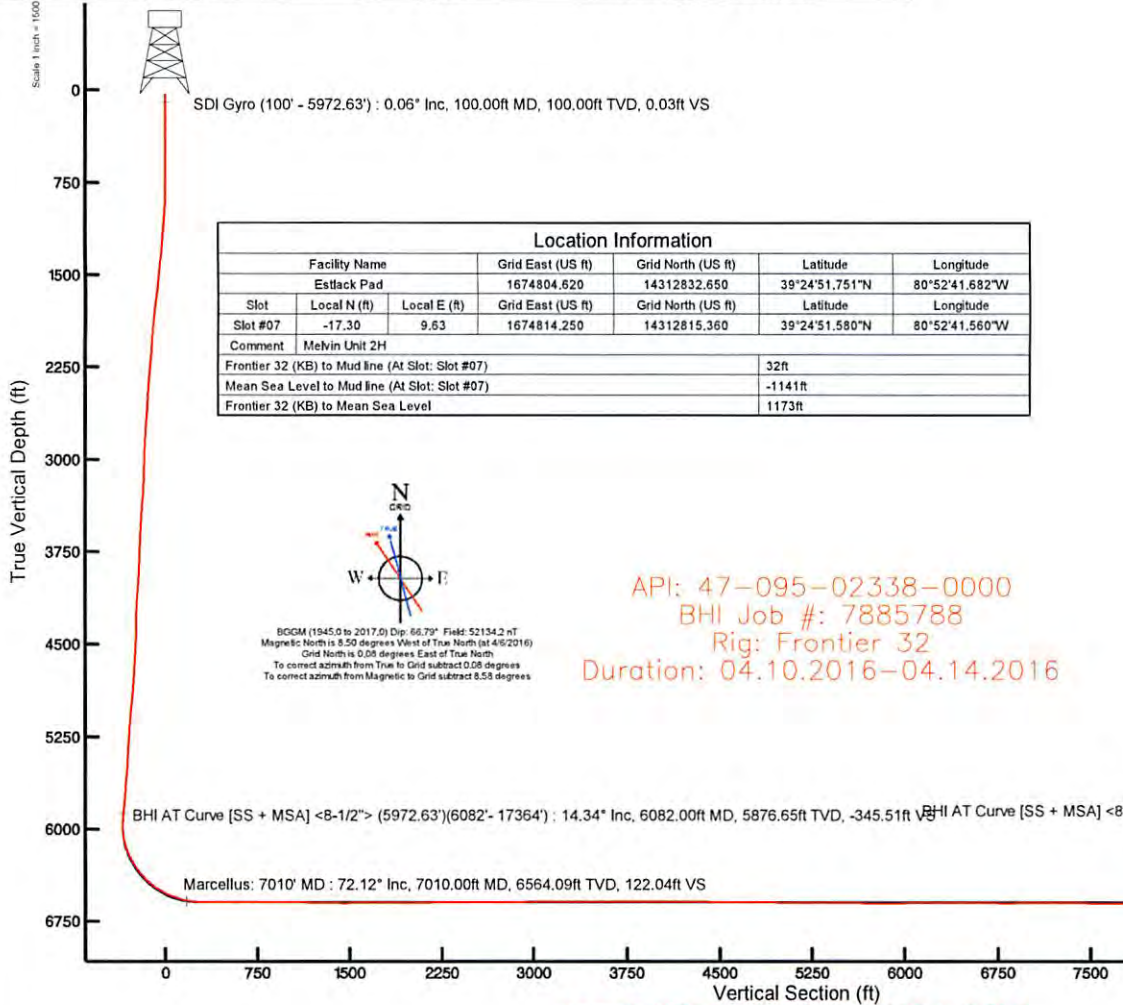


Location Information					
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Estlack Pad		1674804.620	14312832.650	39°24'51.751"N	80°52'41.682"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Longitude
Slot #07	-17.30	9.63	1674814.250	14312815.360	80°52'41.560"W
Comment: Melvin Unit 2H					
Frontier 32 (KB) to Mud line (At Slot: Slot #07)				32ft	
Mean Sea Level to Mud line (At Slot: Slot #07)				-1141ft	
Frontier 32 (KB) to Mean Sea Level				1173ft	



BGGM (1945.0 to 2017.0) Dip: 66.79° Field: 52134.2 nT
 Magnetic North is 8.50 degrees West of True North (at 4/6/2016)
 Grid North is 0.05 degrees East of True North
 To correct azimuth from True to Grid subtract 0.08 degrees
 To correct azimuth from Magnetic to Grid subtract 8.53 degrees

API: 47-095-02338-0000
 BHI Job #: 7885788
 Rig: Frontier 32
 Duration: 04.10.2016-04.14.2016



Azimuth 340.51° with reference 0.00 N, 0.00 E

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Melvin Unit 2H AWP Proj: 17387'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect@ 5.0
North Reference	Grid	User	Hareluk
Scale	0.999601	Report Generated	5/9/2016 at 11:32:00 AM
Convergence at slot	0.08° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Melvin_Unit_2H_AWP_Proj_17387_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-17.30	9.63	1674814.25	14312815.36	39°24'51.580"N	80°52'41.560"W
Facility Reference Pt			1674804.62	14312832.65	39°24'51.751"N	80°52'41.682"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Frontier 32 (KB) to Facility Vertical Datum	32.00ft
Horizontal Reference Pt	Slot	Frontier 32 (KB) to Mean Sea Level	1173.00ft
Vertical Reference Pt	Frontier 32 (KB)	Frontier 32 (KB) to Mud Line at Slot (Slot #07)	32.00ft
MD Reference Pt	Frontier 32 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	340.51°

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad		

WELLPATH DATA (370 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)	Comments
0.00†	0.000	325.770	0.00	0.00	0.00	0.00	1674814.25	14312815.36	39°24'51.580"N	80°52'41.560"W	0.00	0.000	0.00	
32.00	0.000	325.770	32.00	0.00	0.00	0.00	1674814.25	14312815.36	39°24'51.580"N	80°52'41.560"W	0.00	0.000	0.00	
100.00	0.060	325.770	100.00	0.03	0.03	-0.02	1674814.23	14312815.39	39°24'51.580"N	80°52'41.560"W	0.04	325.770	0.09	SDI Gyro (100' - 5972.63')
125.00	0.060	197.780	125.00	0.04	0.03	-0.03	1674814.22	14312815.39	39°24'51.580"N	80°52'41.560"W	0.04	311.526	0.43	
150.00	0.040	146.450	150.00	0.02	0.01	-0.03	1674814.22	14312815.37	39°24'51.580"N	80°52'41.560"W	0.03	284.770	0.19	
175.00	0.120	201.270	175.00	-0.01	-0.02	-0.04	1674814.21	14312815.34	39°24'51.580"N	80°52'41.560"W	0.04	236.175	0.41	
200.00	0.090	213.200	200.00	-0.04	-0.06	-0.06	1674814.19	14312815.30	39°24'51.579"N	80°52'41.561"W	0.09	220.731	0.15	
225.00	0.140	183.690	225.00	-0.08	-0.11	-0.07	1674814.18	14312815.25	39°24'51.579"N	80°52'41.561"W	0.13	211.488	0.30	
250.00	0.180	172.130	250.00	-0.15	-0.18	-0.06	1674814.19	14312815.18	39°24'51.578"N	80°52'41.561"W	0.19	199.723	0.20	
275.00	0.200	230.560	275.00	-0.20	-0.25	-0.09	1674814.16	14312815.11	39°24'51.578"N	80°52'41.561"W	0.26	200.628	0.75	
300.00	0.220	221.250	300.00	-0.24	-0.31	-0.16	1674814.09	14312815.05	39°24'51.577"N	80°52'41.562"W	0.35	206.988	0.16	
325.00	0.290	216.090	325.00	-0.30	-0.40	-0.23	1674814.02	14312814.96	39°24'51.576"N	80°52'41.563"W	0.46	209.716	0.29	
350.00	0.310	209.990	350.00	-0.38	-0.51	-0.30	1674813.95	14312814.85	39°24'51.575"N	80°52'41.564"W	0.59	210.430	0.15	
375.00	0.150	200.610	375.00	-0.45	-0.60	-0.34	1674813.91	14312814.76	39°24'51.574"N	80°52'41.564"W	0.69	209.923	0.66	
400.00	0.060	91.370	400.00	-0.48	-0.63	-0.34	1674813.91	14312814.73	39°24'51.574"N	80°52'41.564"W	0.72	208.578	0.72	
425.00	0.080	138.480	425.00	-0.50	-0.64	-0.32	1674813.93	14312814.72	39°24'51.574"N	80°52'41.564"W	0.72	206.332	0.24	
450.00	0.110	190.030	450.00	-0.54	-0.68	-0.31	1674813.94	14312814.68	39°24'51.573"N	80°52'41.564"W	0.75	204.573	0.35	
475.00	0.150	210.120	475.00	-0.58	-0.73	-0.33	1674813.92	14312814.63	39°24'51.573"N	80°52'41.564"W	0.80	204.368	0.24	
500.00	0.230	234.030	500.00	-0.61	-0.79	-0.39	1674813.86	14312814.57	39°24'51.572"N	80°52'41.565"W	0.88	206.202	0.44	
525.00	0.330	240.520	525.00	-0.64	-0.85	-0.49	1674813.76	14312814.51	39°24'51.572"N	80°52'41.566"W	0.98	209.932	0.42	
550.00	0.480	251.540	550.00	-0.65	-0.92	-0.65	1674813.60	14312814.44	39°24'51.571"N	80°52'41.568"W	1.13	215.326	0.67	
575.00	0.930	254.410	575.00	-0.64	-1.01	-0.95	1674813.30	14312814.35	39°24'51.570"N	80°52'41.572"W	1.38	223.204	1.80	
600.00	1.350	255.180	599.99	-0.60	-1.14	-1.43	1674812.82	14312814.22	39°24'51.569"N	80°52'41.578"W	1.83	231.422	1.68	
625.00	1.540	253.580	624.98	-0.56	-1.31	-2.03	1674812.22	14312814.05	39°24'51.567"N	80°52'41.586"W	2.42	237.241	0.78	
650.00	1.790	253.990	649.97	-0.51	-1.51	-2.73	1674811.52	14312813.85	39°24'51.565"N	80°52'41.595"W	3.12	241.042	1.00	
675.00	2.280	250.530	674.96	-0.49	-1.79	-3.58	1674810.67	14312813.58	39°24'51.562"N	80°52'41.606"W	4.00	243.472	2.02	
700.00	2.530	248.850	699.93	-0.51	-2.15	-4.56	1674809.69	14312813.21	39°24'51.559"N	80°52'41.618"W	5.04	244.754	1.04	
725.00	3.030	244.410	724.90	-0.59	-2.63	-5.67	1674808.58	14312812.73	39°24'51.554"N	80°52'41.632"W	6.25	245.079	2.18	
750.00	3.280	243.400	749.87	-0.75	-3.24	-6.91	1674807.35	14312812.12	39°24'51.548"N	80°52'41.648"W	7.63	244.864	1.02	
775.00	3.500	242.160	774.82	-0.95	-3.92	-8.22	1674806.03	14312811.44	39°24'51.541"N	80°52'41.665"W	9.11	244.522	0.93	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #07
Area	Tyler County, WV		Well	Melvin Unit 2H
Field	Tyler		Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad			

WELLPATH DATA (370 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]	Comments	
800.00	3.800	239.740	799.77	-1.22	-4.69	-9.61	1674804.64	14312810.67	39°24'51.534"N	80°52'41.683"W	10.69	243.984	1.35		
825.00	4.310	236.980	824.71	-1.59	-5.62	-11.11	1674803.14	14312809.74	39°24'51.525"N	80°52'41.702"W	12.45	243.175	2.18		
850.00	4.730	234.570	849.63	-2.09	-6.73	-12.74	1674801.51	14312808.63	39°24'51.514"N	80°52'41.722"W	14.41	242.158	1.84		
875.00	5.020	233.100	874.54	-2.70	-7.98	-14.46	1674799.80	14312807.38	39°24'51.501"N	80°52'41.744"W	16.51	241.088	1.26		
900.00	5.280	231.760	899.44	-3.40	-9.35	-16.23	1674798.02	14312806.01	39°24'51.488"N	80°52'41.767"W	18.74	240.053	1.15		
925.00	5.580	230.000	924.33	-4.20	-10.85	-18.07	1674796.19	14312804.52	39°24'51.473"N	80°52'41.790"W	21.07	239.025	1.37		
950.00	6.010	225.170	949.20	-5.18	-12.55	-19.93	1674794.33	14312802.82	39°24'51.456"N	80°52'41.814"W	23.55	237.799	2.60		
975.00	6.530	221.590	974.05	-6.43	-14.54	-21.80	1674792.46	14312800.83	39°24'51.437"N	80°52'41.838"W	26.20	236.305	2.60		
1000.00	7.160	219.970	998.87	-7.91	-16.79	-23.74	1674790.52	14312798.57	39°24'51.414"N	80°52'41.863"W	29.08	234.730	2.64		
1025.00	7.790	219.500	1023.66	-9.57	-19.29	-25.82	1674788.44	14312796.07	39°24'51.390"N	80°52'41.889"W	32.24	233.233	2.53		
1050.00	8.440	221.200	1048.41	-11.34	-21.98	-28.11	1674786.15	14312793.39	39°24'51.363"N	80°52'41.919"W	35.68	231.973	2.77		
1075.00	9.050	223.110	1073.12	-13.15	-24.80	-30.66	1674783.60	14312790.57	39°24'51.335"N	80°52'41.951"W	39.43	231.035	2.70		
1100.00	9.610	224.720	1097.79	-14.96	-27.72	-33.47	1674780.79	14312787.65	39°24'51.307"N	80°52'41.987"W	43.46	230.375	2.47		
1125.00	10.200	226.120	1122.42	-16.78	-30.73	-36.54	1674777.73	14312784.64	39°24'51.277"N	80°52'42.026"W	47.74	229.931	2.55		
1150.00	10.760	227.420	1147.00	-18.61	-33.85	-39.85	1674774.41	14312781.53	39°24'51.246"N	80°52'42.068"W	52.29	229.658	2.43		
1175.00	10.860	227.260	1171.55	-20.46	-37.02	-43.30	1674770.97	14312778.35	39°24'51.215"N	80°52'42.112"W	56.97	229.467	0.42		
1200.00	11.020	227.200	1196.10	-22.33	-40.25	-46.78	1674767.49	14312775.13	39°24'51.183"N	80°52'42.157"W	61.71	229.295	0.64		
1225.00	11.520	226.210	1220.62	-24.30	-43.60	-50.34	1674763.93	14312771.78	39°24'51.150"N	80°52'42.202"W	66.59	229.104	2.14		
1250.00	12.040	224.710	1245.09	-26.47	-47.18	-53.97	1674760.30	14312768.20	39°24'51.114"N	80°52'42.249"W	71.69	228.844	2.41		
1275.00	12.400	223.380	1269.53	-28.83	-50.98	-57.65	1674756.62	14312764.40	39°24'51.077"N	80°52'42.295"W	76.96	228.514	1.83		
1300.00	12.510	223.230	1293.94	-31.29	-54.91	-61.35	1674752.92	14312760.48	39°24'51.038"N	80°52'42.343"W	82.33	228.173	0.46		
1325.00	13.240	223.200	1318.31	-33.84	-58.97	-65.16	1674749.11	14312756.42	39°24'50.998"N	80°52'42.391"W	87.88	227.859	2.92		
1350.00	13.930	223.360	1342.61	-36.53	-63.24	-69.19	1674745.09	14312752.15	39°24'50.956"N	80°52'42.443"W	93.74	227.573	2.76		
1375.00	14.530	224.020	1366.84	-39.30	-67.68	-73.44	1674740.84	14312747.70	39°24'50.912"N	80°52'42.497"W	99.87	227.334	2.49		
1400.00	14.860	225.070	1391.02	-42.08	-72.20	-77.88	1674736.40	14312743.19	39°24'50.867"N	80°52'42.554"W	106.20	227.168	1.70		
1425.00	15.350	227.470	1415.16	-44.75	-76.70	-82.59	1674731.69	14312738.69	39°24'50.823"N	80°52'42.614"W	112.72	227.117	3.18		
1450.00	15.880	228.850	1439.24	-47.31	-81.19	-87.61	1674726.68	14312734.20	39°24'50.779"N	80°52'42.678"W	119.44	227.177	2.59		
1475.00	16.490	229.920	1463.25	-49.82	-85.73	-92.90	1674721.39	14312729.67	39°24'50.734"N	80°52'42.745"W	126.41	227.299	2.72		
1500.00	17.030	230.590	1487.18	-52.31	-90.33	-98.44	1674715.85	14312725.06	39°24'50.688"N	80°52'42.816"W	133.61	227.459	2.29		
1525.00	17.120	230.430	1511.08	-54.83	-95.00	-104.11	1674710.19	14312720.40	39°24'50.642"N	80°52'42.888"W	140.94	227.618	0.41		

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WELLPATH DATA (370 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]	Comments
1550.00	17.200	230.510	1534.97	-57.35	-99.70	-109.79	1674704.50	14312715.70	39°24'50.596"N	80°52'42.961"W	148.30	227.759	0.33	
1575.00	17.300	230.290	1558.85	-59.90	-104.42	-115.51	1674698.79	14312710.98	39°24'50.549"N	80°52'43.034"W	155.71	227.885	0.48	
1600.00	17.550	229.720	1582.70	-62.52	-109.23	-121.24	1674693.06	14312706.17	39°24'50.502"N	80°52'43.107"W	163.19	227.982	1.21	
1625.00	17.410	228.480	1606.54	-65.27	-114.15	-126.92	1674687.38	14312701.25	39°24'50.453"N	80°52'43.179"W	170.70	228.031	1.59	
1650.00	17.360	227.930	1630.40	-68.10	-119.13	-132.49	1674681.82	14312696.28	39°24'50.404"N	80°52'43.250"W	178.17	228.039	0.69	
1675.00	17.470	227.710	1654.26	-70.99	-124.15	-138.03	1674676.27	14312691.26	39°24'50.355"N	80°52'43.321"W	185.65	228.030	0.51	
1700.00	17.260	227.090	1678.12	-73.91	-129.20	-143.52	1674670.78	14312686.21	39°24'50.305"N	80°52'43.391"W	193.11	228.006	1.12	
1725.00	17.190	225.550	1702.00	-76.95	-134.32	-148.88	1674665.43	14312681.10	39°24'50.254"N	80°52'43.459"W	200.51	227.943	1.85	
1750.00	16.900	225.070	1725.90	-80.07	-139.47	-154.09	1674660.22	14312675.95	39°24'50.204"N	80°52'43.526"W	207.83	227.851	1.29	
1775.00	16.410	225.460	1749.85	-83.12	-144.51	-159.18	1674655.14	14312670.91	39°24'50.154"N	80°52'43.591"W	214.99	227.764	2.01	
1800.00	16.180	226.480	1773.84	-86.04	-149.39	-164.22	1674650.10	14312666.03	39°24'50.106"N	80°52'43.655"W	222.00	227.708	1.47	
1825.00	15.560	227.120	1797.89	-88.79	-154.07	-169.20	1674645.12	14312661.35	39°24'50.060"N	80°52'43.718"W	228.84	227.680	2.58	
1850.00	15.070	227.580	1822.00	-91.38	-158.54	-174.06	1674640.26	14312656.88	39°24'50.015"N	80°52'43.780"W	235.44	227.671	2.02	
1875.00	14.930	229.310	1846.15	-93.82	-162.83	-178.90	1674635.42	14312652.59	39°24'49.973"N	80°52'43.842"W	241.91	227.692	1.88	
1900.00	14.920	232.630	1870.31	-95.97	-166.89	-183.90	1674630.42	14312648.54	39°24'49.933"N	80°52'43.906"W	248.34	227.777	3.42	
1925.00	15.230	234.350	1894.45	-97.87	-170.75	-189.13	1674625.20	14312644.67	39°24'49.895"N	80°52'43.973"W	254.81	227.922	2.18	
1950.00	15.300	235.400	1918.57	-99.64	-174.54	-194.51	1674619.82	14312640.89	39°24'49.857"N	80°52'44.041"W	261.34	228.097	1.14	
1975.00	15.470	235.210	1942.67	-101.38	-178.32	-199.96	1674614.37	14312637.11	39°24'49.820"N	80°52'44.111"W	267.92	228.275	0.71	
2000.00	15.980	237.390	1966.73	-103.04	-182.07	-205.60	1674608.73	14312633.36	39°24'49.783"N	80°52'44.183"W	274.63	228.473	3.12	
2025.00	16.280	237.740	1990.75	-104.60	-185.80	-211.46	1674602.87	14312629.64	39°24'49.746"N	80°52'44.257"W	281.49	228.696	1.26	
2050.00	16.560	237.650	2014.73	-106.17	-189.58	-217.43	1674596.90	14312625.86	39°24'49.709"N	80°52'44.334"W	288.47	228.916	1.12	
2075.00	16.750	237.540	2038.68	-107.77	-193.42	-223.48	1674590.86	14312622.02	39°24'49.671"N	80°52'44.411"W	295.56	229.125	0.77	
2100.00	17.260	237.380	2062.59	-109.42	-197.35	-229.65	1674584.69	14312618.09	39°24'49.633"N	80°52'44.489"W	302.79	229.326	2.05	
2125.00	17.480	237.450	2086.45	-111.11	-201.37	-235.94	1674578.41	14312614.07	39°24'49.593"N	80°52'44.570"W	310.18	229.520	0.88	
2150.00	17.850	237.720	2110.27	-112.81	-205.43	-242.34	1674572.01	14312610.01	39°24'49.553"N	80°52'44.651"W	317.70	229.712	1.52	
2175.00	18.290	238.120	2134.04	-114.50	-209.55	-248.91	1674565.44	14312605.89	39°24'49.512"N	80°52'44.735"W	325.37	229.907	1.83	
2200.00	18.460	237.920	2157.76	-116.20	-213.73	-255.60	1674558.76	14312601.72	39°24'49.471"N	80°52'44.820"W	333.18	230.098	0.73	
2225.00	18.560	237.770	2181.47	-117.94	-217.95	-262.31	1674552.04	14312597.50	39°24'49.429"N	80°52'44.906"W	341.04	230.278	0.44	
2250.00	18.520	237.230	2205.17	-119.73	-222.22	-269.02	1674545.34	14312593.23	39°24'49.387"N	80°52'44.991"W	348.93	230.442	0.71	
2275.00	18.390	236.440	2228.89	-121.60	-226.55	-275.64	1674538.72	14312588.90	39°24'49.345"N	80°52'45.076"W	356.80	230.583	1.13	

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Melvin Unit 2H AWP Proj: 17387'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad		

WELLPATH DATA (370 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]	Comments
2300.00	18.050	235.140	2252.63	-123.59	-230.94	-282.11	1674532.25	14312584.51	39°24'49.301"N	80°52'45.158"W	364.58	230.695	2.12	
2325.00	16.780	232.990	2276.49	-125.70	-235.33	-288.17	1674526.20	14312580.12	39°24'49.258"N	80°52'45.236"W	372.05	230.763	5.69	
2350.00	15.270	231.650	2300.51	-127.85	-239.55	-293.63	1674520.74	14312575.91	39°24'49.216"N	80°52'45.305"W	378.95	230.792	6.22	
2375.00	13.900	230.660	2324.71	-129.94	-243.49	-298.54	1674515.83	14312571.97	39°24'49.177"N	80°52'45.368"W	385.24	230.799	5.57	
2400.00	13.160	229.590	2349.01	-131.97	-247.24	-303.03	1674511.35	14312568.22	39°24'49.140"N	80°52'45.425"W	391.09	230.789	3.12	
2425.00	12.790	228.760	2373.38	-134.01	-250.91	-307.27	1674507.10	14312564.55	39°24'49.104"N	80°52'45.479"W	396.70	230.766	1.66	
2450.00	12.680	229.310	2397.76	-136.03	-254.52	-311.43	1674502.94	14312560.94	39°24'49.069"N	80°52'45.532"W	402.21	230.742	0.65	
2475.00	13.020	232.940	2422.13	-137.87	-258.01	-315.76	1674498.61	14312557.45	39°24'49.034"N	80°52'45.588"W	407.77	230.748	3.50	
2500.01	13.700	235.650	2446.47	-139.48	-261.38	-320.46	1674493.92	14312554.09	39°24'49.001"N	80°52'45.647"W	413.53	230.798	3.70	
2525.01	14.110	236.600	2470.74	-140.97	-264.73	-325.44	1674488.94	14312550.74	39°24'48.968"N	80°52'45.711"W	419.52	230.874	1.88	
2550.01	14.070	236.760	2494.98	-142.43	-268.07	-330.53	1674483.85	14312547.40	39°24'48.935"N	80°52'45.776"W	425.57	230.957	0.22	
2575.01	14.140	236.740	2519.23	-143.88	-271.41	-335.63	1674478.76	14312544.06	39°24'48.902"N	80°52'45.841"W	431.63	231.039	0.28	
2600.01	14.280	237.120	2543.46	-145.32	-274.76	-340.77	1674473.62	14312540.71	39°24'48.869"N	80°52'45.906"W	437.74	231.121	0.67	
2625.01	14.640	237.520	2567.67	-146.74	-278.13	-346.02	1674468.37	14312537.34	39°24'48.836"N	80°52'45.973"W	443.94	231.208	1.49	
2650.01	15.130	238.240	2591.83	-148.15	-281.54	-351.46	1674462.93	14312533.93	39°24'48.802"N	80°52'46.043"W	450.32	231.303	2.09	
2675.01	15.130	237.940	2615.97	-149.55	-284.99	-357.00	1674457.39	14312530.48	39°24'48.768"N	80°52'46.113"W	456.80	231.400	0.31	
2700.01	15.770	236.850	2640.06	-151.06	-288.58	-362.61	1674451.78	14312526.89	39°24'48.733"N	80°52'46.185"W	463.43	231.486	2.81	
2725.01	16.030	235.440	2664.11	-152.76	-292.40	-368.30	1674446.10	14312523.08	39°24'48.695"N	80°52'46.258"W	470.25	231.553	1.86	
2750.01	16.480	234.120	2688.11	-154.66	-296.43	-374.01	1674440.39	14312519.05	39°24'48.655"N	80°52'46.330"W	477.24	231.601	2.33	
2775.01	17.000	233.940	2712.05	-156.70	-300.66	-379.84	1674434.56	14312514.82	39°24'48.613"N	80°52'46.405"W	484.43	231.637	2.09	
2800.01	17.040	235.800	2735.95	-158.68	-304.87	-385.82	1674428.58	14312510.61	39°24'48.572"N	80°52'46.481"W	491.74	231.685	2.18	
2825.01	17.170	236.170	2759.85	-160.52	-308.99	-391.92	1674422.49	14312506.50	39°24'48.531"N	80°52'46.559"W	499.07	231.748	0.68	
2850.01	16.820	236.430	2783.76	-162.31	-313.04	-398.00	1674416.41	14312502.44	39°24'48.491"N	80°52'46.636"W	506.36	231.814	1.43	
2875.01	16.780	237.480	2807.69	-164.01	-316.98	-404.06	1674410.36	14312498.51	39°24'48.452"N	80°52'46.714"W	513.55	231.886	1.22	
2900.01	16.570	239.110	2831.64	-165.53	-320.75	-410.16	1674404.26	14312494.74	39°24'48.415"N	80°52'46.791"W	520.68	231.974	2.05	
2925.01	16.430	239.890	2855.61	-166.88	-324.35	-416.28	1674398.14	14312491.14	39°24'48.380"N	80°52'46.869"W	527.72	232.075	1.05	
2950.01	15.870	240.000	2879.62	-168.16	-327.84	-422.29	1674392.13	14312487.65	39°24'48.345"N	80°52'46.946"W	534.61	232.177	2.24	
2975.01	15.980	240.880	2903.66	-169.36	-331.22	-428.26	1674386.16	14312484.27	39°24'48.312"N	80°52'47.022"W	541.40	232.281	1.06	
3000.01	16.700	242.490	2927.65	-170.43	-334.56	-434.45	1674379.97	14312480.94	39°24'48.279"N	80°52'47.101"W	548.34	232.402	3.40	
3025.01	16.970	243.220	2951.58	-171.40	-337.86	-440.90	1674373.53	14312477.64	39°24'48.247"N	80°52'47.183"W	555.46	232.537	1.37	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #07
Area	Tyler County, WV		Well	Melvin Unit 2H
Field	Tyler		Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad			

WELLPATH DATA (370 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]	Comments
3050.01	16.810	243.670	2975.50	-172.29	-341.11	-447.39	1674367.04	14312474.39	39°24'48.215"N	80°52'47.266"W	562.60	232.677	0.83	
3075.01	17.410	244.240	2999.40	-173.13	-344.33	-454.00	1674360.43	14312471.16	39°24'48.183"N	80°52'47.350"W	569.81	232.822	2.49	
3100.01	18.020	244.540	3023.21	-173.94	-347.62	-460.86	1674353.57	14312467.88	39°24'48.150"N	80°52'47.438"W	577.26	232.973	2.47	
3125.01	18.190	244.480	3046.97	-174.75	-350.97	-467.87	1674346.56	14312464.54	39°24'48.117"N	80°52'47.527"W	584.88	233.125	0.68	
3150.01	18.050	244.330	3070.73	-175.58	-354.32	-474.89	1674339.55	14312461.18	39°24'48.084"N	80°52'47.617"W	592.51	233.272	0.59	
3175.01	17.960	244.990	3094.51	-176.37	-357.63	-481.87	1674332.57	14312457.87	39°24'48.052"N	80°52'47.706"W	600.08	233.418	0.89	
3200.01	17.350	245.780	3118.33	-177.05	-360.79	-488.76	1674325.68	14312454.71	39°24'48.021"N	80°52'47.794"W	607.50	233.566	2.62	
3225.01	16.840	244.950	3142.23	-177.70	-363.85	-495.44	1674319.01	14312451.65	39°24'47.990"N	80°52'47.879"W	614.70	233.706	2.26	
3250.01	16.810	244.140	3166.16	-178.46	-366.96	-501.98	1674312.47	14312448.54	39°24'47.960"N	80°52'47.962"W	621.81	233.832	0.95	
3275.01	16.760	243.710	3190.09	-179.28	-370.14	-508.46	1674305.99	14312445.37	39°24'47.928"N	80°52'48.045"W	628.91	233.947	0.54	
3300.01	16.620	242.210	3214.04	-180.23	-373.40	-514.86	1674299.60	14312442.11	39°24'47.896"N	80°52'48.126"W	636.01	234.048	1.81	
3325.01	15.840	239.950	3238.04	-181.37	-376.78	-520.97	1674293.49	14312438.74	39°24'47.863"N	80°52'48.204"W	642.94	234.125	4.01	
3350.01	15.870	239.370	3262.09	-182.65	-380.23	-526.87	1674287.59	14312435.29	39°24'47.829"N	80°52'48.279"W	649.74	234.183	0.65	
3375.01	15.320	235.780	3286.17	-184.15	-383.82	-532.54	1674281.92	14312431.69	39°24'47.794"N	80°52'48.352"W	656.44	234.218	4.44	
3400.01	14.000	232.710	3310.36	-185.92	-387.51	-537.68	1674276.79	14312428.00	39°24'47.757"N	80°52'48.417"W	662.77	234.219	6.13	
3425.01	13.270	229.980	3334.65	-187.85	-391.19	-542.28	1674272.19	14312424.33	39°24'47.721"N	80°52'48.476"W	668.65	234.194	3.89	
3450.01	13.440	232.030	3358.98	-189.78	-394.82	-546.77	1674267.70	14312420.69	39°24'47.685"N	80°52'48.533"W	674.42	234.167	2.01	
3475.01	14.020	235.370	3383.26	-191.49	-398.33	-551.55	1674262.92	14312417.19	39°24'47.650"N	80°52'48.594"W	680.35	234.163	3.93	
3500.01	14.380	237.030	3407.50	-193.00	-401.74	-556.65	1674257.83	14312413.78	39°24'47.617"N	80°52'48.659"W	686.48	234.181	2.17	
3525.01	14.050	236.970	3431.73	-194.44	-405.09	-561.79	1674252.68	14312410.44	39°24'47.584"N	80°52'48.725"W	692.61	234.206	1.32	
3550.01	14.550	236.960	3455.96	-195.88	-408.45	-566.97	1674247.51	14312407.07	39°24'47.551"N	80°52'48.791"W	698.78	234.231	2.00	
3575.01	15.540	236.040	3480.10	-197.46	-412.04	-572.38	1674242.10	14312403.49	39°24'47.515"N	80°52'48.860"W	705.26	234.251	4.07	
3600.01	15.950	235.850	3504.16	-199.16	-415.83	-578.00	1674236.48	14312399.69	39°24'47.478"N	80°52'48.931"W	712.04	234.267	1.65	
3625.01	16.150	235.870	3528.19	-200.91	-419.71	-583.72	1674230.76	14312395.81	39°24'47.439"N	80°52'49.004"W	718.95	234.283	0.80	
3650.01	16.420	238.000	3552.19	-202.55	-423.54	-589.60	1674224.89	14312391.99	39°24'47.402"N	80°52'49.079"W	725.95	234.308	2.62	
3675.01	16.880	241.000	3576.14	-203.92	-427.17	-595.77	1674218.72	14312388.36	39°24'47.366"N	80°52'49.158"W	733.08	234.359	3.90	
3700.01	16.930	241.860	3600.06	-205.07	-430.65	-602.15	1674212.34	14312384.89	39°24'47.332"N	80°52'49.239"W	740.30	234.429	1.02	
3725.01	17.140	242.370	3623.96	-206.13	-434.07	-608.63	1674205.87	14312381.46	39°24'47.298"N	80°52'49.322"W	747.56	234.504	1.03	
3750.01	17.390	243.070	3647.83	-207.14	-437.47	-615.22	1674199.28	14312378.06	39°24'47.264"N	80°52'49.406"W	754.90	234.584	1.30	
3775.01	17.710	242.870	3671.67	-208.13	-440.90	-621.94	1674192.56	14312374.64	39°24'47.231"N	80°52'49.492"W	762.36	234.667	1.30	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
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Facility	Estlack Pad		

WELLPATH DATA (370 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]	Comments	
3800.01	17.460	242.720	3695.50	-209.14	-444.35	-628.65	1674185.85	14312371.19	39°24'47.197"N	80°52'49.577"W	769.84	234.746	1.02		
3825.01	17.780	243.890	3719.33	-210.09	-447.75	-635.41	1674179.09	14312367.79	39°24'47.163"N	80°52'49.663"W	777.32	234.829	1.91		
3850.01	17.920	244.730	3743.13	-210.92	-451.07	-642.32	1674172.19	14312364.47	39°24'47.130"N	80°52'49.752"W	784.88	234.921	1.17		
3875.01	18.130	244.890	3766.90	-211.69	-454.36	-649.32	1674165.19	14312361.18	39°24'47.098"N	80°52'49.841"W	792.50	235.017	0.86		
3900.01	17.530	244.580	3790.70	-212.46	-457.63	-656.24	1674158.27	14312357.91	39°24'47.066"N	80°52'49.929"W	800.05	235.110	2.43		
3925.01	17.480	244.510	3814.54	-213.24	-460.86	-663.03	1674151.48	14312354.68	39°24'47.034"N	80°52'50.016"W	807.47	235.198	0.22		
3950.01	17.810	242.980	3838.36	-214.13	-464.21	-669.83	1674144.69	14312351.33	39°24'47.001"N	80°52'50.102"W	814.96	235.277	2.28		
3975.01	17.630	242.150	3862.18	-215.18	-467.72	-676.58	1674137.94	14312347.83	39°24'46.966"N	80°52'50.188"W	822.51	235.344	1.24		
4000.01	17.040	240.440	3886.04	-216.37	-471.30	-683.11	1674131.41	14312344.25	39°24'46.931"N	80°52'50.272"W	829.92	235.397	3.12		
4025.01	17.790	240.460	3909.90	-217.68	-474.99	-689.62	1674124.90	14312340.56	39°24'46.895"N	80°52'50.355"W	837.37	235.442	3.00		
4050.01	18.020	240.290	3933.69	-219.03	-478.79	-696.30	1674118.22	14312336.77	39°24'46.857"N	80°52'50.440"W	845.03	235.487	0.94		
4075.01	18.010	239.910	3957.46	-220.43	-482.64	-703.01	1674111.52	14312332.91	39°24'46.819"N	80°52'50.525"W	852.74	235.529	0.47		
4100.01	17.960	238.720	3981.24	-221.93	-486.58	-709.65	1674104.89	14312328.98	39°24'46.780"N	80°52'50.610"W	860.44	235.563	1.48		
4125.01	18.390	237.360	4004.99	-223.61	-490.71	-716.26	1674098.28	14312324.85	39°24'46.740"N	80°52'50.694"W	868.23	235.585	2.42		
4150.01	18.700	236.720	4028.69	-225.47	-495.03	-722.93	1674091.61	14312320.53	39°24'46.697"N	80°52'50.779"W	876.18	235.598	1.48		
4175.01	18.300	236.400	4052.40	-227.38	-499.40	-729.55	1674084.99	14312316.16	39°24'46.654"N	80°52'50.864"W	884.11	235.607	1.65		
4200.01	18.270	236.400	4076.14	-229.29	-503.74	-736.08	1674078.46	14312311.82	39°24'46.611"N	80°52'50.947"W	891.95	235.614	0.12		
4225.01	18.170	237.500	4099.89	-231.12	-508.01	-742.64	1674071.91	14312307.56	39°24'46.569"N	80°52'51.031"W	899.77	235.626	1.43		
4250.01	17.680	237.910	4123.67	-232.83	-512.12	-749.14	1674065.41	14312303.45	39°24'46.528"N	80°52'51.114"W	907.46	235.643	2.02		
4275.01	16.900	237.320	4147.54	-234.49	-516.10	-755.41	1674059.14	14312299.47	39°24'46.489"N	80°52'51.194"W	914.88	235.659	3.20		
4300.01	16.770	238.080	4171.47	-236.09	-519.97	-761.53	1674053.02	14312295.60	39°24'46.451"N	80°52'51.272"W	922.12	235.675	1.02		
4325.01	16.830	241.030	4195.40	-237.46	-523.63	-767.76	1674046.80	14312291.94	39°24'46.415"N	80°52'51.351"W	929.32	235.705	3.42		
4350.01	16.650	242.930	4219.35	-238.53	-527.01	-774.12	1674040.44	14312288.56	39°24'46.382"N	80°52'51.432"W	936.48	235.753	2.30		
4375.01	16.220	243.490	4243.32	-239.43	-530.20	-780.43	1674034.13	14312285.37	39°24'46.350"N	80°52'51.512"W	943.49	235.809	1.83		
4400.01	16.170	244.630	4267.33	-240.22	-533.25	-786.70	1674027.86	14312282.33	39°24'46.320"N	80°52'51.592"W	950.40	235.869	1.29		
4425.01	16.650	246.410	4291.31	-240.83	-536.17	-793.13	1674021.44	14312279.40	39°24'46.291"N	80°52'51.674"W	957.36	235.940	2.78		
4450.01	16.870	247.630	4315.25	-241.27	-538.99	-799.77	1674014.81	14312276.59	39°24'46.263"N	80°52'51.759"W	964.43	236.023	1.66		
4475.01	16.770	247.800	4339.18	-241.62	-541.73	-806.46	1674008.11	14312273.85	39°24'46.236"N	80°52'51.844"W	971.52	236.109	0.45		
4500.01	17.090	247.540	4363.10	-241.98	-544.50	-813.19	1674001.38	14312271.08	39°24'46.209"N	80°52'51.930"W	978.65	236.195	1.32		
4525.01	18.160	247.320	4386.92	-242.39	-547.40	-820.18	1673994.40	14312268.18	39°24'46.181"N	80°52'52.019"W	986.08	236.280	4.29		

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Actual Wellpath Report

Melvin Unit 2H AWP Proj: 17387'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad		

WELLPATH DATA (370 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 [ft/100ft]	Comments	
4550.01	18.200	246.830	4410.68	-242.86	-550.44	-827.37	1673987.21	14312265.14	39°24'46.151"N	80°52'52.111"W	993.74	236.365	0.63		
4575.01	18.120	246.510	4434.43	-243.38	-553.53	-834.52	1673980.06	14312262.06	39°24'46.120"N	80°52'52.202"W	1001.41	236.444	0.51		
4600.01	18.120	246.310	4458.19	-243.93	-556.64	-841.65	1673972.94	14312258.95	39°24'46.090"N	80°52'52.293"W	1009.07	236.521	0.25		
4625.01	17.770	244.440	4481.98	-244.62	-559.85	-848.65	1673965.94	14312255.74	39°24'46.058"N	80°52'52.382"W	1016.68	236.588	2.70		
4650.01	17.200	243.210	4505.82	-245.49	-563.16	-855.39	1673959.20	14312252.43	39°24'46.025"N	80°52'52.468"W	1024.13	236.641	2.72		
4675.01	16.550	241.520	4529.74	-246.52	-566.52	-861.82	1673952.78	14312249.07	39°24'45.992"N	80°52'52.550"W	1031.35	236.681	3.26		
4700.01	15.630	238.640	4553.77	-247.77	-569.97	-867.83	1673946.77	14312245.62	39°24'45.958"N	80°52'52.627"W	1038.26	236.704	4.87		
4725.01	15.490	237.740	4577.85	-249.20	-573.51	-873.52	1673941.08	14312242.08	39°24'45.923"N	80°52'52.699"W	1044.97	236.713	1.12		
4750.01	14.900	236.710	4601.97	-250.70	-577.05	-879.03	1673935.57	14312238.54	39°24'45.888"N	80°52'52.770"W	1051.52	236.717	2.60		
4775.01	15.080	237.910	4626.12	-252.18	-580.54	-884.48	1673930.13	14312235.05	39°24'45.854"N	80°52'52.839"W	1057.98	236.720	1.44		
4800.01	15.260	239.650	4650.25	-253.51	-583.93	-890.07	1673924.54	14312231.66	39°24'45.820"N	80°52'52.910"W	1064.52	236.733	1.96		
4825.01	15.890	240.750	4674.33	-254.71	-587.27	-895.90	1673918.71	14312228.33	39°24'45.788"N	80°52'52.985"W	1071.22	236.755	2.78		
4850.01	15.680	240.540	4698.39	-255.88	-590.60	-901.82	1673912.79	14312224.99	39°24'45.755"N	80°52'53.060"W	1078.01	236.779	0.87		
4875.01	15.920	238.740	4722.45	-257.16	-594.04	-907.70	1673906.92	14312221.55	39°24'45.721"N	80°52'53.135"W	1084.80	236.797	2.18		
4900.01	16.730	238.590	4746.44	-258.60	-597.70	-913.70	1673900.92	14312217.90	39°24'45.685"N	80°52'53.212"W	1091.83	236.809	3.24		
4925.01	17.130	238.680	4770.36	-260.10	-601.49	-919.91	1673894.71	14312214.11	39°24'45.647"N	80°52'53.291"W	1099.10	236.821	1.60		
4950.01	17.380	238.500	4794.23	-261.63	-605.35	-926.24	1673888.38	14312210.25	39°24'45.609"N	80°52'53.372"W	1106.52	236.833	1.02		
4975.01	17.300	238.040	4818.09	-263.21	-609.27	-932.58	1673882.04	14312206.33	39°24'45.571"N	80°52'53.452"W	1113.96	236.843	0.63		
5000.01	17.600	237.910	4841.94	-264.84	-613.25	-938.94	1673875.69	14312202.36	39°24'45.531"N	80°52'53.533"W	1121.46	236.850	1.21		
5025.01	17.510	237.440	4865.78	-266.51	-617.28	-945.31	1673869.32	14312198.33	39°24'45.492"N	80°52'53.615"W	1129.00	236.856	0.67		
5050.01	17.400	236.840	4889.63	-268.25	-621.35	-951.61	1673863.02	14312194.26	39°24'45.451"N	80°52'53.695"W	1136.50	236.858	0.84		
5075.01	17.200	234.950	4913.50	-270.12	-625.51	-957.76	1673856.87	14312190.10	39°24'45.410"N	80°52'53.773"W	1143.93	236.851	2.39		
5100.01	17.480	231.020	4937.36	-272.37	-630.00	-963.71	1673850.93	14312185.61	39°24'45.366"N	80°52'53.849"W	1151.36	236.826	4.82		
5125.01	17.020	228.630	4961.24	-274.98	-634.78	-969.37	1673845.27	14312180.83	39°24'45.319"N	80°52'53.922"W	1158.72	236.782	3.38		
5150.01	16.620	226.790	4985.17	-277.78	-639.65	-974.72	1673839.92	14312175.97	39°24'45.271"N	80°52'53.990"W	1165.86	236.726	2.66		
5175.01	16.550	228.210	5009.13	-280.57	-644.47	-979.98	1673834.66	14312171.15	39°24'45.223"N	80°52'54.057"W	1172.90	236.670	1.65		
5200.01	16.570	230.470	5033.09	-283.15	-649.11	-985.39	1673829.26	14312166.51	39°24'45.177"N	80°52'54.126"W	1179.97	236.626	2.58		
5225.01	16.230	230.950	5057.08	-285.54	-653.58	-990.85	1673823.80	14312162.04	39°24'45.133"N	80°52'54.195"W	1186.99	236.591	1.46		
5250.01	16.060	231.180	5081.09	-287.85	-657.95	-996.26	1673818.39	14312157.68	39°24'45.090"N	80°52'54.264"W	1193.91	236.559	0.73		
5275.01	16.200	233.320	5105.11	-290.03	-662.20	-1001.75	1673812.90	14312153.43	39°24'45.048"N	80°52'54.334"W	1200.84	236.534	2.44		

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Melvin Unit 2H AWP Proj: 17387'

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Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #07
Area	Tyler County, WV		Well	Melvin Unit 2H
Field	Tyler		Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad			

WELLPATH DATA (370 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)	Comments
5300.01	16.220	234.470	5129.11	-292.02	-666.31	-1007.39	1673807.27	14312149.32	39°24'45.008"N	80°52'54.406"W	1207.81	236.518	1.29	
5325.01	15.810	235.910	5153.14	-293.85	-670.25	-1013.05	1673801.61	14312145.38	39°24'44.969"N	80°52'54.479"W	1214.70	236.511	2.28	
5350.01	15.840	237.030	5177.19	-295.50	-674.01	-1018.73	1673795.93	14312141.62	39°24'44.932"N	80°52'54.551"W	1221.52	236.511	1.23	
5375.01	16.400	238.920	5201.21	-297.00	-677.69	-1024.62	1673790.04	14312137.94	39°24'44.895"N	80°52'54.626"W	1228.46	236.519	3.07	
5400.01	16.790	239.350	5225.17	-298.41	-681.36	-1030.75	1673783.92	14312134.28	39°24'44.859"N	80°52'54.704"W	1235.59	236.534	1.64	
5425.01	16.730	238.680	5249.11	-299.85	-685.07	-1036.93	1673777.74	14312130.57	39°24'44.823"N	80°52'54.783"W	1242.79	236.548	0.81	
5450.01	16.900	237.670	5273.04	-301.39	-688.88	-1043.07	1673771.60	14312126.76	39°24'44.785"N	80°52'54.861"W	1250.02	236.558	1.35	
5475.01	17.630	237.040	5296.91	-303.08	-692.88	-1049.32	1673765.35	14312122.75	39°24'44.746"N	80°52'54.941"W	1257.44	236.563	3.01	
5500.01	18.110	237.650	5320.71	-304.83	-697.02	-1055.78	1673758.90	14312118.62	39°24'44.705"N	80°52'55.023"W	1265.11	236.567	2.06	
5525.01	18.380	239.000	5344.45	-306.48	-701.13	-1062.44	1673752.24	14312114.51	39°24'44.664"N	80°52'55.108"W	1272.93	236.578	2.01	
5550.01	18.770	242.180	5368.15	-307.85	-705.04	-1069.37	1673745.30	14312110.60	39°24'44.626"N	80°52'55.197"W	1280.88	236.603	4.34	
5575.01	19.230	244.800	5391.79	-308.84	-708.67	-1076.66	1673738.02	14312106.98	39°24'44.590"N	80°52'55.290"W	1288.95	236.647	3.88	
5600.01	19.260	244.920	5415.39	-309.65	-712.17	-1084.12	1673730.57	14312103.48	39°24'44.555"N	80°52'55.385"W	1297.11	236.699	0.20	
5625.01	18.870	243.410	5439.02	-310.56	-715.73	-1091.47	1673723.22	14312099.92	39°24'44.520"N	80°52'55.478"W	1305.21	236.745	2.52	
5650.01	18.840	241.160	5462.68	-311.71	-719.48	-1098.62	1673716.07	14312096.16	39°24'44.483"N	80°52'55.570"W	1313.25	236.779	2.91	
5675.01	18.760	239.990	5486.34	-313.10	-723.44	-1105.63	1673709.06	14312092.21	39°24'44.444"N	80°52'55.659"W	1321.29	236.802	1.54	
5700.01	18.020	239.080	5510.07	-314.60	-727.44	-1112.43	1673702.26	14312088.21	39°24'44.405"N	80°52'55.746"W	1329.16	236.819	3.17	
5725.01	17.680	238.010	5533.86	-316.19	-731.44	-1118.97	1673695.73	14312084.22	39°24'44.366"N	80°52'55.829"W	1336.82	236.829	1.89	
5750.01	17.750	237.110	5557.68	-317.89	-735.52	-1125.39	1673689.31	14312080.14	39°24'44.325"N	80°52'55.911"W	1344.43	236.833	1.13	
5775.01	17.040	235.240	5581.53	-319.74	-739.68	-1131.60	1673683.10	14312075.98	39°24'44.284"N	80°52'55.990"W	1351.90	236.829	3.61	
5797.81	16.310	234.250	5603.37	-321.52	-743.45	-1136.94	1673677.76	14312072.21	39°24'44.247"N	80°52'56.058"W	1358.44	236.819	3.44	
5972.63	16.310	234.250	5771.16	-335.26	-772.13	-1176.79	1673637.93	14312043.53	39°24'43.964"N	80°52'56.566"W	1407.49	236.730	0.00	
6082.00	14.340	224.490	5876.65	-345.51	-790.77	-1198.75	1673615.98	14312024.90	39°24'43.780"N	80°52'56.847"W	1436.08	236.589	2.96	BHI AT Curve [SS + MSA] <8-1/2"> (5972.63')(6082- 17364)
6095.00	14.170	223.500	5889.25	-346.94	-793.08	-1200.97	1673613.76	14312022.60	39°24'43.757"N	80°52'56.875"W	1439.20	236.561	2.29	
6148.00	15.510	235.540	5940.50	-351.72	-801.79	-1211.28	1673603.45	14312013.89	39°24'43.671"N	80°52'57.006"W	1452.61	236.498	6.33	
6191.00	16.280	252.680	5981.87	-352.97	-806.84	-1221.78	1673592.96	14312008.84	39°24'43.622"N	80°52'57.140"W	1464.16	236.560	11.02	
6238.00	17.330	272.940	6026.91	-350.05	-808.45	-1235.07	1673579.67	14312007.24	39°24'43.606"N	80°52'57.310"W	1476.14	236.792	12.60	
6285.00	18.340	286.900	6071.67	-342.99	-805.94	-1249.15	1673565.60	14312009.74	39°24'43.631"N	80°52'57.489"W	1486.58	237.170	9.32	
6332.00	20.910	297.090	6115.95	-332.51	-799.97	-1263.70	1673551.06	14312015.71	39°24'43.690"N	80°52'57.674"W	1495.62	237.665	9.09	
6380.00	23.620	304.950	6160.37	-318.46	-790.55	-1279.21	1673535.55	14312025.12	39°24'43.783"N	80°52'57.872"W	1503.78	238.284	8.38	

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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad		

WELLPATH DATA (370 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 [ft/100ft]	Comments
6430.00	26.760	313.190	6205.63	-300.30	-777.10	-1295.64	1673519.13	14312038.57	39°24'43.916"N	80°52'58.081"W	1510.82	239.045	9.40	
6468.00†	29.749	318.481	6239.10	-283.95	-764.18	-1308.13	1673506.65	14312051.48	39°24'44.044"N	80°52'58.240"W	1514.98	239.707	10.26	Sycamore: 6468' MD
6475.00	30.320	319.350	6245.16	-280.69	-761.54	-1310.43	1673504.34	14312054.12	39°24'44.070"N	80°52'58.269"W	1515.64	239.837	10.26	
6523.00	34.320	321.300	6285.72	-256.60	-741.78	-1326.79	1673487.99	14312073.87	39°24'44.266"N	80°52'58.477"W	1520.07	240.791	8.61	
6571.00	37.940	322.080	6324.48	-229.82	-719.57	-1344.33	1673470.46	14312096.07	39°24'44.486"N	80°52'58.700"W	1524.79	241.841	7.60	
6617.00	41.550	322.170	6359.84	-201.91	-696.36	-1362.38	1673452.42	14312119.28	39°24'44.715"N	80°52'58.930"W	1530.03	242.927	7.85	
6666.00	45.600	323.790	6395.34	-169.71	-669.39	-1382.70	1673432.11	14312146.24	39°24'44.982"N	80°52'59.188"W	1536.21	244.167	8.57	
6683.00†	46.751	324.761	6407.11	-157.93	-659.43	-1389.86	1673424.95	14312156.19	39°24'45.081"N	80°52'59.279"W	1538.36	244.617	7.93	Middlesex: 6683' MD
6714.00	48.870	326.440	6427.93	-135.74	-640.48	-1402.83	1673411.99	14312175.14	39°24'45.268"N	80°52'59.444"W	1542.12	245.460	7.93	
6761.00	52.920	329.690	6457.57	-100.13	-609.53	-1422.08	1673392.74	14312206.08	39°24'45.574"N	80°52'59.689"W	1547.21	246.799	10.15	
6812.00	58.220	332.480	6486.40	-58.65	-572.71	-1442.38	1673372.44	14312242.88	39°24'45.938"N	80°52'59.947"W	1551.92	248.344	11.33	
6856.00	63.030	333.760	6507.98	-20.64	-538.52	-1459.70	1673355.13	14312277.06	39°24'46.277"N	80°53'00.167"W	1555.87	249.750	11.22	Burkett: 6856' MD
6905.00	68.000	334.690	6528.28	23.67	-498.37	-1479.08	1673335.76	14312317.19	39°24'46.674"N	80°53'00.413"W	1560.79	251.379	10.29	
6921.00†	68.842	334.967	6534.16	38.48	-484.90	-1485.41	1673329.43	14312330.65	39°24'46.807"N	80°53'00.494"W	1562.55	251.921	5.50	Tully: 6921' MD
6950.00	70.370	335.460	6544.27	65.54	-460.23	-1496.81	1673318.04	14312355.32	39°24'47.051"N	80°53'00.639"W	1565.96	252.909	5.50	
6997.00	70.670	337.350	6559.94	109.74	-419.62	-1514.54	1673300.32	14312395.91	39°24'47.452"N	80°53'00.864"W	1571.60	254.514	3.84	
7010.00†	72.116	338.047	6564.09	122.04	-408.22	-1519.22	1673295.64	14312407.30	39°24'47.565"N	80°53'00.923"W	1573.11	254.959	12.23	Marcellus: 7010' MD
7044.00	75.910	339.820	6573.45	154.71	-377.73	-1530.96	1673283.91	14312437.78	39°24'47.867"N	80°53'01.072"W	1576.87	256.140	12.23	
7090.00	81.280	341.440	6582.55	199.78	-335.20	-1545.90	1673268.97	14312480.29	39°24'48.287"N	80°53'01.262"W	1581.83	257.766	12.17	
7140.00	86.510	342.390	6587.86	249.46	-287.96	-1561.33	1673253.55	14312527.52	39°24'48.754"N	80°53'01.458"W	1587.66	259.550	10.63	
7168.00	89.560	341.950	6588.82	277.43	-261.32	-1569.89	1673244.99	14312554.14	39°24'49.018"N	80°53'01.567"W	1591.50	260.549	11.01	
7235.00	89.900	341.100	6589.14	344.42	-197.78	-1591.13	1673223.76	14312617.66	39°24'49.646"N	80°53'01.836"W	1603.37	262.914	1.37	
7330.00	89.510	342.960	6589.63	439.38	-107.42	-1620.43	1673194.47	14312707.98	39°24'50.539"N	80°53'02.208"W	1623.99	266.207	2.00	
7425.00	89.910	338.460	6590.11	534.36	-17.78	-1651.81	1673163.10	14312797.59	39°24'51.426"N	80°53'02.606"W	1651.90	269.383	4.76	
7520.00	89.110	339.720	6590.92	629.32	70.96	-1685.71	1673129.21	14312886.29	39°24'52.303"N	80°53'03.037"W	1687.20	272.411	1.57	
7614.00	90.220	343.510	6591.47	723.28	160.14	-1715.35	1673099.59	14312975.44	39°24'53.185"N	80°53'03.413"W	1722.81	275.334	4.20	
7710.00	90.500	356.980	6590.87	817.68	254.54	-1731.58	1673083.36	14313069.80	39°24'54.118"N	80°53'03.618"W	1750.19	278.362	14.03	
7805.00	89.140	348.440	6591.16	910.45	348.68	-1743.62	1673071.33	14313163.90	39°24'55.049"N	80°53'03.770"W	1778.14	281.308	9.10	
7900.00	89.660	343.930	6592.16	1004.95	440.90	-1766.30	1673048.66	14313256.09	39°24'55.961"N	80°53'04.057"W	1820.50	284.016	4.78	
7995.00	89.970	339.310	6592.47	1099.91	531.03	-1796.25	1673018.72	14313346.18	39°24'56.852"N	80°53'04.438"W	1873.10	286.469	4.87	

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Melvin Unit 2H AWP Proj: 17387'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #07
Area	Tyler County, WV		Well	Melvin Unit 2H
Field	Tyler		Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad			

WELLPATH DATA (370 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]	Comments
8087.00	88.430	330.540	6593.75	1191.37	614.27	-1835.19	1672979.79	14313429.38	39°24'57.675"N	80°53'04.932"W	1935.27	288.506	9.68	
8182.00	89.510	332.200	6595.46	1285.14	697.64	-1880.70	1672934.30	14313512.72	39°24'58.499"N	80°53'05.511"W	2005.93	290.352	2.08	
8277.00	88.580	332.810	6597.05	1379.20	781.89	-1924.56	1672890.47	14313596.94	39°24'59.333"N	80°53'06.068"W	2077.32	292.111	1.17	
8371.00	90.250	335.110	6598.00	1472.57	866.34	-1965.81	1672849.22	14313681.35	39°25'00.168"N	80°53'06.593"W	2148.25	293.783	3.02	
8465.00	90.520	340.890	6597.37	1566.44	953.45	-2001.01	1672814.04	14313768.43	39°25'01.029"N	80°53'07.040"W	2216.56	295.477	6.16	
8559.00	90.460	343.530	6596.57	1660.39	1042.95	-2029.73	1672785.34	14313857.89	39°25'01.914"N	80°53'07.404"W	2282.00	297.196	2.81	
8654.00	90.340	342.870	6595.91	1755.28	1133.89	-2057.19	1672757.89	14313948.80	39°25'02.813"N	80°53'07.753"W	2348.98	298.863	0.71	
8749.00	90.460	341.920	6595.24	1850.23	1224.44	-2085.92	1672729.17	14314039.31	39°25'03.709"N	80°53'08.117"W	2418.74	300.413	1.01	
8843.00	90.460	339.480	6594.49	1944.22	1313.15	-2116.98	1672698.12	14314127.98	39°25'04.586"N	80°53'08.512"W	2491.18	301.811	2.60	
8939.00	90.400	342.390	6593.77	2040.20	1403.87	-2148.34	1672666.78	14314218.66	39°25'05.483"N	80°53'08.910"W	2566.36	303.163	3.03	
9033.00	90.400	342.090	6593.11	2134.16	1493.38	-2177.01	1672638.11	14314308.15	39°25'06.368"N	80°53'09.273"W	2639.99	304.449	0.32	
9128.00	90.340	340.530	6592.50	2229.14	1583.37	-2207.45	1672607.69	14314398.10	39°25'07.258"N	80°53'09.660"W	2716.60	305.651	1.64	
9223.00	90.490	338.230	6591.81	2324.11	1672.28	-2240.90	1672574.25	14314486.97	39°25'08.137"N	80°53'10.085"W	2796.09	306.732	2.43	
9318.00	90.460	336.670	6591.02	2418.97	1760.01	-2277.33	1672537.83	14314574.66	39°25'09.004"N	80°53'10.547"W	2878.17	307.698	1.64	
9413.00	90.060	333.310	6590.59	2513.52	1846.09	-2317.49	1672497.69	14314660.71	39°25'09.856"N	80°53'11.058"W	2962.90	308.540	3.56	
9508.00	90.210	331.060	6590.37	2607.51	1930.10	-2361.81	1672453.38	14314744.69	39°25'10.687"N	80°53'11.621"W	3050.16	309.256	2.37	
9603.00	90.460	330.810	6589.81	2701.18	2013.14	-2407.96	1672407.25	14314827.69	39°25'11.508"N	80°53'12.208"W	3138.63	309.897	0.37	
9697.00	90.490	337.330	6589.03	2794.54	2097.63	-2449.04	1672366.19	14314912.15	39°25'12.343"N	80°53'12.730"W	3224.57	310.580	6.94	
9791.00	90.400	342.620	6588.30	2888.50	2185.91	-2481.22	1672334.02	14315000.39	39°25'13.216"N	80°53'13.139"W	3306.76	311.379	5.63	
9885.00	90.550	342.270	6587.52	2982.44	2275.53	-2509.57	1672305.68	14315089.98	39°25'14.102"N	80°53'13.498"W	3387.62	312.200	0.41	
9980.00	90.670	340.510	6586.51	3077.42	2365.55	-2539.89	1672275.38	14315179.97	39°25'14.993"N	80°53'13.883"W	3470.86	312.965	1.86	
10075.00	90.270	342.000	6585.73	3172.41	2455.51	-2570.41	1672244.87	14315269.89	39°25'15.882"N	80°53'14.271"W	3554.79	313.690	1.62	
10169.00	90.360	341.480	6585.21	3266.38	2544.77	-2599.86	1672215.43	14315359.11	39°25'16.765"N	80°53'14.645"W	3638.02	314.386	0.56	
10264.00	89.990	340.950	6584.92	3361.37	2634.71	-2630.46	1672184.85	14315449.02	39°25'17.654"N	80°53'15.033"W	3723.04	315.046	0.68	
10359.00	89.590	343.170	6585.27	3456.33	2725.09	-2659.72	1672155.60	14315539.36	39°25'18.547"N	80°53'15.405"W	3807.91	315.696	2.37	
10454.00	89.960	344.910	6585.64	3551.15	2816.42	-2685.84	1672129.49	14315630.65	39°25'19.451"N	80°53'15.736"W	3891.78	316.360	1.87	
10548.00	90.640	343.270	6585.15	3644.96	2906.82	-2711.60	1672103.73	14315721.01	39°25'20.344"N	80°53'16.063"W	3975.22	316.990	1.89	
10643.00	90.150	340.020	6584.50	3739.93	2996.97	-2741.51	1672073.83	14315811.13	39°25'21.236"N	80°53'16.443"W	4061.74	317.549	3.46	
10739.00	89.930	340.580	6584.43	3835.92	3087.35	-2773.88	1672041.49	14315901.47	39°25'22.129"N	80°53'16.853"W	4150.43	318.061	0.63	
10833.00	89.440	341.870	6584.95	3929.91	3176.34	-2804.13	1672011.25	14315990.43	39°25'23.009"N	80°53'17.238"W	4237.01	318.561	1.47	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #07
Area	Tyler County, WV		Well	Melvin Unit 2H
Field	Tyler		Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad			

WELLPATH DATA (370 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)	Comments
10928.00	89.380	344.730	6585.93	4024.79	3267.32	-2831.42	1671983.96	14316081.37	39°25'23.909"N	80°53'17.584"W	4323.46	319.088	3.01	
11022.00	89.900	344.930	6586.52	4118.52	3358.04	-2856.02	1671959.37	14316172.06	39°25'24.806"N	80°53'17.896"W	4408.32	319.619	0.59	
11116.00	89.840	342.550	6586.73	4212.36	3448.28	-2882.34	1671933.07	14316262.26	39°25'25.698"N	80°53'18.230"W	4494.27	320.108	2.53	
11211.00	89.590	341.020	6587.20	4307.33	3538.51	-2912.03	1671903.38	14316352.46	39°25'26.590"N	80°53'18.607"W	4582.69	320.547	1.63	
11306.00	89.590	339.910	6587.88	4402.33	3628.04	-2943.80	1671871.63	14316441.95	39°25'27.475"N	80°53'19.010"W	4672.11	320.944	1.17	
11400.00	89.350	338.260	6588.75	4496.29	3715.84	-2977.35	1671838.09	14316529.71	39°25'28.343"N	80°53'19.436"W	4761.52	321.296	1.77	
11492.00	89.440	339.090	6589.72	4588.24	3801.54	-3010.81	1671804.65	14316615.37	39°25'29.191"N	80°53'19.861"W	4849.39	321.621	0.91	
11586.00	89.470	338.700	6590.62	4682.20	3889.23	-3044.65	1671770.82	14316703.03	39°25'30.058"N	80°53'20.291"W	4939.23	321.945	0.42	
11681.00	89.470	342.220	6591.50	4777.18	3978.74	-3076.42	1671739.06	14316792.50	39°25'30.943"N	80°53'20.695"W	5029.38	322.288	3.71	
11775.00	89.560	341.590	6592.29	4871.15	4068.08	-3105.61	1671709.88	14316881.82	39°25'31.826"N	80°53'21.065"W	5118.02	322.642	0.68	
11869.00	89.650	338.190	6592.94	4965.13	4156.34	-3137.93	1671677.58	14316970.03	39°25'32.699"N	80°53'21.476"W	5207.85	322.948	3.62	
11962.00	89.410	337.670	6593.70	5058.03	4242.52	-3172.87	1671642.65	14317056.18	39°25'33.551"N	80°53'21.920"W	5297.74	323.208	0.62	
12058.00	89.440	341.950	6594.67	5153.99	4332.60	-3205.99	1671609.54	14317146.22	39°25'34.442"N	80°53'22.340"W	5389.79	323.500	4.46	
12152.00	89.470	341.470	6595.56	5247.97	4421.84	-3235.49	1671580.05	14317235.43	39°25'35.324"N	80°53'22.715"W	5479.15	323.807	0.51	
12247.00	89.680	342.040	6596.27	5342.94	4512.06	-3265.23	1671550.32	14317325.62	39°25'36.216"N	80°53'23.093"W	5569.60	324.108	0.64	
12342.00	89.650	342.220	6596.82	5437.90	4602.48	-3294.38	1671521.18	14317416.00	39°25'37.110"N	80°53'23.463"W	5660.02	324.405	0.19	
12437.00	89.710	342.550	6597.35	5532.85	4693.02	-3323.13	1671492.45	14317506.50	39°25'38.006"N	80°53'23.828"W	5750.45	324.698	0.35	
12532.00	89.710	342.620	6597.83	5627.79	4783.67	-3351.57	1671464.03	14317597.11	39°25'38.902"N	80°53'24.188"W	5840.93	324.984	0.07	
12627.00	89.810	343.800	6598.23	5722.68	4874.62	-3379.01	1671436.60	14317688.02	39°25'39.801"N	80°53'24.537"W	5931.24	325.271	1.25	
12721.00	89.900	344.710	6598.47	5816.48	4965.09	-3404.51	1671411.10	14317778.46	39°25'40.696"N	80°53'24.860"W	6020.20	325.562	0.97	
12817.00	90.270	345.400	6598.33	5912.17	5057.84	-3429.27	1671386.35	14317871.17	39°25'41.613"N	80°53'25.174"W	6110.78	325.862	0.82	
12911.00	90.240	340.660	6597.91	6006.06	5147.72	-3456.70	1671358.94	14317961.02	39°25'42.501"N	80°53'25.523"W	6200.63	326.119	5.04	
13005.00	89.990	337.760	6597.72	6100.02	5235.59	-3490.06	1671325.59	14318048.85	39°25'43.370"N	80°53'25.946"W	6292.21	326.312	3.10	
13100.00	90.050	336.120	6597.68	6194.83	5323.00	-3527.27	1671288.39	14318136.22	39°25'44.234"N	80°53'26.419"W	6385.60	326.470	1.73	
13194.00	90.300	335.160	6597.40	6288.49	5408.63	-3566.04	1671249.64	14318221.82	39°25'45.081"N	80°53'26.912"W	6478.42	326.602	1.06	
13290.00	89.930	333.380	6597.21	6383.92	5495.10	-3607.72	1671207.98	14318308.26	39°25'45.936"N	80°53'27.442"W	6573.57	326.714	1.89	
13385.00	89.780	333.110	6597.45	6478.16	5579.93	-3650.48	1671165.23	14318393.06	39°25'46.775"N	80°53'27.985"W	6667.96	326.807	0.33	
13480.00	89.960	335.540	6597.66	6572.60	5665.55	-3691.64	1671124.09	14318478.64	39°25'47.622"N	80°53'28.509"W	6762.15	326.912	2.56	
13574.00	89.870	339.360	6597.80	6666.44	5752.34	-3727.68	1671088.06	14318565.40	39°25'48.480"N	80°53'28.967"W	6854.56	327.056	4.06	
13669.00	89.960	343.240	6597.94	6761.42	5842.31	-3758.13	1671057.62	14318655.33	39°25'49.370"N	80°53'29.353"W	6946.67	327.248	4.09	

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Melvin Unit 2H AWP Proj: 17387'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
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WELLPATH DATA (370 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]	Comments
13764.00	89.990	344.390	6597.98	6856.26	5933.54	-3784.61	1671031.15	14318746.53	39°25'50.272"N	80°53'29.689"W	7037.77	327.469	1.21	
13859.00	90.390	343.010	6597.67	6951.11	6024.72	-3811.28	1671004.50	14318837.67	39°25'51.173"N	80°53'30.028"W	7129.03	327.682	1.51	
13953.00	89.960	342.910	6597.38	7045.02	6114.60	-3838.82	1670976.97	14318927.51	39°25'52.062"N	80°53'30.377"W	7219.75	327.879	0.47	
14049.00	90.020	343.350	6597.40	7140.92	6206.46	-3866.68	1670949.12	14319019.34	39°25'52.970"N	80°53'30.731"W	7312.42	328.077	0.46	
14143.00	89.840	342.650	6597.51	7234.83	6296.36	-3894.16	1670921.65	14319109.19	39°25'53.859"N	80°53'31.080"W	7403.28	328.264	0.77	
14238.00	89.930	341.630	6597.70	7329.79	6386.78	-3923.30	1670892.52	14319199.58	39°25'54.753"N	80°53'31.450"W	7495.54	328.438	1.08	
14333.00	89.900	340.790	6597.84	7424.78	6476.71	-3953.90	1670861.94	14319289.48	39°25'55.642"N	80°53'31.838"W	7588.22	328.597	0.88	
14427.00	89.870	339.460	6598.03	7518.78	6565.11	-3985.85	1670829.99	14319377.84	39°25'56.516"N	80°53'32.244"W	7680.35	328.737	1.42	
14522.00	89.780	338.560	6598.32	7613.74	6653.81	-4019.88	1670795.98	14319466.50	39°25'57.393"N	80°53'32.677"W	7773.84	328.862	0.95	
14617.00	89.900	337.510	6598.59	7708.65	6741.91	-4055.42	1670760.46	14319554.57	39°25'58.264"N	80°53'33.128"W	7867.64	328.972	1.11	
14711.00	89.900	338.940	6598.75	7802.58	6829.20	-4090.29	1670725.60	14319641.82	39°25'59.128"N	80°53'33.571"W	7960.43	329.081	1.52	
14805.00	89.930	345.030	6598.89	7896.50	6918.55	-4119.34	1670696.56	14319731.14	39°26'00.011"N	80°53'33.940"W	8052.04	329.230	6.48	
14899.00	90.080	347.030	6598.88	7990.06	7009.76	-4142.03	1670673.87	14319822.32	39°26'00.913"N	80°53'34.228"W	8142.07	329.421	2.13	
14993.00	90.050	344.100	6598.78	8083.68	7100.79	-4165.46	1670650.45	14319913.30	39°26'01.813"N	80°53'34.525"W	8232.39	329.603	3.12	
15088.00	89.810	339.000	6598.89	8178.64	7190.87	-4195.52	1670620.41	14320003.35	39°26'02.703"N	80°53'34.907"W	8325.33	329.739	5.37	
15183.00	89.650	336.340	6599.34	8273.51	7278.74	-4231.61	1670584.33	14320091.18	39°26'03.572"N	80°53'35.366"W	8419.42	329.828	2.81	
15278.00	89.650	336.910	6599.92	8368.29	7365.94	-4269.30	1670546.66	14320178.35	39°26'04.435"N	80°53'35.845"W	8513.76	329.903	0.60	
15373.00	89.590	338.090	6600.55	8463.16	7453.71	-4305.65	1670510.32	14320266.08	39°26'05.302"N	80°53'36.307"W	8607.93	329.987	1.24	
15469.00	89.650	339.190	6601.19	8559.10	7543.11	-4340.62	1670475.37	14320355.45	39°26'06.186"N	80°53'36.751"W	8702.84	330.082	1.15	
15563.00	89.650	340.700	6601.76	8653.09	7631.41	-4372.85	1670443.15	14320443.71	39°26'07.060"N	80°53'37.160"W	8795.46	330.187	1.61	
15658.00	89.680	341.490	6602.32	8748.09	7721.28	-4403.63	1670412.38	14320533.55	39°26'07.948"N	80°53'37.551"W	8888.76	330.303	0.83	
15752.00	89.650	340.790	6602.87	8842.08	7810.23	-4434.02	1670382.01	14320622.46	39°26'08.828"N	80°53'37.937"W	8981.10	330.416	0.75	
15847.00	89.680	340.410	6603.42	8937.08	7899.83	-4465.57	1670350.47	14320712.03	39°26'09.714"N	80°53'38.338"W	9074.62	330.522	0.40	
15943.00	89.680	340.280	6603.96	9033.07	7990.24	-4497.86	1670318.19	14320802.40	39°26'10.607"N	80°53'38.748"W	9169.22	330.624	0.14	
16037.00	89.590	340.440	6604.56	9127.07	8078.77	-4529.45	1670286.61	14320890.89	39°26'11.483"N	80°53'39.150"W	9261.88	330.722	0.20	
16132.00	89.650	339.850	6605.19	9222.07	8168.12	-4561.72	1670254.36	14320980.21	39°26'12.366"N	80°53'39.560"W	9355.61	330.818	0.62	
16227.00	89.710	340.920	6605.72	9317.06	8257.60	-4593.61	1670222.48	14321069.66	39°26'13.251"N	80°53'39.965"W	9449.30	330.913	1.13	
16322.00	89.650	344.320	6606.25	9411.98	8348.25	-4621.98	1670194.12	14321160.27	39°26'14.147"N	80°53'40.325"W	9542.33	331.029	3.58	
16418.00	89.680	345.910	6606.81	9507.67	8441.03	-4646.64	1670169.47	14321253.00	39°26'15.065"N	80°53'40.638"W	9635.47	331.168	1.66	
16512.00	89.620	342.650	6607.38	9601.45	8531.50	-4672.11	1670144.02	14321343.44	39°26'15.959"N	80°53'40.961"W	9727.02	331.294	3.47	

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Actual Wellpath Report

Melvin Unit 2H AWP Proj: 17387'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad		

WELLPATH DATA (370 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]	Comments
16606.00	89.780	336.720	6607.88	9695.40	8619.61	-4704.73	1670111.41	14321431.52	39°26'16.830"N	80°53'41.375"W	9819.98	331.374	6.31	
16701.00	89.620	333.940	6608.38	9790.00	8705.93	-4744.37	1670071.78	14321517.80	39°26'17.684"N	80°53'41.880"W	9914.75	331.411	2.93	
16796.00	89.810	334.500	6608.85	9884.43	8791.47	-4785.69	1670030.48	14321603.31	39°26'18.530"N	80°53'42.405"W	10009.63	331.438	0.62	
16890.00	89.650	337.250	6609.29	9978.11	8877.25	-4824.11	1669992.08	14321689.05	39°26'19.378"N	80°53'42.893"W	10103.35	331.479	2.93	
16985.00	90.580	342.280	6609.10	10073.07	8966.36	-4856.95	1669959.24	14321778.13	39°26'20.259"N	80°53'43.311"W	10197.33	331.556	5.38	
17081.00	91.380	347.470	6607.46	10168.74	9058.99	-4881.99	1669934.22	14321870.72	39°26'21.175"N	80°53'43.628"W	10290.73	331.679	5.47	
17175.00	91.250	345.470	6605.30	10262.21	9150.35	-4903.98	1669912.24	14321962.04	39°26'22.078"N	80°53'43.907"W	10381.61	331.812	2.13	
17269.00	90.820	336.030	6603.60	10356.08	9238.98	-4934.93	1669881.30	14322050.64	39°26'22.954"N	80°53'44.300"W	10474.36	331.891	10.05	
17364.00	91.070	339.620	6602.03	10450.95	9326.93	-4970.77	1669845.47	14322138.55	39°26'23.824"N	80°53'44.756"W	10568.83	331.945	3.79	
17387.00	91.070	339.620	6601.60	10473.94	9348.48	-4978.78	1669837.46	14322160.10	39°26'24.037"N	80°53'44.858"W	10591.62	331.961	0.00	Projected MD at TD: 17387'

HOLE & CASING SECTIONS - Ref Wellbore: Melvin Unit 2H AWB Ref Wellpath: Melvin Unit 2H AWP Proj: 17387'									
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	32.00	72.00	40.00	32.00	72.00	0.00	0.00	0.01	-0.01
13.375in Casing Surface	32.00	417.00	385.00	32.00	417.00	0.00	0.00	-0.63	-0.33
9.625in Casing Intermediate	32.00	2534.00	2502.00	32.00	2479.45	0.00	0.00	-265.93	-327.27



Actual Wellpath Report

Melvin Unit 2H AWP Proj: 17387'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Melvin Unit 2H
Field	Tyler	Wellbore	Melvin Unit 2H AWB
Facility	Estlack Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Melvin Unit 2H POE Rev-1	6565.00	-439.09	-1508.71	1673306.14	14312376.44	39°24'47.260"N	80°53'00.790"W	point
Melvin Unit 2H BHL Rev-1	6589.00	9337.65	-4968.75	1669847.49	14322149.27	39°26'23.930"N	80°53'44.730"W	point
Melvin Unit 2H Landing Pt. Rev-1	6589.00	-284.40	-1563.46	1673251.42	14312531.07	39°24'48.789"N	80°53'01.485"W	point
Melvin Unit 2H DC	6650.00	0.00	0.00	1674814.25	14312815.36	39°24'51.580"N	80°52'41.560"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: Melvin Unit 2H AWB Ref Wellpath: Melvin Unit 2H AWP Proj: 17387'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	5972.63	BHI Generic gyro - northseeking (Standard)	01 SDI Gyro (100' - 5972.63')	Melvin Unit 2H AWB
5972.63	17364.00	BHI AutoTrak Curve w/ Surcon (MagCAD, Short spacing)	02 BHI AT Curve [SS + MSA] <8-1/2"> (5972.63')(6082'- 17364')	Melvin Unit 2H AWB
17364.00	17387.00	Blind Drilling (std)	Projection to bit	Melvin Unit 2H AWB

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