







# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'

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REFERENCE WELLPATH IDENTIFICATION		
Operator	ANTERO RESOURCES CORPORATION	Slot #09
Area	Tyler County, WV	McKim Unit 3H
Field	Tyler	McKim Unit 3H AWB
Facility	McKim Pad	

REPORT SETUP INFORMATION		
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System
North Reference	Grid	User
Scale	0.999600	Report Generated
Convergence at slot	0.03° East	Database/Source file
		WA_MPL_EASTERNUS_Defn/McKim_Unit_3H_AWP_Proj_21016_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-76.88	22.03	1654167.58	14302254.27	39°23'07.350"N	80°57'04.800"W
Facility Reference Pt			1654145.56	14302331.12	39°23'08.110"N	80°57'05.080"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 (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Frontier 32 (RKB) to Mean Sea Level
Vertical Reference Pt	Frontier 32 (RKB)	Frontier 32 (RKB) to Ground Level at Slot (Slot #09)
MD Reference Pt	Frontier 32 (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth
		32.00ft
		1204.00ft
		32.00ft
		N 0.00, E 0.00 ft
		159.01°

05/03/2019





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Field	Tyler	Wellbore	McKim Unit 3H AWB
Facility	McKim Pad		

## WELLPATH DATA (250 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00	0.00	205.620	0.00	0.00	0.00	0.00	1654167.57	14302254.27	39°23'07.350"N	80°57'04.800"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.00	205.620	32.00	0.00	0.00	0.00	1654167.57	14302254.27	39°23'07.350"N	80°57'04.800"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.170	205.620	117.00	0.09	-0.11	-0.05	1654167.52	14302254.16	39°23'07.349"N	80°57'04.801"W	0.13	205.620	0.20	0.20	-181.62	Gyrodota MS Gyro <17-.172> (100'.505)
217.00	0.300	190.440	217.00	0.41	-0.50	-0.17	1654167.41	14302253.77	39°23'07.345"N	80°57'04.802"W	0.53	198.210	0.14	0.13	-15.18	
317.00	0.370	196.120	317.00	0.89	-1.07	-0.30	1654167.27	14302253.20	39°23'07.339"N	80°57'04.804"W	1.11	195.785	0.08	0.07	5.88	
417.00	0.290	203.080	417.00	1.33	-1.62	-0.49	1654167.08	14302252.66	39°23'07.334"N	80°57'04.806"W	1.69	196.939	0.09	-0.08	6.96	
517.00	0.700	198.090	516.99	1.99	-2.43	-0.78	1654166.79	14302251.84	39°23'07.326"N	80°57'04.810"W	2.55	197.823	0.41	0.41	-4.99	
612.00	0.520	160.870	611.99	2.03	-2.49	-0.80	1654166.77	14302251.78	39°23'07.325"N	80°57'04.811"W	2.61	197.839	0.29	-0.20	17.40	
666.00	0.980	111.070	665.98	3.41	-3.78	-0.84	1654166.73	14302250.89	39°23'07.317"N	80°57'04.811"W	3.49	193.976	0.47	-0.19	-42.32	Gyrodota MS Gyro <12-.114> (505'.595')
756.00	3.560	80.740	755.91	4.50	-3.61	3.15	1654170.72	14302250.66	39°23'07.314"N	80°57'04.760"W	4.79	138.916	3.06	2.87	-33.63	Directional ONE MWD <12-.1/4> (595')(649'.2589')
845.00	5.400	75.480	844.63	5.53	-2.11	9.93	1654177.50	14302252.16	39°23'07.329"N	80°57'04.674"W	10.15	102.019	1.78	2.07	-5.91	
935.00	7.000	76.780	934.10	6.75	0.20	19.37	1654186.93	14302254.47	39°23'07.352"N	80°57'04.553"W	19.37	89.401	1.78	1.78	1.44	
1024.00	8.640	71.270	1022.27	7.75	3.59	30.98	1654198.54	14302257.86	39°23'07.385"N	80°57'04.405"W	31.19	83.390	2.02	1.84	-6.19	
1112.00	9.790	68.710	1109.14	7.97	8.43	44.21	1654211.77	14302282.70	39°23'07.433"N	80°57'04.237"W	45.01	79.206	1.39	1.31	-2.91	
1200.00	11.150	67.930	1195.67	7.77	14.34	59.07	1654226.62	14302268.61	39°23'07.491"N	80°57'04.048"W	60.78	76.351	1.55	1.55	-0.89	
1288.00	12.320	61.610	1281.83	6.40	22.00	75.21	1654242.76	14302276.27	39°23'07.567"N	80°57'03.842"W	78.36	73.693	1.97	1.33	-7.18	
1376.00	13.800	55.530	1367.56	2.74	32.41	92.13	1654259.66	14302286.67	39°23'07.670"N	80°57'03.626"W	97.66	70.618	2.29	1.68	-6.91	
1465.00	15.620	55.390	1453.64	-2.56	45.22	110.74	1654278.27	14302299.48	39°23'07.796"N	80°57'03.389"W	119.62	67.788	2.05	2.04	-0.16	
1553.00	17.770	56.100	1537.92	-8.35	59.44	131.64	1654299.16	14302313.69	39°23'07.937"N	80°57'03.123"W	144.44	65.698	2.45	2.44	0.81	
1641.00	19.380	57.430	1621.34	-14.28	74.79	155.09	1654322.60	14302329.04	39°23'08.088"N	80°57'02.824"W	172.18	64.254	1.89	1.83	1.51	
1730.00	19.050	57.160	1705.38	-20.22	90.62	179.74	1654347.24	14302344.85	39°23'08.245"N	80°57'02.510"W	201.29	63.244	0.38	-0.37	-0.30	
1818.00	18.740	56.440	1788.63	-26.25	106.22	203.58	1654371.08	14302360.45	39°23'08.399"N	80°57'02.206"W	229.63	62.446	0.44	-0.35	-0.82	
1906.00	17.850	55.060	1872.19	-32.58	121.76	226.42	1654393.90	14302375.98	39°23'08.552"N	80°57'01.915"W	257.09	61.730	1.12	-1.01	-1.57	
1994.00	15.980	58.950	1966.38	-37.95	135.74	247.86	1654415.33	14302389.95	39°23'08.690"N	80°57'01.642"W	282.59	61.293	2.48	-2.13	4.42	
2083.00	15.860	60.920	2041.97	-41.80	147.97	268.98	1654436.45	14302402.18	39°23'08.811"N	80°57'01.373"W	306.99	61.185	0.62	-0.13	2.21	
2171.00	18.900	68.980	2125.95	-43.50	158.93	292.80	1654460.26	14302413.13	39°23'08.919"N	80°57'01.070"W	333.15	61.508	4.40	3.45	9.16	
2259.00	20.000	70.330	2208.93	-43.16	169.11	320.28	1654487.73	14302423.31	39°23'09.020"N	80°57'00.720"W	362.18	62.166	1.35	1.25	1.53	
2347.00	19.840	70.840	2291.66	-42.39	179.12	348.54	1654515.97	14302433.32	39°23'09.118"N	80°57'00.360"W	391.87	62.800	0.22	-0.18	0.35	
2436.00	17.880	66.910	2375.88	-42.46	189.49	375.36	1654542.78	14302443.68	39°23'09.221"N	80°57'00.018"W	420.48	63.215	2.58	-2.20	-4.19	





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Area	Tyler County, WV	Well	McKim Unit 3H
Field	Tyler	Wellbore	McKim Unit 3H AWB
Facility	McKim Pad		

## WELLPATH DATA (250 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 Dist (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
2524.00	16.390	57.990	2459.99	-45.33	201.37	398.32	1654565.73	14302455.56	39°23'09.338"N	80°56'59.726"W	448.33	63.181	3.43	-1.69	-10.14	
2606.00	16.580	58.990	2538.62	-49.57	213.53	418.16	1654585.56	14302467.71	39°23'09.458"N	80°56'59.473"W	469.52	62.949	0.42	0.23	1.22	
2716.00	19.340	59.430	2643.25	-55.34	230.88	447.30	1654614.69	14302485.06	39°23'09.630"N	80°56'59.102"W	503.37	62.899	2.51	2.51	0.40	Directional ONE MWD <-8.3/4">(2699'-6139')
2804.00	20.550	57.060	2725.97	-60.96	246.69	472.81	1654640.19	14302500.86	39°23'09.786"N	80°56'58.777"W	533.29	62.446	1.65	1.38	-2.69	
2892.00	24.040	56.020	2807.38	-68.19	265.11	500.64	1654668.01	14302519.28	39°23'09.968"N	80°56'58.422"W	566.50	62.097	3.99	3.97	-1.18	
2981.00	27.130	55.410	2887.64	-77.04	286.77	532.39	1654699.75	14302540.93	39°23'10.181"N	80°56'58.018"W	604.71	61.691	3.48	3.47	-0.69	
3069.00	30.140	56.240	2964.87	-86.64	310.45	567.28	1654734.63	14302564.59	39°23'10.415"N	80°56'57.573"W	646.67	61.310	3.45	3.42	0.94	
3157.00	32.000	57.490	3040.24	-96.18	335.26	605.31	1654772.65	14302589.39	39°23'10.660"N	80°56'57.088"W	691.96	61.020	2.24	2.11	1.42	
3245.00	32.530	56.190	3114.66	-106.09	360.95	644.64	1654811.95	14302615.08	39°23'10.914"N	80°56'56.587"W	738.81	60.754	0.99	0.60	-1.48	
3334.00	30.300	60.670	3190.62	-114.66	385.27	684.10	1654851.40	14302639.39	39°23'11.154"N	80°56'56.085"W	785.13	60.613	3.63	-2.51	5.03	
3422.00	26.640	58.880	3267.96	-121.35	406.35	720.36	1654887.65	14302660.46	39°23'11.362"N	80°56'55.623"W	827.07	60.573	4.27	-4.16	-2.03	
3510.00	25.870	56.110	3346.89	-129.11	427.25	753.19	1654920.46	14302681.35	39°23'11.569"N	80°56'55.204"W	863.93	60.435	1.64	-0.87	-3.15	
3598.00	25.990	62.360	3426.04	-135.63	446.91	786.21	1654953.47	14302701.00	39°23'11.763"N	80°56'54.784"W	904.35	60.385	3.11	0.14	7.10	
3686.00	26.970	64.110	3504.81	-139.56	464.57	821.25	1654988.49	14302727.45	39°23'11.937"N	80°56'54.337"W	943.54	60.504	1.42	1.11	1.99	
3775.00	29.290	63.790	3583.29	-143.27	483.00	858.94	1655026.17	14302757.07	39°23'12.119"N	80°56'53.857"W	983.43	60.650	2.61	2.61	-0.36	
3863.00	31.850	62.070	3659.06	-148.03	503.38	898.78	1655065.99	14302787.45	39°23'12.320"N	80°56'53.350"W	1030.14	60.748	3.07	2.91	-1.95	
3951.00	32.520	60.230	3733.53	-154.45	526.00	939.82	1655107.02	14302810.06	39°23'12.544"N	80°56'52.827"W	1077.01	60.765	1.35	0.76	-2.09	
4040.00	31.950	57.480	3882.41	-162.21	550.33	981.57	1655148.75	14302840.38	39°23'12.784"N	80°56'52.295"W	1125.32	60.722	0.99	0.82	-1.02	
4128.00	33.250	59.320	3808.27	-170.92	575.16	1021.96	1655189.12	14302878.60	39°23'13.029"N	80°56'51.780"W	1172.69	60.629	1.86	-1.48	-2.09	
4216.00	30.080	56.580	3957.82	-180.33	599.83	1060.00	1655227.15	14302903.17	39°23'13.273"N	80°56'51.296"W	1217.95	60.496	2.19	-2.12	-1.02	
4305.00	30.640	56.640	4034.62	-189.99	624.58	1097.56	1655264.69	14302927.76	39°23'13.517"N	80°56'50.817"W	1262.83	60.357	0.63	0.63	0.07	
4393.00	31.340	57.640	4110.06	-199.30	649.16	1135.62	1655302.74	14302952.04	39°23'13.760"N	80°56'50.332"W	1308.07	60.246	0.99	0.80	1.14	
4481.00	29.810	55.640	4185.82	-208.87	673.76	1173.01	1655340.12	14302976.76	39°23'14.003"N	80°56'49.856"W	1352.74	60.128	2.09	-1.74	-2.27	
4569.00	29.280	56.930	4262.38	-218.43	697.85	1209.10	1655376.19	14302991.84	39°23'14.240"N	80°56'49.396"W	1396.04	60.008	0.94	-0.60	1.47	
4657.00	28.450	56.840	4339.51	-227.36	721.06	1244.68	1655411.76	14303017.89	39°23'14.470"N	80°56'48.942"W	1438.46	59.916	0.94	-0.94	-0.10	
4745.00	28.510	60.170	4416.80	-235.00	742.97	1280.45	1655447.51	14303036.94	39°23'14.686"N	80°56'48.487"W	1480.39	59.876	1.81	0.07	3.78	
4834.00	29.790	61.970	4494.53	-240.98	763.93	1318.40	1655485.44	14303062.89	39°23'14.893"N	80°56'48.003"W	1523.73	59.910	1.74	1.44	2.02	
4923.00	32.680	61.610	4570.82	-246.78	785.74	1359.06	1655526.09	14303093.70	39°23'15.108"N	80°56'47.485"W	1569.85	59.966	3.25	3.25	-0.40	
5011.00	34.300	61.320	4644.01	-253.16	808.94	1401.72	1655568.73	14303124.89	39°23'15.337"N	80°56'46.942"W	1618.39	60.010	1.85	1.84	-0.33	
5099.00	34.720	59.750	4716.53	-260.51	833.47	1445.12	1655612.11	14303158.40	39°23'15.580"N	80°56'46.389"W	1668.24	60.026	1.12	0.48	-1.78	





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5187.00	34.200	58.320	4789.08	-289.13	859.08	1487.81	1655654.79	14303113.01	39°23'15.832"N	80°56'45.845"W	1718.03	59.997	1.09	-0.59	-1.63	
5275.00	30.410	60.540	4883.45	-277.00	883.03	1528.27	1655695.23	14303136.95	39°23'16.069"N	80°56'45.329"W	1765.04	59.981	4.51	-4.31	2.52	
5363.00	28.930	57.470	4939.92	-284.54	905.43	1565.61	1655732.56	14303159.34	39°23'16.290"N	80°56'44.854"W	1808.58	59.958	2.41	-1.68	-3.49	
5451.00	27.530	56.100	5017.45	-293.35	928.22	1600.44	1655767.37	14303182.12	39°23'16.515"N	80°56'44.410"W	1850.14	59.887	1.75	-1.59	-1.56	
5539.00	26.450	59.880	5095.87	-301.00	949.40	1634.27	1655801.19	14303203.29	39°23'16.724"N	80°56'43.979"W	1890.03	59.846	2.30	-1.23	4.30	
5628.00	27.300	64.660	5175.27	-305.69	968.09	1669.87	1655836.77	1430221.97	39°23'16.909"N	80°56'43.525"W	1930.20	59.897	2.61	0.96	5.37	
5715.00	31.700	68.330	5250.97	-307.48	985.08	1709.17	1655876.05	1430238.95	39°23'17.076"N	80°56'43.025"W	1972.72	60.043	5.47	5.06	4.22	
5804.00	33.690	64.550	5325.88	-309.68	1004.32	1753.20	1655920.07	1430258.19	39°23'17.266"N	80°56'42.464"W	2020.49	60.194	3.20	2.24	-4.25	
5892.00	35.490	63.660	5398.32	-313.96	1026.15	1798.13	1655964.98	1430280.01	39°23'17.482"N	80°56'41.891"W	2070.33	60.288	2.12	2.05	-1.01	
5980.00	35.250	61.770	5470.08	-319.54	1049.49	1843.40	1656010.23	14303303.34	39°23'17.712"N	80°56'41.315"W	2121.22	60.346	1.27	-0.27	-2.15	
6068.00	33.610	59.740	5542.66	-326.66	1073.78	1886.81	1656053.63	14303327.62	39°23'17.952"N	80°56'40.761"W	2170.96	60.356	2.27	-1.86	-2.31	
6156.00	31.460	56.940	5616.85	-335.39	1098.59	1927.10	1656093.90	14303352.42	39°23'18.197"N	80°56'40.248"W	2218.25	60.314	2.98	-2.44	-3.18	
6261.00	28.000	53.590	5708.02	-347.68	1128.18	1969.92	1656136.70	14303381.99	39°23'18.489"N	80°56'39.703"W	2270.10	60.200	3.65	-3.30	-3.19	BH AT Curve <8-1/2"> (6156)-(6261-20992)
6281.00	26.700	53.680	5725.84	-350.09	1133.57	1977.24	1656144.02	14303387.38	39°23'18.542"N	80°56'39.609"W	2279.14	60.174	9.50	-9.50	0.45	
6328.00	22.220	55.050	5768.71	-354.97	1144.79	1992.86	1656159.64	14303398.60	39°23'18.653"N	80°56'39.410"W	2298.27	60.125	8.34	-8.26	2.91	
6376.00	20.660	62.190	5813.40	-358.16	1153.94	2007.80	1656174.56	14303407.75	39°23'18.744"N	80°56'39.220"W	2315.78	60.113	6.33	-3.25	14.88	
6423.00	21.340	74.620	5857.30	-358.31	1160.08	2023.38	1656190.14	14303413.88	39°23'18.804"N	80°56'39.021"W	2332.35	60.173	9.57	1.45	26.45	
6471.00	23.310	83.940	5901.71	-355.01	1163.40	2041.26	1656208.01	14303417.20	39°23'18.837"N	80°56'38.794"W	2349.51	60.319	8.43	4.10	19.42	
6520.00	25.370	94.430	5946.37	-348.00	1163.61	2061.37	1656228.12	14303417.41	39°23'18.839"N	80°56'38.537"W	2367.12	60.556	9.76	4.20	21.41	
6566.00	27.750	102.400	5987.53	-337.87	1160.55	2081.67	1656248.41	14303414.35	39°23'18.808"N	80°56'38.279"W	2383.32	60.860	9.31	5.17	17.33	
6615.00	30.630	106.640	6030.31	-323.97	1154.52	2104.78	1656271.50	14303408.33	39°23'18.749"N	80°56'37.985"W	2400.63	61.254	7.23	5.88	8.65	
6707.00	35.660	106.570	6107.53	-293.22	1139.91	2152.55	1656319.26	14303393.72	39°23'18.604"N	80°56'37.698"W	2417.13	61.655	4.47	4.38	1.73	
6755.00	37.960	107.690	6145.95	-275.46	1131.43	2180.02	1656346.72	14303385.25	39°23'18.520"N	80°56'37.027"W	2435.74	62.096	6.59	6.51	-1.81	
6802.00	39.430	115.120	6182.66	-255.66	1120.70	2207.33	1656374.01	14303374.52	39°23'18.414"N	80°56'36.679"W	2456.15	62.571	4.99	4.79	2.33	
6850.00	41.890	121.720	6219.08	-231.91	1105.79	2234.78	1656401.45	14303359.62	39°23'18.266"N	80°56'36.329"W	2475.53	63.082	10.36	3.13	15.81	
6897.00	44.970	127.770	6253.23	-205.21	1087.36	2261.24	1656429.05	14303341.19	39°23'18.084"N	80°56'35.992"W	2493.39	63.673	10.32	5.13	13.75	
6899.00†	45.058	127.918	6254.64	-204.00	1086.49	2262.39	1656429.05	14303340.32	39°23'18.075"N	80°56'35.978"W	2509.12	64.319	11.01	6.55	12.87	
6944.00	47.090	131.120	6285.86	-175.79	1065.86	2287.37	1656454.03	14303319.70	39°23'17.871"N	80°56'35.660"W	2509.75	64.348	6.83	4.41	7.38	Sycamore: 6899MD / 6255TTVD
6991.00	49.870	134.270	6317.02	-144.24	1041.99	2313.21	1656479.86	14303295.84	39°23'17.635"N	80°56'35.331"W	2523.52	65.016	6.83	4.52	7.12	
											2537.07	65.751	7.76	5.91	6.70	





# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #09
Operator	ANTERO RESOURCES CORPORATION	Well	McKim Unit 3H
Area	Tyler County, WV	Wellbore	McKim Unit 3H AWB
Field	Tyler		
Facility	McKim Pad		

WELLPATH DATA (250 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
7039.00	53.110	136.540	6346.90	-109.83	1015.24	2339.56	1656506.20	14303289.10	39°23'17.371"N	80°56'34.995"W	2550.35	66.542	7.70	6.75	4.73	
7052.00†	54.212	137.520	6354.61	-100.12	1007.58	2346.70	1656513.33	14303281.44	39°23'17.295"N	80°56'34.905"W	2553.86	66.763	10.43	8.48	7.54	Middlesex: 7052MD / 6355'TVD
7086.00	57.130	139.960	6373.78	-73.78	986.47	2365.21	1656531.83	14303240.34	39°23'17.086"N	80°56'34.669"W	2562.68	67.360	10.43	8.58	7.18	
7133.00	60.150	143.590	6398.24	-35.46	954.94	2390.01	1656556.63	14303208.83	39°23'16.774"N	80°56'34.353"W	2573.73	68.221	9.21	6.43	7.72	
7180.00	64.900	147.670	6419.93	5.09	920.52	2413.51	1656580.12	14303174.42	39°23'16.434"N	80°56'34.054"W	2583.10	69.123	12.70	10.11	8.68	
7227.00	68.220	150.320	6438.62	47.55	883.57	2435.71	1656602.31	14303137.48	39°23'16.069"N	80°56'33.772"W	2591.02	70.062	8.75	7.06	5.64	
7248.00†	69.224	151.559	6446.24	66.92	866.46	2445.21	1656611.81	14303120.38	39°23'15.900"N	80°56'33.651"W	2594.19	70.488	7.29	4.78	5.90	Burket: 7248MD / 6446'TVD
7274.00	70.480	153.070	6455.20	91.16	844.85	2456.55	1656623.14	14303098.78	39°23'15.886"N	80°56'33.507"W	2597.77	71.021	7.29	4.83	5.81	
7319.00†	71.591	154.007	6469.82	133.53	806.75	2475.52	1656642.10	14303060.70	39°23'15.309"N	80°56'33.256"W	2603.66	71.950	3.16	2.47	2.08	Tully: 7319MD / 6470'TVD
7323.00	71.690	154.090	6471.08	137.31	803.34	2477.18	1656643.76	14303057.28	39°23'15.275"N	80°56'33.245"W	2604.18	72.032	3.16	2.47	2.07	
7366.00†	72.430	156.369	6484.33	178.13	766.19	2494.31	1656660.89	14303020.16	39°23'14.908"N	80°56'33.007"W	2609.34	72.924	5.33	1.72	5.30	POE Marcellus: 7366MD / 6484'TVD
7370.00	72.500	156.580	6485.54	181.94	762.70	2495.84	1656662.41	14303016.66	39°23'14.874"N	80°56'33.007"W	2609.77	73.008	5.33	1.75	5.28	
7418.00	74.710	158.560	6499.08	227.96	720.13	2513.40	1656679.96	14302974.12	39°23'14.453"N	80°56'32.784"W	2614.53	74.012	6.07	4.60	4.13	
7465.00	79.760	160.840	6509.47	273.78	677.16	2529.29	1656695.85	14302931.16	39°23'14.228"N	80°56'32.582"W	2618.37	75.012	11.74	10.74	4.85	
7513.00	84.360	163.440	6516.10	321.23	631.92	2543.86	1656710.41	14302885.94	39°23'13.581"N	80°56'32.387"W	2621.17	76.049	10.98	9.58	5.42	
7560.00	87.170	164.590	6519.57	367.92	586.87	2556.76	1656723.31	14302840.90	39°23'13.135"N	80°56'32.233"W	2623.25	77.073	6.46	5.98	2.45	
7607.00	90.060	164.860	6520.70	414.67	541.55	2569.14	1656735.68	14302795.60	39°23'12.887"N	80°56'32.075"W	2625.60	78.097	6.18	6.15	0.57	
7702.00	90.120	161.620	6520.55	509.40	450.59	2596.53	1656763.06	14302704.68	39°23'11.788"N	80°56'31.727"W	2635.34	80.155	3.41	0.06	-3.41	
7797.00	91.020	157.430	6519.61	604.37	361.62	2629.75	1656796.27	14302615.75	39°23'10.909"N	80°56'31.305"W	2654.50	82.170	4.51	0.95	-4.41	
7892.00	89.750	153.880	6518.97	699.17	275.16	2669.06	1656835.56	14302529.32	39°23'10.054"N	80°56'30.805"W	2683.20	84.114	4.17	-1.34	-3.95	
7986.00	90.060	152.380	6519.13	792.66	191.38	2711.69	1656878.17	14302445.57	39°23'09.226"N	80°56'30.263"W	2718.43	85.963	1.42	0.33	-1.38	
8081.00	89.820	151.770	6519.23	886.96	107.44	2756.18	1656922.64	14302361.67	39°23'08.396"N	80°56'29.697"W	2758.27	87.768	0.69	-0.25	-0.64	
8176.00	89.600	154.360	6519.71	981.44	22.76	2799.21	1656965.66	14302277.02	39°23'07.558"N	80°56'29.150"W	2799.30	89.534	2.74	-0.23	2.73	
8270.00	89.850	156.710	6520.16	1075.26	-62.80	2838.13	1657004.57	14302191.50	39°23'06.713"N	80°56'28.655"W	2838.83	91.268	2.51	0.27	2.50	
8365.00	89.750	157.740	6520.49	1170.21	-150.39	2874.91	1657041.33	14302103.94	39°23'05.847"N	80°56'28.167"W	2878.84	92.994	1.09	-0.11	1.08	
8460.00	89.910	158.940	6520.77	1265.20	-238.68	2909.97	1657076.37	14302015.69	39°23'04.974"N	80°56'27.741"W	2919.74	94.689	1.27	0.17	1.26	
8555.00	89.750	163.200	6521.05	1360.12	-328.52	2940.78	1657107.17	14301925.88	39°23'04.086"N	80°56'27.349"W	2959.07	96.374	4.49	-0.17	4.48	
8651.00	89.780	168.670	6521.45	1455.38	-421.60	2964.10	1657130.49	14301832.84	39°23'03.166"N	80°56'27.053"W	2993.94	98.095	5.70	0.03	5.70	
8745.00	90.060	169.090	6521.58	1547.99	-513.84	2982.23	1657148.61	14301740.64	39°23'02.254"N	80°56'26.823"W	3026.18	99.776	0.54	0.30	0.45	
8839.00	89.820	167.740	6521.68	1640.73	-605.92	3001.11	1657167.48	14301648.59	39°23'01.344"N	80°56'26.583"W	3061.66	101.415	1.46	-0.26	-1.44	





# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Tyler County, WV	Well	McKim Unit 3H
Field	Tyler	Wellbore	McKim Unit 3H AWB
Facility	McKim Pad		

WELLPATH DATA (250 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
8934.00	90.030	165.830	6521.80	1734.85	-698.40	3022.82	1657189.18	14301556.15	39°23'00.429"N	80°56'26.308"W	3102.46	103.009	2.02	0.22	-2.01	
9029.00	90.000	165.840	6521.78	1829.18	-790.51	3046.07	1657212.42	14301464.08	39°22'59.519"N	80°56'26.012"W	3146.98	104.548	0.03	-0.03	0.01	
9123.00	89.910	161.390	6521.85	1922.85	-880.67	3072.58	1657238.92	14301373.95	39°22'58.628"N	80°56'25.675"W	3196.30	105.994	4.74	-0.10	-4.73	
9219.00	89.850	155.390	6522.05	2018.80	-969.88	3107.92	1657274.25	14301284.78	39°22'57.746"N	80°56'25.226"W	3255.74	107.331	6.25	-0.06	-6.25	
9314.00	89.910	158.660	6522.25	2113.67	-1056.69	3146.52	1657312.83	14301198.01	39°22'56.888"N	80°56'24.735"W	3319.22	108.563	1.34	0.06	1.34	
9410.00	89.880	158.130	6522.43	2209.63	-1145.31	3183.42	1657349.72	14301109.42	39°22'56.011"N	80°56'24.266"W	3383.18	109.787	1.53	-0.03	1.53	
9505.00	90.180	157.760	6522.38	2304.61	-1233.36	3219.09	1657385.38	14301021.41	39°22'55.141"N	80°56'23.813"W	3447.28	110.964	0.50	0.32	-0.38	
9600.00	89.910	157.670	6522.30	2399.59	-1321.26	3255.12	1657421.39	14300933.54	39°22'54.272"N	80°56'23.354"W	3513.05	112.092	0.30	-0.28	-0.09	
9694.00	89.910	158.020	6522.45	2493.57	-1408.32	3290.57	1657456.82	14300846.52	39°22'53.411"N	80°56'22.904"W	3579.27	113.170	0.37	0.00	0.37	
9789.00	89.910	158.120	6522.60	2588.55	-1496.45	3326.05	1657492.29	14300758.43	39°22'52.540"N	80°56'22.453"W	3647.18	114.224	0.11	0.00	0.11	
9883.00	90.030	157.430	6522.65	2682.53	-1583.46	3361.60	1657527.83	14300671.45	39°22'51.680"N	80°56'22.001"W	3715.87	115.222	0.75	0.13	-0.73	
9977.00	89.970	157.950	6522.70	2776.51	-1670.42	3397.29	1657563.50	14300584.52	39°22'50.820"N	80°56'21.547"W	3785.75	116.183	0.57	-0.13	0.55	
10071.00	89.970	157.640	6522.80	2870.48	-1757.45	3432.81	1657599.01	14300497.52	39°22'49.960"N	80°56'21.095"W	3856.53	117.111	0.34	0.06	-0.33	
10166.00	90.000	157.560	6522.82	2965.46	-1845.28	3469.01	1657635.19	14300409.73	39°22'49.091"N	80°56'20.635"W	3929.27	118.010	0.09	0.03	-0.08	
10261.00	90.030	155.330	6522.75	3060.39	-1932.72	3506.16	1657672.33	14300322.33	39°22'48.227"N	80°56'20.163"W	4003.57	118.865	1.22	0.03	-1.22	
10356.00	90.030	155.330	6522.75	3155.25	-2019.41	3545.01	1657711.16	14300235.67	39°22'47.370"N	80°56'19.669"W	4079.84	119.668	1.13	0.00	-1.13	
10450.00	89.910	157.370	6522.80	3249.14	-2105.51	3582.71	1657748.85	14300149.60	39°22'46.518"N	80°56'19.189"W	4155.60	120.442	2.17	-0.13	2.17	
10545.00	89.970	157.930	6522.89	3344.12	-2193.38	3618.84	1657784.96	14300061.78	39°22'45.650"N	80°56'18.730"W	4231.65	121.220	0.59	0.06	0.59	
10640.00	90.030	157.540	6522.89	3439.09	-2281.29	3654.83	1657820.94	14299973.89	39°22'44.781"N	80°56'18.272"W	4308.37	121.972	0.42	0.06	-0.41	
10734.00	90.000	157.890	6522.87	3533.07	-2368.27	3690.48	1657856.57	14299886.95	39°22'43.921"N	80°56'17.819"W	4385.01	122.689	0.37	-0.03	0.37	
10829.00	89.880	156.750	6522.97	3628.03	-2455.92	3727.11	1657893.18	14299799.33	39°22'43.054"N	80°56'17.354"W	4463.51	123.382	1.21	-0.13	-1.20	
10923.00	89.540	156.590	6523.45	3721.95	-2542.24	3764.33	1657930.40	14299713.05	39°22'42.201"N	80°56'16.880"W	4542.38	124.033	0.40	-0.36	-0.17	
11018.00	90.280	160.510	6523.59	3816.92	-2630.64	3799.07	1657965.11	14299624.69	39°22'41.327"N	80°56'16.439"W	4620.95	124.700	4.20	0.78	4.13	
11113.00	89.540	160.690	6523.74	3911.89	-2720.25	3830.62	1657996.66	14299535.12	39°22'40.441"N	80°56'16.038"W	4698.23	125.380	0.80	-0.78	0.19	
11207.00	89.750	160.570	6524.33	4005.85	-2808.92	3861.80	1658027.82	14299446.48	39°22'39.564"N	80°56'15.641"W	4775.30	126.031	0.26	0.22	-0.13	
11302.00	89.780	160.940	6524.72	4100.80	-2898.61	3893.11	1658059.12	14299356.82	39°22'38.678"N	80°56'15.243"W	4853.69	126.670	0.39	0.03	0.39	
11397.00	89.690	159.280	6525.16	4195.78	-2987.94	3925.43	1658091.43	14299267.53	39°22'37.795"N	80°56'14.833"W	4933.23	127.278	1.75	-0.09	-1.75	
11491.00	89.910	160.380	6525.48	4289.77	-3076.18	3957.84	1658123.82	14299179.33	39°22'36.922"N	80°56'14.421"W	5012.72	127.856	1.19	0.23	1.17	
11586.00	89.940	160.630	6525.61	4384.74	-3165.73	3989.54	1658155.52	14299089.81	39°22'36.037"N	80°56'14.018"W	5092.97	128.432	0.27	0.03	0.26	
11680.00	89.850	159.340	6525.78	4478.72	-3254.05	4021.72	1658187.68	14299001.53	39°22'35.164"N	80°56'13.609"W	5173.30	128.977	1.38	-0.10	-1.37	





# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'  
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #09
Operator	ANTERO RESOURCES CORPORATION		McKim Unit 3H
Area	Tyler County, WV		McKim Unit 3H AWB
Field	Tyler		
Wellbore	Wellbore		
Facility	McKim Pad		

WELLPATH DATA (250 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
11775.00	89.850	158.000	6526.03	4573.72	-3342.54	4056.27	1658222.22	14298913.07	39°22'34.289"N	80°56'13.170"W	5256.03	129.490	1.41	0.00	-1.41	
11869.00	90.090	154.160	6526.08	4667.57	-3428.45	4094.38	1658260.31	14298827.20	39°22'33.440"N	80°56'12.685"W	5340.24	129.941	4.09	0.26	0.26	-4.09
11964.00	89.780	153.780	6526.19	4762.21	-3513.81	4136.07	1658301.98	14298741.87	39°22'32.596"N	80°56'12.155"W	5427.15	130.350	0.52	-0.33	-0.40	
12058.00	89.780	159.180	6526.55	4856.08	-3599.97	4173.56	1658339.46	14298655.75	39°22'31.744"N	80°56'11.678"W	5511.66	130.780	5.74	0.00	5.74	
12153.00	90.000	159.070	6526.73	4951.08	-3688.74	4207.42	1658373.30	14298567.02	39°22'30.866"N	80°56'11.248"W	5595.46	131.242	0.26	0.23	-0.12	
12247.00	89.970	158.780	6526.75	5045.08	-3776.45	4241.22	1658407.09	14298479.34	39°22'29.999"N	80°56'10.818"W	5678.86	131.682	0.31	-0.03	-0.31	
12342.00	89.910	159.940	6526.85	5140.08	-3865.35	4274.70	1658440.56	14298390.48	39°22'29.120"N	80°56'10.393"W	5763.16	132.121	1.22	-0.06	1.22	
12437.00	89.970	162.250	6526.95	5235.01	-3955.22	4305.48	1658471.33	14298300.64	39°22'28.232"N	80°56'10.002"W	5846.45	132.572	2.43	0.06	2.43	
12533.00	89.880	164.330	6527.08	5330.73	-4047.16	4333.08	1658498.92	14298208.74	39°22'27.323"N	80°56'09.651"W	5929.17	133.046	2.17	-0.09	2.17	
12628.00	90.310	163.750	6526.92	5425.37	-4138.50	4359.20	1658525.03	14298117.44	39°22'26.420"N	80°56'09.319"W	6010.81	133.512	0.76	0.45	-0.61	
12722.00	90.370	162.350	6526.36	5519.13	-4228.41	4386.61	1658552.42	14298027.56	39°22'25.531"N	80°56'08.971"W	6092.76	133.948	1.49	0.06	-1.49	
12817.00	90.150	161.410	6525.93	5614.01	-4318.70	4416.15	1658581.95	14297937.31	39°22'24.639"N	80°56'08.596"W	6176.86	134.361	1.02	-0.23	-0.99	
12911.00	90.920	163.690	6525.05	5707.82	-4408.36	4444.34	1658610.13	14297847.68	39°22'23.752"N	80°56'08.238"W	6259.85	134.767	2.56	0.82	2.43	
13006.00	91.050	157.880	6523.42	5802.72	-4498.01	4475.59	1658641.36	14297758.06	39°22'22.866"N	80°56'07.841"W	6345.31	135.143	6.12	0.14	-6.12	
13101.00	90.370	155.400	6522.24	5897.62	-4585.21	4513.25	1658679.01	14297670.90	39°22'22.004"N	80°56'07.362"W	6433.79	135.453	2.71	-0.72	-2.61	
13195.00	90.220	153.680	6521.76	5991.33	-4670.08	4553.65	1658719.40	14297586.07	39°22'21.165"N	80°56'06.848"W	6522.69	135.723	1.84	-0.16	-1.83	
13290.00	90.250	153.620	6521.37	6085.91	-4755.21	4595.82	1658761.55	14297500.97	39°22'20.323"N	80°56'06.312"W	6613.14	135.977	0.07	0.03	-0.06	
13385.00	90.280	153.890	6520.93	6180.51	-4840.42	4637.83	1658803.54	14297415.80	39°22'19.481"N	80°56'05.778"W	6703.66	136.224	0.29	0.03	0.28	
13480.00	89.910	153.590	6520.77	6275.11	-4925.61	4679.86	1658845.56	14297330.64	39°22'18.638"N	80°56'05.243"W	6794.32	136.466	0.50	-0.39	-0.32	
13575.00	90.550	152.980	6520.39	6369.64	-5010.47	4722.57	1658888.25	14297245.82	39°22'17.799"N	80°56'04.700"W	6885.31	136.694	0.93	0.67	-0.64	
13670.00	89.970	153.810	6519.96	6464.18	-5095.41	4765.11	1658930.77	14297160.91	39°22'16.959"N	80°56'04.159"W	6976.35	136.918	1.07	-0.61	0.87	
13765.00	89.690	159.920	6520.24	6559.07	-5182.73	4802.42	1658988.07	14297073.63	39°22'16.096"N	80°56'03.685"W	7065.68	137.181	6.44	-0.29	6.43	
13861.00	90.030	164.010	6520.48	6654.92	-5273.99	4832.13	1658997.77	14296982.40	39°22'15.194"N	80°56'03.308"W	7152.94	137.503	4.28	0.35	4.26	
13956.00	90.060	163.290	6520.40	6749.61	-5365.15	4858.88	1659024.50	14296891.28	39°22'14.293"N	80°56'02.968"W	7238.33	137.835	0.76	0.03	-0.76	
14051.00	89.750	163.560	6520.56	6844.32	-5456.20	4885.98	1659051.59	14296800.26	39°22'13.393"N	80°56'02.624"W	7324.13	138.156	0.43	-0.33	0.28	
14145.00	89.820	162.940	6520.91	6938.06	-5546.21	4913.07	1659078.67	14296710.29	39°22'12.503"N	80°56'02.280"W	7409.36	138.464	0.66	0.07	-0.66	
14239.00	89.660	165.200	6521.34	7031.69	-5636.59	4938.87	1659104.46	14296619.94	39°22'11.609"N	80°56'01.952"W	7494.24	138.775	2.41	-0.17	2.40	
14334.00	90.280	166.900	6521.39	7125.97	-5728.79	4961.77	1659127.35	14296527.79	39°22'10.698"N	80°56'01.661"W	7578.79	139.104	1.90	0.65	1.79	
14430.00	89.780	163.750	6521.34	7221.38	-5821.64	4986.08	1659151.66	14296434.97	39°22'09.780"N	80°56'01.352"W	7665.02	139.421	3.32	-0.52	-3.28	
14525.00	89.720	162.280	6521.75	7316.14	-5912.50	5013.83	1659179.39	14296344.15	39°22'08.882"N	80°56'01.000"W	7752.17	139.702	1.55	-0.06	-1.55	





# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Tyler County, WV	Well	McKim Unit 3H
Field	Tyler	Wellbore	McKim Unit 3H AWB
Facility	McKim Pad		

## WELLPATH DATA (250 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)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
14620.00	89.750	158.730	6522.19	7411.09	-6002.03	5045.53	1659211.08	14296254.65	39°22'07.997"N	80°56'00.597"W	7841.03	139.948	3.74	0.03	-3.74	
14715.00	89.660	160.940	6522.68	7506.08	-6091.20	5078.28	1659243.81	14296169.51	39°22'07.115"N	80°56'00.181"W	7930.43	140.182	2.33	-0.03	2.33	
14810.00	89.720	155.290	6523.20	7601.02	-6179.32	5113.68	1659279.20	14296077.43	39°22'06.244"N	80°55'59.731"W	8020.83	140.391	5.95	0.06	-5.95	
14905.00	89.600	158.270	6523.76	7695.94	-6266.61	5151.13	1659316.63	14295990.17	39°22'05.381"N	80°55'59.255"W	8112.00	140.580	3.14	-0.13	3.14	
15000.00	89.780	156.240	6524.27	7790.89	-6354.22	5187.85	1659353.34	14295902.60	39°22'04.515"N	80°55'58.788"W	8203.04	140.770	2.15	0.19	-2.14	
15095.00	89.660	155.020	6524.74	7885.72	-6440.75	5227.05	1659392.53	14295816.10	39°22'03.659"N	80°55'58.290"W	8294.90	140.939	1.29	-0.13	1.28	
15189.00	89.850	156.520	6525.14	7979.57	-6526.47	5265.63	1659431.09	14295730.42	39°22'02.812"N	80°55'57.800"W	8385.80	141.103	1.61	0.20	1.60	
15284.00	90.710	158.730	6524.68	8074.53	-6614.31	5301.79	1659467.23	14295642.62	39°22'01.943"N	80°55'57.340"W	8476.91	141.286	2.50	0.91	2.33	
15378.00	90.340	158.210	6523.81	8168.52	-6701.75	5336.28	1659501.71	14295555.22	39°22'01.079"N	80°55'56.902"W	8566.76	141.471	0.68	-0.39	-0.55	
15473.00	90.250	156.520	6523.33	8263.48	-6789.43	5372.84	1659538.26	14295467.57	39°22'00.212"N	80°55'56.437"W	8658.16	141.644	1.78	-0.09	-1.78	
15567.00	90.550	156.390	6522.67	8357.38	-6875.60	5410.39	1659575.78	14295381.44	39°21'59.360"N	80°55'55.960"W	8749.07	141.801	0.35	0.32	-0.14	
15661.00	89.880	155.750	6522.32	8451.26	-6961.52	5448.52	1659610.31	14295295.55	39°21'58.511"N	80°55'55.475"W	8840.20	141.951	0.99	-0.71	-0.68	
15756.00	89.780	158.870	6522.60	8546.20	-7049.15	5485.16	1659646.35	14295207.95	39°21'57.644"N	80°55'55.009"W	8931.83	142.112	3.29	-0.11	3.28	
15851.00	90.180	159.410	6522.63	8641.20	-7137.92	5518.99	1659684.35	14295119.21	39°21'56.767"N	80°55'54.580"W	9022.70	142.289	0.71	0.42	0.57	
15947.00	90.220	159.760	6522.30	8737.20	-7227.89	5552.47	1659717.82	14295029.28	39°21'55.877"N	80°55'54.154"W	9114.41	142.468	0.37	0.04	0.36	
16041.00	90.030	160.340	6522.09	8831.18	-7316.25	5584.55	1659749.88	14294940.96	39°21'55.004"N	80°55'53.747"W	9204.06	142.645	0.65	-0.20	0.62	
16136.00	90.120	161.690	6521.97	8926.12	-7406.08	5615.45	1659780.77	14294851.16	39°21'54.115"N	80°55'53.354"W	9294.27	142.830	1.42	0.09	1.42	
16230.00	89.940	164.180	6521.92	9019.89	-7495.94	5643.03	1659808.34	14294761.35	39°21'53.227"N	80°55'53.004"W	9382.59	143.027	2.66	-0.19	2.65	
16325.00	89.310	164.740	6521.71	9114.46	-7587.46	5668.49	1659833.78	14294669.86	39°21'52.322"N	80°55'52.681"W	9471.08	143.237	0.71	0.39	0.59	
16420.00	90.550	158.960	6521.00	9209.30	-7677.70	5698.07	1659863.35	14294579.66	39°21'51.430"N	80°55'52.305"W	9561.12	143.419	6.09	0.25	-6.08	
16514.00	89.910	154.920	6520.62	9303.22	-7764.17	5734.88	1659890.15	14294493.22	39°21'50.575"N	80°55'51.837"W	9652.52	143.549	4.35	-0.66	-4.30	
16609.00	89.880	155.260	6520.79	9398.00	-7850.33	5774.89	1659940.14	14294407.10	39°21'49.724"N	80°55'51.328"W	9745.61	143.661	0.36	-0.03	0.36	
16704.00	89.820	154.980	6521.04	9492.78	-7936.51	5814.86	1659980.10	14294320.95	39°21'48.871"N	80°55'50.820"W	9838.74	143.771	0.30	-0.06	-0.29	
16799.00	89.940	156.240	6521.24	9587.61	-8023.03	5854.09	1660019.31	14294234.46	39°21'48.016"N	80°55'50.322"W	9931.73	143.883	1.33	0.13	1.33	
16893.00	90.000	155.520	6521.29	9681.47	-8108.82	5892.50	1660057.71	14294148.71	39°21'47.168"N	80°55'49.833"W	10023.70	143.995	0.77	0.06	-0.77	
16987.00	89.970	156.710	6521.31	9775.35	-8194.77	5930.56	1660095.75	14294062.79	39°21'46.318"N	80°55'49.350"W	10115.62	144.107	1.27	-0.03	1.27	
17082.00	90.120	157.820	6521.24	9870.30	-8282.39	5967.27	1660132.45	14293975.21	39°21'45.452"N	80°55'48.883"W	10208.15	144.228	1.18	0.16	1.17	
17176.00	89.940	158.970	6521.19	9964.29	-8369.78	6001.89	1660167.05	14293887.85	39°21'44.588"N	80°55'48.443"W	10299.31	144.356	1.24	-0.19	1.22	
17272.00	89.970	160.840	6521.27	10060.28	-8459.93	6034.87	1660200.02	14293797.73	39°21'43.696"N	80°55'48.024"W	10391.83	144.498	1.95	0.03	1.95	
17366.00	89.780	163.220	6521.47	10154.14	-8549.34	6063.87	1660229.00	14293708.36	39°21'42.813"N	80°55'47.656"W	10481.49	144.653	2.54	-0.20	2.53	





# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Tyler County, WV	Well	McKim Unit 3H
Field	Tyler	Wellbore	McKim Unit 3H AWB
Facility	McKim Pad		

## WELLPATH DATA (250 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)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
17461.00	90.000	163.680	6521.65	10248.85	-8640.41	6090.93	1660256.05	14293617.34	39°21'41.912"N	80°55'47.312"W	10571.47	144.819	0.54	0.23	0.48	
17557.00	89.850	159.510	6521.78	10344.74	-8731.48	6121.23	1660286.35	14293526.30	39°21'41.012"N	80°55'46.927"W	10663.40	144.957	4.35	-0.16	-4.34	
17652.00	89.910	155.920	6521.98	10439.70	-8819.37	6157.25	1660322.35	14293438.45	39°21'40.143"N	80°55'46.470"W	10756.06	145.079	3.78	0.06	-3.78	
17747.00	89.880	156.490	6522.15	10534.58	-8906.29	6195.58	1660360.66	14293351.56	39°21'39.284"N	80°55'45.983"W	10849.29	145.176	0.60	-0.03	0.60	
17842.00	89.940	158.650	6522.30	10629.55	-8994.10	6231.82	1660396.89	14293263.79	39°21'38.415"N	80°55'45.522"W	10942.09	145.283	2.27	0.06	2.27	
17937.00	90.000	157.720	6522.35	10724.53	-9082.29	6267.13	1660432.18	14293175.63	39°21'37.543"N	80°55'45.074"W	11034.71	145.393	0.98	0.06	-0.98	
18031.00	90.000	157.640	6522.35	10818.51	-9169.25	6302.83	1660467.87	14293088.70	39°21'36.684"N	80°55'44.620"W	11126.58	145.496	0.09	0.00	-0.09	
18125.00	89.820	157.630	6522.50	10912.48	-9256.18	6338.59	1660503.62	14293001.81	39°21'35.824"N	80°55'44.165"W	11218.49	145.597	0.19	-0.19	-0.01	
18221.00	89.940	160.530	6522.70	11008.47	-9345.84	6372.87	1660537.88	14292912.18	39°21'34.938"N	80°55'43.730"W	11311.86	145.710	3.02	0.12	3.02	
18316.00	90.000	160.780	6522.75	11103.43	-9435.48	6404.34	1660569.34	14292822.58	39°21'34.052"N	80°55'43.330"W	11403.67	145.833	0.27	0.06	0.26	
18411.00	90.030	160.950	6522.73	11198.38	-9525.23	6435.48	1660600.47	14292732.87	39°21'33.164"N	80°55'42.935"W	11495.45	145.956	0.18	0.03	0.18	
18506.00	90.060	159.140	6522.65	11293.36	-9614.52	6467.90	1660632.87	14292643.61	39°21'32.282"N	80°55'42.523"W	11587.61	146.070	1.91	0.03	-1.91	
18601.00	89.940	159.260	6522.65	11388.36	-9703.33	6501.63	1660666.60	14292554.84	39°21'31.404"N	80°55'42.094"W	11680.15	146.176	0.18	-0.13	0.13	
18696.00	89.970	155.460	6522.73	11483.31	-9790.99	6538.20	1660703.14	14292467.21	39°21'30.537"N	80°55'41.630"W	11773.34	146.266	4.00	0.03	-4.00	
18792.00	89.910	153.600	6522.83	11579.01	-9877.66	6579.48	1660744.41	14292380.58	39°21'29.680"N	80°55'41.105"W	11868.35	146.333	1.94	-0.06	-1.94	
18887.00	89.910	151.470	6522.98	11673.40	-9961.95	6623.29	1660788.20	14292296.33	39°21'28.847"N	80°55'40.548"W	11962.79	146.382	2.24	0.00	-2.24	
18982.00	89.880	152.960	6523.15	11767.73	-10045.99	6667.57	1660832.47	14292212.32	39°21'28.016"N	80°55'39.985"W	12057.30	146.428	1.57	-0.03	1.57	
19077.00	90.000	156.640	6523.25	11862.45	-10131.93	6708.01	1660872.89	14292126.41	39°21'27.166"N	80°55'39.471"W	12151.28	146.493	3.88	0.13	3.87	
19172.00	89.970	159.610	6523.27	11957.43	-10220.08	6743.41	1660908.27	14292038.29	39°21'26.294"N	80°55'39.021"W	12244.33	146.582	3.13	-0.03	-0.23	
19266.00	89.940	159.390	6523.35	12051.43	-10308.13	6776.33	1660941.18	14291950.28	39°21'25.424"N	80°55'38.603"W	12335.97	146.680	0.24	-0.03	0.23	
19362.00	89.940	158.880	6523.45	12147.43	-10397.84	6810.52	1660975.36	14291860.61	39°21'24.537"N	80°55'38.169"W	12429.73	146.775	0.53	0.00	-0.53	
19456.00	90.030	159.220	6523.40	12241.43	-10485.67	6843.99	1661008.81	14291772.81	39°21'23.669"N	80°55'37.744"W	12521.56	146.868	0.56	0.10	0.55	
19552.00	90.060	159.220	6523.40	12337.43	-10575.48	6877.91	1661042.72	14291683.04	39°21'22.781"N	80°55'37.313"W	12615.33	146.961	0.19	0.03	-0.19	
19647.00	89.910	160.230	6523.42	12432.42	-10664.60	6910.83	1661075.63	14291593.96	39°21'21.900"N	80°55'36.895"W	12707.99	147.056	1.07	-0.16	1.06	
19743.00	89.970	161.730	6523.52	12526.36	-10753.46	6941.46	1661106.25	14291505.13	39°21'21.021"N	80°55'36.506"W	12799.25	147.157	1.60	0.06	1.60	
19838.00	89.940	162.490	6523.60	12621.22	-10843.87	6970.64	1661135.42	14291414.76	39°21'20.127"N	80°55'36.135"W	12891.06	147.266	0.80	-0.03	0.80	
19931.00	90.120	163.760	6523.55	12715.97	-10934.77	6998.22	1661162.98	14291323.89	39°21'19.229"N	80°55'35.785"W	12982.46	147.361	1.35	0.13	1.34	
20025.00	89.940	163.390	6523.50	12809.67	-11024.94	7024.80	1661189.55	14291233.76	39°21'18.337"N	80°55'35.447"W	13072.76	147.496	0.44	-0.19	-0.39	
20120.00	90.000	162.850	6523.55	12904.43	-11115.84	7052.38	1661217.13	14291142.89	39°21'17.438"N	80°55'35.097"W	13164.27	147.607	0.57	0.06	-0.57	
20214.00	90.000	161.430	6523.55	12998.29	-11206.31	7081.21	1661245.94	14291053.46	39°21'16.554"N	80°55'34.731"W	13255.29	147.709	1.51	0.00	-1.51	





# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Tyler County, WV	Well	McKim Unit 3H
Field	Tyler	Wellbore	McKim Unit 3H AWB
Facility	McKim Pad		

### WELLPATH DATA (250 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
20309.00	90.000	159.830	6523.55	13093.25	-11294.93	7112.72	1661277.44	14290863.88	39°21'15.668"N	80°55'34.331"W	13347.89	147.800	1.68	0.00	-1.68	
20403.00	90.000	158.260	6523.55	13187.24	-11382.71	7146.34	1661311.04	14290876.13	39°21'14.800"N	80°55'33.904"W	13440.10	147.878	1.67	0.00	-1.67	
20497.00	89.910	158.940	6523.62	13281.21	-11469.62	7182.16	1661348.85	14290789.26	39°21'13.941"N	80°55'33.449"W	13532.76	147.946	1.41	-0.10	-1.40	
20592.00	89.940	158.020	6523.74	13376.12	-11556.72	7220.07	1661384.74	14290702.19	39°21'13.080"N	80°55'32.967"W	13626.71	148.005	0.97	0.03	-0.97	
20686.00	90.000	156.860	6523.79	13470.02	-11642.89	7257.64	1661422.30	14290616.06	39°21'12.228"N	80°55'32.490"W	13719.70	148.062	0.90	0.06	0.89	
20781.00	90.060	157.130	6523.74	13564.96	-11730.33	7294.77	1661459.41	14290528.65	39°21'11.363"N	80°55'32.018"W	13813.56	148.124	0.29	0.06	0.28	
20876.00	90.000	158.470	6523.69	13659.94	-11818.29	7330.66	1661495.29	14290440.73	39°21'10.494"N	80°55'31.562"W	13907.21	148.189	1.41	-0.06	1.41	
20970.00	90.060	160.270	6523.64	13753.93	-11906.26	7363.78	1661528.39	14290352.80	39°21'09.624"N	80°55'31.141"W	13999.43	148.264	1.92	0.06	1.91	
20992.00	90.000	159.980	6523.63	13775.93	-11926.95	7371.26	1661535.87	14290332.12	39°21'09.419"N	80°55'31.046"W	14020.97	148.283	1.35	-0.27	-1.32	
21016.00	90.000	159.980	6523.63	13799.93	-11949.50	7379.47	1661544.08	14290309.58	39°21'09.196"N	80°55'30.942"W	14044.47	148.302	0.00	0.00	0.00	Projected MD @ TD: 21016'MD / 6524'TVD

### HOLE & CASING SECTIONS - Ref Wellbore: McKim Unit 3H AWB Ref Wellpath: McKim Unit 3H AWP Proj: 21016'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	End N/S [ft]	Start E/W [ft]	End E/W [ft]
20in Conductor	32.00	112.00	80.00	32.00	112.00	0.00	0.00	0.00	-0.05
17.5in Open Hole	112.00	551.00	439.00	112.00	550.99	-0.10	-0.05	-0.10	-0.88
13.375in Casing Surface	32.00	551.00	519.00	32.00	550.99	0.00	0.00	0.00	-0.88
12.25in Open Hole	551.00	2678.10	2127.10	550.99	2607.38	-2.80	-0.88	-2.80	436.75
9.625in Casing Intermediate	32.00	2678.10	2646.10	32.00	2607.38	0.00	0.00	0.00	436.75
8.75in Open Hole	2678.00	6261.00	3583.00	2607.29	5708.02	224.62	1128.18	436.73	1969.92
8.5in Open Hole	6261.00	21016.00	14755.00	5708.02	6523.63	1128.18	-11949.50	1969.92	7379.47
5.5in Casing Production	32.00	21016.00	20984.00	32.00	6523.63	0.00	-11949.50	0.00	7379.47





# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Tyler County, WV	Well	McKim Unit 3H
Field	Tyler	Wellbore	McKim Unit 3H AWB
Facility	McKim Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
McKim Unit 3H POE Rev-2	6486.00	775.46	2483.91	1656650.49	14303029.42	39°23'15.000"N	80°56'33.159"W	point
McKim Unit 3H BHL Rev-1	6520.00	-11689.19	7267.09	1661431.74	14290569.77	39°21'11.770"N	80°55'32.370"W	point
McKim Unit 3H LP Rev-1	6520.00	574.83	2560.90	1656727.44	14302828.87	39°23'13.016"N	80°56'32.180"W	point

WELLPATH COMPOSITION - Ref Wellbore: McKim Unit 3H AWB Ref Wellpath: McKim Unit 3H AWP Proj: 21016'			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
32.00	522.00	Gyrodata standard - Drop gyro or Multi-shot	
522.00	612.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-505')
612.00	2606.00	ISCWSA MWD, Rev. 4 (Standard)	02 Gyrodata MS Gyro <12-1/4">(505')(595')
2606.00	6156.00	ISCWSA MWD, Rev. 4 (Standard)	03 Directional ONE MWD <12-1/4">(595')(649'-2589')
6156.00	20992.00	BHI AutoTrak Curve (Short)	04 Directional ONE MWD <8-3/4">(2589')(2699'-6139')
20992.00	21016.00	Blind Drilling (std)	05 BH AT Curve <8-1/2">(6156')(6261'-20992')
			Projection to bit
			McKim Unit 3H AWB

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# Actual Wellpath Report

McKim Unit 3H AWP Proj: 21016'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Slot	Slot #09	
ANTERO RESOURCES CORPORATION	Well	McKim Unit 3H	
Tyler County, WV	Wellbore	McKim Unit 3H AWB	
Tyler			
McKim Pad			

COMMENTS
<p><b>Wellpath general comments</b>                      API: 47-095-02420-0000                      BH Job #: 8970029                      Rig: Frontier 32                      Duration: 01/21/18 - 01/25/18</p> <p>Gyrodata MS Gyro &lt;17'-1/2"&gt;(100'-505')                      Gyrodata MS Gyro &lt;12'-1/4"&gt;(505')(595')                      Directional ONE MWD &lt;12'-1/4"&gt;(595')(649'-2589')                      Directional ONE MWD &lt;8'-3/4"&gt;(2589')(2699'-6139')                      BH AT Curve &lt;8'-1/2"&gt;(6156')(6261'-20992')                      Sycamore: 6899'MD / 6255'TVD                      Middlesex: 7052'MD / 6355'TVD                      Burket: 7248'MD / 6446'TVD                      Tully: 7319'MD / 6470'TVD                      POE Marcellus: 7366'MD / 6484'TVD                      Projected MD @ ID: 21016'MD / 6524'TVD</p>

05/03/2019