



Actual Wellpath Report

Clipper Unit 1H AWP Proj: 21415'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Clipper Unit 1H
Field	Doddridge	Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999607	Report Generated	11/1/2019 at 9:20:18 AM
Convergence at slot	0.17° East	Database/Source file	WA_MPL_EasternUS_Defn/Clipper_Unit_1H_AWP_Proj_21415_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-16.12	57.82	1715862.49	14274017.11	39°18'27.089"N	80°43'59.813"W
Facility Reference Pt			1715804.69	14274033.23	39°18'27.250"N	80°44'00.548"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 317 (RKB) to Facility Vertical Datum	1308.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1308.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #10)	25.50ft
MD Reference Pt	H&P 317 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.39°

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Area	Doddridge Co., WV		Well	Clipper Unit 1H
Field	Doddridge		Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad			

WELLPATH DATA (253 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00†	0.000	292.080	0.00	0.00	0.00	0.00	1715862.49	14274017.11	39°18'27.089"N	80°43'59.813"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	292.080	25.50	0.00	0.00	0.00	1715862.49	14274017.11	39°18'27.089"N	80°43'59.813"W	0.00	0.000	0.00	0.00	0.00	
50.00	0.380	292.080	50.00	-0.05	0.03	-0.08	1715862.41	14274017.14	39°18'27.089"N	80°43'59.814"W	0.08	292.080	1.55	1.55	-277.22	Gyrodata MS Gyro <17-1/2"> (50'-568')
75.00	0.370	304.730	75.00	-0.17	0.11	-0.22	1715862.27	14274017.22	39°18'27.090"N	80°43'59.816"W	0.24	296.242	0.33	-0.04	50.60	
100.00	0.450	303.880	100.00	-0.31	0.21	-0.37	1715862.12	14274017.32	39°18'27.091"N	80°43'59.818"W	0.42	299.638	0.32	0.32	-3.40	
125.00	0.330	303.110	125.00	-0.45	0.30	-0.51	1715861.98	14274017.41	39°18'27.092"N	80°43'59.819"W	0.59	300.764	0.48	-0.48	-3.08	
150.00	0.250	275.560	150.00	-0.53	0.35	-0.62	1715861.87	14274017.46	39°18'27.092"N	80°43'59.821"W	0.71	299.134	0.63	-0.32	-110.20	
175.00	0.120	260.260	175.00	-0.55	0.35	-0.70	1715861.79	14274017.46	39°18'27.092"N	80°43'59.822"W	0.78	296.339	0.55	-0.52	-61.20	
200.00	0.140	246.270	200.00	-0.56	0.33	-0.76	1715861.73	14274017.44	39°18'27.092"N	80°43'59.823"W	0.83	293.643	0.15	0.08	-55.96	
225.00	0.220	233.550	225.00	-0.54	0.29	-0.82	1715861.67	14274017.40	39°18'27.092"N	80°43'59.824"W	0.87	289.433	0.36	0.32	-50.88	
250.00	0.180	233.040	250.00	-0.51	0.24	-0.89	1715861.60	14274017.35	39°18'27.091"N	80°43'59.824"W	0.92	284.938	0.16	-0.16	-2.04	
275.00	0.180	220.890	275.00	-0.48	0.18	-0.95	1715861.54	14274017.29	39°18'27.091"N	80°43'59.825"W	0.97	281.016	0.15	0.00	-48.60	
300.00	0.160	207.620	300.00	-0.43	0.12	-0.99	1715861.50	14274017.23	39°18'27.090"N	80°43'59.826"W	1.00	277.145	0.18	-0.08	-53.08	
325.00	0.180	194.720	325.00	-0.38	0.06	-1.02	1715861.47	14274017.17	39°18'27.090"N	80°43'59.826"W	1.02	273.117	0.17	0.08	-51.60	
350.00	0.210	192.510	350.00	-0.31	-0.03	-1.04	1715861.45	14274017.08	39°18'27.089"N	80°43'59.826"W	1.04	268.496	0.12	0.12	-8.84	
375.00	0.250	170.580	375.00	-0.21	-0.13	-1.04	1715861.45	14274016.98	39°18'27.088"N	80°43'59.826"W	1.05	263.098	0.38	0.16	-87.72	
400.00	0.280	174.030	400.00	-0.10	-0.24	-1.02	1715861.47	14274016.87	39°18'27.087"N	80°43'59.826"W	1.05	256.789	0.14	0.12	13.80	
425.00	0.380	163.820	425.00	0.04	-0.38	-0.99	1715861.50	14274016.73	39°18'27.085"N	80°43'59.826"W	1.06	249.050	0.46	0.40	-40.84	
450.00	0.450	161.070	450.00	0.22	-0.55	-0.94	1715861.55	14274016.56	39°18'27.084"N	80°43'59.825"W	1.09	239.508	0.29	0.28	-11.00	
471.00	0.760	163.830	470.99	0.45	-0.76	-0.87	1715861.62	14274016.35	39°18'27.081"N	80°43'59.824"W	1.16	228.803	1.48	1.48	13.14	
568.00	0.660	136.310	567.99	1.59	-1.79	-0.31	1715862.18	14274015.32	39°18'27.071"N	80°43'59.817"W	1.81	189.807	0.36	-0.10	-28.37	
687.00	3.460	80.320	686.90	2.77	-1.68	3.71	1715866.19	14274015.43	39°18'27.072"N	80°43'59.766"W	4.07	114.371	2.64	2.35	-47.05	APS EM <12-1/4"> (568')(687'-2534')
782.00	5.010	61.310	781.65	2.49	0.80	10.17	1715872.66	14274017.90	39°18'27.097"N	80°43'59.684"W	10.20	85.530	2.18	1.63	-20.01	
877.00	6.710	48.880	876.15	-0.36	6.44	17.99	1715880.47	14274023.54	39°18'27.152"N	80°43'59.584"W	19.11	70.314	2.22	1.79	-13.08	
965.00	9.750	34.260	963.24	-6.83	15.98	26.06	1715888.54	14274033.08	39°18'27.246"N	80°43'59.481"W	30.57	58.486	4.17	3.45	-16.61	
1061.00	7.710	48.640	1058.14	-14.23	26.96	35.47	1715897.95	14274044.06	39°18'27.354"N	80°43'59.361"W	44.55	52.769	3.10	-2.12	14.98	
1156.00	7.890	56.180	1152.26	-18.40	34.80	45.67	1715908.15	14274051.89	39°18'27.432"N	80°43'59.231"W	57.42	52.699	1.09	0.19	7.94	
1251.00	6.880	57.840	1246.47	-21.44	41.45	55.91	1715918.38	14274058.55	39°18'27.497"N	80°43'59.100"W	69.60	53.444	1.09	-1.06	1.75	
1346.00	3.890	55.660	1341.04	-23.65	46.30	63.39	1715925.85	14274063.39	39°18'27.545"N	80°43'59.005"W	78.50	53.854	3.15	-3.15	-2.29	
1441.00	1.230	53.290	1435.94	-24.84	48.73	66.87	1715929.33	14274065.82	39°18'27.569"N	80°43'58.961"W	82.74	53.917	2.80	-2.80	-2.49	

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Area	Doddridge Co., WV		Well	Clipper Unit 1H
Field	Doddridge		Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad			

WELLPATH DATA (253 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
1536.00	0.170	105.130	1530.93	-25.08	49.30	67.82	1715930.28	14274066.39	39°18'27.574"N	80°43'58.948"W	83.85	53.985	1.19	-1.12	54.57	
1630.00	0.360	185.770	1624.93	-24.73	48.97	67.93	1715930.39	14274066.06	39°18'27.571"N	80°43'58.947"W	83.74	54.209	0.40	0.20	85.79	
1725.00	0.460	183.420	1719.93	-24.11	48.29	67.87	1715930.34	14274065.39	39°18'27.564"N	80°43'58.948"W	83.30	54.566	0.11	0.11	-2.47	
1820.00	0.530	175.400	1814.92	-23.33	47.48	67.89	1715930.35	14274064.57	39°18'27.556"N	80°43'58.948"W	82.84	55.033	0.10	0.07	-8.44	
1915.00	0.870	169.840	1909.92	-22.18	46.36	68.17	1715930.63	14274063.45	39°18'27.545"N	80°43'58.944"W	82.44	55.781	0.41	0.36	-16.38	
2010.00	1.060	121.210	2004.90	-20.79	45.23	69.17	1715931.63	14274062.32	39°18'27.534"N	80°43'58.931"W	82.64	56.820	0.70	0.20	-40.66	
2105.00	2.290	117.990	2099.86	-18.74	43.88	71.60	1715934.06	14274060.98	39°18'27.521"N	80°43'58.901"W	83.97	58.495	1.30	1.29	-3.39	
2199.00	3.440	104.640	2193.74	-15.83	42.29	75.98	1715938.44	14274059.38	39°18'27.505"N	80°43'58.845"W	86.96	60.902	1.41	1.22	-14.20	
2294.00	3.000	85.610	2288.60	-13.66	41.76	81.22	1715943.68	14274058.85	39°18'27.499"N	80°43'58.778"W	91.33	62.791	1.21	-0.46	-20.03	
2389.00	2.270	31.340	2383.51	-14.26	43.56	84.68	1715947.13	14274060.65	39°18'27.517"N	80°43'58.734"W	95.22	62.780	2.62	-0.77	-57.13	
2484.00	2.520	351.100	2478.43	-17.52	47.23	85.33	1715947.79	14274064.32	39°18'27.553"N	80°43'58.726"W	97.53	61.039	1.75	0.26	-42.36	
2534.00	2.790	329.550	2528.38	-19.80	49.36	84.55	1715947.00	14274066.45	39°18'27.574"N	80°43'58.736"W	97.90	59.722	2.05	0.54	-43.10	
2645.00	2.950	309.750	2639.24	-24.88	53.52	80.98	1715943.44	14274070.61	39°18'27.616"N	80°43'58.781"W	97.07	56.541	0.90	0.14	-17.84	APS EM <8-3/4"> (2534')(2645'-6349')
2740.00	3.510	35.030	2734.14	-28.68	57.46	80.77	1715943.23	14274074.55	39°18'27.655"N	80°43'58.783"W	99.13	54.571	4.63	0.59	89.77	
2834.00	8.360	41.500	2827.61	-33.80	64.94	86.95	1715949.41	14274082.03	39°18'27.728"N	80°43'58.704"W	108.53	53.246	5.20	5.16	6.88	
2929.00	8.400	35.540	2921.59	-41.30	75.76	95.56	1715958.02	14274092.84	39°18'27.835"N	80°43'58.594"W	121.95	51.594	0.91	0.04	-6.27	
3027.00	7.230	35.680	3018.68	-49.09	86.59	103.32	1715965.77	14274103.67	39°18'27.942"N	80°43'58.495"W	134.81	50.034	1.19	-1.19	0.14	
3122.00	8.330	50.280	3112.82	-55.06	95.85	112.10	1715974.55	14274112.92	39°18'28.033"N	80°43'58.383"W	147.49	49.469	2.37	1.16	15.37	
3217.00	10.780	62.960	3206.50	-58.84	104.29	125.31	1715987.75	14274121.36	39°18'28.116"N	80°43'58.215"W	163.03	50.232	3.39	2.58	13.35	
3312.00	14.020	68.290	3299.28	-60.77	112.59	143.92	1716006.36	14274129.65	39°18'28.198"N	80°43'57.978"W	182.73	51.965	3.61	3.41	5.61	
3406.00	16.820	66.660	3389.88	-62.51	122.19	166.99	1716029.42	14274139.25	39°18'28.292"N	80°43'57.684"W	206.92	53.807	3.01	2.98	-1.73	
3501.00	20.550	64.640	3479.86	-65.60	134.78	194.69	1716057.10	14274151.84	39°18'28.415"N	80°43'57.331"W	236.79	55.306	3.98	3.93	-2.13	
3596.00	23.910	62.070	3567.79	-70.68	150.94	226.78	1716089.18	14274167.99	39°18'28.574"N	80°43'56.922"W	272.42	56.352	3.68	3.54	-2.71	
3691.00	22.880	59.200	3654.98	-77.70	169.42	259.65	1716122.04	14274186.46	39°18'28.756"N	80°43'56.503"W	310.03	56.876	1.62	-1.08	-3.02	
3786.00	24.490	57.820	3741.98	-86.22	189.36	292.18	1716154.56	14274206.40	39°18'28.952"N	80°43'56.089"W	348.18	57.053	1.79	1.69	-1.45	
3881.00	24.130	55.310	3828.56	-96.22	210.90	324.82	1716187.18	14274227.93	39°18'29.164"N	80°43'55.673"W	387.28	57.004	1.15	-0.38	-2.64	
3976.00	24.330	55.630	3915.19	-106.91	233.00	356.94	1716219.28	14274250.02	39°18'29.381"N	80°43'55.263"W	426.25	56.864	0.25	0.21	0.34	
4071.00	25.000	52.540	4001.52	-118.71	256.26	389.02	1716251.36	14274273.27	39°18'29.610"N	80°43'54.854"W	465.84	56.626	1.53	0.71	-3.25	
4165.00	23.550	48.500	4087.21	-132.44	280.79	418.86	1716281.18	14274297.79	39°18'29.852"N	80°43'54.474"W	504.27	56.164	2.34	-1.54	-4.30	
4260.00	24.210	46.830	4174.08	-147.92	306.69	447.28	1716309.59	14274323.68	39°18'30.107"N	80°43'54.111"W	542.33	55.562	0.99	0.69	-1.76	

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Field	Doddridge		Wellbore	Clipper Unit 1H AWB
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WELLPATH DATA (253 stations)																
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4355.00	25.050	49.770	4260.44	-163.42	333.01	476.84	1716339.15	14274349.99	39°18'30.366"N	80°43'53.734"W	581.61	55.071	1.56	0.88	3.09	
4449.00	26.850	52.520	4344.96	-177.62	358.78	508.89	1716371.17	14274375.75	39°18'30.620"N	80°43'53.326"W	622.65	54.815	2.30	1.91	2.93	
4544.00	28.110	56.070	4429.25	-190.48	384.33	544.48	1716406.76	14274401.29	39°18'30.872"N	80°43'52.872"W	666.46	54.783	2.17	1.33	3.74	
4639.00	26.660	51.190	4513.61	-203.75	410.18	579.67	1716441.93	14274427.13	39°18'31.126"N	80°43'52.423"W	710.12	54.716	2.81	-1.53	-5.14	
4734.00	27.210	54.840	4598.31	-217.30	436.05	614.04	1716476.28	14274452.99	39°18'31.381"N	80°43'51.985"W	753.11	54.620	1.83	0.58	3.84	
4829.00	28.460	62.260	4682.34	-227.08	459.10	651.84	1716514.07	14274476.03	39°18'31.607"N	80°43'51.503"W	797.29	54.842	3.87	1.32	7.81	
4927.00	27.600	58.800	4768.85	-235.73	481.73	691.93	1716554.14	14274498.65	39°18'31.830"N	80°43'50.992"W	843.11	55.154	1.88	-0.88	-3.53	
5022.00	26.060	54.630	4853.63	-246.55	505.22	727.77	1716589.97	14274522.13	39°18'32.061"N	80°43'50.535"W	885.94	55.232	2.56	-1.62	-4.39	
5117.00	24.340	48.920	4939.60	-260.05	530.17	759.55	1716621.74	14274547.07	39°18'32.307"N	80°43'50.130"W	926.28	55.085	3.13	-1.81	-6.01	
5212.00	22.380	53.290	5026.82	-273.16	553.84	788.81	1716650.99	14274570.74	39°18'32.540"N	80°43'49.757"W	963.83	54.926	2.75	-2.06	4.60	
5306.00	21.480	59.480	5114.02	-282.27	573.28	817.99	1716680.16	14274590.17	39°18'32.731"N	80°43'49.385"W	998.88	54.975	2.64	-0.96	6.59	
5401.00	20.660	57.100	5202.67	-290.00	591.22	847.05	1716709.20	14274608.10	39°18'32.908"N	80°43'49.015"W	1032.97	55.086	1.25	-0.86	-2.51	
5496.00	19.610	52.520	5291.87	-299.29	610.03	873.77	1716735.91	14274626.90	39°18'33.093"N	80°43'48.674"W	1065.65	55.079	1.99	-1.11	-4.82	
5591.00	21.020	50.880	5380.96	-310.41	630.48	899.64	1716761.78	14274647.34	39°18'33.294"N	80°43'48.344"W	1098.57	54.977	1.60	1.48	-1.73	
5686.00	22.040	57.080	5469.34	-320.79	650.92	927.83	1716789.95	14274667.77	39°18'33.495"N	80°43'47.985"W	1133.38	54.948	2.62	1.07	6.53	
5780.00	21.820	54.970	5556.54	-330.09	670.53	956.94	1716819.05	14274687.38	39°18'33.688"N	80°43'47.614"W	1168.48	54.981	0.87	-0.23	-2.24	
5875.00	19.960	50.910	5645.30	-340.75	690.89	983.98	1716846.08	14274707.73	39°18'33.889"N	80°43'47.269"W	1202.31	54.926	2.48	-1.96	-4.27	
5970.00	21.860	52.110	5734.04	-352.27	711.98	1010.53	1716872.62	14274728.81	39°18'34.096"N	80°43'46.930"W	1236.16	54.833	2.05	2.00	1.26	
6065.00	22.970	55.180	5821.86	-363.28	733.43	1039.71	1716901.78	14274750.25	39°18'34.307"N	80°43'46.558"W	1272.36	54.800	1.70	1.17	3.23	
6160.00	23.700	58.880	5909.10	-372.59	753.88	1071.27	1716933.34	14274770.69	39°18'34.509"N	80°43'46.156"W	1309.95	54.865	1.72	0.77	3.89	
6255.00	26.620	55.170	5995.08	-382.68	775.91	1105.10	1716967.15	14274792.72	39°18'34.725"N	80°43'45.725"W	1350.29	54.926	3.49	3.07	-3.91	
6349.00	27.750	56.860	6078.70	-394.05	799.90	1140.71	1717002.75	14274816.70	39°18'34.961"N	80°43'45.271"W	1393.22	54.961	1.46	1.20	1.80	
6402.00	27.740	55.470	6125.60	-400.53	813.64	1161.20	1717023.23	14274830.43	39°18'35.097"N	80°43'45.010"W	1417.89	54.981	1.22	-0.02	-2.62	BH AT Curve <8-1/2">(6349')(6402'-21390')
6486.00	24.130	56.510	6201.13	-410.31	834.20	1191.64	1717053.66	14274850.98	39°18'35.299"N	80°43'44.622"W	1454.61	55.006	4.33	-4.30	1.24	
6581.00	23.830	62.920	6287.95	-418.12	853.66	1224.92	1717086.93	14274870.43	39°18'35.490"N	80°43'44.197"W	1493.04	55.127	2.76	-0.32	6.75	
6675.00	23.830	79.250	6374.03	-418.32	865.86	1260.53	1717122.52	14274882.63	39°18'35.610"N	80°43'43.744"W	1529.26	55.515	7.00	0.00	17.37	
6770.00	25.500	104.330	6460.59	-404.54	864.37	1299.30	1717161.28	14274881.14	39°18'35.594"N	80°43'43.251"W	1560.55	56.366	11.08	1.76	26.40	
6865.00	28.320	121.040	6545.42	-376.20	847.67	1338.49	1717200.45	14274864.44	39°18'35.428"N	80°43'42.753"W	1584.32	57.654	8.47	2.97	17.59	
6960.00	33.390	130.020	6626.99	-336.66	819.20	1377.86	1717239.81	14274835.99	39°18'35.145"N	80°43'42.253"W	1602.99	59.267	7.20	5.34	9.49	
7055.00	38.300	138.030	6704.02	-287.26	780.46	1417.61	1717279.54	14274797.26	39°18'34.761"N	80°43'41.749"W	1618.25	61.165	7.14	5.17	8.43	

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Clipper Unit 1H AWP Proj: 21415'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Clipper Unit 1H
Field	Doddridge	Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad		

WELLPATH DATA (253 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
7095.00†	40.850	142.179	6734.85	-263.51	760.90	1433.93	1717295.85	14274777.71	39°18'34.567"N	80°43'41.542"W	1623.31	62.048	9.18	6.37	10.37	Middlesex: 7095' MD
7149.00	44.500	147.130	6774.56	-228.47	731.04	1455.04	1717316.96	14274747.86	39°18'34.271"N	80°43'41.274"W	1628.36	63.324	9.18	6.76	9.17	
7244.00	52.040	151.930	6837.77	-159.14	669.92	1490.80	1717352.70	14274686.77	39°18'33.666"N	80°43'40.822"W	1634.40	65.802	8.78	7.94	5.05	
7291.00	56.140	154.000	6865.33	-121.50	636.02	1508.08	1717369.97	14274652.88	39°18'33.331"N	80°43'40.603"W	1636.71	67.133	9.42	8.72	4.40	
7313.00†	57.929	155.276	6877.30	-103.17	619.34	1515.98	1717377.88	14274636.20	39°18'33.166"N	80°43'40.503"W	1637.62	67.778	9.48	8.13	5.80	Burkett: 7313' MD
7339.00	60.060	156.720	6890.69	-80.98	598.98	1525.05	1717386.93	14274615.85	39°18'32.964"N	80°43'40.389"W	1638.46	68.557	9.48	8.19	5.56	
7371.00†	62.142	157.579	6906.16	-53.05	573.17	1535.92	1717397.80	14274590.05	39°18'32.709"N	80°43'40.252"W	1639.38	69.536	6.92	6.51	2.68	Tully: 7371' MD
7386.00	63.120	157.970	6913.05	-39.75	560.83	1540.96	1717402.84	14274577.72	39°18'32.587"N	80°43'40.188"W	1639.85	70.001	6.92	6.52	2.61	
7434.00	64.940	158.420	6934.07	3.33	520.77	1556.99	1717418.86	14274537.67	39°18'32.190"N	80°43'39.986"W	1641.77	71.506	3.88	3.79	0.94	
7481.00	68.690	158.810	6952.57	46.48	480.55	1572.74	1717434.60	14274497.47	39°18'31.792"N	80°43'39.787"W	1644.51	73.010	8.02	7.98	0.83	
7529.00	72.300	160.650	6968.60	91.70	438.11	1588.40	1717450.26	14274455.05	39°18'31.372"N	80°43'39.589"W	1647.71	74.580	8.34	7.52	3.83	
7541.00†	72.815	161.039	6972.20	103.14	427.30	1592.16	1717454.02	14274444.24	39°18'31.265"N	80°43'39.542"W	1648.50	74.977	5.29	4.29	3.24	Marcellus POE: 7541' MD
7576.00	74.320	162.160	6982.10	136.71	395.44	1602.75	1717464.61	14274412.40	39°18'30.950"N	80°43'39.408"W	1650.81	76.140	5.29	4.30	3.20	
7623.00	76.420	164.420	6993.97	182.16	351.89	1615.82	1717477.67	14274368.86	39°18'30.519"N	80°43'39.244"W	1653.70	77.714	6.45	4.47	4.81	
7670.00	78.760	165.640	7004.07	227.96	307.55	1627.68	1717489.52	14274324.54	39°18'30.081"N	80°43'39.094"W	1656.48	79.300	5.59	4.98	2.60	
7718.00	81.910	167.020	7012.13	275.10	261.58	1638.85	1717500.70	14274278.59	39°18'29.626"N	80°43'38.954"W	1659.60	80.931	7.15	6.56	2.88	
7765.00	86.120	167.490	7017.03	321.59	216.00	1649.16	1717511.00	14274233.02	39°18'29.175"N	80°43'38.825"W	1663.25	82.538	9.01	8.96	1.00	
7813.00	89.480	169.330	7018.87	369.18	169.02	1658.80	1717520.63	14274186.06	39°18'28.711"N	80°43'38.704"W	1667.39	84.182	7.98	7.00	3.83	
7908.00	90.030	167.050	7019.28	463.51	76.04	1678.24	1717540.07	14274093.12	39°18'27.791"N	80°43'38.460"W	1679.96	87.406	2.47	0.58	-2.40	
8002.00	90.580	167.580	7018.77	557.00	-15.67	1698.88	1717560.70	14274001.45	39°18'26.884"N	80°43'38.201"W	1698.95	90.528	0.81	0.59	0.56	
8097.00	90.060	166.520	7018.24	651.54	-108.25	1720.17	1717581.98	14273908.91	39°18'25.968"N	80°43'37.934"W	1723.57	93.601	1.24	-0.55	-1.12	
8192.00	90.460	168.760	7017.81	745.96	-201.04	1740.50	1717602.30	14273816.15	39°18'25.051"N	80°43'37.679"W	1752.08	96.589	2.40	0.42	2.36	
8287.00	90.460	170.810	7017.05	839.94	-294.52	1757.35	1717619.14	14273722.70	39°18'24.126"N	80°43'37.468"W	1781.86	99.514	2.16	0.00	2.16	
8381.00	90.400	168.330	7016.34	932.97	-386.96	1774.36	1717636.15	14273630.30	39°18'23.212"N	80°43'37.255"W	1816.07	102.303	2.64	-0.06	-2.64	
8476.00	90.520	162.580	7015.58	1027.69	-478.88	1798.21	1717659.99	14273538.42	39°18'22.303"N	80°43'36.955"W	1860.88	104.912	6.05	0.13	-6.05	
8571.00	91.360	158.440	7014.02	1122.64	-568.40	1829.90	1717691.66	14273448.94	39°18'21.417"N	80°43'36.556"W	1916.14	107.256	4.45	0.88	-4.36	
8665.00	90.550	154.180	7012.45	1216.24	-654.45	1867.65	1717729.40	14273362.92	39°18'20.566"N	80°43'36.079"W	1978.99	109.311	4.61	-0.86	-4.53	
8760.00	90.060	152.550	7011.95	1310.30	-739.36	1910.24	1717771.97	14273278.04	39°18'19.725"N	80°43'35.540"W	2048.33	111.159	1.79	-0.52	-1.72	
8855.00	89.320	152.500	7012.46	1404.17	-823.64	1954.07	1717815.78	14273193.79	39°18'18.891"N	80°43'34.986"W	2120.56	112.856	0.78	-0.78	-0.05	
8950.00	90.430	152.710	7012.67	1498.05	-907.99	1997.78	1717859.48	14273109.48	39°18'18.056"N	80°43'34.433"W	2194.44	114.442	1.19	1.17	0.22	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Clipper Unit 1H
Field	Doddridge	Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad		

WELLPATH DATA (253 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
9045.00	90.150	153.850	7012.19	1592.10	-992.84	2040.49	1717902.17	14273024.66	39°18'17.216"N	80°43'33.893"W	2269.21	115.946	1.24	-0.29	1.20	
9139.00	90.180	158.800	7011.92	1685.70	-1078.90	2078.22	1717939.89	14272938.63	39°18'16.364"N	80°43'33.416"W	2341.59	117.436	5.27	0.03	5.27	
9234.00	91.200	162.330	7010.77	1780.67	-1168.47	2109.83	1717971.48	14272849.10	39°18'15.478"N	80°43'33.018"W	2411.78	118.979	3.87	1.07	3.72	
9329.00	90.310	159.980	7009.52	1875.65	-1258.36	2140.51	1718002.15	14272759.25	39°18'14.589"N	80°43'32.631"W	2482.99	120.450	2.64	-0.94	-2.47	
9424.00	90.340	158.440	7008.98	1970.58	-1347.17	2174.23	1718035.86	14272670.47	39°18'13.710"N	80°43'32.205"W	2557.76	121.783	1.62	0.03	-1.62	
9519.00	90.370	156.850	7008.39	2065.37	-1435.03	2210.36	1718071.97	14272582.65	39°18'12.840"N	80°43'31.749"W	2635.33	122.993	1.67	0.03	-1.67	
9614.00	90.280	156.930	7007.86	2160.08	-1522.40	2247.64	1718109.24	14272495.31	39°18'11.976"N	80°43'31.278"W	2714.70	124.111	0.13	-0.09	0.08	
9708.00	90.430	155.870	7007.27	2253.72	-1608.54	2285.27	1718146.86	14272409.21	39°18'11.123"N	80°43'30.803"W	2794.61	125.141	1.14	0.16	-1.13	
9803.00	90.280	155.520	7006.68	2348.25	-1695.11	2324.37	1718185.95	14272322.67	39°18'10.266"N	80°43'30.309"W	2876.83	126.102	0.40	-0.16	-0.37	
9898.00	90.310	158.340	7006.20	2442.95	-1782.51	2361.60	1718223.15	14272235.31	39°18'09.401"N	80°43'29.839"W	2958.80	127.045	2.97	0.03	2.97	
9993.00	90.490	158.950	7005.53	2537.84	-1870.98	2396.19	1718257.73	14272146.87	39°18'08.526"N	80°43'29.402"W	3040.11	127.983	0.67	0.19	0.64	
10088.00	90.250	159.120	7004.92	2632.75	-1959.69	2430.18	1718291.71	14272058.19	39°18'07.648"N	80°43'28.973"W	3121.88	128.883	0.31	-0.25	0.18	
10182.00	90.180	163.880	7004.57	2726.73	-2048.81	2460.00	1718321.51	14271969.11	39°18'06.766"N	80°43'28.597"W	3201.44	129.789	5.06	-0.07	5.06	
10277.00	90.770	167.390	7003.78	2821.45	-2140.82	2483.56	1718345.07	14271877.14	39°18'05.856"N	80°43'28.301"W	3278.90	130.761	3.75	0.62	3.69	
10372.00	90.620	166.530	7002.63	2915.99	-2233.36	2505.00	1718366.50	14271784.63	39°18'04.941"N	80°43'28.032"W	3356.03	131.719	0.92	-0.16	-0.91	
10467.00	90.800	164.190	7001.45	3010.75	-2325.26	2529.00	1718390.49	14271692.77	39°18'04.032"N	80°43'27.730"W	3435.51	132.597	2.47	0.19	-2.46	
10562.00	90.090	162.750	7000.71	3105.68	-2416.33	2556.03	1718417.51	14271601.73	39°18'03.131"N	80°43'27.390"W	3517.38	133.391	1.69	-0.75	-1.52	
10657.00	90.400	162.400	7000.30	3200.66	-2506.97	2584.48	1718445.95	14271511.13	39°18'02.234"N	80°43'27.031"W	3600.62	134.128	0.49	0.33	-0.37	
10751.00	90.280	161.090	6999.75	3294.65	-2596.24	2613.92	1718475.38	14271421.90	39°18'01.351"N	80°43'26.660"W	3684.16	134.806	1.40	-0.13	-1.39	
10847.00	90.620	160.800	6998.99	3390.65	-2686.97	2645.26	1718506.71	14271331.20	39°18'00.453"N	80°43'26.265"W	3770.58	135.448	0.47	0.35	-0.30	
10941.00	90.310	158.930	6998.23	3484.61	-2775.22	2677.62	1718539.05	14271242.99	39°17'59.580"N	80°43'25.857"W	3856.36	136.025	2.02	-0.33	-1.99	
11036.00	90.430	158.480	6997.62	3579.50	-2863.73	2712.12	1718573.54	14271154.51	39°17'58.704"N	80°43'25.422"W	3944.18	136.558	0.49	0.13	-0.47	
11131.00	90.740	160.210	6996.65	3674.43	-2952.62	2745.63	1718607.03	14271065.66	39°17'57.825"N	80°43'24.999"W	4031.92	137.080	1.85	0.33	1.82	
11226.00	90.150	160.650	6995.91	3769.41	-3042.13	2777.45	1718638.84	14270976.19	39°17'56.939"N	80°43'24.598"W	4119.31	137.604	0.77	-0.62	0.46	
11321.00	90.490	161.900	6995.38	3864.41	-3132.10	2807.94	1718669.32	14270886.25	39°17'56.049"N	80°43'24.213"W	4206.49	138.124	1.36	0.36	1.32	
11416.00	89.820	161.740	6995.12	3959.41	-3222.35	2837.58	1718698.95	14270796.03	39°17'55.156"N	80°43'23.840"W	4293.65	138.633	0.73	-0.71	-0.17	
11510.00	90.220	164.930	6995.09	4053.34	-3312.39	2864.54	1718725.89	14270706.03	39°17'54.265"N	80°43'23.500"W	4379.21	139.147	3.42	0.43	3.39	
11605.00	90.250	168.130	6994.70	4147.95	-3404.77	2886.66	1718748.01	14270613.69	39°17'53.352"N	80°43'23.222"W	4463.77	139.708	3.37	0.03	3.37	
11700.00	90.740	169.820	6993.88	4242.11	-3498.01	2904.83	1718766.17	14270520.49	39°17'52.430"N	80°43'22.995"W	4546.87	140.293	1.85	0.52	1.78	
11795.00	90.280	168.320	6993.03	4336.25	-3591.28	2922.84	1718784.17	14270427.25	39°17'51.507"N	80°43'22.770"W	4630.36	140.859	1.65	-0.48	-1.58	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Clipper Unit 1H
Field	Doddridge	Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad		

WELLPATH DATA (253 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
11890.00	90.520	165.220	6992.37	4430.82	-3683.74	2944.58	1718805.90	14270334.83	39°17'50.593"N	80°43'22.497"W	4715.98	141.363	3.27	0.25	-3.26	
11985.00	90.120	159.370	6991.84	4525.76	-3774.20	2973.46	1718834.77	14270244.40	39°17'49.698"N	80°43'22.133"W	4804.79	141.768	6.17	-0.42	-6.16	
12079.00	90.430	157.300	6991.39	4619.62	-3861.55	3008.16	1718869.46	14270157.08	39°17'48.833"N	80°43'21.695"W	4894.96	142.081	2.23	0.33	-2.20	
12174.00	90.490	158.690	6990.62	4714.45	-3949.63	3043.75	1718905.04	14270069.04	39°17'47.962"N	80°43'21.246"W	4986.38	142.381	1.46	0.06	1.46	
12269.00	90.490	161.050	6989.81	4809.41	-4038.82	3076.44	1718937.71	14269979.89	39°17'47.079"N	80°43'20.833"W	5077.06	142.703	2.48	0.00	2.48	
12364.00	90.310	159.250	6989.15	4904.38	-4128.17	3108.70	1718969.96	14269890.58	39°17'46.195"N	80°43'20.426"W	5167.76	143.019	1.90	-0.19	-1.89	
12459.00	90.740	161.900	6988.28	4999.35	-4217.75	3140.29	1719001.54	14269801.03	39°17'45.309"N	80°43'20.028"W	5258.40	143.331	2.83	0.45	2.79	
12553.00	91.540	162.300	6986.41	5093.33	-4307.18	3169.17	1719030.41	14269711.64	39°17'44.424"N	80°43'19.664"W	5347.47	143.655	0.95	0.85	0.43	
12648.00	90.580	162.930	6984.65	5188.29	-4397.82	3197.55	1719058.78	14269621.03	39°17'43.527"N	80°43'19.307"W	5437.39	143.980	1.21	-1.01	0.66	
12743.00	90.860	164.300	6983.46	5283.21	-4488.95	3224.35	1719085.56	14269529.93	39°17'42.626"N	80°43'18.969"W	5526.94	144.311	1.47	0.29	1.44	
12838.00	91.390	164.940	6981.59	5378.04	-4580.53	3249.54	1719110.74	14269438.39	39°17'41.720"N	80°43'18.653"W	5616.12	144.647	0.87	0.56	0.67	
12933.00	90.430	162.450	6980.08	5472.94	-4671.69	3276.20	1719137.40	14269347.27	39°17'40.818"N	80°43'18.317"W	5705.98	144.958	2.81	-1.01	-2.62	
13028.00	90.580	162.960	6979.24	5567.91	-4762.39	3304.45	1719165.63	14269256.60	39°17'39.921"N	80°43'17.961"W	5796.53	145.245	0.56	0.16	0.54	
13123.00	90.520	164.560	6978.33	5662.82	-4853.59	3331.01	1719192.18	14269165.44	39°17'39.018"N	80°43'17.627"W	5886.68	145.538	1.69	-0.06	1.68	
13217.00	90.860	163.920	6977.20	5756.70	-4944.05	3356.54	1719217.70	14269075.01	39°17'38.124"N	80°43'17.306"W	5975.79	145.827	0.77	0.36	-0.68	
13312.00	90.520	161.880	6976.06	5851.65	-5034.84	3384.47	1719245.62	14268984.26	39°17'37.225"N	80°43'16.954"W	6066.65	146.091	2.18	-0.36	-2.15	
13407.00	90.460	162.620	6975.24	5946.64	-5125.32	3413.43	1719274.57	14268893.82	39°17'36.330"N	80°43'16.589"W	6157.95	146.337	0.78	-0.06	0.78	
13502.00	90.490	161.140	6974.46	6041.63	-5215.60	3442.98	1719304.10	14268803.57	39°17'35.437"N	80°43'16.217"W	6249.52	146.570	1.56	0.03	-1.56	
13597.00	90.680	160.930	6973.49	6136.62	-5305.44	3473.85	1719334.96	14268713.77	39°17'34.548"N	80°43'15.828"W	6341.55	146.784	0.30	0.20	-0.22	
13692.00	90.710	160.490	6972.33	6231.61	-5395.10	3505.23	1719366.33	14268624.15	39°17'33.661"N	80°43'15.432"W	6433.79	146.988	0.46	0.03	-0.46	
13787.00	90.680	156.860	6971.18	6326.48	-5483.57	3539.77	1719400.86	14268535.71	39°17'32.786"N	80°43'14.997"W	6526.83	147.157	3.82	-0.03	-3.82	
13882.00	90.250	153.130	6970.41	6420.87	-5569.65	3579.92	1719440.99	14268449.66	39°17'31.934"N	80°43'14.489"W	6620.94	147.269	3.95	-0.45	-3.93	
13976.00	90.460	151.110	6969.83	6513.63	-5652.73	3623.87	1719484.93	14268366.61	39°17'31.111"N	80°43'13.934"W	6714.60	147.337	2.16	0.22	-2.15	
14071.00	90.430	150.890	6969.09	6607.07	-5735.82	3669.93	1719530.96	14268283.56	39°17'30.289"N	80°43'13.351"W	6809.40	147.388	0.23	-0.03	-0.23	
14166.00	90.220	153.020	6968.55	6700.78	-5819.66	3714.59	1719575.61	14268199.75	39°17'29.459"N	80°43'12.786"W	6904.10	147.451	2.25	-0.22	2.24	
14261.00	91.080	159.030	6967.47	6795.31	-5906.41	3753.17	1719614.18	14268113.03	39°17'28.600"N	80°43'12.299"W	6998.00	147.567	6.39	0.91	6.33	
14356.00	90.220	156.900	6966.39	6890.13	-5994.46	3788.81	1719649.80	14268025.02	39°17'27.729"N	80°43'11.849"W	7091.45	147.705	2.42	-0.91	-2.24	
14451.00	90.770	158.240	6965.57	6984.91	-6082.27	3825.05	1719686.03	14267937.24	39°17'26.860"N	80°43'11.392"W	7185.06	147.835	1.52	0.58	1.41	
14545.00	90.770	159.900	6964.31	7078.83	-6170.06	3858.63	1719719.59	14267849.49	39°17'25.991"N	80°43'10.968"W	7277.27	147.979	1.77	0.00	1.77	
14640.00	90.120	160.960	6963.57	7173.81	-6259.57	3890.45	1719751.40	14267760.02	39°17'25.105"N	80°43'10.567"W	7370.06	148.138	1.31	-0.68	1.12	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #10
Area	Doddridge Co., WV		Well	Clipper Unit 1H
Field	Doddridge		Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad			

WELLPATH DATA (253 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
14735.00	90.030	168.120	6963.45	7288.60	-6351.07	3915.75	1719776.70	14267668.55	39°17'24.200"N	80°43'10.249"W	7461.18	148.344	7.54	-0.09	7.54	
14830.00	90.150	168.900	6963.30	7362.87	-6444.16	3934.68	1719795.61	14267575.49	39°17'23.279"N	80°43'10.012"W	7550.43	148.593	0.83	0.13	0.82	
14925.00	89.940	167.990	6963.22	7457.15	-6537.24	3953.71	1719814.63	14267482.46	39°17'22.359"N	80°43'09.773"W	7639.85	148.835	0.98	-0.22	-0.96	
15020.00	90.120	169.690	6963.17	7551.34	-6630.44	3972.09	1719833.01	14267389.29	39°17'21.437"N	80°43'09.543"W	7729.18	149.075	1.80	0.19	1.79	
15114.00	90.310	169.600	6962.82	7644.37	-6722.91	3988.99	1719849.90	14267296.86	39°17'20.523"N	80°43'09.332"W	7817.26	149.318	0.22	0.20	-0.10	
15209.00	90.150	167.190	6962.44	7738.65	-6815.96	4008.10	1719869.00	14267203.85	39°17'19.602"N	80°43'09.093"W	7907.09	149.543	2.54	-0.17	-2.54	
15304.00	90.650	165.700	6961.78	7833.28	-6908.30	4030.36	1719891.26	14267111.54	39°17'18.689"N	80°43'08.813"W	7998.03	149.740	1.65	0.53	-1.57	
15399.00	90.400	165.110	6960.91	7928.04	-7000.23	4054.30	1719915.19	14267019.64	39°17'17.780"N	80°43'08.512"W	8089.54	149.922	0.67	-0.26	-0.62	
15494.00	90.370	163.580	6960.27	8022.91	-7091.71	4079.93	1719940.81	14266928.21	39°17'16.875"N	80°43'08.190"W	8181.57	150.088	1.61	-0.03	-1.61	
15589.00	90.250	164.670	6959.75	8117.80	-7183.08	4105.92	1719966.79	14266836.87	39°17'15.971"N	80°43'07.863"W	8273.77	150.247	1.15	-0.13	1.15	
15683.00	90.340	165.180	6959.27	8211.62	-7273.84	4130.37	1719991.22	14266746.14	39°17'15.073"N	80°43'07.556"W	8364.73	150.410	0.55	0.10	0.54	
15778.00	90.280	164.590	6958.76	8306.44	-7365.56	4155.14	1720015.98	14266654.47	39°17'14.166"N	80°43'07.244"W	8456.75	150.571	0.62	-0.06	-0.62	
15873.00	90.580	161.110	6958.04	8401.39	-7456.31	4183.15	1720043.98	14266563.74	39°17'13.268"N	80°43'06.892"W	8549.58	150.707	3.68	0.32	-3.66	
15968.00	89.910	153.290	6957.64	8496.06	-7543.82	4219.93	1720080.75	14266476.27	39°17'12.402"N	80°43'06.427"W	8643.90	150.778	8.26	-0.71	-8.23	
16063.00	89.880	153.980	6957.81	8590.19	-7628.94	4262.12	1720122.92	14266391.19	39°17'11.659"N	80°43'05.894"W	8738.79	150.809	0.73	-0.03	0.73	
16157.00	90.030	160.600	6957.88	8683.90	-7715.60	4298.39	1720159.18	14266304.56	39°17'10.702"N	80°43'05.436"W	8832.14	150.878	7.04	0.16	7.04	
16252.00	90.580	162.310	6957.38	8778.89	-7805.67	4328.60	1720189.38	14266214.53	39°17'09.811"N	80°43'05.055"W	8925.54	150.990	1.89	0.58	1.80	
16347.00	90.460	161.240	6956.52	8873.89	-7895.90	4358.31	1720219.08	14266124.34	39°17'08.918"N	80°43'04.681"W	9018.87	151.103	1.13	-0.13	-1.13	
16442.00	90.490	158.240	6955.73	8968.83	-7985.00	4391.20	1720251.96	14266035.26	39°17'08.036"N	80°43'04.266"W	9112.79	151.192	3.16	0.03	-3.16	
16537.00	90.400	157.810	6954.99	9063.67	-8073.10	4426.75	1720287.49	14265947.20	39°17'07.164"N	80°43'03.818"W	9207.12	151.263	0.46	-0.09	-0.45	
16631.00	90.280	156.540	6954.43	9157.41	-8159.74	4463.21	1720323.94	14265860.60	39°17'06.307"N	80°43'03.358"W	9300.62	151.322	1.36	-0.13	-1.35	
16726.00	90.400	157.120	6953.87	9252.10	-8247.07	4500.59	1720361.30	14265773.30	39°17'05.443"N	80°43'02.886"W	9395.19	151.378	0.62	0.13	0.61	
16821.00	90.090	155.370	6953.46	9346.72	-8334.02	4538.86	1720399.55	14265686.39	39°17'04.582"N	80°43'02.402"W	9489.84	151.426	1.87	-0.33	-1.84	
16916.00	90.310	157.300	6953.13	9441.34	-8421.02	4576.99	1720437.67	14265599.42	39°17'03.721"N	80°43'01.921"W	9584.49	151.475	2.04	0.23	2.03	
17011.00	90.180	161.180	6952.72	9536.26	-8509.84	4610.66	1720471.32	14265510.64	39°17'02.842"N	80°43'01.496"W	9678.61	151.551	4.09	-0.14	4.08	
17105.00	90.220	163.340	6952.40	9630.24	-8599.36	4639.30	1720499.95	14265421.15	39°17'01.956"N	80°43'01.136"W	9770.98	151.653	2.30	0.04	2.30	
17200.00	90.120	163.310	6952.11	9725.19	-8690.37	4666.55	1720527.20	14265330.18	39°17'01.056"N	80°43'00.793"W	9864.04	151.765	0.11	-0.11	-0.03	
17295.00	90.220	163.630	6951.83	9820.12	-8781.44	4693.58	1720554.22	14265239.14	39°17'00.155"N	80°43'00.453"W	9957.08	151.876	0.35	0.11	0.34	
17390.00	90.280	164.540	6951.42	9915.01	-8872.80	4719.63	1720580.26	14265147.82	39°16'59.251"N	80°43'00.125"W	10049.95	151.991	0.96	0.06	0.96	
17485.00	90.400	163.860	6950.85	10009.90	-8964.21	4745.50	1720606.11	14265056.45	39°16'58.347"N	80°42'59.800"W	10142.82	152.104	0.73	0.13	-0.72	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #10
Area	Doddridge Co., WV		Well	Clipper Unit 1H
Field	Doddridge		Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad			

WELLPATH DATA (253 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
17580.00	90.490	162.590	6950.12	10104.84	-9055.16	4772.92	1720633.52	14264965.53	39°16'57.447"N	80°42'59.455"W	10236.05	152.207	1.34	0.09	-1.34	
17675.00	90.370	161.150	6949.40	10199.84	-9145.44	4802.48	1720663.07	14264875.29	39°16'56.554"N	80°42'59.082"W	10329.70	152.295	1.52	-0.13	-1.52	
17769.00	90.490	161.650	6948.70	10293.83	-9234.53	4832.46	1720693.04	14264786.24	39°16'55.673"N	80°42'58.705"W	10422.53	152.377	0.55	0.13	0.53	
17864.00	90.520	163.110	6947.86	10388.81	-9325.06	4861.21	1720721.78	14264695.74	39°16'54.777"N	80°42'58.342"W	10516.09	152.467	1.54	0.03	1.54	
17959.00	90.370	163.860	6947.12	10483.75	-9416.14	4888.22	1720748.77	14264604.69	39°16'53.876"N	80°42'58.003"W	10609.35	152.565	0.81	-0.16	0.79	
18054.00	90.550	163.030	6946.36	10578.68	-9507.20	4915.28	1720775.83	14264513.67	39°16'52.975"N	80°42'57.662"W	10702.66	152.661	0.89	0.19	-0.87	
18148.00	90.740	164.430	6945.30	10672.59	-9597.43	4941.62	1720802.15	14264423.48	39°16'52.083"N	80°42'57.331"W	10794.91	152.757	1.50	0.20	1.49	
18243.00	90.220	160.550	6944.51	10767.55	-9688.00	4970.19	1720830.72	14264332.94	39°16'51.186"N	80°42'56.971"W	10888.54	152.841	4.12	-0.55	-4.08	
18338.00	90.120	157.060	6944.22	10862.44	-9776.56	5004.53	1720865.05	14264244.41	39°16'50.310"N	80°42'56.538"W	10983.01	152.892	3.68	-0.11	-3.67	
18433.00	90.250	155.010	6943.92	10957.02	-9863.37	5043.12	1720903.61	14264157.64	39°16'49.451"N	80°42'56.051"W	11077.86	152.919	2.16	0.14	-2.16	
18528.00	90.120	155.280	6943.61	11051.46	-9949.57	5083.05	1720943.53	14264071.48	39°16'48.598"N	80°42'55.546"W	11172.79	152.938	0.32	-0.14	0.28	
18622.00	90.150	155.090	6943.39	11144.91	-10034.89	5122.50	1720982.96	14263986.19	39°16'47.753"N	80°42'55.048"W	11266.72	152.957	0.20	0.03	-0.20	
18717.00	90.000	156.720	6943.26	11239.47	-10121.61	5161.28	1721021.73	14263899.51	39°16'46.895"N	80°42'54.558"W	11361.59	152.982	1.72	-0.16	1.72	
18812.00	90.680	159.660	6942.70	11334.31	-10209.80	5196.57	1721057.01	14263811.35	39°16'46.022"N	80°42'54.113"W	11456.19	153.025	3.18	0.72	3.09	
18907.00	90.090	158.360	6942.06	11429.22	-10298.49	5230.60	1721091.02	14263722.70	39°16'45.144"N	80°42'53.684"W	11550.67	153.074	1.50	-0.62	-1.37	
19002.00	90.060	159.610	6941.94	11524.14	-10387.17	5264.67	1721125.08	14263634.05	39°16'44.267"N	80°42'53.254"W	11645.17	153.122	1.32	-0.03	1.32	
19097.00	90.310	160.650	6941.63	11619.11	-10476.51	5296.96	1721157.35	14263544.74	39°16'43.383"N	80°42'52.847"W	11739.46	153.179	1.13	0.26	1.09	
19192.00	90.400	160.980	6941.04	11714.10	-10566.23	5328.18	1721188.56	14263455.06	39°16'42.495"N	80°42'52.454"W	11833.63	153.240	0.36	0.09	0.35	
19286.00	90.400	163.030	6940.39	11808.09	-10655.63	5357.21	1721217.58	14263365.70	39°16'41.611"N	80°42'52.088"W	11926.53	153.309	2.18	0.00	2.18	
19381.00	89.970	165.270	6940.08	11902.98	-10747.01	5383.16	1721243.52	14263274.35	39°16'40.707"N	80°42'51.762"W	12019.84	153.394	2.40	-0.45	2.36	
19476.00	90.150	165.560	6939.98	11997.74	-10838.95	5407.08	1721267.43	14263182.45	39°16'39.797"N	80°42'51.461"W	12112.77	153.487	0.36	0.19	0.31	
19571.00	90.150	162.790	6939.73	12092.62	-10930.34	5432.98	1721293.33	14263091.10	39°16'38.893"N	80°42'51.136"W	12206.13	153.570	2.92	0.00	-2.92	
19666.00	90.180	158.870	6939.46	12187.60	-11020.05	5464.17	1721324.50	14263001.42	39°16'38.006"N	80°42'50.743"W	12300.35	153.626	4.13	0.03	-4.13	
19761.00	90.430	157.320	6938.95	12282.43	-11108.19	5499.61	1721359.93	14262913.31	39°16'37.133"N	80°42'50.296"W	12395.06	153.660	1.65	0.26	-1.63	
19856.00	90.340	158.310	6938.31	12377.25	-11196.15	5535.48	1721395.78	14262825.39	39°16'36.263"N	80°42'49.843"W	12489.81	153.692	1.05	-0.09	1.04	
19950.00	90.180	160.840	6937.89	12471.19	-11284.23	5568.29	1721428.57	14262737.34	39°16'35.391"N	80°42'49.429"W	12583.31	153.736	2.70	-0.17	2.69	
20045.00	90.030	162.820	6937.71	12566.18	-11374.49	5597.91	1721458.18	14262647.12	39°16'34.498"N	80°42'49.056"W	12677.37	153.796	2.09	-0.16	2.08	
20140.00	90.340	166.730	6937.41	12661.00	-11466.14	5622.85	1721483.12	14262555.50	39°16'33.592"N	80°42'48.743"W	12770.62	153.877	4.13	0.33	4.12	
20235.00	90.180	166.980	6936.97	12755.56	-11558.65	5644.46	1721504.71	14262463.03	39°16'32.677"N	80°42'48.472"W	12863.21	153.972	0.31	-0.17	0.26	
20329.00	90.150	165.620	6936.70	12849.22	-11649.97	5666.72	1721526.97	14262371.74	39°16'31.773"N	80°42'48.192"W	12955.06	154.061	1.45	-0.03	-1.45	

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Clipper Unit 1H AWP Proj: 21415'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Clipper Unit 1H
Field	Doddridge	Wellbore	Clipper Unit 1H AWB
Facility	George Scott Pad		

WELLPATH DATA (253 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
20424.00	90.150	163.800	6936.45	12944.05	-11741.61	5691.77	1721552.01	14262280.15	39°16'30.867"N	80°42'47.878"W	13048.43	154.138	1.92	0.00	-1.92	
20519.00	90.150	162.320	6936.21	13039.01	-11832.48	5719.45	1721579.68	14262189.31	39°16'29.968"N	80°42'47.529"W	13142.29	154.202	1.56	0.00	-1.56	
20614.00	90.220	162.130	6935.90	13134.00	-11922.95	5748.45	1721608.67	14262098.88	39°16'29.073"N	80°42'47.164"W	13236.36	154.260	0.21	0.07	-0.20	
20709.00	90.150	163.240	6935.59	13228.97	-12013.64	5776.72	1721636.93	14262008.22	39°16'28.175"N	80°42'46.808"W	13330.34	154.320	1.17	-0.07	1.17	
20804.00	90.150	163.680	6935.34	13323.91	-12104.71	5803.77	1721663.96	14261917.19	39°16'27.274"N	80°42'46.468"W	13424.14	154.384	0.46	0.00	0.46	
20899.00	90.280	164.970	6934.99	13418.78	-12196.17	5829.43	1721689.62	14261825.76	39°16'26.370"N	80°42'46.145"W	13517.73	154.453	1.36	0.14	1.36	
20993.00	90.000	162.460	6934.76	13512.70	-12286.39	5855.79	1721715.97	14261735.58	39°16'25.477"N	80°42'45.814"W	13610.50	154.517	2.69	-0.30	-2.67	
21088.00	90.180	161.500	6934.61	13607.69	-12376.73	5885.18	1721745.34	14261645.27	39°16'24.583"N	80°42'45.444"W	13704.70	154.569	1.03	0.19	-1.01	
21183.00	90.280	159.330	6934.23	13702.67	-12466.23	5917.02	1721777.17	14261555.81	39°16'23.698"N	80°42'45.043"W	13799.20	154.609	2.29	0.11	-2.28	
21278.00	90.370	158.130	6933.69	13797.57	-12554.75	5951.48	1721811.62	14261467.32	39°16'22.822"N	80°42'44.608"W	13893.96	154.637	1.27	0.09	-1.26	
21372.00	90.180	157.140	6933.24	13891.36	-12641.68	5987.25	1721847.37	14261380.43	39°16'21.961"N	80°42'44.157"W	13987.83	154.657	1.07	-0.20	-1.05	
21390.00	90.310	157.130	6933.16	13909.31	-12658.27	5994.24	1721854.36	14261363.85	39°16'21.797"N	80°42'44.068"W	14005.81	154.660	0.72	0.72	-0.06	
21415.00	90.310	157.130	6933.02	13934.24	-12681.30	6003.96	1721864.07	14261340.82	39°16'21.569"N	80°42'43.946"W	14030.79	154.665	0.00	0.00	0.00	Projected MD at TD: 21415'

HOLE & CASING SECTIONS - Ref Wellbore: Clipper Unit 1H AWB Ref Wellpath: Clipper Unit 1H AWP Proj: 21415'									
String/Diameter	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start N/S (ft)	Start E/W (ft)	End N/S (ft)	End E/W (ft)
20in Conductor	25.50	105.50	80.00	25.50	105.50	0.00	0.00	0.23	-0.40
17.5in Open Hole	105.50	557.70	452.20	105.50	557.69	0.23	-0.40	-1.70	-0.39
13.375in Casing Surface	25.50	557.70	532.20	25.50	557.69	0.00	0.00	-1.70	-0.39
12.25in Open Hole	557.70	2605.00	2047.30	557.69	2599.29	-1.70	-0.39	52.13	82.46
9.625in Casing Intermediate	25.50	2585.80	2560.30	25.50	2580.12	0.00	0.00	51.43	83.09
8.75in Open Hole	2605.00	6427.00	3822.00	2599.29	6147.84	52.13	82.46	820.10	1170.63
8.5in Open Hole	6427.00	21415.00	14988.00	6147.84	6933.02	820.10	1170.63	-12681.30	6003.96
5.5in Casing Production	25.50	21415.00	21389.50	25.50	6933.02	0.00	0.00	-12681.30	6003.96

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TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Clipper Unit 1H POE - Rev-2	6976.00	435.06	1576.13	1717438.00	14274452.00	39°18'31.343"N	80°43'39.745"W	point
Clipper Unit 1H BHL - Rev-3	7020.00	-12697.33	5997.38	1721857.50	14261324.80	39°16'21.411"N	80°42'44.030"W	point
Clipper Unit 1H LP - Rev-2	7020.00	200.81	1654.99	1717516.83	14274217.84	39°18'29.025"N	80°43'38.751"W	point

WELLPATH COMPOSITION - Ref Wellbore: Clipper Unit 1H AWB Ref Wellpath: Clipper Unit 1H AWP Proj: 21415'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.50	568.00	Gyrodatta standard - Drop gyro or Multi-shot	01 Gyrodatta MS Gyro <17-1/2"> (50'-568')	Clipper Unit 1H AWB
568.00	2534.00	BHI NaviTrak (Axial)	02 APS EM <12-1/4"> (568')(687'-2534')	Clipper Unit 1H AWB
2534.00	6349.00	BHI NaviTrak (Axial)	03 APS EM <8-3/4"> (2534')(2645'-6349')	Clipper Unit 1H AWB
6349.00	21390.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(6349')(6402'-21390')	Clipper Unit 1H AWB
21390.00	21415.00	Blind Drilling (std)	Projection to bit	Clipper Unit 1H AWB

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COMMENTS
<p>Wellpath general comments API: 47-017-06887-0000 BHI Job #: 110080287B Rig: H&P 317 Duration: 10/26/2019-10/31/2019 Gyrodata MS Gyro <17-1/2"> (50'-568') APS EM <12-1/4"> (568')(687'-2534') APS EM <8-3/4"> (2534')(2645'-6349') BH AT Curve <8-1/2">(6349')(6402'-21390') Middlesex: 7095' MD Burkett: 7313' MD Tully: 7371' MD Marcellus POE: 7541' MD Projected MD at TD: 21415'</p>

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