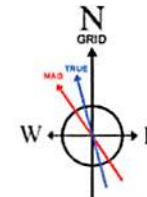


ANTERO RESOURCES CORPORATION

Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Middle Pad

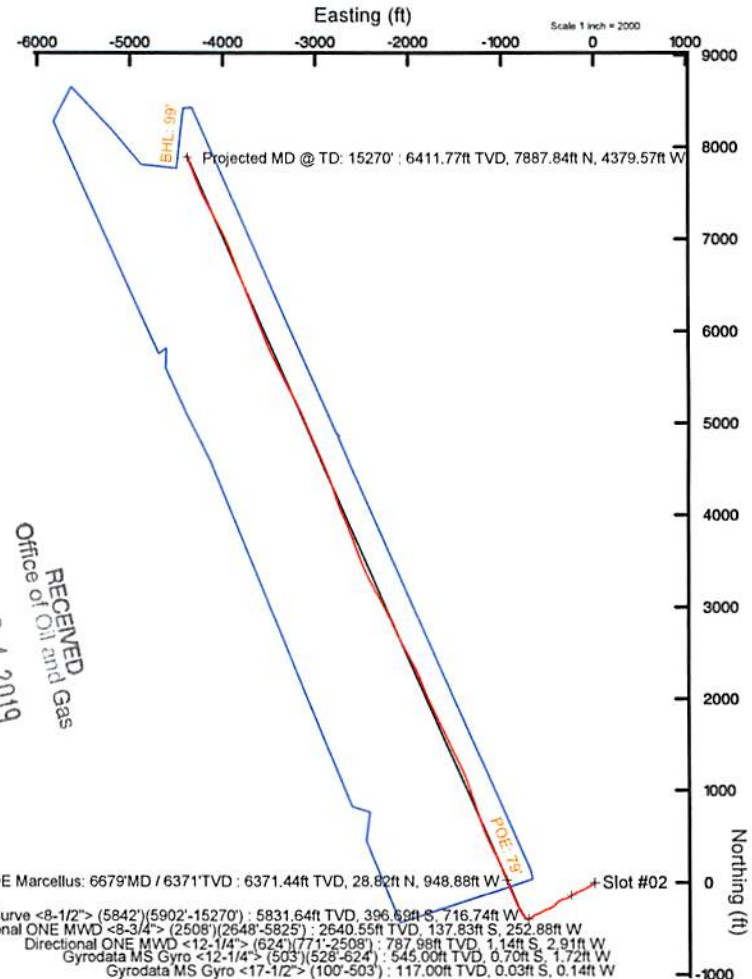
Slot: Slot #02
 Well: Caboose Unit 2H
 Wellbore: Caboose Unit 2H PWB



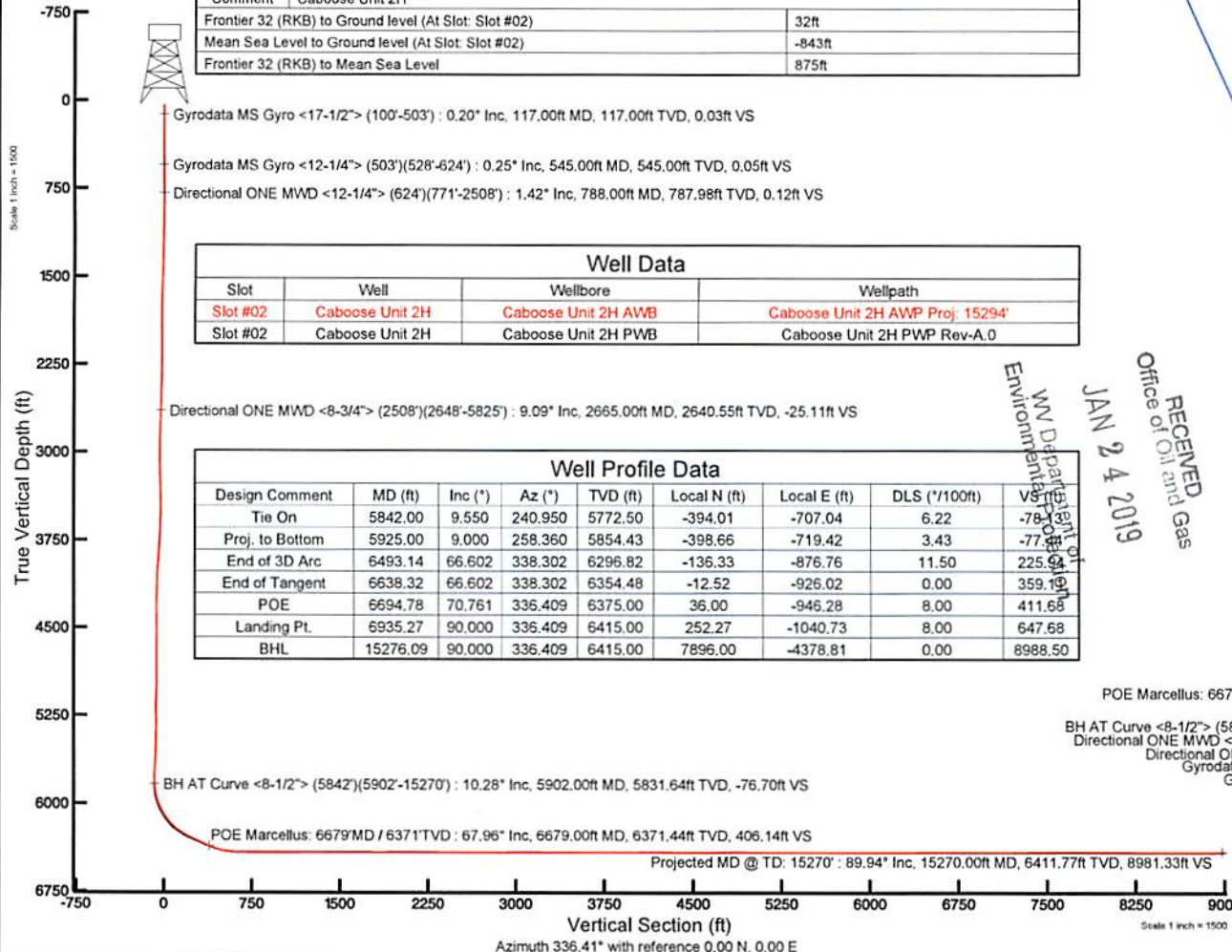
Plot reference wellpath is Caboose Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 32 (RKB)	North Reference: Grid north
Measured depths are referenced to Frontier 32 (RKB)	Scale: True distance
Frontier 32 (RKB) to Mean Sea Level: 875 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #02): -843 feet	Created by: mccrenb on 2018-05-15
Coordinates are in feet referenced to Slot	Database: WA_MPL_EASTERNUS_Defn

User specified Dip: 66.55° Field: 52022 nT
 Magnetic North is 7.64 degrees West of True North (at 3/29/2018)
 Grid North is 0.12 degrees East of True North
 To correct azimuth from True to Grid subtract 0.12 degrees
 To correct azimuth from Magnetic to Grid subtract 7.76 degrees

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Middle Pad	1695090.990	14279417.689	39°19'21.010"N	80°48'24.020"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #02	-3.02	9.44	1695100.423	14279414.675
Comment	Caboose Unit 2H			
Frontier 32 (RKB) to Ground level (At Slot: Slot #02)	32ft			
Mean Sea Level to Ground level (At Slot: Slot #02)	-843ft			
Frontier 32 (RKB) to Mean Sea Level	875ft			



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Well Data			
Slot	Well	Wellbore	Wellpath
Slot #02	Caboose Unit 2H	Caboose Unit 2H AWB	Caboose Unit 2H AWP Proj: 15294'
Slot #02	Caboose Unit 2H	Caboose Unit 2H PWB	Caboose Unit 2H PWP Rev-A.0

Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
Tie On	5842.00	9.550	240.950	5772.50	-394.01	-707.04	6.22
Proj. to Bottom	5925.00	9.000	258.360	5854.43	-398.66	-719.42	3.43
End of 3D Arc	6493.14	66.602	338.302	6296.82	-136.33	-876.76	11.50
End of Tangent	6638.32	66.602	338.302	6354.48	-12.52	-926.02	0.00
POE	6694.78	70.761	336.409	6375.00	36.00	-946.28	8.00
Landing Pt.	6935.27	90.000	336.409	6415.00	252.27	-1040.73	8.00
BHL	15276.09	90.000	336.409	6415.00	7896.00	-4378.81	0.00

API: 47-017-06817-0000
BH Job #: 9084096
Rig: Frontier 32
Duration: 3/31/18 - 04/03/18



Actual Wellpath Report

Caboose Unit 2H AWP Proj: 15294'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Doddridge Co., WV	Well	Caboose Unit 2H
Field	Doddridge	Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Mccrerib
Scale	0.999603	Report Generated	5/15/2018 at 3:31:35 PM
Convergence at slot	0.12° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Caboose_Unit_2H_AWP_Proj_15294_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3.02	9.44	1695100.42	14279414.68	39°19'20.980"N	80°48'23.900"W
Facility Reference Pt			1695090.99	14279417.69	39°19'21.010"N	80°48'24.020"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	875.00ft
Horizontal Reference Pt	Slot	Frontier 32 (RKB) to Mean Sea Level	875.00ft
Vertical Reference Pt	Frontier 32 (RKB)	Frontier 32 (RKB) to Ground Level at Slot (Slot #02)	32.00ft
MD Reference Pt	Frontier 32 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	336.41°

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Actual Wellpath Report

Caboose Unit 2H AWP Proj: 15294'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Doddridge Co., WV	Well	Caboose Unit 2H
Field	Doddridge	Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (186 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	257.710	0.00	0.00	0.00	0.00	1695100.42	14279414.68	39°19'20.980"N	80°48'23.900"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.000	257.710	32.00	0.00	0.00	0.00	1695100.42	14279414.68	39°19'20.980"N	80°48'23.900"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.200	257.710	117.00	0.03	-0.03	-0.14	1695100.28	14279414.64	39°19'20.980"N	80°48'23.902"W	0.15	257.710	0.24	0.24	-120.34	Gyrodata MS Gyro <17-1/2"> (100'-503')
217.00	0.320	266.050	217.00	0.16	-0.09	-0.59	1695099.83	14279414.59	39°19'20.979"N	80°48'23.908"W	0.60	261.577	0.13	0.12	8.34	
317.00	0.420	238.740	317.00	0.20	-0.30	-1.19	1695099.24	14279414.38	39°19'20.977"N	80°48'23.915"W	1.22	255.923	0.20	0.10	-27.31	
417.00	0.090	231.160	417.00	0.13	-0.54	-1.56	1695098.86	14279414.14	39°19'20.975"N	80°48'23.920"W	1.65	251.015	0.33	-0.33	-7.58	
517.00	0.180	211.930	517.00	0.02	-0.72	-1.70	1695098.72	14279413.96	39°19'20.973"N	80°48'23.922"W	1.85	247.119	0.10	0.09	-19.23	
520.00	0.140	216.620	520.00	0.02	-0.73	-1.71	1695098.71	14279413.95	39°19'20.973"N	80°48'23.922"W	1.86	246.978	1.40	-1.33	156.33	
545.00	0.250	9.380	545.00	0.05	-0.70	-1.72	1695098.70	14279413.98	39°19'20.973"N	80°48'23.922"W	1.85	247.924	1.52	0.44	611.04	Gyrodata MS Gyro <12-1/4"> (503')(528'-624')
641.00	0.300	5.720	640.99	0.44	-0.24	-1.66	1695098.76	14279414.43	39°19'20.978"N	80°48'23.921"W	1.68	261.759	0.06	0.05	-3.81	
788.00	1.420	225.020	787.98	0.12	-1.14	-2.91	1695097.51	14279413.53	39°19'20.969"N	80°48'23.937"W	3.13	248.520	1.13	0.76	-95.71	Directional ONE MWD <12-1/4"> (624')(771'-2508')
848.00	2.190	228.460	847.95	-0.51	-2.43	-4.29	1695096.13	14279412.25	39°19'20.956"N	80°48'23.955"W	4.93	240.485	1.30	1.28	5.73	
938.00	3.200	236.920	937.85	-1.45	-4.94	-7.69	1695092.74	14279409.73	39°19'20.931"N	80°48'23.998"W	9.14	237.257	1.20	1.12	9.40	
1026.00	4.770	237.220	1025.63	-2.44	-8.26	-12.82	1695087.61	14279406.41	39°19'20.899"N	80°48'24.063"W	15.25	237.194	1.78	1.78	0.34	
1114.00	6.430	235.280	1113.21	-3.98	-13.05	-19.95	1695080.48	14279401.63	39°19'20.851"N	80°48'24.154"W	23.84	236.802	1.90	1.89	-2.20	
1202.00	7.840	237.630	1200.53	-5.85	-19.07	-29.07	1695071.37	14279395.61	39°19'20.792"N	80°48'24.270"W	34.77	236.729	1.64	1.60	2.67	
1290.00	8.420	239.390	1287.64	-7.55	-25.57	-39.68	1695060.76	14279389.12	39°19'20.728"N	80°48'24.406"W	47.20	237.207	0.72	0.66	2.00	
1378.00	9.430	239.960	1374.58	-9.15	-32.46	-51.47	1695048.98	14279382.23	39°19'20.660"N	80°48'24.556"W	60.85	237.764	1.15	1.15	0.65	
1467.00	10.030	240.480	1462.30	-10.77	-39.92	-64.52	1695035.93	14279374.77	39°19'20.587"N	80°48'24.722"W	75.88	238.252	0.68	0.67	0.58	
1555.00	10.880	239.850	1548.83	-12.51	-47.87	-78.37	1695022.08	14279366.82	39°19'20.509"N	80°48'24.899"W	91.84	238.583	0.97	0.97	-0.72	
1643.00	10.990	239.900	1635.24	-14.41	-56.25	-92.81	1695007.65	14279358.45	39°19'20.426"N	80°48'25.083"W	108.53	238.781	0.13	0.12	0.06	
1731.00	12.050	244.880	1721.47	-15.60	-64.36	-108.39	1694992.08	14279350.34	39°19'20.346"N	80°48'25.281"W	126.05	239.300	1.65	1.20	5.66	
1819.00	12.520	246.020	1807.45	-15.91	-72.13	-125.42	1694975.05	14279342.57	39°19'20.270"N	80°48'25.498"W	144.68	240.095	0.60	0.53	1.30	
1907.00	12.950	246.330	1893.28	-15.99	-79.97	-143.16	1694957.32	14279334.74	39°19'20.193"N	80°48'25.724"W	163.98	240.814	0.49	0.49	0.35	
1995.00	12.260	245.930	1979.16	-16.08	-87.74	-160.73	1694939.76	14279326.97	39°19'20.116"N	80°48'25.948"W	183.11	241.371	0.79	-0.78	-0.45	
2083.00	11.250	245.620	2065.32	-16.28	-95.09	-177.08	1694923.42	14279319.62	39°19'20.044"N	80°48'26.156"W	200.99	241.764	1.15	-1.15	-0.35	
2172.00	10.950	248.530	2152.65	-16.09	-101.77	-192.85	1694907.65	14279312.95	39°19'19.978"N	80°48'26.357"W	218.06	242.179	0.71	-0.34	3.27	
2260.00	8.770	244.150	2239.35	-16.04	-107.75	-206.67	1694893.84	14279306.96	39°19'19.919"N	80°48'26.533"W	233.07	242.463	2.62	-2.48	-4.98	
2348.00	7.580	235.990	2326.46	-17.36	-113.93	-217.52	1694882.99	14279300.79	39°19'19.859"N	80°48'26.671"W	245.55	242.356	1.89	-1.35	-9.27	
2436.00	7.350	231.390	2413.71	-19.87	-120.69	-226.73	1694873.79	14279294.04	39°19'19.792"N	80°48'26.788"W	256.85	241.974	0.73	-0.26	-5.23	

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Actual Wellpath Report

Caboose Unit 2H AWP Proj: 15294'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #02
Area	Doddridge Co., WV		Well	Caboose Unit 2H
Field	Doddridge		Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad			

WELLPATH DATA (186 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
2525.00	7.310	236.130	2501.98	-22.35	-127.39	-235.88	1694864.64	14279287.33	39°19'19.726"N	80°48'26.905"W	268.08	241.627	0.68	-0.04	5.33	
2665.00	9.090	240.330	2640.55	-25.11	-137.83	-252.88	1694847.64	14279276.90	39°19'19.623"N	80°48'27.122"W	288.01	241.408	1.34	1.27	3.00	Directional ONE MWD <8-3/4"> (2508')(2648'-5825')
2753.00	9.260	233.030	2727.43	-27.49	-145.53	-264.58	1694835.95	14279269.20	39°19'19.547"N	80°48'27.271"W	301.96	241.187	1.34	0.19	-8.30	
2841.00	8.920	233.690	2814.32	-30.63	-153.83	-275.73	1694824.80	14279260.91	39°19'19.465"N	80°48'27.413"W	315.74	240.843	0.40	-0.39	0.75	
2929.00	8.480	238.010	2901.31	-33.08	-161.31	-286.74	1694813.80	14279253.43	39°19'19.392"N	80°48'27.553"W	328.99	240.639	0.89	-0.50	4.91	
3018.00	7.700	245.390	2989.42	-34.14	-167.27	-297.72	1694802.82	14279247.48	39°19'19.333"N	80°48'27.693"W	341.49	240.672	1.46	-0.88	8.29	
3106.00	7.710	253.880	3076.63	-33.48	-171.36	-308.75	1694791.79	14279243.38	39°19'19.293"N	80°48'27.833"W	353.12	240.969	1.29	0.01	9.65	
3194.00	9.200	257.220	3163.67	-31.39	-174.56	-321.29	1694779.27	14279240.19	39°19'19.262"N	80°48'27.993"W	365.64	241.485	1.78	1.69	3.80	
3282.00	9.200	256.440	3250.54	-28.85	-177.76	-334.98	1694765.57	14279236.98	39°19'19.230"N	80°48'28.167"W	379.23	242.047	0.14	0.00	-0.89	
3370.00	8.700	254.250	3337.47	-26.72	-181.22	-348.23	1694752.33	14279233.53	39°19'19.196"N	80°48'28.336"W	392.56	242.508	0.69	-0.57	-2.49	
3459.00	8.270	253.090	3425.50	-25.05	-184.91	-360.83	1694739.74	14279229.84	39°19'19.160"N	80°48'28.496"W	405.45	242.867	0.52	-0.48	-1.30	
3547.00	8.990	237.050	3512.51	-25.44	-190.49	-372.66	1694727.91	14279224.26	39°19'19.105"N	80°48'28.647"W	418.52	242.926	2.84	0.82	-18.23	
3635.00	8.550	233.420	3599.48	-28.02	-198.13	-383.68	1694716.89	14279216.63	39°19'19.030"N	80°48'28.787"W	431.82	242.689	0.80	-0.50	-4.13	
3723.00	8.060	230.760	3686.56	-31.16	-205.93	-393.71	1694706.87	14279208.83	39°19'18.953"N	80°48'28.915"W	444.31	242.389	0.71	-0.56	-3.02	
3812.00	10.890	230.090	3774.34	-35.21	-215.27	-405.00	1694695.59	14279199.49	39°19'18.861"N	80°48'29.059"W	458.65	242.008	3.18	3.18	-0.75	
3900.00	11.460	223.410	3860.67	-40.96	-226.95	-417.38	1694683.21	14279187.81	39°19'18.746"N	80°48'29.217"W	475.09	241.464	1.61	0.65	-7.59	
3988.00	11.410	222.750	3946.93	-47.87	-239.70	-429.30	1694671.30	14279175.07	39°19'18.620"N	80°48'29.369"W	491.68	240.823	0.16	-0.06	-0.75	
4077.00	9.920	232.360	4034.39	-53.26	-250.84	-441.34	1694659.25	14279163.93	39°19'18.510"N	80°48'29.523"W	507.65	240.388	2.60	-1.67	10.80	
4165.00	9.140	237.720	4121.18	-56.16	-259.21	-453.26	1694647.35	14279155.57	39°19'18.428"N	80°48'29.674"W	522.14	240.236	1.34	-0.89	6.09	
4253.00	9.220	232.820	4208.05	-58.87	-267.20	-464.78	1694635.83	14279147.58	39°19'18.349"N	80°48'29.821"W	536.11	240.106	0.89	0.09	-5.57	
4342.00	10.120	242.930	4295.80	-61.02	-275.07	-477.43	1694623.19	14279139.72	39°19'18.271"N	80°48'29.982"W	551.00	240.052	2.16	1.01	11.36	
4430.00	11.630	252.910	4382.22	-60.49	-281.19	-492.79	1694607.83	14279133.59	39°19'18.211"N	80°48'30.178"W	567.37	240.290	2.74	1.72	11.34	
4518.00	11.780	249.390	4468.39	-59.01	-286.96	-509.68	1694590.95	14279127.83	39°19'18.154"N	80°48'30.393"W	584.91	240.619	0.83	0.17	-4.00	
4607.00	9.850	244.870	4555.81	-58.75	-293.39	-525.08	1694575.56	14279121.40	39°19'18.091"N	80°48'30.589"W	601.48	240.805	2.37	-2.17	-5.08	
4695.00	8.440	245.780	4642.69	-59.02	-299.24	-537.78	1694562.86	14279115.55	39°19'18.034"N	80°48'30.751"W	615.43	240.907	1.61	-1.60	1.03	
4783.00	8.300	247.480	4729.75	-58.97	-304.32	-549.54	1694551.10	14279110.47	39°19'17.984"N	80°48'30.901"W	628.17	241.023	0.32	-0.16	1.93	
4871.00	8.420	245.830	4816.81	-58.92	-309.39	-561.28	1694539.36	14279105.41	39°19'17.934"N	80°48'31.050"W	640.91	241.135	0.30	0.14	-1.87	
4960.00	7.900	243.500	4904.91	-59.29	-314.79	-572.70	1694527.95	14279100.01	39°19'17.881"N	80°48'31.196"W	653.51	241.204	0.69	-0.58	-2.62	
5048.00	8.110	237.670	4992.06	-60.55	-320.61	-583.36	1694517.30	14279093.99	39°19'17.822"N	80°48'31.332"W	665.75	241.192	0.95	0.24	-6.62	
5136.00	7.960	234.210	5079.19	-62.78	-327.69	-593.54	1694507.11	14279087.11	39°19'17.754"N	80°48'31.461"W	678.00	241.097	0.58	-0.17	-3.93	

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Actual Wellpath Report

Caboose Unit 2H AWP Proj: 15294'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #02
Area	Doddridge Co., WV		Well: Caboose Unit 2H
Field	Doddridge		Wellbore: Caboose Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (186 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
5224.00	8.660	246.310	5166.28	-64.08	-333.92	-604.56	1694496.11	14279080.89	39°19'17.692"N	80°48'31.602"W	690.64	241.087	2.14	0.80	13.75	
5313.00	10.140	250.780	5254.08	-63.49	-339.19	-618.09	1694482.58	14279075.62	39°19'17.641"N	80°48'31.774"W	705.04	241.243	1.85	1.66	5.02	
5401.00	11.270	243.920	5340.55	-63.27	-345.52	-633.13	1694467.55	14279069.29	39°19'17.578"N	80°48'31.966"W	721.27	241.377	1.93	1.28	-7.80	
5489.00	10.790	242.210	5426.93	-64.25	-353.14	-648.14	1694452.54	14279061.68	39°19'17.503"N	80°48'32.157"W	738.10	241.416	0.66	-0.55	-1.94	
5578.00	12.080	239.150	5514.16	-66.04	-361.80	-663.51	1694437.18	14279053.02	39°19'17.418"N	80°48'32.352"W	755.74	241.397	1.60	1.45	-3.44	
5666.00	11.360	233.460	5600.33	-69.14	-371.68	-678.38	1694422.32	14279043.14	39°19'17.321"N	80°48'32.542"W	773.53	241.282	1.55	-0.82	-6.47	
5754.00	13.270	229.390	5686.30	-74.04	-383.42	-693.01	1694407.69	14279031.41	39°19'17.205"N	80°48'32.728"W	792.00	241.046	2.38	2.17	-4.62	
5798.00	11.700	231.720	5729.26	-76.65	-389.47	-700.34	1694400.36	14279025.36	39°19'17.145"N	80°48'32.822"W	801.35	240.921	3.75	-3.57	5.30	
5842.00	9.550	240.950	5772.50	-78.13	-394.01	-707.04	1694393.67	14279020.83	39°19'17.101"N	80°48'32.907"W	809.41	240.871	6.22	-4.89	20.98	
5902.00	10.280	267.190	5831.64	-76.70	-396.69	-716.74	1694383.97	14279018.15	39°19'17.074"N	80°48'33.031"W	819.19	241.037	7.56	1.22	43.73	BH AT Curve <8-1/2"> (5842')(5902'-15270')
5935.00	11.730	276.290	5864.03	-73.99	-396.46	-723.02	1694377.69	14279018.37	39°19'17.077"N	80°48'33.111"W	824.58	241.262	6.84	4.39	27.58	
5982.00	14.370	293.210	5909.83	-67.35	-393.64	-733.13	1694367.58	14279021.19	39°19'17.105"N	80°48'33.239"W	832.13	241.767	9.82	5.62	36.00	
6030.00	18.000	307.210	5955.94	-56.53	-386.80	-744.52	1694356.20	14279028.03	39°19'17.173"N	80°48'33.384"W	839.01	242.547	11.05	7.56	29.17	
6077.00	22.220	315.690	6000.07	-41.87	-376.05	-756.52	1694344.20	14279038.78	39°19'17.279"N	80°48'33.536"W	844.83	243.569	10.89	8.98	18.04	
6125.00	27.060	322.400	6043.70	-22.77	-360.89	-769.53	1694331.20	14279053.93	39°19'17.429"N	80°48'33.702"W	849.95	244.875	11.63	10.08	13.98	
6172.00	32.280	327.910	6084.53	0.03	-341.77	-782.74	1694318.00	14279073.04	39°19'17.619"N	80°48'33.869"W	854.10	246.412	12.52	11.11	11.72	
6221.00	37.180	331.110	6124.79	27.74	-317.70	-796.85	1694303.89	14279097.10	39°19'17.857"N	80°48'34.048"W	857.85	248.263	10.67	10.00	6.53	
6268.00	42.160	332.720	6160.96	57.64	-291.23	-810.95	1694289.80	14279123.56	39°19'18.119"N	80°48'34.227"W	861.66	250.245	10.82	10.60	3.43	
6291.00†	44.283	333.051	6177.72	73.36	-277.21	-818.13	1694282.62	14279137.57	39°19'18.257"N	80°48'34.318"W	863.82	251.282	9.28	9.23	1.44	Middlesex: 6291'MD / 6178'TVD
6315.00	46.500	333.370	6194.57	90.42	-261.96	-825.83	1694274.93	14279152.82	39°19'18.408"N	80°48'34.415"W	866.38	252.400	9.28	9.24	1.33	
6362.00	51.640	334.420	6225.35	125.88	-230.08	-841.43	1694259.32	14279184.69	39°19'18.724"N	80°48'34.613"W	872.32	254.707	11.07	10.94	2.23	
6411.00	56.810	335.460	6253.99	165.61	-194.08	-858.26	1694242.51	14279220.68	39°19'19.080"N	80°48'34.826"W	879.93	257.258	10.69	10.55	2.12	
6458.00	62.580	336.680	6277.69	206.16	-157.00	-874.70	1694226.08	14279257.74	39°19'19.447"N	80°48'35.034"W	888.67	259.824	12.48	12.28	2.60	
6506.00	64.810	337.670	6298.96	249.19	-117.34	-891.38	1694209.39	14279297.38	39°19'19.839"N	80°48'35.245"W	899.07	262.501	5.00	4.65	2.06	
6515.00†	64.824	338.007	6302.79	257.33	-109.80	-894.46	1694206.32	14279304.92	39°19'19.914"N	80°48'35.284"W	901.17	263.002	3.39	0.15	3.75	Burket: 6515'MD / 6303'TVD
6553.00	64.890	339.430	6318.94	291.70	-77.75	-906.94	1694193.84	14279336.96	39°19'20.231"N	80°48'35.442"W	910.27	265.100	3.39	0.17	3.74	
6585.00†	64.943	339.257	6332.51	320.64	-50.63	-917.16	1694183.62	14279364.07	39°19'20.499"N	80°48'35.572"W	918.56	266.841	0.52	0.17	-0.54	Tully: 6585'MD / 6333'TVD
6601.00	64.970	339.170	6339.28	335.12	-37.07	-922.31	1694178.48	14279377.62	39°19'20.633"N	80°48'35.637"W	923.05	267.698	0.52	0.17	-0.54	
6648.00	65.130	337.700	6359.11	377.71	2.56	-937.97	1694162.83	14279417.23	39°19'21.025"N	80°48'35.835"W	937.97	270.156	2.86	0.34	-3.13	
6659.00†	66.136	337.521	6363.64	387.73	11.82	-941.79	1694159.01	14279426.49	39°19'21.117"N	80°48'35.883"W	941.86	270.719	9.26	9.14	-1.62	Hamilton: 6659'MD / 6364'TVD

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Actual Wellpath Report

Caboose Unit 2H AWP Proj: 15294'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #02
Area	Doddridge Co., WV		Well	Caboose Unit 2H
Field	Doddridge		Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad			

WELLPATH DATA (186 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)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
6679.00†	67.965	337.204	6371.44	406.14	28.82	-948.88	1694151.92	14279443.48	39°19'21.285"N	80°48'35.973"W	949.31	271.740	9.26	9.15	-1.59	POE Marcellus: 6679MD / 6371TVD
6696.00	69.520	336.940	6377.61	421.98	43.41	-955.05	1694145.75	14279458.07	39°19'21.429"N	80°48'36.051"W	956.03	272.602	9.26	9.15	-1.55	
6743.00	74.770	338.030	6392.01	466.69	84.72	-972.17	1694128.64	14279499.36	39°19'21.838"N	80°48'36.268"W	975.85	274.981	11.39	11.17	2.32	
6791.00	78.820	339.040	6402.97	513.38	128.20	-989.26	1694111.56	14279542.83	39°19'22.268"N	80°48'36.484"W	997.53	277.384	8.68	8.44	2.10	
6838.00	82.100	338.430	6410.76	559.69	171.39	-1006.07	1694094.75	14279586.00	39°19'22.695"N	80°48'36.697"W	1020.56	279.668	7.10	6.98	-1.30	
6887.00	88.310	335.490	6414.86	608.48	216.29	-1025.17	1694075.66	14279630.88	39°19'23.139"N	80°48'36.939"W	1047.74	281.914	14.01	12.67	-6.00	
6982.00	89.780	333.290	6416.44	703.40	301.94	-1066.23	1694034.62	14279716.50	39°19'23.987"N	80°48'37.459"W	1108.16	285.811	2.78	1.55	-2.32	
7077.00	89.850	333.550	6416.75	798.27	386.90	-1108.74	1693992.13	14279801.42	39°19'24.827"N	80°48'37.998"W	1174.30	289.237	0.28	0.07	0.27	
7172.00	89.970	336.160	6416.90	893.23	472.89	-1149.10	1693951.78	14279887.38	39°19'25.678"N	80°48'38.509"W	1242.60	292.369	2.75	0.13	2.75	
7267.00	89.970	338.970	6416.95	988.20	560.69	-1185.35	1693915.55	14279975.14	39°19'26.546"N	80°48'38.968"W	1311.27	295.315	2.96	0.00	2.96	
7362.00	90.310	341.270	6416.71	1082.99	650.02	-1217.65	1693883.26	14280064.44	39°19'27.430"N	80°48'39.377"W	1380.29	298.095	2.45	0.36	2.42	
7458.00	90.000	341.160	6416.46	1178.66	740.91	-1248.57	1693852.35	14280155.29	39°19'28.329"N	80°48'39.768"W	1451.85	300.685	0.34	-0.32	-0.11	
7553.00	90.030	342.020	6416.43	1273.27	831.05	-1278.57	1693822.36	14280245.39	39°19'29.220"N	80°48'40.147"W	1524.92	303.023	0.91	0.03	0.91	
7648.00	90.120	342.030	6416.31	1367.81	921.41	-1307.89	1693793.06	14280335.72	39°19'30.114"N	80°48'40.518"W	1599.86	305.165	0.10	0.09	0.01	
7743.00	90.150	341.480	6416.08	1462.40	1011.63	-1337.63	1693763.33	14280425.91	39°19'31.007"N	80°48'40.894"W	1677.10	307.100	0.58	0.03	-0.58	
7838.00	90.060	339.420	6415.91	1557.16	1101.15	-1369.42	1693731.55	14280515.39	39°19'31.892"N	80°48'41.296"W	1757.22	308.803	2.17	-0.09	-2.17	
7933.00	89.970	337.090	6415.88	1652.10	1189.39	-1404.61	1693696.37	14280603.59	39°19'32.765"N	80°48'41.741"W	1840.53	310.257	2.45	-0.09	-2.45	
8028.00	90.060	334.720	6415.86	1747.09	1276.10	-1443.39	1693657.61	14280690.27	39°19'33.623"N	80°48'42.232"W	1926.61	311.480	2.50	0.09	-2.49	
8123.00	90.000	334.670	6415.81	1842.05	1361.99	-1484.00	1693617.02	14280776.12	39°19'34.472"N	80°48'42.747"W	2014.26	312.545	0.08	-0.06	-0.05	
8218.00	89.910	335.540	6415.88	1937.02	1448.16	-1523.99	1693577.04	14280862.26	39°19'35.325"N	80°48'43.254"W	2102.31	313.539	0.92	-0.09	0.92	
8313.00	90.000	335.640	6415.96	2032.01	1534.67	-1563.25	1693537.80	14280948.73	39°19'36.181"N	80°48'43.751"W	2190.65	314.471	1.14	0.09	0.11	
8408.00	89.970	334.540	6415.98	2126.99	1620.83	-1603.26	1693497.80	14281034.86	39°19'37.033"N	80°48'44.258"W	2279.81	315.312	1.16	-0.03	-1.16	
8503.00	90.060	333.950	6415.96	2221.92	1706.39	-1644.54	1693456.54	14281120.38	39°19'37.880"N	80°48'44.781"W	2369.87	316.057	0.63	0.09	-0.62	
8598.00	90.060	334.750	6415.86	2316.86	1792.03	-1685.66	1693415.43	14281205.99	39°19'38.727"N	80°48'45.302"W	2460.25	316.752	0.84	0.00	0.84	
8692.00	90.000	333.900	6415.81	2410.79	1876.75	-1726.39	1693374.72	14281290.67	39°19'39.565"N	80°48'45.818"W	2550.02	317.390	0.91	-0.06	-0.90	
8787.00	90.090	335.730	6415.73	2505.75	1962.71	-1766.81	1693334.31	14281376.60	39°19'40.415"N	80°48'46.330"W	2640.81	318.007	1.93	0.09	1.93	
8883.00	89.970	337.990	6415.68	2601.74	2050.98	-1804.54	1693296.61	14281464.84	39°19'41.289"N	80°48'46.808"W	2731.83	318.657	2.36	-0.13	2.35	
8978.00	89.940	338.130	6415.76	2696.70	2139.10	-1840.03	1693261.12	14281552.92	39°19'42.160"N	80°48'47.257"W	2821.61	319.298	0.15	-0.03	0.15	
9073.00	90.030	337.920	6415.78	2791.67	2227.20	-1875.58	1693225.59	14281640.99	39°19'43.032"N	80°48'47.707"W	2911.74	319.898	0.24	0.09	-0.22	
9168.00	89.940	335.520	6415.81	2886.66	2314.46	-1913.12	1693188.06	14281728.21	39°19'43.895"N	80°48'48.183"W	3002.79	320.423	2.53	-0.09	-2.53	



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Actual Wellpath Report

Caboose Unit 2H AWP Proj: 15294'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Doddridge Co., WV	Well	Caboose Unit 2H
Field	Doddridge	Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (186 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
9263.00	89.970	330.730	6415.88	2981.47	2399.17	-1956.06	1693145.15	14281812.89	39°19'44.733"N	80°48'48.727"W	3095.51	320.809	5.04	0.03	-5.04	
9358.00	90.000	331.850	6415.91	3076.09	2482.49	-2001.69	1693099.53	14281896.18	39°19'45.558"N	80°48'49.305"W	3188.97	321.120	1.18	0.03	1.18	
9452.00	90.030	331.990	6415.88	3169.80	2565.43	-2045.94	1693055.30	14281979.08	39°19'46.378"N	80°48'49.866"W	3281.35	321.428	0.15	0.03	0.15	
9547.00	90.180	333.680	6415.71	3264.62	2649.95	-2089.31	1693011.95	14282063.56	39°19'47.214"N	80°48'50.416"W	3374.53	321.747	1.79	0.16	1.78	
9642.00	90.090	335.550	6415.49	3359.56	2735.77	-2130.03	1692971.24	14282149.35	39°19'48.064"N	80°48'50.932"W	3467.20	322.096	1.97	-0.09	1.97	
9737.00	90.060	335.920	6415.36	3454.56	2822.38	-2169.07	1692932.21	14282235.93	39°19'48.920"N	80°48'51.426"W	3559.59	322.457	0.39	-0.03	0.39	
9832.00	90.060	334.300	6415.26	3549.53	2908.55	-2209.06	1692892.25	14282322.07	39°19'49.773"N	80°48'51.933"W	3652.34	322.783	1.71	0.00	-1.71	
9927.00	89.910	332.100	6415.29	3644.37	2993.34	-2251.89	1692849.43	14282406.82	39°19'50.612"N	80°48'52.476"W	3745.81	323.046	2.32	-0.16	-2.32	
10022.00	89.850	330.970	6415.49	3739.03	3076.85	-2297.16	1692804.17	14282490.30	39°19'51.438"N	80°48'53.050"W	3839.79	323.255	1.19	-0.06	-1.19	
10117.00	89.940	330.780	6415.66	3833.59	3159.84	-2343.40	1692757.95	14282573.26	39°19'52.259"N	80°48'53.636"W	3933.97	323.439	0.22	0.09	-0.20	
10211.00	89.940	332.320	6415.76	3927.25	3242.49	-2388.18	1692713.19	14282655.87	39°19'53.077"N	80°48'54.204"W	4027.05	323.627	1.64	0.00	1.64	
10305.00	89.970	333.750	6415.83	4021.08	3326.27	-2430.81	1692670.59	14282739.61	39°19'53.906"N	80°48'54.744"W	4119.81	323.841	1.52	0.03	1.52	
10399.00	89.970	336.980	6415.88	4115.05	3411.70	-2469.98	1692631.42	14282825.01	39°19'54.751"N	80°48'55.240"W	4211.95	324.096	3.44	0.00	3.44	
10493.00	89.940	338.790	6415.95	4209.02	3498.78	-2505.37	1692596.05	14282912.06	39°19'55.612"N	80°48'55.688"W	4303.29	324.395	1.93	-0.03	1.93	
10586.00	90.150	339.190	6415.88	4301.92	3585.60	-2538.71	1692562.72	14282998.84	39°19'56.471"N	80°48'56.111"W	4393.35	324.700	0.49	0.23	0.43	
10680.00	90.220	340.570	6415.58	4395.75	3673.86	-2571.05	1692530.40	14283087.07	39°19'57.344"N	80°48'56.520"W	4484.14	325.015	1.47	0.07	1.47	
10774.00	89.940	338.830	6415.45	4489.59	3762.02	-2603.66	1692497.80	14283175.19	39°19'58.216"N	80°48'56.932"W	4575.13	325.313	1.87	-0.30	-1.85	
10867.00	89.850	338.360	6415.62	4582.52	3848.60	-2637.60	1692463.88	14283261.74	39°19'59.073"N	80°48'57.362"W	4665.69	325.576	0.51	-0.10	-0.51	
10961.00	89.910	336.840	6415.81	4676.50	3935.50	-2673.42	1692428.07	14283348.61	39°19'59.932"N	80°48'57.816"W	4757.66	325.811	1.62	0.06	-1.62	
11055.00	89.940	336.760	6415.94	4770.49	4021.90	-2710.45	1692391.06	14283434.98	39°20'00.787"N	80°48'58.285"W	4849.97	326.023	0.09	0.03	-0.09	
11150.00	90.000	340.070	6415.99	4865.42	4110.23	-2745.39	1692356.13	14283523.27	39°20'01.661"N	80°48'58.727"W	4942.79	326.259	3.48	0.06	3.48	
11244.00	90.120	342.010	6415.89	4959.11	4199.12	-2775.93	1692325.60	14283612.13	39°20'02.540"N	80°48'59.114"W	5033.73	326.532	2.07	0.13	2.06	
11338.00	90.400	341.220	6415.46	5052.72	4288.33	-2805.58	1692295.96	14283701.29	39°20'03.422"N	80°48'59.489"W	5124.55	326.806	0.89	0.30	-0.84	
11431.00	90.120	339.520	6415.04	5145.50	4375.92	-2836.82	1692264.73	14283788.85	39°20'04.288"N	80°48'59.884"W	5215.00	327.045	1.85	-0.30	-1.83	
11525.00	90.030	338.070	6414.92	5239.41	4463.55	-2870.82	1692230.75	14283876.44	39°20'05.155"N	80°49'00.314"W	5307.06	327.252	1.55	-0.10	-1.54	
11619.00	89.910	336.830	6414.97	5333.39	4550.36	-2906.87	1692194.71	14283963.22	39°20'06.014"N	80°49'00.771"W	5399.60	327.429	1.33	-0.13	-1.32	
11713.00	90.000	335.970	6415.04	5427.39	4636.50	-2944.50	1692157.10	14284049.32	39°20'06.866"N	80°49'01.248"W	5492.47	327.582	0.92	0.10	-0.91	
11806.00	90.150	335.380	6414.92	5520.39	4721.24	-2982.81	1692118.81	14284134.03	39°20'07.704"N	80°49'01.733"W	5584.55	327.716	0.65	0.16	-0.63	
11900.00	90.250	336.110	6414.59	5614.38	4806.94	-3021.42	1692080.21	14284219.70	39°20'08.552"N	80°49'02.222"W	5677.65	327.848	0.78	0.11	0.78	
11994.00	90.310	336.410	6414.13	5708.38	4892.99	-3059.26	1692042.38	14284305.71	39°20'09.403"N	80°49'02.702"W	5770.65	327.985	0.33	0.06	0.32	



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Caboose Unit 2H AWP Proj: 15294'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Doddridge Co., WV	Well	Caboose Unit 2H
Field	Doddridge	Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (186 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
12088.00	89.970	337.670	6413.90	5802.37	4979.54	-3095.93	1692005.73	14284392.23	39°20'10.260"N	80°49'03.166"W	5863.50	328.130	1.39	-0.36	1.34	
12181.00	89.820	336.370	6414.07	5895.36	5065.16	-3132.24	1691969.43	14284477.81	39°20'11.106"N	80°49'03.626"W	5955.39	328.268	1.41	-0.16	-1.40	
12275.00	89.850	335.000	6414.34	5989.35	5150.81	-3170.94	1691930.74	14284563.44	39°20'11.954"N	80°49'04.116"W	6048.62	328.383	1.46	0.03	-1.46	
12368.00	89.750	333.690	6414.67	6082.29	5234.64	-3211.21	1691890.50	14284647.23	39°20'12.783"N	80°49'04.627"W	6141.12	328.473	1.41	-0.11	-1.41	
12462.00	90.030	332.980	6414.85	6176.15	5318.65	-3253.39	1691848.33	14284731.20	39°20'13.614"N	80°49'05.161"W	6234.78	328.546	0.81	0.30	-0.76	
12556.00	90.150	331.590	6414.70	6269.91	5401.86	-3297.11	1691804.63	14284814.38	39°20'14.438"N	80°49'05.716"W	6328.59	328.602	1.48	0.13	-1.48	
12650.00	90.950	333.930	6413.80	6363.70	5485.42	-3340.13	1691761.63	14284897.91	39°20'15.264"N	80°49'06.261"W	6422.33	328.662	2.63	0.85	2.49	
12743.00	90.220	333.240	6412.85	6456.58	5568.71	-3381.50	1691720.27	14284981.16	39°20'16.088"N	80°49'06.785"W	6514.99	328.733	1.08	-0.78	-0.74	
12836.00	90.650	334.740	6412.14	6549.50	5652.29	-3422.28	1691679.51	14285064.71	39°20'16.915"N	80°49'07.302"W	6607.59	328.806	1.68	0.46	1.61	
12930.00	90.120	333.840	6411.51	6643.43	5736.98	-3463.05	1691638.75	14285149.36	39°20'17.753"N	80°49'07.819"W	6701.17	328.883	1.11	-0.56	-0.96	
13024.00	90.120	336.940	6411.31	6737.40	5822.43	-3502.19	1691599.62	14285234.78	39°20'18.598"N	80°49'08.315"W	6794.56	328.973	3.30	0.00	3.30	
13117.00	90.000	339.160	6411.22	6830.36	5908.68	-3536.96	1691564.88	14285321.00	39°20'19.452"N	80°49'08.755"W	6886.40	329.095	2.39	-0.13	2.39	
13211.00	89.970	339.250	6411.24	6924.25	5996.56	-3570.33	1691531.52	14285408.84	39°20'20.321"N	80°49'09.178"W	6978.96	329.231	0.10	-0.03	0.10	
13305.00	89.880	337.450	6411.36	7018.19	6083.92	-3605.01	1691496.85	14285496.17	39°20'21.185"N	80°49'09.617"W	7071.79	329.351	1.92	-0.10	-1.91	
13398.00	89.970	337.930	6411.49	7111.16	6169.96	-3640.31	1691461.56	14285582.18	39°20'22.036"N	80°49'10.064"W	7163.82	329.459	0.53	0.10	0.52	
13492.00	90.060	339.230	6411.46	7205.10	6257.46	-3674.64	1691427.25	14285669.65	39°20'22.902"N	80°49'10.499"W	7256.64	329.577	1.39	0.10	1.38	
13586.00	90.460	339.040	6411.03	7298.99	6345.30	-3708.12	1691393.78	14285757.45	39°20'23.770"N	80°49'10.923"W	7349.35	329.698	0.47	0.43	-0.20	
13679.00	90.030	338.080	6410.64	7391.92	6431.86	-3742.11	1691359.80	14285843.97	39°20'24.627"N	80°49'11.353"W	7441.25	329.809	1.13	-0.46	-1.03	
13773.00	90.000	337.970	6410.61	7485.88	6519.03	-3777.29	1691324.64	14285931.11	39°20'25.489"N	80°49'11.799"W	7534.30	329.911	0.12	-0.03	-0.12	
13866.00	90.000	337.960	6410.61	7578.85	6605.24	-3812.18	1691289.76	14286017.28	39°20'26.342"N	80°49'12.240"W	7626.39	330.009	0.01	0.00	-0.01	
13960.00	90.180	339.580	6410.46	7672.77	6692.86	-3846.21	1691255.74	14286104.86	39°20'27.208"N	80°49'12.671"W	7719.31	330.115	1.73	0.19	1.72	
14053.00	90.090	339.570	6410.24	7765.62	6780.01	-3878.67	1691223.30	14286191.98	39°20'28.070"N	80°49'13.082"W	7811.06	330.227	0.10	-0.10	-0.01	
14147.00	90.060	338.340	6410.12	7859.53	6867.74	-3912.42	1691189.56	14286279.68	39°20'28.938"N	80°49'13.510"W	7903.98	330.331	1.31	-0.03	-1.31	
14241.00	90.000	337.030	6410.07	7953.50	6954.70	-3948.12	1691153.88	14286366.60	39°20'29.798"N	80°49'13.962"W	7997.21	330.417	1.40	-0.06	-1.39	
14334.00	89.720	334.280	6410.30	8046.49	7039.42	-3986.45	1691115.56	14286451.29	39°20'30.636"N	80°49'14.448"W	8089.82	330.477	2.97	-0.30	-2.96	
14428.00	89.850	332.470	6410.65	8140.35	7123.45	-4028.57	1691073.46	14286535.28	39°20'31.468"N	80°49'14.982"W	8183.70	330.510	1.93	0.14	-1.93	
14522.00	89.820	332.210	6410.92	8234.11	7206.70	-4072.21	1691029.84	14286618.51	39°20'32.291"N	80°49'15.535"W	8277.65	330.531	0.28	-0.03	-0.28	
14615.00	89.940	332.670	6411.12	8326.89	7289.15	-4115.24	1690986.82	14286700.92	39°20'33.107"N	80°49'16.081"W	8370.60	330.552	0.51	0.13	0.49	
14709.00	89.720	332.970	6411.40	8420.70	7372.77	-4158.18	1690943.90	14286784.51	39°20'33.934"N	80°49'16.625"W	8464.52	330.577	0.40	-0.23	0.32	
14803.00	89.880	333.140	6411.73	8514.54	7456.56	-4200.77	1690901.33	14286868.27	39°20'34.763"N	80°49'17.165"W	8558.44	330.605	0.25	0.17	0.18	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #02
Area	Doddridge Co., WV		Well Caboose Unit 2H
Field	Doddridge		Wellbore Caboose Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (186 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	
14896.00	90.000	337.200	6411.82	8607.50	7540.95	-4239.82	1690862.30	14286952.62	39°20'35.598"N	80°49'17.660"W	8651.13	330.654	4.37	0.13	4.37		
14989.00	90.030	338.500	6411.80	8700.47	7627.08	-4274.88	1690827.25	14287038.72	39°20'36.450"N	80°49'18.104"W	8743.40	330.730	1.40	0.03	1.40		
15083.00	90.000	338.610	6411.77	8794.40	7714.58	-4309.25	1690792.89	14287126.18	39°20'37.316"N	80°49'18.539"W	8836.53	330.813	0.12	-0.03	0.12		
15177.00	90.030	338.130	6411.75	8888.35	7801.96	-4343.90	1690758.26	14287213.52	39°20'38.180"N	80°49'18.978"W	8929.72	330.892	0.51	0.03	-0.51		
15270.00	89.940	336.750	6411.77	8981.33	7887.84	-4379.57	1690722.59	14287299.37	39°20'39.029"N	80°49'19.430"W	9022.12	330.960	1.49	-0.10	-1.48	Projected MD @ TD: 15270'	
15294.00	89.940	336.750	6411.80	9005.33	7909.89	-4389.05	1690713.12	14287321.41	39°20'39.248"N	80°49'19.550"W	9046.00	330.975	0.00	0.00	0.00		

HOLE & CASING SECTIONS - Ref Wellbore: Caboose Unit 2H AWB Ref Wellpath: Caboose Unit 2H AWP Proj: 15294'									
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	112.00	80.00	32.00	112.00	0.00	0.00	-0.03	-0.13
17.5in Open Hole	112.00	550.30	438.30	112.00	550.30	-0.03	-0.13	-0.67	-1.71
13.375in Casing Surface	32.00	550.30	518.30	32.00	550.30	0.00	0.00	-0.67	-1.71
12.25in Open Hole	550.30	2615.60	2065.30	550.30	2591.73	-0.67	-1.71	-134.03	-246.38
9.625in Casing Intermediate	32.00	2615.60	2583.60	32.00	2591.73	0.00	0.00	-134.03	-246.38
8.75in Open Hole	2615.60	5925.00	3309.40	2591.73	5854.23	-134.03	-246.38	-396.64	-721.03
8.5in Open Hole	5925.00	15294.00	9369.00	5854.23	6411.80	-396.64	-721.03	7909.89	-4389.05
5.5in Casing Production	32.00	15294.00	15262.00	32.00	6411.80	0.00	0.00	7909.89	-4389.05

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Doddridge Co., WV	Well	Caboose Unit 2H
Field	Doddridge	Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Caboose Unit 2H POE Plat	6375.00	36.00	-946.28	1694154.52	14279450.66	39°19'21.356"N	80°48'35.940"W	point
Caboose Unit 2H BHL Plat	6415.00	7896.00	-4378.81	1690723.36	14287307.53	39°20'39.110"N	80°49'19.420"W	point
Caboose Unit 2H LP Rev-1	6415.00	252.28	-1040.73	1694060.11	14279666.85	39°19'23.495"N	80°48'37.136"W	point

WELLPATH COMPOSITION - Ref Wellbore: Caboose Unit 2H AWB Ref Wellpath: Caboose Unit 2H AWP Proj: 15294'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	520.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2"> (100'-503')	Caboose Unit 2H AWB
520.00	641.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4"> (503')(528'-624')	Caboose Unit 2H AWB
641.00	2525.00	ISCWSA MWD, Rev. 4 (Standard)	03 Directional ONE MWD <12-1/4"> (624')(771'-2508')	Caboose Unit 2H AWB
2525.00	5842.00	ISCWSA MWD, Rev. 4 (Standard)	04 Directional ONE MWD <8-3/4"> (2508')(2648'-5825')	Caboose Unit 2H AWB
5842.00	15270.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2"> (5842')(5902'-15270')	Caboose Unit 2H AWB
15270.00	15294.00	Blind Drilling (std)	Projection to bit	Caboose Unit 2H AWB

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Doddridge Co., WV	Well	Caboose Unit 2H
Field	Doddridge	Wellbore	Caboose Unit 2H AWB
Facility	Middle Pad		

COMMENTS
<p>Wellpath general comments API: 47-017-06817-0000 BH Job #: 9084096 Rig: Frontier 32 Duration: 3/31/18 - 04/03/18 Gyrodata MS Gyro <17-1/2"> (100'-503') Gyrodata MS Gyro <12-1/4"> (503')(528'-624') Directional ONE MWD <12-1/4"> (624')(771'-2508') Directional ONE MWD <8-3/4"> (2508')(2648'-5825') BH AT Curve <8-1/2"> (5842')(5902'-15270') Middlesex: 6291'MD / 6178'TVD Burket: 6515'MD / 6303'TVD Tully: 6585'MD / 6333'TVD Hamilton: 6659'MD / 6364'TVD POE Marcellus: 6679'MD / 6371'TVD Projected MD @ TD: 15270'</p>

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