



ANTERO RESOURCES CORPORATION

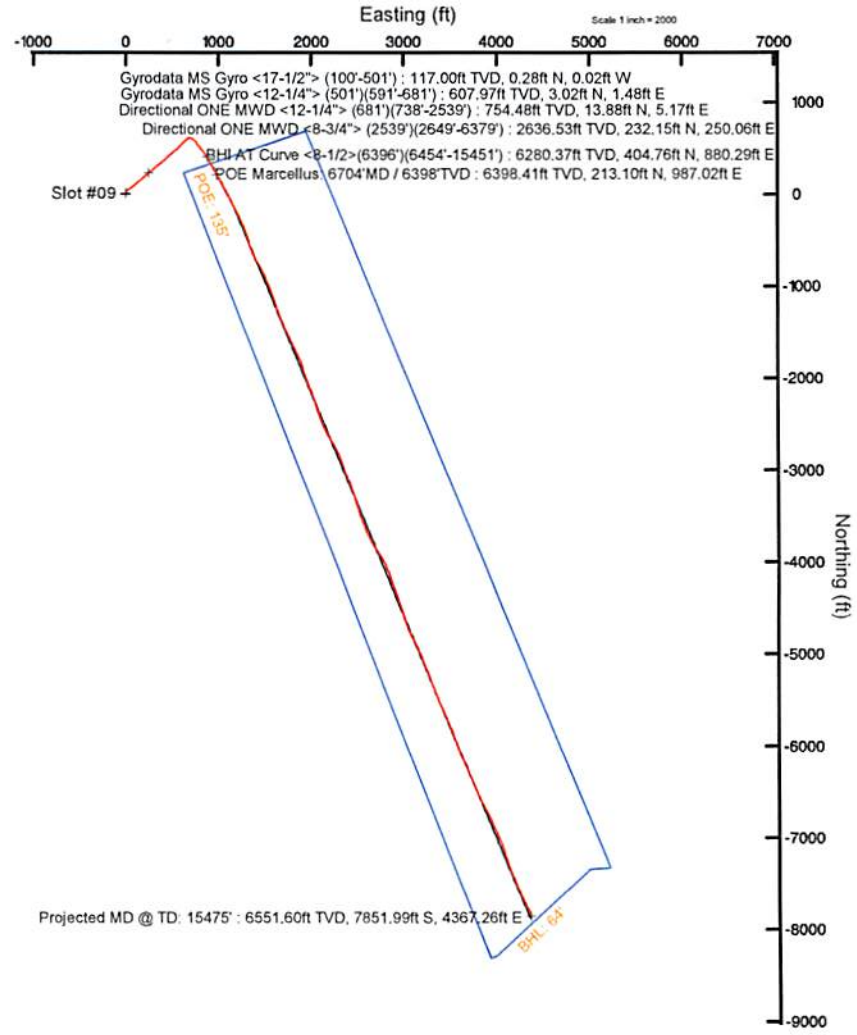
Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Middle Pad

Slot: Slot #09
 Well: Chalk Unit 1H
 Wellbore: Chalk Unit 1H PWB



Plot reference wellpath is Chalk Unit 1H PWB 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 #09): -843 feet	Created by: mccreid on 2018-05-21
Coordinates are in feet referenced to Slot	Database: WA_MPL_EASTERNUS_Defn

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)	Latitude	Longitude
Slot #09	-29.18	74.72	1695165.682	14279388.519	39°19'20.720"N	80°48'23.070"W
Comment: Chalk Unit 1H						
Frontier 32 (RKB) to Ground level (At Slot: Slot #09)				32ft		
Mean Sea Level to Ground level (At Slot: Slot #09)				-843ft		
Frontier 32 (RKB) to Mean Sea Level				875ft		



Scale 1 inch = 1500

Scale 1 inch = 2000



Gyrodata MS Gyro <17-1/2> (100'-501') : 0.38° Inc, 117.00ft MD, 117.00ft TVD, -0.27ft VS
 Gyrodata MS Gyro <12-1/4> (501')(591'-681') : 1.98° Inc, 608.00ft MD, 607.97ft TVD, -2.23ft VS
 Directional ONE MWD <12-1/4> (681')(738'-2539') : 6.92° Inc, 755.00ft MD, 754.48ft TVD, -10.86ft VS

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	6396.00	46.960	146.300	6243.15	442.11	856.22	9.55	-82.48
Proj. to Bottom	6478.00	54.680	147.960	6294.91	388.74	890.65	9.54	-20.01
POE	6701.43	67.924	151.995	6402.00	219.26	988.08	6.13	173.81
Landing Pt.	6911.67	90.000	151.995	6442.00	38.20	1084.37	10.50	377.90
On Azimuth	7191.71	90.000	157.596	6442.00	-215.07	1203.58	2.00	657.49
BHL	15476.79	90.000	157.596	6442.00	-7874.78	4361.34	0.00	8942.58

Directional ONE MWD <8-3/4> (2539')(2649'-6379') : 11.83° Inc, 2666.00ft MD, 2636.53ft TVD, -119.35ft VS

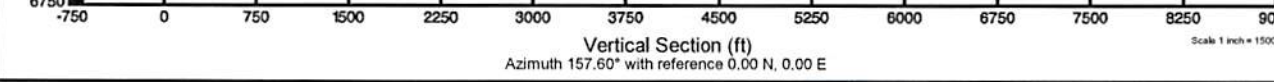
Well Data			
Slot	Well	Wellbore	Wellpath
Slot #09	Chalk Unit 1H	Chalk Unit 1H AWB	Chalk Unit 1H AWP Proj: 15475'
Slot #09	Chalk Unit 1H	Chalk Unit 1H PWB	Chalk Unit 1H PWB Rev-A.0

User specified Dip: 66.55° Field: 52034
 Magnetic North is 7.64 degrees West of True North (12/23/2018)
 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

RECEIVED
 Office of Oil and Gas
 JAN 24 2019
 WV Department of Environmental Protection

BHI AT Curve <8-1/2>(6396')(6454'-15451') : 53.15° Inc, 6454.00ft MD, 6280.37ft TVD, -38.76ft VS
 Projected MD @ TD: 15475' : 90.55° Inc, 15475.00ft MD, 6551.60ft TVD, 8923.76ft VS
 POE Marcellus: 6704MD / 6398TVD : 69.71° Inc, 6704.00ft MD, 6398.41ft TVD, 179.10ft VS

API: 47-017-06818-0000
 BH Job #: 9018052
 Rig: Frontier 32
 Duration: 02/26/18 - 02/28/18



Azimuth 157.60° with reference 0.00 N, 0.00 E



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Doddridge Co., WV	Well	Chalk Unit 1H
Field	Doddridge	Wellbore	Chalk Unit 1H 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	5/21/2018 at 12:31:10 PM
Convergence at slot	0.12° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Chalk_Unit_1H_AWP_Proj_15475_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-29.18	74.72	1695165.68	14279388.52	39°19'20.720"N	80°48'23.070"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 #09)	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	157.60°

RECEIVED
 Office of Oil and Gas
 JAN 24 2019
 WV Department of
 Environmental Protection



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 2 of 10



REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #09
Area	Doddridge Co., WV		Well	Chalk Unit 1H
Field	Doddridge		Wellbore	Chalk Unit 1H AWB
Facility	Middle Pad			

WELLPATH DATA (191 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	355.900	0.00	0.00	0.00	0.00	1695165.68	14279388.52	39°19'20.720"N	80°48'23.070"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.00	355.900	32.00	0.00	0.00	0.00	1695165.68	14279388.52	39°19'20.720"N	80°48'23.070"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.380	355.900	117.00	-0.27	0.28	-0.02	1695165.66	14279388.80	39°19'20.723"N	80°48'23.070"W	0.28	355.900	0.45	0.45	-4.82	Gyrodata MS Gyro <17-1/2"> (100'-501')
217.00	0.540	4.510	217.00	-1.00	1.08	-0.01	1695165.68	14279389.60	39°19'20.731"N	80°48'23.070"W	1.08	359.639	0.17	0.16	8.61	
317.00	0.170	80.730	316.99	-1.39	1.58	0.18	1695165.86	14279390.09	39°19'20.736"N	80°48'23.068"W	1.59	6.399	0.53	-0.37	76.22	
417.00	0.130	90.750	416.99	-1.31	1.60	0.44	1695166.12	14279390.12	39°19'20.736"N	80°48'23.064"W	1.66	15.280	0.05	-0.04	10.02	
517.00	0.500	99.440	516.99	-1.04	1.52	0.98	1695166.66	14279390.04	39°19'20.735"N	80°48'23.057"W	1.81	32.740	0.37	0.37	8.69	
518.00	0.500	98.100	517.99	-1.03	1.52	0.99	1695166.67	14279390.04	39°19'20.735"N	80°48'23.057"W	1.82	32.992	1.17	0.00	-134.00	
608.00	1.980	3.740	607.97	-2.23	3.02	1.48	1695167.16	14279391.54	39°19'20.750"N	80°48'23.051"W	3.36	26.099	2.31	1.64	-104.84	Gyrodata MS Gyro <12-1/4"> (501')(591'-681')
698.00	5.110	19.690	697.79	-6.60	8.35	2.93	1695168.61	14279396.86	39°19'20.802"N	80°48'23.032"W	8.85	19.353	3.61	3.48	17.72	
755.00	6.920	23.770	754.48	-10.86	13.88	5.17	1695170.85	14279402.39	39°19'20.857"N	80°48'23.004"W	14.81	20.434	3.26	3.18	7.16	Directional ONE MWD <12-1/4"> (681')(738'-2539')
845.00	9.100	33.980	843.60	-18.56	24.74	11.34	1695177.01	14279413.25	39°19'20.964"N	80°48'22.925"W	27.22	24.612	2.88	2.42	11.34	
935.00	10.400	40.930	932.30	-26.15	36.78	20.64	1695186.31	14279425.29	39°19'21.083"N	80°48'22.806"W	42.18	29.292	1.95	1.44	7.72	
1023.00	9.300	47.890	1019.00	-32.11	47.55	31.11	1695196.78	14279436.05	39°19'21.189"N	80°48'22.673"W	56.83	33.197	1.84	-1.25	7.91	
1111.00	8.540	46.120	1105.94	-36.90	56.85	41.10	1695206.77	14279445.35	39°19'21.281"N	80°48'22.545"W	70.15	35.864	0.92	-0.86	-2.01	
1199.00	8.970	41.640	1192.91	-42.30	66.51	50.37	1695216.03	14279455.00	39°19'21.376"N	80°48'22.427"W	83.43	37.138	0.92	0.49	-5.09	
1288.00	9.440	51.470	1280.77	-47.36	76.24	60.69	1695226.35	14279464.73	39°19'21.472"N	80°48'22.296"W	97.45	38.520	1.84	0.53	11.04	
1376.00	8.740	58.780	1367.67	-50.39	84.20	72.05	1695237.71	14279472.69	39°19'21.551"N	80°48'22.151"W	110.82	40.554	1.53	-0.80	8.31	
1464.00	8.390	57.240	1454.69	-52.57	91.14	83.17	1695248.82	14279479.62	39°19'21.619"N	80°48'22.009"W	123.38	42.381	0.48	-0.40	-1.75	
1552.00	9.020	50.930	1541.68	-55.70	98.96	93.92	1695259.57	14279487.44	39°19'21.696"N	80°48'21.872"W	136.44	43.503	1.30	0.72	-7.17	
1640.00	10.130	50.170	1628.45	-60.00	108.27	105.22	1695270.86	14279496.74	39°19'21.788"N	80°48'21.728"W	150.98	44.183	1.27	1.26	-0.86	
1728.00	10.590	47.660	1715.01	-65.08	118.67	117.14	1695282.78	14279507.14	39°19'21.890"N	80°48'21.576"W	166.75	44.629	0.73	0.52	-2.85	
1817.00	11.530	47.090	1802.36	-70.98	130.24	129.70	1695295.33	14279518.70	39°19'22.004"N	80°48'21.416"W	183.80	44.883	1.06	1.06	-0.64	
1905.00	11.740	48.770	1888.55	-76.95	142.12	142.88	1695308.50	14279530.59	39°19'22.122"N	80°48'21.248"W	201.53	45.151	0.45	0.24	1.91	
1993.00	10.820	50.870	1974.85	-82.22	153.24	156.02	1695321.64	14279541.70	39°19'22.231"N	80°48'21.081"W	218.69	45.515	1.14	-1.05	2.39	
2081.00	10.210	50.830	2061.37	-86.85	163.38	168.47	1695334.09	14279551.83	39°19'22.331"N	80°48'20.922"W	234.68	45.880	0.69	-0.69	-0.05	
2169.00	10.490	50.990	2147.94	-91.39	173.35	180.74	1695346.35	14279561.80	39°19'22.429"N	80°48'20.765"W	250.43	46.197	0.32	0.32	0.18	
2257.00	9.770	50.680	2234.57	-95.85	183.12	192.74	1695358.35	14279571.57	39°19'22.526"N	80°48'20.612"W	265.86	46.467	0.82	-0.82	-0.35	
2345.00	10.230	46.210	2321.23	-100.88	193.26	204.16	1695369.76	14279581.70	39°19'22.626"N	80°48'20.467"W	281.12	46.572	1.02	0.52	-5.08	
2433.00	10.790	47.500	2407.76	-106.56	204.23	215.88	1695381.47	14279592.67	39°19'22.734"N	80°48'20.318"W	297.17	46.588	0.69	0.64	1.47	

RECEIVED
 Office of Oil and Gas
 JAN 24 2019
 WV Department of Environmental Protection



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475
Page 3 of 10



Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Middle Pad
Slot	Slot #09
Well	Well
Chalk Unit 1H	Chalk Unit 1H AWP

WELLPATH DATA (191 stations)												
MD (ft)	Inclination (ft)	Azimuth (ft)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (ft)
2521.00	10.750	50.080	2494.21	-111.86	125.06	228.24	1695393.83	14279603.50	39°19'22.841"N	80°48'20.160"W	313.60	46.703
2556.00	10.490	49.750	2528.61	-113.82	219.22	233.18	1695398.77	14279607.65	39°19'22.882"N	80°48'20.097"W	320.04	46.768
2666.00	11.830	55.000	2636.53	-119.35	232.15	250.06	1695415.64	14279620.58	39°19'23.009"N	80°48'19.882"W	341.21	47.126
2754.00	11.040	50.270	2722.78	-123.82	242.71	263.93	1695429.51	14279631.14	39°19'23.113"N	80°48'19.705"W	358.56	47.398
2842.00	10.470	45.770	2809.24	-129.31	253.68	276.14	1695441.71	14279642.09	39°19'23.221"N	80°48'19.549"W	374.97	47.428
2931.00	12.320	52.710	2896.48	-134.76	265.07	289.49	1695455.06	14279653.49	39°19'23.334"N	80°48'19.379"W	392.51	47.521
3019.00	11.510	46.390	2982.59	-140.34	276.82	303.32	1695468.88	14279665.22	39°19'23.450"N	80°48'19.203"W	410.64	47.615
3107.00	11.220	49.650	3068.87	-146.16	288.42	316.20	1695481.76	14279676.82	39°19'23.564"N	80°48'19.039"W	427.98	47.631
3195.00	12.450	52.220	3154.99	-151.32	299.78	330.23	1695495.78	14279688.18	39°19'23.676"N	80°48'18.860"W	446.01	47.767
3283.00	11.750	46.490	3241.04	-157.06	311.76	344.23	1695509.77	14279700.16	39°19'23.794"N	80°48'18.681"W	464.42	47.833
3372.00	11.170	50.470	3328.27	-162.87	323.49	357.45	1695522.99	14279711.88	39°19'23.910"N	80°48'18.513"W	482.09	47.855
3460.00	11.120	54.100	3414.61	-167.36	333.89	370.90	1695536.43	14279722.27	39°19'24.012"N	80°48'18.341"W	499.05	48.006
3548.00	10.540	47.180	3501.04	-172.15	344.34	383.68	1695549.21	14279732.72	39°19'24.115"N	80°48'18.179"W	515.53	48.093
3636.00	10.150	52.900	3587.62	-176.92	354.48	395.76	1695561.29	14279742.86	39°19'24.215"N	80°48'18.024"W	531.31	48.149
3724.00	11.170	53.900	3674.10	-180.91	364.18	408.84	1695574.36	14279752.66	39°19'24.311"N	80°48'17.858"W	547.52	48.306
3812.00	10.050	49.970	3760.59	-185.25	374.14	421.60	1695587.12	14279762.51	39°19'24.409"N	80°48'17.695"W	563.68	48.413
3901.00	9.400	47.100	3848.87	-190.15	384.09	432.87	1695598.38	14279772.45	39°19'24.507"N	80°48'17.551"W	578.71	48.418
3989.00	8.830	41.390	3935.20	-195.65	394.05	442.60	1695608.11	14279782.41	39°19'24.605"N	80°48'17.427"W	592.60	48.322
4077.00	9.390	42.200	4022.09	-201.71	404.43	451.89	1695617.39	14279792.79	39°19'24.708"N	80°48'17.309"W	606.44	48.172
4165.00	10.160	42.220	4108.81	-208.12	416.50	461.93	1695627.43	14279803.85	39°19'24.817"N	80°48'17.181"W	621.30	48.029
4254.00	10.130	45.230	4196.42	-214.46	426.82	472.76	1695638.25	14279815.17	39°19'24.929"N	80°48'17.043"W	636.93	47.923
4342.00	11.010	53.500	4282.93	-219.45	437.27	485.01	1695650.50	14279825.62	39°19'25.032"N	80°48'16.887"W	653.03	47.963
4430.00	10.270	50.150	4369.42	-223.85	447.30	497.79	1695663.27	14279835.64	39°19'25.130"N	80°48'16.724"W	669.23	48.058
4518.00	9.280	49.420	4456.14	-228.42	456.94	509.20	1695674.68	14279845.28	39°19'25.225"N	80°48'16.578"W	684.16	48.096
4607.00	10.630	52.510	4543.80	-232.80	466.60	521.16	1695686.64	14279854.94	39°19'25.321"N	80°48'16.426"W	699.52	48.162
4695.00	10.490	48.410	4630.31	-237.54	476.86	533.60	1695699.07	14279864.19	39°19'25.422"N	80°48'16.267"W	715.63	48.214
4783.00	9.910	46.710	4716.92	-242.88	487.37	545.10	1695710.56	14279875.70	39°19'25.525"N	80°48'16.121"W	731.21	48.200
4872.00	10.390	46.010	4804.53	-248.56	498.20	556.45	1695721.91	14279886.52	39°19'25.632"N	80°48'15.976"W	746.88	48.161
4960.00	10.240	42.100	4891.11	-254.85	509.51	567.40	1695732.86	14279897.83	39°19'25.744"N	80°48'15.836"W	762.59	48.077
5048.00	9.870	46.770	4977.76	-260.90	520.48	578.14	1695743.59	14279908.79	39°19'25.852"N	80°48'15.699"W	777.91	48.004

Directional ONE MWD <8-3/4"> (2539)(2649-6379)
Turn Rate (°/100ft)
Comments

RECEIVED
Office of Oil and Gas
JAN 24 2019
WV Department of
Environmental Protection



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #09
Area	Doddridge Co., WV		Well Chalk Unit 1H
Field	Doddridge		Wellbore Chalk Unit 1H AWB
Facility	Middle Pad		

WELLPATH DATA (191 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
5136.00	10.440	48.870	5064.38	-266.14	530.89	589.64	1695755.09	14279919.20	39°19'25.955"N	80°48'15.553"W	793.43	48.001	0.77	0.65	2.39	
5224.00	10.170	44.840	5150.96	-271.71	541.65	601.13	1695766.57	14279929.95	39°19'26.061"N	80°48'15.406"W	809.16	47.979	0.87	-0.31	-4.58	
5313.00	10.150	44.750	5238.56	-277.79	552.79	612.19	1695777.63	14279941.09	39°19'26.171"N	80°48'15.265"W	824.83	47.919	0.03	-0.02	-0.10	
5401.00	10.370	43.070	5325.16	-284.09	564.08	623.06	1695788.49	14279952.37	39°19'26.282"N	80°48'15.126"W	840.47	47.844	0.42	0.25	-1.91	
5489.00	10.790	45.580	5411.66	-290.47	575.63	634.35	1695799.78	14279963.92	39°19'26.396"N	80°48'14.982"W	856.59	47.778	0.71	0.48	2.85	
5577.00	11.440	48.400	5498.01	-296.43	587.19	646.76	1695812.18	14279975.48	39°19'26.510"N	80°48'14.824"W	873.55	47.764	0.96	0.74	3.20	
5665.00	11.390	45.540	5584.27	-302.56	599.07	659.48	1695824.90	14279987.35	39°19'26.627"N	80°48'14.662"W	890.96	47.748	0.65	-0.06	-3.25	
5710.00	10.270	43.290	5628.47	-305.88	605.10	665.41	1695830.82	14279993.38	39°19'26.686"N	80°48'14.586"W	899.40	47.717	2.66	-2.49	-5.00	
5754.00	10.390	52.230	5671.76	-308.55	610.39	671.23	1695836.65	14279998.66	39°19'26.739"N	80°48'14.512"W	907.26	47.718	3.65	0.27	20.32	
5797.00	10.530	71.370	5714.06	-309.32	614.02	678.02	1695843.44	14280002.29	39°19'26.774"N	80°48'14.426"W	914.73	47.836	8.05	0.33	44.51	
5842.00	12.190	89.140	5758.19	-307.30	615.41	686.67	1695852.08	14280003.68	39°19'26.788"N	80°48'14.316"W	922.09	48.133	8.56	3.69	39.49	
5886.00	13.910	99.050	5801.05	-302.83	614.64	696.54	1695861.95	14280002.92	39°19'26.780"N	80°48'14.190"W	928.96	48.574	6.40	3.91	22.52	
5930.00	15.120	106.470	5843.65	-296.47	612.18	707.27	1695872.67	14280000.46	39°19'26.756"N	80°48'14.054"W	935.42	49.122	5.04	2.75	16.86	
5974.00	17.510	116.340	5885.89	-287.89	607.62	718.71	1695884.11	14279995.90	39°19'26.710"N	80°48'13.908"W	941.14	49.788	8.30	5.43	22.43	
6018.00	20.430	125.410	5927.50	-276.41	600.23	730.91	1695896.30	14279988.51	39°19'26.637"N	80°48'13.753"W	945.78	50.607	9.41	6.64	20.61	
6062.00	23.400	132.910	5968.32	-261.97	589.83	743.57	1695908.96	14279978.11	39°19'26.534"N	80°48'13.592"W	949.10	51.577	9.26	6.75	17.05	
6106.00	26.510	137.910	6008.22	-244.78	576.59	756.56	1695921.94	14279964.88	39°19'26.403"N	80°48'13.427"W	951.22	52.688	8.54	7.07	11.36	
6150.00	29.060	141.120	6047.14	-225.28	560.98	769.85	1695935.22	14279949.27	39°19'26.248"N	80°48'13.259"W	952.56	53.920	6.72	5.80	7.30	
6194.00	31.410	142.210	6085.15	-203.98	543.59	783.58	1695948.95	14279931.90	39°19'26.076"N	80°48'13.084"W	953.68	55.250	5.48	5.34	2.48	
6238.00	33.650	143.720	6122.25	-181.09	524.70	797.83	1695963.19	14279913.01	39°19'25.889"N	80°48'12.904"W	954.90	56.668	5.41	5.09	3.43	
6282.00	36.780	143.510	6158.19	-156.47	504.28	812.88	1695978.23	14279892.60	39°19'25.687"N	80°48'12.713"W	956.59	58.186	7.12	7.11	-0.48	
6327.00	40.570	144.830	6193.32	-129.12	481.48	829.32	1695994.67	14279869.81	39°19'25.461"N	80°48'12.504"W	958.96	59.862	8.62	8.42	2.93	
6371.00	44.590	145.900	6225.71	-100.03	456.98	846.23	1696011.57	14279845.32	39°19'25.219"N	80°48'12.290"W	961.74	61.630	9.28	9.14	2.43	
6396.00	46.960	146.300	6243.15	-82.48	442.11	856.22	1696021.56	14279830.46	39°19'25.071"N	80°48'12.163"W	963.63	62.690	9.55	9.48	1.60	
6454.00	53.150	148.030	6280.37	-38.76	404.76	880.29	1696045.62	14279793.11	39°19'24.702"N	80°48'11.858"W	968.89	65.307	10.91	10.67	2.98	BHI AT Curve <8-1/2>(6396')(6454'-15451')
6501.00	57.000	149.140	6307.27	-0.71	371.87	900.37	1696065.69	14279760.24	39°19'24.376"N	80°48'11.603"W	974.14	67.558	8.42	8.19	2.36	
6541.00†	59.492	150.636	6328.32	32.99	342.45	917.42	1696082.74	14279730.83	39°19'24.085"N	80°48'11.387"W	979.25	69.531	6.99	6.23	3.74	Burket: 6541'MD / 6328'TVD
6548.00	59.930	150.890	6331.85	38.99	337.18	920.37	1696085.69	14279725.56	39°19'24.033"N	80°48'11.349"W	980.19	69.880	6.99	6.26	3.63	
6595.00	62.250	152.170	6354.57	79.90	301.01	939.98	1696105.29	14279689.41	39°19'23.675"N	80°48'11.101"W	987.00	72.243	5.48	4.94	2.72	
6601.00†	62.695	152.097	6357.35	85.20	296.31	942.47	1696107.77	14279684.71	39°19'23.628"N	80°48'11.069"W	987.95	72.547	7.50	7.42	-1.22	Tully: 6601'MD / 6357'TVD



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Doddridge Co., WV	Well	Chalk Unit 1H
Field	Doddridge	Wellbore	Chalk Unit 1H AWB
Facility	Middle Pad		

WELLPATH DATA (191 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
6642.00	65.740	151.610	6375.18	121.93	263.76	959.88	1696125.18	14279652.17	39°19'23.306"N	80°48'10.849"W	995.46	74.635	7.50	7.43	-1.19	
6681.00†	68.653	151.906	6390.29	157.69	232.09	976.89	1696142.19	14279620.52	39°19'22.993"N	80°48'10.633"W	1004.08	76.635	7.50	7.47	0.76	Hamilton: 6681MD / 6390TVD
6691.00	69.400	151.980	6393.87	166.98	223.85	981.28	1696146.58	14279612.28	39°19'22.911"N	80°48'10.578"W	1006.49	77.150	7.50	7.47	0.74	
6704.00†	69.710	151.888	6398.41	179.10	213.10	987.02	1696152.30	14279601.54	39°19'22.805"N	80°48'10.505"W	1009.76	77.817	2.47	2.38	-0.71	POE Marcellus: 6704MD / 6398TVD
6738.00	70.520	151.650	6409.98	210.91	184.93	1002.14	1696167.42	14279573.38	39°19'22.526"N	80°48'10.313"W	1019.06	79.544	2.47	2.38	-0.70	
6786.00	74.620	151.860	6424.35	256.46	144.60	1023.81	1696189.08	14279533.06	39°19'22.127"N	80°48'10.039"W	1033.97	81.961	8.55	8.54	0.44	
6833.00	80.880	151.530	6434.32	302.12	104.18	1045.58	1696210.84	14279492.66	39°19'21.727"N	80°48'09.763"W	1050.75	84.310	13.34	13.32	-0.70	
6881.00	86.270	153.110	6439.69	349.60	61.95	1067.72	1696232.98	14279450.45	39°19'21.310"N	80°48'09.482"W	1069.52	86.679	11.70	11.23	3.29	
6928.00	88.950	153.350	6441.65	396.42	20.03	1088.87	1696254.12	14279408.54	39°19'20.895"N	80°48'09.214"W	1089.05	88.946	5.72	5.70	0.51	
6976.00	89.110	153.000	6442.46	444.27	-22.80	1110.53	1696275.77	14279365.73	39°19'20.471"N	80°48'08.940"W	1110.76	91.176	0.80	0.33	-0.73	
7071.00	88.950	150.300	6444.07	538.73	-106.38	1155.63	1696320.85	14279282.18	39°19'19.644"N	80°48'08.368"W	1160.51	95.260	2.85	-0.17	-2.84	
7166.00	88.920	152.450	6445.84	633.15	-189.75	1201.13	1696366.33	14279198.84	39°19'18.819"N	80°48'07.792"W	1216.03	98.977	2.26	-0.03	2.26	
7262.00	88.860	156.060	6447.70	728.95	-276.19	1242.81	1696408.00	14279112.44	39°19'17.964"N	80°48'07.264"W	1273.13	102.529	3.76	-0.06	3.76	
7356.00	88.950	158.320	6449.49	822.93	-362.82	1279.25	1696444.42	14279025.84	39°19'17.107"N	80°48'06.802"W	1329.70	105.834	2.41	0.10	2.40	
7452.00	89.350	161.790	6450.92	918.81	-453.04	1311.99	1696477.14	14278935.66	39°19'16.214"N	80°48'06.388"W	1388.00	109.050	3.64	0.42	3.61	
7546.00	90.920	163.530	6450.70	1012.44	-542.76	1340.00	1696505.15	14278845.98	39°19'15.327"N	80°48'06.034"W	1445.75	112.050	2.49	1.67	1.85	
7641.00	90.830	158.120	6449.24	1107.24	-632.44	1371.19	1696536.32	14278756.33	39°19'14.440"N	80°48'05.640"W	1510.01	114.761	5.69	-0.09	-5.69	
7736.00	88.890	148.700	6449.48	1201.88	-717.30	1413.66	1696578.78	14278671.51	39°19'13.600"N	80°48'05.102"W	1585.23	116.903	10.12	-2.04	-9.92	
7831.00	88.120	151.170	6451.96	1295.99	-799.48	1461.23	1696626.33	14278589.36	39°19'12.787"N	80°48'04.499"W	1665.64	118.684	2.72	-0.81	2.60	
7926.00	88.860	157.270	6454.46	1390.74	-884.95	1502.52	1696667.60	14278503.92	39°19'11.941"N	80°48'03.976"W	1743.76	120.497	6.47	0.78	6.42	
8021.00	88.950	156.950	6456.28	1485.72	-972.46	1539.46	1696704.53	14278416.45	39°19'11.076"N	80°48'03.509"W	1820.88	122.280	0.35	0.09	-0.34	
8116.00	88.830	159.120	6458.12	1580.70	-1060.54	1574.98	1696740.04	14278328.40	39°19'10.204"N	80°48'03.059"W	1898.77	123.955	2.29	-0.13	2.28	
8211.00	88.980	163.100	6459.93	1675.48	-1150.39	1605.73	1696770.77	14278238.59	39°19'09.315"N	80°48'02.670"W	1975.29	125.619	4.19	0.16	4.19	
8306.00	89.170	160.920	6461.47	1770.18	-1240.73	1635.06	1696800.09	14278148.29	39°19'08.422"N	80°48'02.300"W	2052.52	127.192	2.30	0.20	-2.29	
8401.00	89.020	156.800	6462.97	1865.13	-1329.30	1669.31	1696834.33	14278059.75	39°19'07.546"N	80°48'01.866"W	2133.93	128.531	4.34	-0.16	-4.34	
8496.00	89.170	156.950	6464.47	1960.11	-1416.66	1706.62	1696871.62	14277972.42	39°19'06.682"N	80°48'01.394"W	2217.99	129.696	0.22	0.16	0.16	
8591.00	88.980	154.630	6466.00	2055.04	-1503.29	1745.57	1696910.56	14277885.83	39°19'05.825"N	80°48'00.901"W	2303.67	130.735	2.45	-0.20	-2.44	
8687.00	88.890	154.920	6467.79	2150.91	-1590.12	1786.48	1696951.45	14277799.04	39°19'04.965"N	80°48'00.383"W	2391.65	131.672	0.32	-0.09	0.30	
8782.00	88.800	154.170	6469.70	2245.75	-1675.88	1827.30	1696992.25	14277713.31	39°19'04.117"N	80°47'59.866"W	2479.43	132.525	0.79	-0.09	-0.79	
8877.00	88.920	154.810	6471.59	2340.59	-1761.60	1868.20	1697033.14	14277627.62	39°19'03.269"N	80°47'59.348"W	2567.76	133.318	0.69	0.13	0.67	

RECEIVED
 Office of Oil and Gas
 JAN 24 2019
 WV Department of
 Environmental Protection



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Doddridge Co., WV	Well	Chalk Unit 1H
Field	Doddridge	Wellbore	Chalk Unit 1H AWB
Facility	Middle Pad		

WELLPATH DATA (191 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
8972.00	88.920	162.080	6473.38	2435.50	-1849.88	1903.08	1697068.00	14277539.38	39°19'02.395"N	80°47'58.907"W	2654.01	134.188	7.65	0.00	7.65	
9067.00	88.950	163.200	6475.15	2530.12	-1940.53	1931.42	1697096.33	14277448.76	39°19'01.499"N	80°47'58.549"W	2737.89	135.135	1.18	0.03	1.18	
9162.00	89.170	158.770	6476.71	2624.92	-2030.32	1962.36	1697127.26	14277359.01	39°19'00.611"N	80°47'58.157"W	2823.65	135.975	4.67	0.23	-4.66	
9257.00	88.580	158.200	6478.58	2719.89	-2118.68	1997.19	1697162.08	14277270.69	39°18'59.737"N	80°47'57.717"W	2911.63	136.691	0.86	-0.62	-0.60	
9352.00	89.110	161.080	6480.49	2814.80	-2207.72	2030.23	1697195.11	14277181.68	39°18'58.856"N	80°47'57.299"W	2999.31	137.398	3.08	0.56	3.03	
9447.00	89.080	162.800	6481.99	2909.51	-2298.02	2059.68	1697224.54	14277091.41	39°18'57.963"N	80°47'56.927"W	3085.96	138.131	1.81	-0.03	1.81	
9542.00	89.110	162.670	6483.49	3004.12	-2388.73	2087.87	1697252.72	14277000.74	39°18'57.066"N	80°47'56.571"W	3172.57	138.845	0.14	0.03	-0.14	
9637.00	88.490	158.210	6485.48	3098.95	-2478.20	2119.66	1697284.50	14276911.30	39°18'56.181"N	80°47'56.169"W	3261.05	139.459	4.74	-0.65	-4.69	
9732.00	88.800	154.460	6487.73	3193.89	-2565.18	2157.78	1697322.60	14276824.37	39°18'55.320"N	80°47'55.686"W	3352.03	139.930	3.96	0.33	-3.95	
9827.00	88.240	147.030	6490.19	3288.11	-2647.97	2204.15	1697368.96	14276741.60	39°18'54.501"N	80°47'55.099"W	3445.29	140.226	7.84	-0.59	-7.82	
9922.00	89.020	150.210	6492.46	3381.91	-2729.04	2253.60	1697418.38	14276660.56	39°18'53.698"N	80°47'54.472"W	3539.26	140.451	3.45	0.82	3.35	
10016.00	89.170	156.640	6493.94	3475.60	-2813.06	2295.62	1697460.39	14276576.58	39°18'52.867"N	80°47'53.939"W	3630.86	140.783	6.84	0.16	6.84	
10111.00	88.860	160.410	6495.58	3570.55	-2901.43	2330.39	1697495.14	14276488.24	39°18'51.993"N	80°47'53.500"W	3721.43	141.229	3.98	-0.33	3.97	
10206.00	89.140	161.130	6497.24	3665.39	-2991.12	2361.68	1697526.42	14276398.59	39°18'51.106"N	80°47'53.104"W	3811.08	141.707	0.81	0.29	0.76	
10301.00	89.200	156.370	6498.61	3760.33	-3079.62	2396.09	1697560.82	14276310.12	39°18'50.230"N	80°47'52.669"W	3901.97	142.115	5.01	0.06	-5.01	
10397.00	89.080	159.650	6500.05	3856.31	-3168.62	2432.03	1697596.74	14276221.16	39°18'49.350"N	80°47'52.214"W	3994.36	142.492	3.42	-0.12	3.42	
10492.00	89.110	161.610	6501.56	3951.16	-3258.22	2463.53	1697628.23	14276131.59	39°18'48.464"N	80°47'51.816"W	4084.73	142.907	2.06	0.03	2.06	
10586.00	88.400	163.710	6503.60	4044.76	-3347.93	2491.54	1697656.23	14276041.93	39°18'47.576"N	80°47'51.462"W	4173.30	143.343	2.36	-0.76	2.23	
10681.00	88.980	163.080	6505.77	4139.25	-3438.94	2518.68	1697683.36	14275950.95	39°18'46.676"N	80°47'51.119"W	4262.64	143.781	0.90	0.61	-0.66	
10776.00	88.980	159.990	6507.46	4234.00	-3529.02	2548.76	1697713.43	14275860.90	39°18'45.785"N	80°47'50.739"W	4353.18	144.162	3.25	0.00	-3.25	
10872.00	88.890	159.260	6509.25	4329.93	-3619.00	2582.18	1697746.83	14275770.96	39°18'44.895"N	80°47'50.317"W	4445.77	144.492	0.77	-0.09	-0.76	
10967.00	88.920	154.920	6511.06	4424.88	-3706.47	2619.15	1697783.79	14275683.53	39°18'44.030"N	80°47'49.849"W	4538.49	144.753	4.57	0.03	-4.57	
11062.00	89.020	149.270	6512.77	4519.39	-3790.38	2663.58	1697828.20	14275599.65	39°18'43.200"N	80°47'49.286"W	4632.67	144.903	5.95	0.11	-5.95	
11157.00	88.830	145.950	6514.55	4612.92	-3870.57	2714.46	1697879.06	14275519.49	39°18'42.406"N	80°47'48.641"W	4727.54	144.958	3.50	-0.20	-3.49	
11252.00	88.830	147.310	6516.49	4706.16	-3949.89	2766.70	1697931.28	14275440.20	39°18'41.621"N	80°47'47.978"W	4822.47	144.991	1.43	0.00	1.43	
11347.00	88.860	157.820	6518.41	4800.64	-4034.07	2810.40	1697974.96	14275356.06	39°18'40.788"N	80°47'47.425"W	4916.51	145.136	11.06	0.03	11.06	
11441.00	88.950	158.420	6520.21	4894.62	-4121.28	2845.42	1698009.97	14275268.88	39°18'39.925"N	80°47'46.982"W	5008.13	145.378	0.65	0.10	0.64	
11536.00	89.050	160.710	6521.87	4989.55	-4210.29	2878.58	1698043.12	14275179.91	39°18'39.045"N	80°47'46.562"W	5100.27	145.639	2.41	0.11	2.41	
11631.00	89.290	161.300	6523.24	5084.37	-4300.10	2909.50	1698074.02	14275090.13	39°18'38.156"N	80°47'46.172"W	5191.93	145.917	0.67	0.25	0.62	
11727.00	88.830	160.260	6524.82	5180.21	-4390.74	2941.10	1698105.61	14274999.53	39°18'37.260"N	80°47'45.772"W	5284.76	146.184	1.18	-0.48	-1.08	

RECEIVED
 Office of Oil and Gas
 JAN 24 2019
 WV Department of
 Environmental Protection



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 7 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #09
Area	Doddridge Co., WV		Well Chalk Unit 1H
Field	Doddridge		Wellbore Chalk Unit 1H AWB
Facility	Middle Pad		

WELLPATH DATA (191 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
11822.00	88.920	161.410	6526.68	5275.03	-4480.45	2972.28	1698136.78	14274909.85	39°18'36.372"N	80°47'45.378"W	5376.70	146.440	1.21	0.09	1.21	
11917.00	88.830	162.320	6528.55	5369.75	-4570.72	3001.84	1698166.33	14274819.62	39°18'35.479"N	80°47'45.005"W	5468.32	146.705	0.96	-0.09	0.96	
12011.00	88.980	161.110	6530.35	5463.49	-4659.95	3031.33	1698195.80	14274730.42	39°18'34.597"N	80°47'44.632"W	5559.15	146.956	1.30	0.16	-1.29	
12107.00	88.950	156.390	6532.08	5559.43	-4749.39	3066.11	1698230.57	14274641.03	39°18'33.712"N	80°47'44.192"W	5653.11	147.155	4.92	-0.03	-4.92	
12201.00	88.830	152.690	6533.90	5653.26	-4834.23	3106.50	1698270.95	14274556.22	39°18'32.873"N	80°47'43.681"W	5746.31	147.275	3.94	-0.13	-3.94	
12296.00	88.920	154.390	6535.77	5748.00	-4919.25	3148.82	1698313.25	14274471.23	39°18'32.031"N	80°47'43.145"W	5840.73	147.377	1.79	0.09	1.79	
12392.00	88.950	157.650	6537.55	5843.93	-5006.94	3187.83	1698352.24	14274383.57	39°18'31.164"N	80°47'42.651"W	5935.63	147.516	3.40	0.03	3.40	
12486.00	88.860	159.140	6539.35	5937.91	-5094.32	3222.43	1698386.83	14274296.23	39°18'30.299"N	80°47'42.213"W	6027.95	147.684	1.59	-0.10	1.59	
12581.00	88.740	156.890	6541.34	6032.88	-5182.39	3257.99	1698422.37	14274208.20	39°18'29.428"N	80°47'41.764"W	6121.40	147.844	2.37	-0.13	-2.37	
12676.00	89.020	159.430	6543.20	6127.85	-5270.54	3293.32	1698457.69	14274120.08	39°18'28.556"N	80°47'41.317"W	6214.87	148.001	2.69	0.29	2.67	
12771.00	88.980	160.270	6544.85	6222.76	-5359.71	3326.04	1698490.39	14274030.94	39°18'27.674"N	80°47'40.903"W	6307.86	148.178	0.89	-0.04	0.88	
12866.00	89.290	159.200	6546.29	6317.68	-5448.82	3358.94	1698523.28	14273941.87	39°18'26.792"N	80°47'40.487"W	6400.95	148.348	1.17	0.33	-1.13	
12962.00	89.480	154.770	6547.32	6413.64	-5537.15	3396.46	1698560.79	14273853.57	39°18'25.919"N	80°47'40.012"W	6495.85	148.475	4.62	0.20	-4.61	
13057.00	89.600	155.020	6548.08	6508.53	-5623.18	3436.76	1698601.08	14273767.58	39°18'25.067"N	80°47'39.502"W	6590.26	148.568	0.29	0.13	0.26	
13152.00	90.150	156.600	6548.29	6603.48	-5709.83	3475.69	1698639.99	14273680.96	39°18'24.210"N	80°47'39.009"W	6684.50	148.670	1.76	0.58	1.66	
13247.00	90.030	158.620	6548.14	6698.48	-5797.67	3511.88	1698676.16	14273593.16	39°18'23.341"N	80°47'38.552"W	6778.36	148.795	2.13	-0.13	2.13	
13342.00	90.030	161.650	6548.09	6793.38	-5887.00	3544.15	1698708.42	14273503.86	39°18'22.458"N	80°47'38.143"W	6871.52	148.951	3.19	0.00	3.19	
13437.00	90.180	160.730	6547.92	6888.19	-5976.93	3574.78	1698739.04	14273413.97	39°18'21.568"N	80°47'37.756"W	6964.39	149.116	0.98	0.16	-0.97	
13532.00	89.720	157.230	6548.00	6983.15	-6065.59	3608.85	1698773.10	14273325.35	39°18'20.691"N	80°47'37.326"W	7057.99	149.249	3.72	-0.48	-3.68	
13627.00	89.750	156.190	6548.44	7078.13	-6152.85	3646.41	1698810.64	14273238.12	39°18'19.828"N	80°47'36.850"W	7152.19	149.347	1.10	0.03	-1.09	
13722.00	89.690	156.390	6548.90	7173.11	-6239.83	3684.61	1698848.83	14273151.18	39°18'18.967"N	80°47'36.367"W	7246.51	149.438	0.22	-0.06	0.21	
13817.00	89.750	156.270	6549.37	7268.08	-6326.83	3722.75	1698886.95	14273064.21	39°18'18.106"N	80°47'35.884"W	7340.83	149.527	0.14	0.06	-0.13	
13912.00	89.850	157.480	6549.70	7363.07	-6414.20	3760.06	1698924.25	14272976.88	39°18'17.242"N	80°47'35.412"W	7435.05	149.621	1.28	0.11	1.27	
14007.00	89.880	157.890	6549.92	7458.07	-6502.08	3796.13	1698960.30	14272889.03	39°18'16.373"N	80°47'34.956"W	7529.13	149.722	0.43	0.03	0.43	
14102.00	89.720	154.060	6550.25	7553.01	-6588.84	3834.80	1698998.96	14272802.31	39°18'15.514"N	80°47'34.466"W	7623.55	149.800	4.04	-0.17	-4.03	
14197.00	89.970	150.820	6550.51	7647.62	-6673.05	3878.75	1699042.89	14272718.13	39°18'14.681"N	80°47'33.910"W	7718.44	149.832	3.42	0.26	-3.41	
14292.00	89.720	153.320	6550.77	7742.17	-6756.97	3923.25	1699087.36	14272634.24	39°18'13.850"N	80°47'33.346"W	7813.36	149.860	2.64	-0.26	2.63	
14387.00	89.850	156.110	6551.13	7837.04	-6842.86	3963.82	1699127.92	14272548.38	39°18'13.001"N	80°47'32.833"W	7908.01	149.918	2.94	0.14	2.94	
14482.00	89.690	155.940	6551.51	7932.00	-6929.67	4002.42	1699166.51	14272461.62	39°18'12.142"N	80°47'32.344"W	8002.48	149.990	0.25	-0.17	-0.18	
14578.00	89.660	156.570	6552.05	8027.97	-7017.54	4041.08	1699205.15	14272373.78	39°18'11.272"N	80°47'31.855"W	8097.91	150.064	0.66	-0.03	0.66	



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 8 of 10



REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Middle Pad
Slot #09	Chalk Unit 1H
Well	Chalk Unit 1H AWB
Wellbore	Chalk Unit 1H AWB

WELLPATH DATA (191 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [ft]	Grid North [ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [F/100ft]	Build Rate [F/100ft]	Turn Rate [F/100ft]	Comments
14673.00	89.780	162.110	6552.52	8122.89	-7106.39	4074.58	16992338.54	14272284.96	39°18'10.393"N	80°47'31.431"W	8191.64	150.171	5.83	0.13	5.83	
14768.00	89.850	165.010	6552.82	8217.36	-7197.50	4101.46	16992665.51	14272193.89	39°18'09.492"N	80°47'31.092"W	8284.08	150.324	3.05	0.07	3.05	
14864.00	89.780	158.780	6553.13	8313.05	-7288.70	4131.28	16992995.32	14272102.72	39°18'08.590"N	80°47'30.715"W	8378.10	150.455	6.49	-0.07	-6.49	
14959.00	89.880	158.100	6553.41	8408.04	-7377.05	4166.19	16993330.21	14272014.41	39°18'07.716"N	80°47'30.274"W	8472.19	150.544	0.72	0.11	-0.72	
15053.00	89.820	157.830	6553.66	8502.03	-7464.19	4201.46	16993665.46	14271927.31	39°18'06.854"N	80°47'29.828"W	8565.41	150.626	0.29	-0.06	-0.29	
15148.00	89.850	156.850	6553.93	8597.03	-7551.85	4238.06	1699402.05	14271839.68	39°18'05.987"N	80°47'29.365"W	8659.77	150.699	1.03	0.03	-1.03	
15243.00	90.460	155.410	6553.68	8692.00	-7638.72	4278.50	1699440.48	14271752.84	39°18'05.127"N	80°47'28.878"W	8754.34	150.758	1.65	0.64	-1.52	
15338.00	90.430	154.320	6552.94	8786.88	-7724.72	4316.85	1699480.81	14271666.88	39°18'04.277"N	80°47'28.368"W	8849.10	150.802	1.15	-0.03	-1.15	
15433.00	90.680	160.090	6552.02	8881.84	-7812.26	4353.64	1699517.58	14271579.37	39°18'03.411"N	80°47'27.902"W	8943.47	150.870	6.08	0.26	6.07	
15451.00	90.550	161.330	6551.83	8899.81	-7829.25	4359.58	1699523.53	14271562.39	39°18'03.242"N	80°47'27.827"W	8961.20	150.890	6.93	-0.72	6.89	
15475.00	90.550	161.330	6551.60	8923.76	-7851.99	4367.26	1699531.21	14271539.66	39°18'03.018"N	80°47'27.730"W	8984.80	150.917	0.00	0.00	0.00	Projected MD @ TD: 15475'

HOLE & CASING SECTIONS - Ref Wellbore: Chalk Unit 1H AWB Ref Wellpath: Chalk Unit 1H AWP Proj: 15475'									
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	0.25	0.00	-0.02
17.5in Open Hole	112.00	548.40	436.40	112.00	548.39	0.25	1.67	-0.02	1.22
13.375in Casing Surface	32.00	548.40	516.40	32.00	548.39	0.00	1.67	0.00	1.22
12.25in Open Hole	548.40	2627.00	2078.60	548.39	2598.32	1.67	227.57	1.22	243.71
9.625in Casing Intermediate	32.00	2627.00	2595.00	32.00	2598.32	0.00	227.57	0.00	243.71
8.75in Open Hole	2627.00	6478.00	3851.00	2598.32	6294.43	0.00	388.21	243.71	890.50
8.5in Open Hole	6478.00	15475.00	8997.00	6294.43	6551.60	388.21	-7851.99	890.50	4367.26
5.5in Casing Production	32.00	15475.00	15443.00	32.00	6551.60	0.00	-7851.99	0.00	4367.26

RECEIVED
Office of Oil and Gas
JAN 24 2019
WV Department of Environmental Protection



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Doddridge Co., WV	Well	Chalk Unit 1H
Field	Doddridge	Wellbore	Chalk Unit 1H AWB
Facility	Middle Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Chalk Unit 1H POE Rev-2	6402.00	219.26	988.08	1696153.37	14279607.70	39°19'22.866"N	80°48'10.491"W	point
Chalk Unit 1H BHL Rev-2	6442.00	-7874.78	4361.34	1699525.29	14271516.87	39°18'02.792"N	80°47'27.806"W	point
Chalk Unit 1H LP Rev-1	6442.00	38.20	1084.37	1696249.62	14279426.71	39°19'21.074"N	80°48'09.271"W	point

WELLPATH COMPOSITION - Ref Wellbore: Chalk Unit 1H AWB Ref Wellpath: Chalk Unit 1H AWP Proj: 15475'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	518.00	Gyrodata standard - Drop gyro or Multi-shot	01_Gyrodata MS Gyro <17-1/2"> (100'-501')	Chalk Unit 1H AWB
518.00	698.00	Gyrodata standard - Drop gyro or Multi-shot	02_Gyrodata MS Gyro <12-1/4"> (501')(591'-681')	Chalk Unit 1H AWB
698.00	2556.00	ISCWSA MWD, Rev. 4 (Standard)	03_Directional ONE MWD <12-1/4"> (681')(738'-2539')	Chalk Unit 1H AWB
2556.00	6396.00	ISCWSA MWD, Rev. 4 (Standard)	04_Directional ONE MWD <8-3/4"> (2539')(2649'-6379')	Chalk Unit 1H AWB
6396.00	15451.00	BHI AutoTrak Curve (Short)	05_BHI AT Curve <8-1/2">(6396')(6454'-15451')	Chalk Unit 1H AWB
15451.00	15475.00	Blind Drilling (std)	Projection to bit	Chalk Unit 1H AWB

RECEIVED
 Office of Oil and Gas
 JAN 24 2019
 WV Department of
 Environmental Protection



Actual Wellpath Report

Chalk Unit 1H AWP Proj: 15475'

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Doddridge Co., WV	Well	Chalk Unit 1H
Field	Doddridge	Wellbore	Chalk Unit 1H AWB
Facility	Middle Pad		

COMMENTS
<p>Wellpath general comments API: 47-017-06818-0000 BH Job #: 9018052 Rig: Frontier 32 Duration: 02/26/18 - 02/28/18 Gyrodata MS Gyro <17-1/2"> (100'-501') Gyrodata MS Gyro <12-1/4"> (501')(591'-681') Directional ONE MWD <12-1/4"> (681')(738'-2539') Directional ONE MWD <8-3/4"> (2539')(2649'-6379') BHI AT Curve <8-1/2">(6396')(6454'-15451') Burket: 6541'MD / 6328'TVD Tully: 6601'MD / 6357'TVD Hamilton: 6681'MD / 6390'TVD POE Marcellus: 6704'MD / 6398'TVD Projected MD @ TD: 15475'</p>

RECEIVED
 Office of Oil and Gas
 JAN 24 2019
 WV Department of
 Environmental Protection