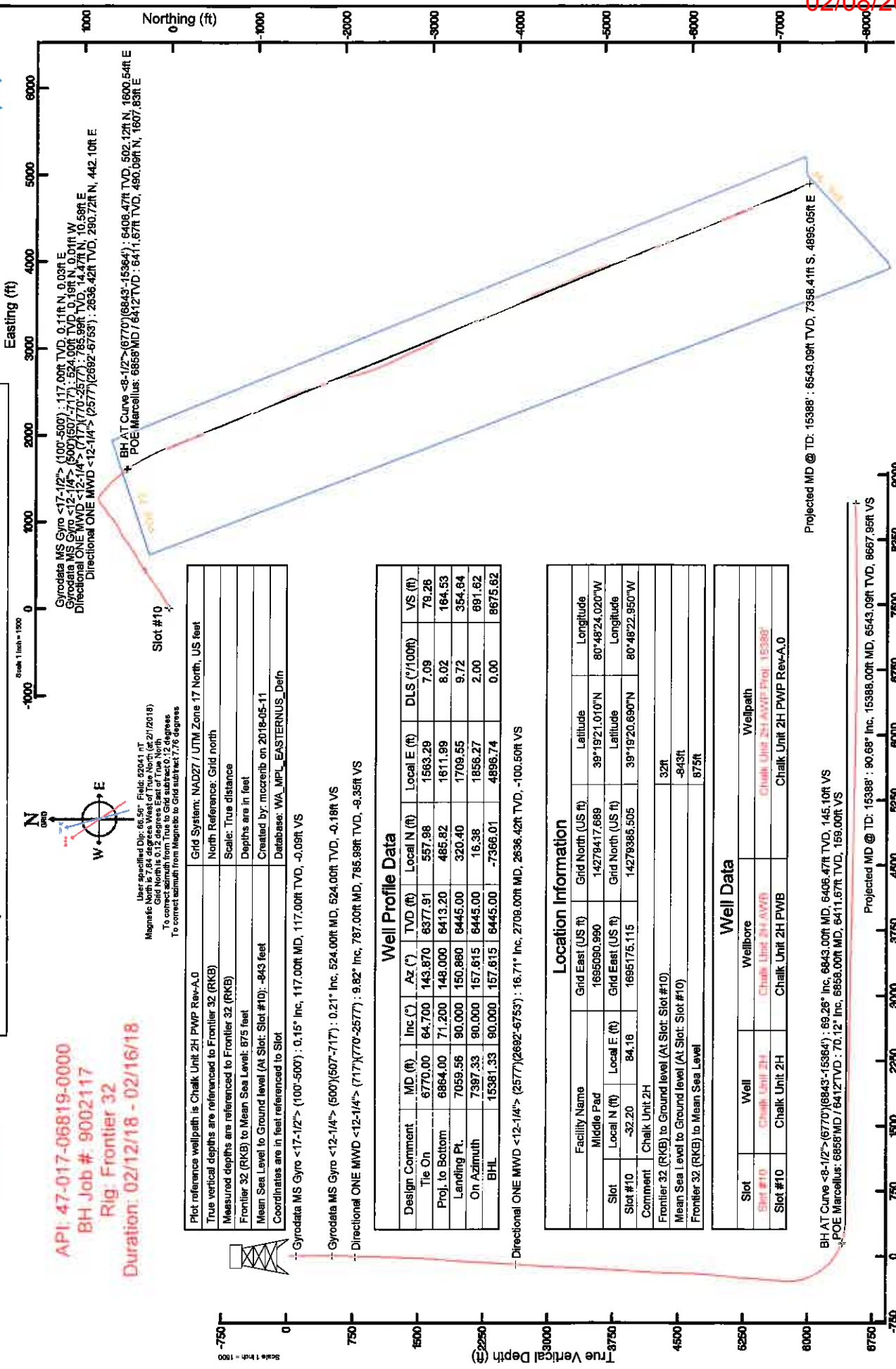




ANTERO RESOURCES CORPORATION
 Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Middle Pad
 Slot: Slot #10
 Well: Chalk Unit 2H
 Wellbore: Chalk Unit 2H PWB



API: 47-017-06819-0000
 BH Job #: 9002117
 Rig: Frontier 32
 Duration: 02/12/18 - 02/16/18



User specified Dip: 66.56° Field: 92041 nT
 Magnetic North is 7.84 degrees West of True North (62.21/2018)
 Grid North is 0.12 degrees East of True North
 To correct azimuth from magnetic to grid subtract 7.76 degrees
 To correct azimuth from magnetic to grid subtract 7.76 degrees

Plot reference wellpath is Chalk Unit 2H 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 #10): -843 feet	Created by: mcrentb on 2018-05-11
Coordinates are in feet referenced to Slot	Databases: WA_MPL_EASTERIUS_Defn

Design Comment	MD (ft)	Az (°)	Inc (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tile On	6770.00	143.870	64.700	8377.91	557.98	1563.29	7.09	79.28
Proj. to Bottom	6864.00	148.000	71.200	8413.20	485.82	1611.99	8.02	164.53
Landing Pt.	7059.56	90.000	150.860	8445.00	320.40	1709.55	9.72	354.64
On Azimuth	7397.33	90.000	157.615	8445.00	16.38	1856.27	2.00	691.62
BHL	15381.33	90.000	157.615	8445.00	-7366.01	4896.74	0.00	8675.62

Directional ONE MWD <12-1/4"> (2577)(2692-6753) : 16.71° Inc. 2709.00ft MD, 2636.42ft TVD, -100.50ft VS

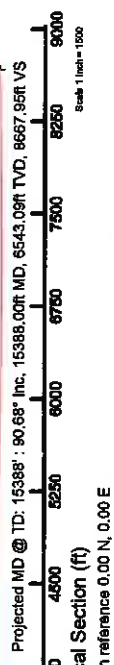
Gyrodata MS Gyro <12-1/4"> (500)(507-717) : 0.21° Inc. 524.00ft MD, 524.00ft TVD, -0.18ft VS

Directional ONE MWD <12-1/4"> (717)(770-2577) : 9.82° Inc. 787.00ft MD, 785.98ft TVD, -8.35ft VS

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Middle Pad	169590.990	1427947.689	39°19'21.010"N	80°48'24.020"W
Slot	Local N (ft)	Local E (ft)	Grid North (US ft)	Grid East (US ft)
Slot #10	-32.20	84.16	169575.115	14279385.505
Comment	Chalk Unit 2H			
Frontier 32 (RKB) to Ground level (At Slot: Slot #10)	32ft			
Mean Sea Level to Ground level (At Slot: Slot #10)	-843ft			
Frontier 32 (RKB) to Mean Sea Level	875ft			

Slot	Well	Wellbore	Wellpath
Slot #10	Chalk Unit 2H	Chalk Unit 2H PWB	Chalk Unit 2H Rev-A.0
Slot #10	Chalk Unit 2H	Chalk Unit 2H PWB	Chalk Unit 2H PWB Rev-A.0

BH AT Curve <8-1/2"> (6770)(6843-15364) : 69.26° Inc. 6843.00ft MD, 6406.47ft TVD, 145.10ft VS
 POE Marcellus: 6858 MD / 6412 TVD : 70.12° Inc. 6858.00ft MD, 6411.67ft TVD, 159.00ft VS



Projected MD @ TD: 15388' : 80.68° Inc. 15388.00ft MD, 6543.09ft TVD, 8667.95ft VS
 Azimuth: 157.82° with reference 0.00 N, 0.00 E



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'

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REFERENCE WELLPATH IDENTIFICATION		
Operator	ANTERO RESOURCES CORPORATION	Slot #10
Area	Doddridge Co., WV	Well
Field	Doddridge	Wellbore
Facility	Middle Pad	Chalk Unit 2H AWP
		Chalk Unit 2H AWP

REPORT SETUP INFORMATION		
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System
North Reference	Grid	User
Scale	0.999603	Report Generated
Convergence at slot	0.12° East	Database/Source file
		WellArchitect@ 5.1
		McCrerib
		5/1/2018 at 3:45:20 PM
		WA_MPL_EASTERNUS_Defn\Chalk_Unit_2H_AWP_Proj_15388_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-32.20	84.16	1695175.12	14279385.51	39°19'20.690"N	80°48'22.950"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
Horizontal Reference Pt	Slot
Vertical Reference Pt	Frontier 32 (RKB)
MD Reference Pt	Frontier 32 (RKB)
Field Vertical Reference	Mean Sea Level
	Frontier 32 (RKB) to Facility Vertical Datum
	Frontier 32 (RKB) to Mean Sea Level
	Frontier 32 (RKB) to Ground Level at Slot (Slot #10)
	Section Origin
	Section Azimuth
	875.00ft
	875.00ft
	32.00ft
	N 0.00, E 0.00 ft
	157.62°

02/08/2019



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #10
Operator	ANTERO RESOURCES CORPORATION	Well	Chalk Unit 2H
Area	Doddridge Co., WV	Wellbore	Chalk Unit 2H AWB
Field	Doddridge		
Facility	Middle Pad		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station																
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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00	0.00	16.000	0.00	0.00	0.00	0.00	1695175.12	14279385.51	39°19'20.690"N	80°48'22.950"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.00	16.000	32.00	0.00	0.00	0.00	1695175.12	14279385.51	39°19'20.690"N	80°48'22.950"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.150	16.000	117.00	-0.09	0.11	0.03	1695175.15	14279385.61	39°19'20.691"N	80°48'22.950"W	0.11	16.000	0.18	0.18	18.82	Gyrodata MS Gyro <17-1/2"> (100'-500')
217.00	0.140	0.770	217.00	-0.30	0.35	0.07	1695175.18	14279385.86	39°19'20.694"N	80°48'22.949"W	0.38	10.906	0.04	-0.01	-15.23	
317.00	0.060	60.890	317.00	-0.42	0.50	0.12	1695175.23	14279386.01	39°19'20.695"N	80°48'22.849"W	0.52	12.973	0.12	-0.08	60.12	
417.00	0.120	204.670	417.00	-0.38	0.43	0.12	1695175.23	14279385.94	39°19'20.694"N	80°48'22.948"W	0.45	15.225	0.17	0.06	143.78	
517.00	0.170	206.250	517.00	-0.19	0.20	0.01	1695175.12	14279385.71	39°19'20.692"N	80°48'22.950"W	0.20	2.376	0.05	0.05	1.58	
524.00	0.210	236.030	524.00	-0.18	0.19	-0.01	1695175.11	14279385.89	39°19'20.692"N	80°48'22.950"W	0.19	357.949	1.50	0.57	425.43	Gyrodata MS Gyro <12-1/4"> (500')(607'-717')
583.00	0.820	348.880	583.00	-0.47	0.44	-0.16	1695174.96	14279386.95	39°19'20.694"N	80°48'22.962"W	0.47	340.292	1.23	0.69	191.27	
674.00	7.300	29.490	673.90	-3.10	3.95	1.46	1695176.57	14279389.45	39°19'20.720"N	80°48'22.931"W	4.21	20.283	4.32	4.13	44.83	
734.00	4.360	40.880	733.58	-8.23	8.83	5.08	1695180.20	14279394.33	39°19'20.777"N	80°48'22.865"W	10.19	29.928	5.21	4.87	18.98	
787.00	9.820	46.860	785.99	-8.35	14.47	10.58	1695185.70	14279398.96	39°19'20.833"N	80°48'22.815"W	17.92	36.184	5.04	4.75	11.28	Directional ONE MWD <12-1/4"> (717')(770'-2577')
847.00	11.560	58.280	844.95	-12.13	21.12	19.43	1695194.54	14279406.82	39°19'20.998"N	80°48'22.702"W	28.70	42.608	4.54	2.88	19.03	
936.00	12.190	67.200	932.06	-13.65	29.45	35.67	1695210.77	14279414.94	39°19'20.980"N	80°48'22.495"W	46.26	50.458	2.18	0.72	10.02	
1024.00	11.490	64.430	1018.18	-14.21	36.83	52.14	1695227.24	14279422.32	39°19'21.053"N	80°48'22.286"W	63.84	54.763	1.02	-0.80	-3.15	
1113.00	10.950	62.400	1105.48	-15.47	44.58	67.63	1695242.72	14279430.06	39°19'21.129"N	80°48'22.088"W	81.00	56.611	0.75	-0.61	-2.28	
1201.00	13.220	59.180	1191.53	-17.71	53.60	83.68	1695258.76	14279439.09	39°19'21.215"N	80°48'21.884"W	99.38	57.357	2.69	2.58	-3.66	
1289.00	15.440	57.900	1278.79	-21.16	64.99	102.25	1695277.32	14279450.47	39°19'21.330"N	80°48'21.647"W	121.15	57.561	2.55	2.52	-1.45	
1377.00	16.300	56.770	1361.43	-25.04	77.61	122.73	1695297.80	14279463.09	39°19'21.455"N	80°48'21.386"W	145.21	57.691	1.01	0.98	0.98	
1465.00	16.910	60.080	1445.76	-28.62	90.40	144.38	1695319.44	14279475.87	39°19'21.590"N	80°48'21.110"W	170.35	57.949	0.81	0.68	1.49	
1553.00	16.400	59.800	1530.07	-31.99	103.03	166.21	1695341.26	14279488.50	39°19'21.705"N	80°48'20.832"W	195.56	58.206	0.59	-0.58	-0.32	
1641.00	16.860	56.300	1614.39	-36.18	116.36	187.57	1695352.61	14279501.82	39°19'21.836"N	80°48'20.560"W	220.73	58.185	1.25	0.52	-3.98	
1730.00	17.680	54.550	1698.38	-41.77	131.36	209.32	1695384.35	14279516.82	39°19'21.984"N	80°48'20.283"W	247.12	57.888	1.09	0.92	-1.97	
1818.00	19.060	53.200	1782.89	-48.37	147.72	231.71	1695406.73	14279533.17	39°19'22.145"N	80°48'19.998"W	274.79	57.481	1.84	1.57	-1.53	
1906.00	19.330	53.720	1866.00	-55.45	164.85	254.95	1695428.97	14279550.38	39°19'22.315"N	80°48'19.701"W	303.66	57.088	0.36	0.31	0.59	
1994.00	17.770	53.690	1949.42	-62.18	181.52	277.52	1695452.52	14279566.95	39°19'22.478"N	80°48'19.414"W	331.61	56.812	1.77	-1.77	-0.03	
2082.00	16.640	54.200	2033.49	-68.34	196.84	298.56	1695473.55	14279582.27	39°19'22.629"N	80°48'19.146"W	357.61	56.503	1.30	-1.28	0.58	
2170.00	17.550	57.180	2117.60	-73.67	211.40	319.83	1695494.92	14279598.82	39°19'22.773"N	80°48'18.873"W	383.46	56.544	1.44	1.03	3.39	
2258.00	17.610	57.610	2202.44	-78.44	225.89	342.57	1695517.55	14279611.30	39°19'22.915"N	80°48'18.586"W	410.34	56.600	0.16	0.07	0.48	
2347.00	15.780	57.390	2286.73	-82.88	239.47	363.90	1695538.67	14279624.88	39°19'23.049"N	80°48'18.313"W	435.62	56.652	2.08	-2.08	-0.25	



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'

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REFERENCE WELLPATH IDENTIFICATION									
Operator	ANTERO RESOURCES CORPORATION								
Area	Doddridge Co., WV								
Field	Doddridge								
Facility	Middle Pad								
	Slot	Slot #10							
	Well	Chalk Unit 2H							
	Wellbore	Chalk Unit 2H AWB							

WELLPATH DATA (189 stations)																
ID	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(°)	(°)	(ft)	(°)	(%/100ft)	(°/100ft)	(°/100ft)	
2434.00	14.840	55.910	2370.68	-87.21	252.01	882.97	1695557.93	14279637.41	39°19'23.173"N	80°48'18.070"W	458.44	56.654	1.38	-1.31	-1.70	
2523.00	14.590	55.380	2456.80	-91.87	264.68	401.50	1695576.46	14279650.08	39°19'23.297"N	80°48'17.834"W	480.90	56.607	0.16	-0.06	-0.60	
2594.00	14.170	56.580	2525.58	-95.43	274.54	416.12	1695591.07	14279659.94	39°19'23.395"N	80°48'17.848"W	498.53	56.584	0.73	-0.59	1.68	
2709.00	16.710	59.370	2636.42	-100.50	290.72	442.10	1695617.04	14279676.11	39°19'23.554"N	80°48'17.317"W	529.12	56.671	2.30	2.21	2.43	Directional ONE MWD <12-1/4"> (2577')(2692-6753')
2797.00	16.420	53.310	2720.77	-105.39	304.60	462.96	1695637.89	14279689.99	39°19'23.691"N	80°48'16.809"W	554.18	56.657	1.99	-0.33	-6.88	
2866.00	15.890	46.800	2806.26	-112.89	320.48	481.93	1695656.95	14279705.84	39°19'23.847"N	80°48'16.809"W	578.75	56.378	2.12	-0.60	-7.31	
2974.00	16.160	54.610	2890.85	-119.87	335.80	500.70	1695675.81	14279721.17	39°19'23.998"N	80°48'16.570"W	602.87	56.152	2.47	0.31	8.88	
3062.00	16.370	56.890	2975.33	-124.94	349.67	521.07	1695695.97	14279735.03	39°19'24.135"N	80°48'16.310"W	627.52	56.136	0.76	0.24	2.58	
3150.00	16.960	59.930	3059.64	-128.97	362.88	542.56	1695717.46	14279748.24	39°19'24.265"N	80°48'16.036"W	652.72	56.225	1.20	0.67	3.47	
3239.00	18.400	62.560	3144.43	-131.94	375.85	566.26	1695741.15	14279761.21	39°19'24.393"N	80°48'15.734"W	679.65	56.426	1.85	1.62	2.96	
3327.00	19.880	61.180	3227.57	-134.84	389.47	591.70	1695766.58	14279774.82	39°19'24.527"N	80°48'15.410"W	706.37	56.646	1.78	1.68	-1.57	
3415.00	19.090	59.500	3310.53	-138.56	403.98	617.21	1695792.08	14279789.33	39°19'24.670"N	80°48'15.085"W	737.66	56.794	1.10	-0.90	-1.91	
3503.00	17.950	57.350	3393.97	-143.01	418.60	641.02	1695815.88	14279803.94	39°19'24.814"N	80°48'14.782"W	765.60	56.855	1.51	-1.30	-2.44	
3591.00	16.920	55.970	3477.93	-148.01	433.09	663.05	1695837.81	14279818.42	39°19'25.033"N	80°48'14.501"W	791.96	56.849	1.26	-1.17	-1.57	
3680.00	16.000	51.580	3563.28	-154.01	447.96	683.40	1695858.24	14279833.28	39°19'25.241"N	80°48'14.242"W	817.13	56.756	1.74	-1.03	-4.93	
3768.00	15.700	57.010	3647.94	-159.56	461.98	702.89	1695877.72	14279847.30	39°19'25.457"N	80°48'13.983"W	841.12	56.685	1.72	-0.34	6.17	
3856.00	15.810	60.550	3732.64	-163.23	474.36	723.32	1695898.14	14279859.67	39°19'25.363"N	80°48'13.733"W	864.98	56.743	1.10	0.13	4.02	
3944.00	15.000	53.700	3817.48	-167.44	486.99	742.93	1695917.75	14279872.30	39°19'25.487"N	80°48'13.463"W	888.32	56.755	2.26	-0.92	-7.78	
4033.00	14.520	50.910	3903.54	-173.42	500.85	760.88	1695935.69	14279886.15	39°19'25.624"N	80°48'13.254"W	910.92	56.645	0.96	-0.54	-3.13	
4121.00	16.400	49.330	3988.36	-180.49	515.90	778.86	1695953.67	14279901.20	39°19'25.772"N	80°48'13.025"W	934.23	56.480	2.19	2.14	-1.80	
4209.00	17.520	56.920	4072.54	-186.85	531.23	799.39	1695974.18	14279916.52	39°19'25.923"N	80°48'12.764"W	959.80	56.394	2.82	1.27	8.63	
4297.00	16.910	54.440	4166.60	-192.23	545.90	820.90	1695995.69	14279931.19	39°19'26.088"N	80°48'12.489"W	985.84	56.378	1.08	-0.69	-2.82	
4386.00	16.230	58.290	4241.90	-197.20	559.97	842.01	1696016.79	14279945.25	39°19'26.207"N	80°48'12.220"W	1011.21	56.375	1.45	-0.76	4.33	
4474.00	16.540	64.260	4326.34	-199.92	571.87	863.76	1696038.53	14279957.15	39°19'26.324"N	80°48'11.943"W	1035.91	56.492	1.95	0.36	6.78	
4562.00	18.270	66.200	4410.15	-201.01	583.07	888.10	1696062.86	14279968.34	39°19'26.434"N	80°48'11.633"W	1062.40	56.714	2.79	2.70	2.20	
4650.00	18.970	63.800	4493.56	-202.28	594.92	913.53	1696088.28	14279980.19	39°19'26.550"N	80°48'11.309"W	1090.16	56.927	1.14	-0.74	-2.73	
4739.00	17.390	60.620	4578.28	-204.83	607.60	937.63	1696112.38	14279992.86	39°19'26.675"N	80°48'11.002"W	1117.29	57.056	1.47	-0.99	-3.57	
4827.00	16.640	57.640	4662.43	-208.82	620.80	959.74	1696134.47	14280006.06	39°19'26.805"N	80°48'10.721"W	1143.02	57.104	1.31	-0.85	-3.38	
4915.00	16.030	54.000	4746.88	-213.67	634.68	980.21	1696154.94	14280019.94	39°19'26.942"N	80°48'10.460"W	1167.75	57.077	1.35	-0.86	-4.14	
5004.00	15.950	51.030	4832.44	-220.05	649.60	999.66	1696174.38	14280034.84	39°19'27.089"N	80°48'10.212"W	1192.18	56.983	0.82	-0.09	-3.34	



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Chalk Unit 2H
Field	Doddridge	Wellbore	Chalk Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
5092.00	16.830	53.140	4916.86	-226.89	684.84	1019.25	1696193.96	14280050.08	39°19'27.239"N	80°48'09.982"W	1216.92	56.884	1.21	1.00	2.40	
5180.00	16.700	48.520	5001.13	-234.01	680.86	1039.92	1696213.62	14280086.10	39°19'27.397"N	80°48'09.711"W	1242.15	56.761	1.52	-0.15	-6.25	
5269.00	18.570	47.230	5085.94	-243.13	698.96	1058.91	1696233.60	14280084.18	39°19'27.576"N	80°48'09.457"W	1268.79	56.572	2.15	2.10	-1.45	
5357.00	18.690	51.000	5169.33	-252.05	717.35	1080.15	1696254.84	14280102.56	39°19'27.757"N	80°48'09.186"W	1296.65	56.411	1.38	0.14	4.28	
5445.00	17.750	57.900	5252.93	-258.35	733.35	1102.47	1696277.15	14280118.56	39°19'27.915"N	80°48'08.901"W	1324.10	56.389	2.67	-1.07	7.84	
5534.00	17.160	56.160	5337.83	-263.25	747.87	1124.87	1696298.54	14280133.08	39°19'28.068"N	80°48'08.616"W	1350.80	56.382	0.89	-0.66	-1.96	
5622.00	17.340	53.710	5421.88	-268.98	762.86	1146.23	1696320.88	14280148.06	39°19'28.205"N	80°48'08.344"W	1376.88	56.355	0.85	0.20	-2.78	
5710.00	17.640	55.060	5505.81	-275.03	778.26	1167.73	1696342.38	14280163.45	39°19'28.357"N	80°48'08.070"W	1403.31	56.318	0.57	0.34	1.53	
5799.00	16.500	52.990	5590.89	-281.16	793.59	1188.87	1696363.52	14280178.78	39°19'28.508"N	80°48'07.800"W	1429.41	56.276	1.45	-1.28	-2.33	
5887.00	17.410	47.960	5675.07	-288.87	810.03	1208.54	1696383.17	14280195.22	39°19'28.670"N	80°48'07.560"W	1454.90	56.188	2.13	1.03	-6.40	
5975.00	16.010	58.530	5759.36	-296.77	826.65	1228.35	1696402.98	14280210.82	39°19'28.824"N	80°48'07.297"W	1480.05	56.093	3.39	-1.58	10.42	
6019.00	16.010	71.150	5801.67	-296.56	830.96	1239.16	1696413.78	14280216.13	39°19'28.876"N	80°48'07.159"W	1491.98	56.155	9.14	0.00	33.23	
6063.00	18.810	81.510	5843.86	-294.48	833.97	1251.92	1696426.54	14280219.14	39°19'28.906"N	80°48'06.987"W	1504.26	56.331	9.47	6.36	23.56	
6107.00	21.580	92.980	5884.97	-289.31	834.59	1267.03	1696441.64	14280219.77	39°19'28.912"N	80°48'06.805"W	1517.20	56.627	10.94	6.30	26.02	
6151.00	22.630	103.020	5925.75	-280.94	832.27	1283.36	1696457.97	14280217.44	39°19'28.868"N	80°48'06.597"W	1529.61	57.036	8.92	2.39	22.86	
6196.00	22.040	113.920	5967.39	-269.83	826.91	1299.53	1696474.13	14280212.08	39°19'28.835"N	80°48'06.391"W	1540.31	57.531	9.20	-1.31	24.00	
6240.00	23.750	123.360	6007.94	-258.54	816.70	1314.49	1696489.08	14280203.88	39°19'28.754"N	80°48'06.201"W	1548.59	58.084	9.27	3.89	21.68	
6284.00	26.800	131.900	6047.74	-240.27	807.19	1329.28	1696503.87	14280192.38	39°19'28.640"N	80°48'05.013"W	1555.17	58.732	10.79	6.93	19.41	
6328.00	30.230	134.030	6086.39	-221.18	792.87	1344.63	1696519.21	14280178.05	39°19'28.498"N	80°48'05.818"W	1560.98	58.474	8.13	7.80	4.84	
6372.00	32.970	135.710	6123.87	-189.92	776.59	1360.98	1696535.53	14280161.79	39°19'28.338"N	80°48'05.611"W	1566.94	60.290	6.54	6.23	3.82	
6416.00	35.910	135.630	6160.15	-176.84	758.80	1378.35	1696552.91	14280144.00	39°19'28.160"N	80°48'05.390"W	1573.41	61.167	6.68	6.68	-0.18	
6460.00	39.180	134.290	6198.03	-152.11	739.86	1397.32	1696571.88	14280125.07	39°19'27.973"N	80°48'05.149"W	1581.11	62.099	7.66	7.43	-3.05	
6504.00	43.390	131.370	6228.08	-125.78	720.16	1418.63	1696593.18	14280105.37	39°19'27.777"N	80°48'04.879"W	1590.95	63.086	10.52	9.57	-6.64	
6549.00	48.100	131.460	6259.49	-96.87	698.84	1442.79	1696617.33	14280084.07	39°19'27.566"N	80°48'04.572"W	1603.13	64.156	10.47	10.47	0.18	
6593.00	53.390	134.010	6287.32	-65.86	675.72	1467.79	1696642.32	14280080.95	39°19'27.337"N	80°48'04.254"W	1615.86	65.280	12.84	12.02	5.82	
6637.00	56.970	139.390	6312.45	-32.24	649.42	1492.51	1696667.03	14280034.67	39°19'27.077"N	80°48'03.940"W	1627.68	66.485	12.92	8.14	12.23	
6682.00	59.060	141.890	6336.29	4.27	619.91	1516.71	1696691.22	14280005.17	39°19'26.784"N	80°48'03.633"W	1638.50	67.769	6.62	4.64	5.56	
6886.00†	59.294	142.012	6338.34	7.57	617.20	1518.83	1696693.34	14280002.46	39°19'26.758"N	80°48'03.607"W	1639.44	67.865	6.41	5.85	3.05	Burket: 6686 MD / 6338 TVD
6726.00	61.840	143.200	6358.06	41.19	599.55	1539.96	1696714.48	14279974.83	39°19'26.484"N	80°48'03.338"W	1648.95	69.051	6.41	5.86	2.97	
6746.00†	63.031	143.508	6387.34	58.35	575.34	1550.53	1696725.03	14279960.62	39°19'26.343"N	80°48'03.204"W	1653.83	69.642	7.09	6.95	1.55	July: 6746 MD / 6387 TVD



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Chalk Unit 2H
Field	Doddridge	Wellbore	Chalk Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (°/100ft)	Comments
6770.00	64.700	143.870	6377.91	79.26	557.98	1563.29	1696737.78	14279943.26	39°19'26.17"N	80°48'03.042"W	1659.88	70.357	7.09	6.96	1.50	
6834.00†	68.690	149.069	6403.24	136.81	509.27	1596.14	1696770.62	14279894.58	39°19'25.689"N	80°48'02.626"W	1675.41	72.304	8.67	6.23	6.53	Hamilton: 6834MD / 6403TVD
6843.00	69.260	148.640	6406.47	145.10	502.12	1600.54	1696775.02	14279887.43	39°19'25.618"N	80°48'02.570"W	1677.46	72.582	8.67	6.33	6.35	BH AT Curve -8-12" -> (6770)(6843-15384)
6858.00†	70.122	149.947	6417.67	159.00	490.09	1607.83	1696782.31	14279875.40	39°19'25.499"N	80°48'02.478"W	1680.87	73.048	6.06	5.75	2.04	POE Marcellus: 6858MD / 6412TVD
6875.00	71.100	149.290	6417.32	174.96	476.33	1616.06	1696780.53	14279861.64	39°19'25.363"N	80°48'02.373"W	1684.80	73.577	6.06	5.75	2.02	
6892.00	76.710	150.490	6430.34	219.59	437.28	1638.70	1696813.16	14279822.61	39°19'24.977"N	80°48'02.086"W	1696.04	75.059	12.19	11.94	2.55	
6970.00	80.950	152.470	6439.64	266.40	395.91	1661.17	1696835.63	14279781.26	39°19'24.567"N	80°48'01.801"W	1707.70	76.595	9.72	8.83	4.12	
7017.00	83.740	153.110	6445.90	312.81	354.49	1682.42	1696858.92	14279739.55	39°19'24.157"N	80°48'01.532"W	1719.41	78.102	6.09	5.94	1.36	
7065.00	84.390	151.850	6450.88	360.36	312.15	1704.53	1696878.97	14279697.57	39°19'23.739"N	80°48'01.252"W	1732.88	79.622	2.94	1.35	-2.62	
7112.00	88.340	152.790	6453.84	407.05	270.62	1728.31	1696900.74	14279656.02	39°19'23.328"N	80°48'00.976"W	1747.40	81.091	8.64	8.40	2.00	
7160.00	88.740	151.690	6455.06	454.93	228.16	1748.67	1696923.09	14279613.57	39°19'22.907"N	80°48'00.693"W	1763.49	82.566	2.46	0.83	-2.31	
7255.00	88.860	154.670	6457.05	549.51	143.41	1791.52	1696965.92	14279528.86	39°19'22.069"N	80°48'00.150"W	1797.25	85.423	3.15	0.13	3.15	
7350.00	88.610	156.960	6461.06	644.33	57.84	1832.75	1697007.14	14279443.33	39°19'21.222"N	80°47'59.628"W	1833.66	88.192	0.83	0.00	-0.83	
7448.00	88.610	156.960	6461.06	740.22	-29.42	1872.67	1697047.04	14279356.09	39°19'20.359"N	80°47'59.122"W	1872.90	90.800	3.22	-0.26	3.21	
7541.00	88.950	158.130	6463.09	835.20	-117.20	1908.96	1697083.30	14279268.35	39°19'19.481"N	80°47'58.663"W	1912.54	93.513	1.28	0.38	1.23	
7636.00	89.050	155.740	6464.75	930.17	-204.59	1946.16	1697120.50	14279181.00	39°19'18.626"N	80°47'58.192"W	1956.88	96.001	2.52	0.11	-2.52	
7731.00	88.520	156.710	6466.76	1025.12	-291.50	1984.45	1697158.77	14279094.12	39°19'17.766"N	80°47'57.707"W	2005.74	98.357	1.16	-0.56	1.02	
7827.00	89.720	161.660	6468.24	1121.04	-381.20	2018.53	1697192.84	14279004.45	39°19'16.879"N	80°47'57.276"W	2054.21	100.694	5.33	1.25	5.18	
7922.00	89.660	162.630	6468.75	1215.75	-471.60	2047.72	1697222.02	14278914.09	39°19'15.985"N	80°47'56.907"W	2101.32	102.969	0.90	-0.06	0.89	
8017.00	89.570	159.660	6469.39	1310.56	-561.47	2078.49	1697257.78	14278824.26	39°19'15.086"N	80°47'56.518"W	2152.99	105.117	3.02	-0.09	-3.02	
8112.00	90.400	154.430	6469.41	1405.52	-648.91	2115.53	1697289.80	14278736.85	39°19'14.231"N	80°47'56.050"W	2212.82	107.053	5.57	0.87	-5.51	
8207.00	88.830	158.620	6470.06	1500.48	-736.03	2153.36	1697327.62	14278649.77	39°19'13.369"N	80°47'55.571"W	2275.68	108.871	4.71	-1.65	4.41	
8397.00	89.170	153.200	6473.24	1690.25	-808.80	2232.18	1697406.40	14278477.07	39°19'11.660"N	80°47'54.573"W	2340.33	110.598	3.77	0.26	-3.76	
8492.00	89.170	152.160	6474.61	1784.88	-993.20	2275.77	1697449.98	14278392.71	39°19'10.824"N	80°47'54.020"W	2410.09	112.153	1.95	0.09	-1.95	
8588.00	88.710	157.200	6476.39	1880.71	-1079.93	2316.81	1697491.00	14278306.01	39°19'09.966"N	80°47'53.501"W	2463.06	113.577	1.09	0.00	-1.09	
8683.00	88.950	154.690	6478.33	1975.84	-1166.65	2356.52	1697529.70	14278219.32	39°19'09.108"N	80°47'53.011"W	2568.14	114.992	5.27	-0.48	5.25	
8778.00	88.830	153.990	6480.17	2070.47	-1252.27	2398.65	1697570.81	14278133.74	39°19'08.261"N	80°47'52.490"W	2628.60	116.349	2.65	0.25	-2.64	
8873.00	89.290	158.410	6481.73	2166.36	-1338.49	2438.49	1697610.63	14278047.55	39°19'07.408"N	80°47'51.985"W	2704.09	117.587	0.75	-0.13	-0.74	
8968.00	88.520	155.920	6483.54	2260.31	-1425.34	2474.95	1697649.08	14277960.74	39°19'06.549"N	80°47'51.498"W	2779.93	118.782	2.59	0.48	2.55	
8968.00	88.520	155.920	6483.54	2260.31	-1425.34	2474.95	1697649.08	14277960.74	39°19'06.549"N	80°47'51.498"W	2856.04	119.938	1.02	-0.81	-0.62	



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Chalk Unit 2H
Field	Doddridge	Wellbore	Chalk Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (189 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
9064.00	89.110	160.390	6485.53	2356.26	-1514.37	2510.73	1697684.84	14277871.74	39°19'05.668"N	80°47'51.046"W	2932.08	121.097	4.80	0.61	4.76	
9159.00	89.080	163.380	6487.03	2450.97	-1604.64	2540.26	1697714.51	14277871.51	39°19'04.775"N	80°47'50.872"W	3004.63	122.290	3.15	-0.03	3.15	
9254.00	89.720	163.350	6488.03	2545.49	-1695.66	2567.45	1697741.55	14277690.52	39°19'03.875"N	80°47'50.329"W	3076.86	123.442	0.67	0.67	-0.03	
9349.00	89.290	158.530	6488.85	2640.30	-1785.42	2598.47	1697772.55	14277600.80	39°19'02.987"N	80°47'49.937"W	3152.74	124.493	5.09	-0.45	-5.07	
9443.00	88.890	164.710	6490.34	2734.01	-1874.57	2628.09	1697802.16	14277511.88	39°19'02.105"N	80°47'48.563"W	3228.14	125.500	6.59	-0.43	6.57	
9538.00	88.430	164.650	6492.56	2828.27	-1966.17	2653.18	1697827.24	14277420.12	39°19'01.200"N	80°47'49.246"W	3302.30	126.541	0.49	-0.48	-0.08	
9634.00	89.420	167.390	6494.36	2923.21	-2059.30	2676.37	1697850.42	14277327.03	39°19'00.279"N	80°47'48.954"W	3376.93	127.576	3.03	1.03	2.85	
9728.00	89.170	164.990	6495.52	3016.15	-2150.57	2698.80	1697872.84	14277235.80	39°18'59.376"N	80°47'48.671"W	3450.86	128.580	2.57	-0.27	-2.58	
9823.00	89.720	160.120	6496.44	3110.76	-2241.17	2727.27	1697901.30	14277145.23	39°18'58.480"N	80°47'48.311"W	3529.99	129.412	5.16	0.58	-5.13	
9919.00	88.920	162.180	6497.58	3206.57	-2332.00	2758.30	1697932.92	14277054.43	39°18'57.581"N	80°47'47.919"W	3611.99	130.213	2.28	-0.83	2.12	
10014.00	90.520	156.280	6498.05	3301.48	-2420.78	2791.99	1697965.99	14276965.69	39°18'56.703"N	80°47'47.493"W	3695.32	130.927	6.41	1.68	-6.18	
10108.00	88.550	154.760	6498.81	3395.41	-2506.32	2830.94	1698004.92	14276880.19	39°18'55.857"N	80°47'47.000"W	3780.98	131.519	2.65	-2.10	-1.62	
10203.00	88.710	154.090	6501.08	3490.24	-2591.98	2871.94	1698045.91	14276794.56	39°18'55.009"N	80°47'46.481"W	3868.64	132.067	0.74	0.17	-0.72	
10298.00	88.820	153.440	6503.29	3584.99	-2677.17	2913.93	1698087.89	14276709.40	39°18'54.167"N	80°47'45.949"W	3957.05	132.575	0.68	-0.08	-0.67	
10393.00	88.610	155.900	6505.59	3679.83	-2763.00	2954.56	1698128.50	14276623.60	39°18'53.317"N	80°47'45.434"W	4045.20	133.081	2.59	-0.01	2.58	
10488.00	88.650	157.490	6507.86	3774.79	-2850.22	2992.13	1698166.06	14276536.42	39°18'52.454"N	80°47'44.959"W	4132.39	133.609	1.67	0.04	1.67	
10584.00	88.430	152.790	6510.31	3870.64	-2937.27	3032.48	1698206.38	14276449.40	39°18'51.593"N	80°47'44.448"W	4221.79	134.086	4.91	-0.23	-4.91	
10679.00	86.710	149.890	6512.68	3965.03	-3020.59	3078.03	1698251.92	14276366.12	39°18'50.769"N	80°47'43.871"W	4312.57	134.460	3.06	0.29	-3.04	
10774.00	88.890	152.050	6514.67	4059.37	-3103.64	3124.11	1698297.98	14276283.11	39°18'49.947"N	80°47'43.287"W	4403.71	134.812	2.28	0.19	2.27	
10869.00	89.170	155.990	6516.28	4154.15	-3189.00	3165.72	1698339.58	14276197.77	39°18'49.102"N	80°47'42.760"W	4493.50	135.210	4.15	0.29	4.14	
10964.00	89.170	157.480	6517.65	4249.12	-3276.26	3203.25	1698377.09	14276110.55	39°18'48.239"N	80°47'42.285"W	4582.00	135.646	1.58	0.00	1.58	
11059.00	88.830	156.940	6519.31	4344.10	-3363.83	3240.04	1698413.87	14276023.01	39°18'47.372"N	80°47'41.819"W	4670.46	136.074	0.67	-0.36	-0.57	
11154.00	88.890	154.370	6521.20	4439.02	-3450.36	3279.19	1698453.00	14275936.52	39°18'46.516"N	80°47'41.324"W	4760.05	136.457	2.71	0.06	-2.71	
11250.00	88.650	154.800	6523.26	4534.86	-3537.05	3320.38	1698494.18	14275849.87	39°18'45.659"N	80°47'40.802"W	4851.36	136.810	0.51	-0.25	0.49	
11345.00	88.890	156.220	6525.30	4629.78	-3623.48	3359.76	1698533.53	14275763.47	39°18'44.804"N	80°47'40.304"W	4941.41	137.163	1.52	0.25	1.49	
11440.00	88.890	158.390	6527.14	4724.75	-3711.08	3396.44	1698570.21	14275675.90	39°18'43.937"N	80°47'39.840"W	5030.70	137.535	2.22	0.00	2.22	
11535.00	89.170	157.950	6528.75	4819.73	-3799.24	3431.81	1698605.56	14275587.78	39°18'43.065"N	80°47'39.392"W	5119.72	137.909	0.50	0.29	-0.40	
11629.00	88.860	156.290	6530.37	4913.71	-3885.81	3468.40	1698642.13	14275501.24	39°18'42.208"N	80°47'38.929"W	5208.58	138.249	1.86	-0.35	-1.83	
11724.00	88.920	155.560	6532.21	5008.65	-3972.51	3507.19	1698680.91	14275414.58	39°18'41.351"N	80°47'38.438"W	5299.17	138.560	0.71	0.06	-0.71	
11819.00	88.890	153.190	6534.02	5103.47	-4058.14	3548.26	1698721.97	14275328.98	39°18'40.503"N	80°47'37.918"W	5390.61	138.835	2.49	-0.03	-2.49	



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Chalk Unit 2H
Field	Doddridge	Wellbore	Chalk Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (189 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
11914.00	88.860	152.600	6335.89	5198.13	-4142.69	3591.54	1698765.22	14275244.46	39°18'39.66"N	80°47'37.37"W	5482.80	139.076	0.82	-0.03	-0.62	
12008.00	88.400	157.000	6538.14	5291.97	-4227.70	3631.54	1698805.21	14275159.49	39°18'36.82"N	80°47'36.86"W	5573.29	139.338	4.71	-0.49	4.68	
12102.00	88.920	159.990	6540.34	5385.92	-4315.10	3666.05	1698839.71	14275072.13	39°18'37.96"N	80°47'36.42"W	5662.16	139.649	3.13	0.55	3.09	
12196.00	88.990	158.780	6542.15	5480.86	-4403.97	3699.57	1698873.21	14274983.29	39°18'37.08"N	80°47'35.53"W	5751.67	139.968	1.18	-0.03	-1.16	
12290.00	88.990	157.720	6544.07	5579.83	-4495.90	3736.25	1698909.87	14274898.39	39°18'36.17"N	80°47'35.03"W	5845.74	140.272	1.07	0.00	-1.07	
12387.00	88.960	154.230	6545.86	5670.76	-4578.99	3773.28	1698946.89	14274808.34	39°18'35.35"N	80°47'35.07"W	5933.36	140.570	3.83	-0.03	-3.84	
12482.00	88.800	156.980	6547.80	5765.68	-4665.48	3812.51	1698986.10	14274721.98	39°18'34.48"N	80°47'34.57"W	6025.11	140.745	2.89	-0.06	2.88	
12577.00	88.930	158.280	6549.76	5860.64	-4752.67	3850.18	1699023.76	14274634.73	39°18'33.63"N	80°47'34.09"W	6116.52	140.989	0.74	0.03	-0.74	
12672.00	89.230	158.660	6551.37	5955.62	-4840.40	3886.58	1699060.11	14274547.03	39°18'32.76"N	80°47'33.63"W	6207.65	141.237	2.54	0.42	2.51	
12766.00	89.350	159.340	6552.54	6049.59	-4928.15	3920.26	1699093.81	14274459.32	39°18'31.89"N	80°47'33.21"W	6297.23	141.488	0.73	0.13	0.72	
12861.00	89.320	160.670	6553.64	6144.50	-5017.42	3952.74	1699126.28	14274370.09	39°18'31.01"N	80°47'32.80"W	6387.38	141.769	1.40	-0.03	1.40	
12955.00	89.450	162.850	6554.65	6238.24	-5106.68	3982.16	1699155.69	14274280.98	39°18'30.13"N	80°47'32.42"W	6475.78	142.053	2.32	0.14	2.32	
13050.00	89.380	164.110	6555.62	6332.74	-5197.75	4009.17	1699182.69	14274189.92	39°18'29.22"N	80°47'32.08"W	6564.30	142.356	1.33	-0.07	1.33	
13146.00	89.320	163.150	6556.71	6428.20	-5289.86	4036.22	1699209.73	14274097.76	39°18'28.31"N	80°47'31.74"W	6653.85	142.656	1.00	-0.06	-1.00	
13241.00	89.350	158.240	6557.81	6522.99	-5379.78	4068.84	1699240.33	14274007.89	39°18'27.42"N	80°47'31.35"W	6743.98	142.912	4.12	0.03	4.12	
13337.00	89.320	154.700	6558.92	6618.95	-5468.08	4104.38	1699277.86	14273919.60	39°18'26.55"N	80°47'30.88"W	6837.09	143.108	4.73	-0.03	-4.73	
13432.00	89.110	152.310	6560.23	6713.69	-5553.09	4148.78	1699320.22	14273834.93	39°18'25.71"N	80°47'30.34"W	6930.54	143.250	2.53	-0.22	-2.52	
13527.00	89.480	157.990	6561.40	6808.56	-5639.25	4186.66	1699360.11	14273748.50	39°18'24.86"N	80°47'29.84"W	7023.48	143.409	5.99	0.39	5.98	
13622.00	90.250	156.220	6561.62	6903.55	-5726.76	4223.62	1699397.05	14273661.03	39°18'23.98"N	80°47'29.37"W	7115.81	143.590	2.03	0.81	-1.86	
13718.00	90.060	153.580	6561.36	6999.43	-5813.69	4264.34	1699437.75	14273574.13	39°18'23.13"N	80°47'28.89"W	7209.96	143.740	2.76	-0.20	-2.75	
13813.00	90.030	159.720	6561.28	7094.37	-5900.87	4301.97	1699475.37	14273486.99	39°18'22.27"N	80°47'28.38"W	7302.55	143.906	6.46	-0.03	6.46	
13908.00	89.880	159.380	6561.36	7189.32	-5989.88	4336.16	1699508.55	14273398.01	39°18'21.39"N	80°47'27.96"W	7394.07	144.105	0.39	-0.16	-0.36	
14003.00	90.820	157.550	6560.94	7284.30	-6078.24	4370.03	1699543.41	14273309.69	39°18'20.51"N	80°47'27.52"W	7486.14	144.295	2.08	0.78	-1.93	
14098.00	90.400	156.780	6560.10	7379.30	-6165.79	4406.90	1699580.42	14273222.17	39°18'19.65"N	80°47'27.05"W	7578.77	144.445	0.84	-0.23	-0.81	
14193.00	90.830	157.610	6559.08	7474.29	-6253.36	4443.72	1699617.06	14273134.64	39°18'18.78"N	80°47'26.59"W	7671.45	144.602	0.98	0.45	0.87	
14288.00	90.650	160.770	6557.83	7569.23	-6342.14	4477.46	1699650.79	14273045.89	39°18'17.90"N	80°47'26.16"W	7763.41	144.778	3.33	-0.19	3.33	
14383.00	90.580	159.150	6556.83	7664.14	-6431.38	4510.01	1699683.33	14272956.68	39°18'17.02"N	80°47'25.72"W	7855.12	144.960	1.71	-0.07	-1.71	
14478.00	90.580	156.840	6555.87	7759.13	-6519.45	4545.60	1699718.91	14272866.65	39°18'16.15"N	80°47'25.30"W	7947.69	145.114	2.43	0.00	-2.43	
14573.00	90.770	158.500	6554.75	7854.12	-6607.32	4581.70	1699754.98	14272780.82	39°18'15.28"N	80°47'24.84"W	8040.44	145.262	1.76	0.20	1.75	
14668.00	90.490	156.820	6553.71	7949.11	-6695.18	4617.80	1699791.08	14272692.99	39°18'14.41"N	80°47'24.39"W	8133.24	145.405	1.79	-0.29	-1.77	



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Doddridge Co., WV	Well	Chalk Unit 2H
Field	Doddridge	Wellbore	Chalk Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (189 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 [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
14761.00	90.770	158.160	6552.63	8042.10	-5781.39	4652.65	1699825.91	14272806.82	39°18'13.562"N	80°47'23.948"W	8224.02	145.546	2.53	0.30	2.52	
14858.00	91.480	162.280	6550.82	8136.93	-6871.04	4694.01	1699857.26	14272517.21	39°18'12.676"N	80°47'23.552"W	8315.71	145.718	3.37	0.75	3.28	
14951.00	90.650	160.040	6549.05	8231.72	-6960.92	4714.68	1699887.82	14272427.35	39°18'11.787"N	80°47'23.164"W	8407.30	145.890	2.51	-0.87	-2.98	
15046.00	90.920	159.000	6547.75	8326.66	-7049.91	4747.91	1699921.14	14272338.41	39°18'10.908"N	80°47'22.744"W	8499.64	146.041	1.13	0.28	-1.08	
15141.00	90.860	158.280	6546.27	8421.63	-7137.42	4784.81	1699958.02	14272250.93	39°18'10.041"N	80°47'22.278"W	8592.86	146.163	3.92	-0.06	-3.92	
15236.00	90.740	157.500	6544.95	8516.41	-7222.71	4826.61	1699998.80	14272165.67	39°18'09.197"N	80°47'21.748"W	8686.98	146.247	2.93	-0.13	-2.93	
15331.00	90.680	153.340	6543.77	8611.08	-7307.29	4869.85	1700043.03	14272081.13	39°18'08.360"N	80°47'21.201"W	8781.34	146.319	0.89	-0.06	0.88	
15364.00	90.680	153.930	6543.38	8644.00	-7336.85	4894.51	1700057.88	14272051.58	39°18'08.067"N	80°47'21.015"W	8814.07	146.346	1.79	0.00	1.79	
15388.00	90.680	153.930	6543.09	8667.95	-7358.41	4895.05	1700066.22	14272030.03	39°18'07.654"N	80°47'20.892"W	8837.86	146.367	0.00	0.00	0.00	Projected MD @ TD: 15388'

HOLE & CASING SECTIONS - Ref Wellbore: Chalk Unit 2H AWB Ref Wellpath: Chalk Unit 2H AWP Proj: 15388'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start NS [ft]	End NS [ft]	Start EW [ft]	End EW [ft]
20in Conductor	32.00	112.00	80.00	32.00	112.00	0.00	0.00	0.00	0.00
17.5in Open Hole	112.00	551.00	439.00	112.00	551.00	551.00	0.00	0.00	-0.08
13.375in Casing Surface	32.00	551.00	519.00	32.00	551.00	551.00	0.00	0.00	-0.08
12.25in Open Hole	551.00	2666.00	2115.00	551.00	2595.13	2595.13	0.21	-0.08	431.80
9.625in Casing Intermediate	32.00	2666.00	2634.00	32.00	2595.13	2595.13	0.00	0.00	431.80
8.75in Open Hole	2666.00	6864.00	4198.00	2595.13	6413.70	6413.70	284.52	431.80	1610.74
8.5in Open Hole	6864.00	15388.00	8524.00	6413.70	6543.09	6543.09	485.25	1610.74	4895.05
5.5in Casing Production	32.00	15388.00	15356.00	32.00	6543.09	6543.09	0.00	0.00	4895.05



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #10
ANTERO RESOURCES CORPORATION	Well	Chalk Unit 2H
Area	Wellbore	Chalk Unit 2H AWB
Field		
Facility		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Chalk Unit 2H BHL Rev-3	6445.00	-7386.01	4896.74	1700089.91	14272022.43	39°18'07.779"N	80°47'20.860"W	point
Chalk Unit 2H LP Rev-2	6445.00	320.40	1709.55	1696883.98	14279705.78	39°19'23.820"N	80°48'01.188"W	point

WELLPATH COMPOSITION - Ref Wellbore: Chalk Unit 2H AWB Ref Wellpath: Chalk Unit 2H AWP Proj: 15388'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	517.00	Gyrodata standard - Drop gyro or Multi-shot	01_Gyrodata MS Gyro <17-1/2"> (100'-500')	Chalk Unit 2H AWB
517.00	734.00	Gyrodata standard - Drop gyro or Multi-shot	02_Gyrodata MS Gyro <12-1/4"> (500')(507'-717')	Chalk Unit 2H AWB
734.00	2594.00	ISCWSA MWD, Rev. 4 (Standard)	03_Directional ONE MWD <12-1/4"> (717')(770'-2577')	Chalk Unit 2H AWB
2594.00	6770.00	ISCWSA MWD, Rev. 4 (Standard)	04_Directional ONE MWD <12-1/4"> (2577')(2692'-6763')	Chalk Unit 2H AWB
6770.00	15388.00	BHI Auto Trak Curve (Short)	05_BH AT Curve <8-1/2"> (6770')(6843'-15384')	Chalk Unit 2H AWB
15384.00	15388.00	Blind Drilling (std)	Projection to bit	Chalk Unit 2H AWB

02/08/2019



Actual Wellpath Report

Chalk Unit 2H AWP Proj: 15388'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Area	Slot	Slot #10
ANTERO RESOURCES CORPORATION	Doddridge Co., WV	Well	Chalk Unit 2H
	Doddridge	Wellbore	Chalk Unit 2H AWB
	Middle Pad		

COMMENTS
<p>Wellpath general comments API: 47-017-06819-0000 BH Job #: 9002117 Rig: Frontier 32 Duration: 02/12/18 - 02/16/18 Gyrodatta MS Gyro <17-1/2"> (100'-500') Gyrodatta MS Gyro <12-1/4"> (500')(507'-717') Directional ONE MWD <12-1/4"> (717')(770'-2577') Directional ONE MWD <12-1/4"> (2577')(2692'-6753') Burket: 6686'MD / 6338'TVD Tully: 6746'MD / 6367'TVD Hamilton: 6834'MD / 6403'TVD BH AT Curve <8-1/2">(6770')(6843'-15364') POE Marcellus: 6858'MD / 6412'TVD Projected MD @ TD: 15388'</p>

02/08/2019