



# ANTERO RESOURCES CORPORATION

Location: Ritchie County, WV  
 Field: Ritchie  
 Facility: Buck Run Pad

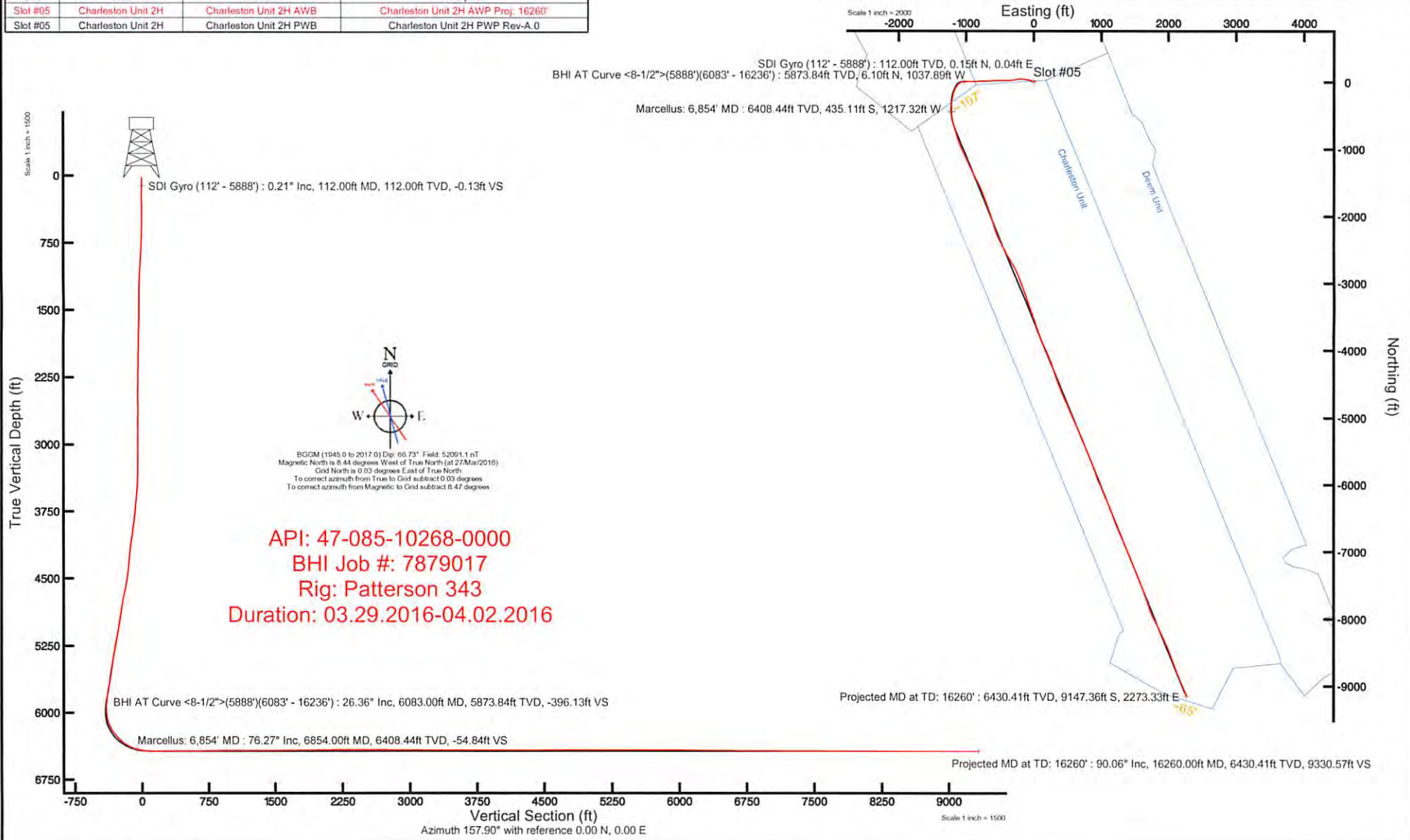
Slot: Slot #05  
 Well: Charleston Unit 2H  
 Wellbore: Charleston Unit 2H PWB



Plot reference wellpath is Charleston Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Patterson 343 (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Patterson 343 (RKB)	North Reference: Grid north
Patterson 343 (RKB) to Mean Sea Level: 1152 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #05): -1127 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: harekA on 2016-04-08
	Database: WA_MPL_EASTERNUS_Defn

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Buck Run Pad	1655300.580	14276064.620	39°18'57.290"N	80°56'50.552"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #05	-26.56	-30.52	1655270.070	14276938.070
			39°18'57.028"N	80°56'50.941"W
Comment	Charleston Unit 2H			
Patterson 343 (RKB) to Mud line (At Slot: Slot #05)	25ft			
Mean Sea Level to Mud line (At Slot: Slot #05)	-1127ft			
Patterson 343 (RKB) to Mean Sea Level	1152ft			

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #05	Charleston Unit 2H	Charleston Unit 2H AWB	Charleston Unit 2H AWP Proj: 16260'
Slot #05	Charleston Unit 2H	Charleston Unit 2H PWB	Charleston Unit 2H PWP Rev-A.0





# Actual Wellpath Report

Charleston Unit 2H AWP Proj 16260'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Hareluk
Scale	0.999600	Report Generated	08/Apr/2016 at 15:56
Convergence at slot	0.04° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Charleston_Unit_2H_AWP_Proj_16260_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-26.56	-30.52	1655270.07	14276938.07	39°18'57.028"N	80°56'50.941"W
Facility Reference Pt			1655300.58	14276964.62	39°18'57.290"N	80°56'50.552"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 343 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 343 (RKB) to Mean Sea Level	1152.00ft
Vertical Reference Pt	Patterson 343 (RKB)	Patterson 343 (RKB) to Mud Line at Slot (Slot #05)	25.00ft
MD Reference Pt	Patterson 343 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	157.90°



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Charleston Unit 2H AWP Proj 16260'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

WELLPATH DATA (359 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]	Comments
0.00†	0.000	14.070	0.00	0.00	0.00	0.00	1655270.07	14276938.07	39°18'57.028"N	80°56'50.941"W	0.00	0.000	0.00	
25.00	0.000	14.070	25.00	0.00	0.00	0.00	1655270.07	14276938.07	39°18'57.028"N	80°56'50.941"W	0.00	0.000	0.00	
112.00	0.210	14.070	112.00	-0.13	0.15	0.04	1655270.11	14276938.22	39°18'57.029"N	80°56'50.940"W	0.16	14.070	0.24	SDI Gyro (112' - 5888')
137.00	0.220	45.760	137.00	-0.18	0.23	0.08	1655270.15	14276938.30	39°18'57.030"N	80°56'50.940"W	0.25	19.920	0.47	
162.00	0.120	23.530	162.00	-0.22	0.29	0.13	1655270.20	14276938.36	39°18'57.031"N	80°56'50.939"W	0.32	23.996	0.47	
187.00	0.140	16.880	187.00	-0.26	0.34	0.15	1655270.22	14276938.41	39°18'57.031"N	80°56'50.939"W	0.37	23.384	0.10	
212.00	0.140	61.910	212.00	-0.29	0.39	0.18	1655270.25	14276938.46	39°18'57.032"N	80°56'50.938"W	0.43	25.465	0.43	
237.00	0.130	92.180	237.00	-0.28	0.40	0.24	1655270.31	14276938.47	39°18'57.032"N	80°56'50.938"W	0.47	30.902	0.28	
262.00	0.060	70.360	262.00	-0.27	0.40	0.28	1655270.35	14276938.47	39°18'57.032"N	80°56'50.937"W	0.49	34.776	0.31	
287.00	0.070	94.460	287.00	-0.26	0.41	0.31	1655270.38	14276938.48	39°18'57.032"N	80°56'50.937"W	0.51	37.113	0.12	
312.00	0.130	133.720	312.00	-0.23	0.39	0.34	1655270.41	14276938.46	39°18'57.032"N	80°56'50.936"W	0.52	41.668	0.35	
337.00	0.180	142.920	337.00	-0.16	0.34	0.39	1655270.46	14276938.40	39°18'57.031"N	80°56'50.936"W	0.51	49.166	0.22	
362.00	0.120	178.430	362.00	-0.10	0.28	0.41	1655270.48	14276938.35	39°18'57.030"N	80°56'50.935"W	0.50	56.040	0.43	
387.00	0.150	179.910	387.00	-0.05	0.22	0.41	1655270.48	14276938.29	39°18'57.030"N	80°56'50.935"W	0.47	62.095	0.12	
412.00	0.180	166.630	412.00	0.02	0.15	0.42	1655270.49	14276938.22	39°18'57.029"N	80°56'50.935"W	0.45	70.709	0.19	
437.00	0.140	162.150	437.00	0.09	0.08	0.44	1655270.51	14276938.15	39°18'57.029"N	80°56'50.935"W	0.45	79.652	0.17	
462.00	0.030	291.690	462.00	0.12	0.05	0.44	1655270.51	14276938.12	39°18'57.028"N	80°56'50.935"W	0.45	83.091	0.64	
487.00	0.080	299.500	487.00	0.10	0.06	0.42	1655270.49	14276938.13	39°18'57.028"N	80°56'50.935"W	0.43	81.281	0.20	
512.00	0.110	205.680	512.00	0.10	0.05	0.40	1655270.47	14276938.12	39°18'57.028"N	80°56'50.936"W	0.40	82.571	0.56	
537.00	0.040	280.370	537.00	0.11	0.03	0.38	1655270.45	14276938.10	39°18'57.028"N	80°56'50.936"W	0.38	85.206	0.43	
562.00	0.130	246.210	562.00	0.11	0.02	0.34	1655270.41	14276938.09	39°18'57.028"N	80°56'50.936"W	0.34	86.364	0.40	
587.00	0.350	308.490	587.00	0.04	0.06	0.26	1655270.33	14276938.13	39°18'57.028"N	80°56'50.937"W	0.26	77.331	1.25	
612.00	0.720	311.360	612.00	-0.16	0.21	0.08	1655270.15	14276938.28	39°18'57.030"N	80°56'50.940"W	0.22	20.906	1.48	
637.00	1.060	308.070	636.99	-0.50	0.46	-0.22	1655269.85	14276938.53	39°18'57.032"N	80°56'50.943"W	0.51	334.222	1.37	
662.00	1.440	308.400	661.99	-0.98	0.79	-0.65	1655269.42	14276938.86	39°18'57.036"N	80°56'50.949"W	1.02	320.746	1.52	
687.00	1.870	309.700	686.98	-1.61	1.25	-1.21	1655268.86	14276939.32	39°18'57.040"N	80°56'50.956"W	1.74	315.949	1.73	
712.00	2.270	308.070	711.96	-2.40	1.81	-1.91	1655268.16	14276939.88	39°18'57.046"N	80°56'50.965"W	2.64	313.508	1.62	
737.00	2.750	306.700	736.94	-3.34	2.48	-2.78	1655267.29	14276940.55	39°18'57.052"N	80°56'50.976"W	3.73	311.693	1.93	
762.00	3.410	305.100	761.90	-4.48	3.26	-3.87	1655266.20	14276941.33	39°18'57.060"N	80°56'50.990"W	5.06	310.137	2.66	
787.00	3.970	304.710	786.85	-5.83	4.18	-5.19	1655264.88	14276942.25	39°18'57.069"N	80°56'51.007"W	6.67	308.872	2.24	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj 16260'  
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #05
Area	Ritchie County, WV		Well	Charleston Unit 2H
Field	Ritchie		Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad			

WELLPATH DATA (359 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]	Comments
812.00	4.480	305.270	811.78	-7.38	5.24	-6.70	1655263.37	14276943.31	39°18'57.080"N	80°56'51.026"W	8.51	308.036	2.05	
837.00	4.600	305.310	836.70	-9.04	6.38	-8.32	1655261.76	14276944.45	39°18'57.091"N	80°56'51.046"W	10.48	307.518	0.48	
862.00	4.700	305.300	861.62	-10.75	7.56	-9.97	1655260.10	14276945.62	39°18'57.102"N	80°56'51.067"W	12.51	307.159	0.40	
887.00	4.700	305.290	886.54	-12.48	8.74	-11.64	1655258.43	14276946.81	39°18'57.114"N	80°56'51.089"W	14.56	306.897	0.00	
912.00	4.720	304.590	911.45	-14.20	9.92	-13.32	1655256.75	14276947.98	39°18'57.126"N	80°56'51.110"W	16.61	306.655	0.24	
937.00	4.650	304.580	936.37	-15.91	11.07	-15.01	1655255.07	14276949.14	39°18'57.137"N	80°56'51.131"W	18.65	306.429	0.28	
962.00	4.400	304.270	961.29	-17.55	12.19	-16.63	1655253.44	14276950.25	39°18'57.148"N	80°56'51.152"W	20.62	306.237	1.00	
987.00	4.200	304.120	986.22	-19.11	13.24	-18.18	1655251.90	14276951.31	39°18'57.159"N	80°56'51.172"W	22.49	306.067	0.80	
1012.00	4.010	304.680	1011.16	-20.60	14.25	-19.66	1655250.42	14276952.32	39°18'57.169"N	80°56'51.191"W	24.28	305.944	0.78	
1037.00	3.700	304.390	1036.10	-22.01	15.21	-21.04	1655249.03	14276953.27	39°18'57.178"N	80°56'51.208"W	25.96	305.853	1.24	
1062.00	3.420	306.110	1061.05	-23.31	16.10	-22.31	1655247.77	14276954.17	39°18'57.187"N	80°56'51.224"W	27.52	305.817	1.20	
1087.00	2.990	306.690	1086.01	-24.50	16.93	-23.44	1655246.64	14276954.99	39°18'57.195"N	80°56'51.239"W	28.91	305.844	1.72	
1112.00	2.840	307.380	1110.98	-25.60	17.70	-24.45	1655245.63	14276955.76	39°18'57.203"N	80°56'51.252"W	30.18	305.894	0.62	
1137.00	2.660	306.900	1135.95	-26.63	18.42	-25.41	1655244.67	14276956.48	39°18'57.210"N	80°56'51.264"W	31.38	305.942	0.73	
1162.00	2.350	306.190	1160.93	-27.56	19.07	-26.29	1655243.80	14276957.13	39°18'57.216"N	80°56'51.275"W	32.48	305.963	1.25	
1187.00	2.290	306.690	1185.91	-28.42	19.67	-27.10	1655242.98	14276957.73	39°18'57.222"N	80°56'51.285"W	33.49	305.978	0.25	
1212.00	2.010	305.340	1210.89	-29.22	20.22	-27.86	1655242.22	14276958.29	39°18'57.228"N	80°56'51.295"W	34.43	305.980	1.14	
1237.00	1.820	306.250	1235.87	-29.93	20.71	-28.54	1655241.55	14276958.77	39°18'57.233"N	80°56'51.304"W	35.26	305.975	0.77	
1262.00	1.740	307.170	1260.86	-30.59	21.18	-29.16	1655240.92	14276959.24	39°18'57.237"N	80°56'51.311"W	36.04	305.990	0.34	
1287.00	1.680	306.450	1285.85	-31.23	21.62	-29.76	1655240.33	14276959.69	39°18'57.242"N	80°56'51.319"W	36.78	306.007	0.25	
1312.00	1.460	302.060	1310.84	-31.80	22.01	-30.32	1655239.76	14276960.07	39°18'57.245"N	80°56'51.326"W	37.47	305.978	1.00	
1337.00	1.360	299.090	1335.83	-32.29	22.32	-30.85	1655239.23	14276960.39	39°18'57.249"N	80°56'51.333"W	38.08	305.892	0.50	
1362.00	1.400	297.750	1360.83	-32.75	22.61	-31.38	1655238.70	14276960.67	39°18'57.251"N	80°56'51.340"W	38.68	305.776	0.21	
1387.00	1.250	293.950	1385.82	-33.18	22.86	-31.90	1655238.18	14276960.92	39°18'57.254"N	80°56'51.346"W	39.25	305.632	0.70	
1412.00	1.360	292.820	1410.81	-33.59	23.09	-32.42	1655237.66	14276961.15	39°18'57.256"N	80°56'51.353"W	39.80	305.458	0.45	
1437.00	1.270	293.230	1435.81	-34.00	23.31	-32.95	1655237.13	14276961.37	39°18'57.258"N	80°56'51.360"W	40.36	305.282	0.36	
1462.00	1.210	290.290	1460.80	-34.37	23.51	-33.45	1655236.63	14276961.58	39°18'57.260"N	80°56'51.366"W	40.89	305.105	0.35	
1487.00	1.250	289.360	1485.80	-34.73	23.70	-33.96	1655236.13	14276961.76	39°18'57.262"N	80°56'51.372"W	41.41	304.910	0.18	
1512.00	1.050	286.410	1510.79	-35.05	23.85	-34.43	1655235.65	14276961.91	39°18'57.264"N	80°56'51.379"W	41.89	304.710	0.83	
1537.00	0.940	287.360	1535.79	-35.33	23.98	-34.85	1655235.24	14276962.04	39°18'57.265"N	80°56'51.384"W	42.30	304.530	0.44	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj 16260'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

## WELLPATH DATA (359 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]	Comments
1562.00	0.910	283.650	1560.78	-35.57	24.09	-35.24	1655234.85	14276962.15	39°18'57.266"N	80°56'51.389"W	42.68	304.354	0.27	
1587.00	0.930	284.410	1585.78	-35.81	24.18	-35.63	1655234.46	14276962.24	39°18'57.267"N	80°56'51.394"W	43.06	304.168	0.09	
1612.00	0.890	279.630	1610.78	-36.03	24.27	-36.01	1655234.07	14276962.33	39°18'57.268"N	80°56'51.399"W	43.43	303.971	0.34	
1637.00	1.020	287.040	1635.77	-36.28	24.36	-36.42	1655233.67	14276962.42	39°18'57.269"N	80°56'51.404"W	43.82	303.782	0.72	
1662.00	1.010	283.570	1660.77	-36.54	24.48	-36.85	1655233.24	14276962.54	39°18'57.270"N	80°56'51.409"W	44.24	303.600	0.25	
1687.00	0.980	282.670	1685.77	-36.79	24.58	-37.27	1655232.82	14276962.64	39°18'57.271"N	80°56'51.415"W	44.64	303.405	0.14	
1712.00	0.930	284.260	1710.76	-37.04	24.68	-37.67	1655232.41	14276962.74	39°18'57.272"N	80°56'51.420"W	45.04	303.225	0.23	
1737.00	1.020	286.310	1735.76	-37.30	24.79	-38.08	1655232.00	14276962.85	39°18'57.273"N	80°56'51.425"W	45.44	303.060	0.39	
1762.00	0.880	286.910	1760.76	-37.55	24.91	-38.48	1655231.60	14276962.97	39°18'57.274"N	80°56'51.430"W	45.84	302.913	0.56	
1787.00	0.750	283.900	1785.75	-37.77	25.00	-38.82	1655231.26	14276963.06	39°18'57.275"N	80°56'51.434"W	46.18	302.781	0.55	
1812.00	0.860	284.600	1810.75	-37.98	25.09	-39.16	1655230.92	14276963.15	39°18'57.276"N	80°56'51.439"W	46.51	302.644	0.44	
1837.00	0.800	284.630	1835.75	-38.20	25.18	-39.51	1655230.57	14276963.24	39°18'57.277"N	80°56'51.443"W	46.86	302.507	0.24	
1862.00	0.840	290.450	1860.75	-38.42	25.29	-39.85	1655230.23	14276963.35	39°18'57.278"N	80°56'51.447"W	47.20	302.395	0.37	
1887.00	0.850	292.410	1885.74	-38.68	25.42	-40.20	1655229.89	14276963.48	39°18'57.279"N	80°56'51.452"W	47.56	302.311	0.12	
1912.00	0.870	292.290	1910.74	-38.94	25.57	-40.55	1655229.54	14276963.63	39°18'57.281"N	80°56'51.456"W	47.93	302.233	0.08	
1937.00	0.830	287.380	1935.74	-39.19	25.69	-40.89	1655229.19	14276963.75	39°18'57.282"N	80°56'51.461"W	48.29	302.139	0.33	
1962.00	0.880	288.190	1960.73	-39.43	25.81	-41.25	1655228.84	14276963.87	39°18'57.283"N	80°56'51.465"W	48.66	302.030	0.21	
1987.00	0.950	290.740	1985.73	-39.69	25.94	-41.62	1655228.46	14276964.00	39°18'57.284"N	80°56'51.470"W	49.05	301.929	0.32	
2012.00	0.910	288.130	2010.73	-39.96	26.07	-42.01	1655228.08	14276964.13	39°18'57.286"N	80°56'51.475"W	49.44	301.828	0.23	
2037.00	0.930	291.150	2035.72	-40.23	26.21	-42.39	1655227.70	14276964.27	39°18'57.287"N	80°56'51.480"W	49.83	301.731	0.21	
2062.00	0.870	287.920	2060.72	-40.49	26.34	-42.76	1655227.33	14276964.40	39°18'57.288"N	80°56'51.484"W	50.22	301.636	0.31	
2087.00	0.880	293.160	2085.72	-40.75	26.47	-43.11	1655226.98	14276964.53	39°18'57.290"N	80°56'51.489"W	50.59	301.553	0.32	
2112.00	0.760	297.120	2110.72	-41.01	26.63	-43.44	1655226.65	14276964.68	39°18'57.291"N	80°56'51.493"W	50.95	301.507	0.53	
2137.00	0.770	295.010	2135.71	-41.26	26.77	-43.74	1655226.35	14276964.83	39°18'57.293"N	80°56'51.497"W	51.28	301.472	0.12	
2162.00	0.640	289.610	2160.71	-41.48	26.89	-44.02	1655226.07	14276964.95	39°18'57.294"N	80°56'51.500"W	51.58	301.419	0.58	
2187.00	0.740	287.980	2185.71	-41.67	26.99	-44.30	1655225.78	14276965.05	39°18'57.295"N	80°56'51.504"W	51.88	301.346	0.41	
2212.00	0.710	302.400	2210.71	-41.90	27.12	-44.59	1655225.50	14276965.18	39°18'57.296"N	80°56'51.508"W	52.19	301.308	0.74	
2237.00	0.600	297.770	2235.71	-42.13	27.26	-44.84	1655225.25	14276965.32	39°18'57.297"N	80°56'51.511"W	52.47	301.303	0.49	
2262.00	0.590	294.760	2260.71	-42.32	27.38	-45.07	1655225.02	14276965.44	39°18'57.299"N	80°56'51.514"W	52.73	301.278	0.13	
2287.00	0.570	287.220	2285.70	-42.50	27.47	-45.30	1655224.78	14276965.53	39°18'57.299"N	80°56'51.517"W	52.98	301.230	0.32	



# Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

WELLPATH DATA (359 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)	Comments
2312.00	0.600	293.150	2310.70	-42.67	27.56	-45.54	1655224.54	14276965.62	39°18'57.300"N	80°56'51.520"W	53.23	301.177	0.27	
2337.00	0.610	299.760	2335.70	-42.86	27.67	-45.78	1655224.31	14276965.73	39°18'57.302"N	80°56'51.523"W	53.49	301.154	0.28	
2362.00	0.490	299.410	2360.70	-43.05	27.79	-45.99	1655224.10	14276965.85	39°18'57.303"N	80°56'51.526"W	53.73	301.147	0.48	
2387.00	0.410	292.600	2385.70	-43.20	27.88	-46.16	1655223.93	14276965.94	39°18'57.304"N	80°56'51.528"W	53.93	301.130	0.38	
2412.00	0.460	304.100	2410.70	-43.35	27.97	-46.33	1655223.76	14276966.03	39°18'57.304"N	80°56'51.530"W	54.12	301.121	0.40	
2437.00	0.460	305.740	2435.70	-43.51	28.09	-46.49	1655223.59	14276966.14	39°18'57.306"N	80°56'51.532"W	54.32	301.135	0.05	
2462.00	0.560	298.060	2460.70	-43.69	28.20	-46.68	1655223.41	14276966.26	39°18'57.307"N	80°56'51.534"W	54.54	301.137	0.48	
2487.00	0.530	291.280	2485.70	-43.87	28.30	-46.90	1655223.19	14276966.36	39°18'57.308"N	80°56'51.537"W	54.78	301.109	0.28	
2512.00	0.440	296.090	2510.70	-44.02	28.39	-47.09	1655223.00	14276966.44	39°18'57.309"N	80°56'51.540"W	54.99	301.080	0.39	
2537.00	0.480	305.710	2535.69	-44.18	28.49	-47.26	1655222.83	14276966.55	39°18'57.310"N	80°56'51.542"W	55.19	301.080	0.35	
2562.00	0.360	298.390	2560.69	-44.33	28.59	-47.42	1655222.67	14276966.65	39°18'57.311"N	80°56'51.544"W	55.37	301.085	0.52	
2587.00	0.350	282.970	2585.69	-44.43	28.64	-47.56	1655222.53	14276966.70	39°18'57.311"N	80°56'51.546"W	55.52	301.057	0.38	
2612.00	0.310	288.590	2610.69	-44.52	28.68	-47.70	1655222.39	14276966.74	39°18'57.311"N	80°56'51.547"W	55.66	301.017	0.21	
2637.00	0.330	304.860	2635.69	-44.62	28.74	-47.82	1655222.27	14276966.80	39°18'57.312"N	80°56'51.549"W	55.80	301.007	0.37	
2662.00	0.330	313.900	2660.69	-44.75	28.83	-47.93	1655222.16	14276966.89	39°18'57.313"N	80°56'51.550"W	55.94	301.029	0.21	
2687.00	0.330	286.820	2685.69	-44.86	28.91	-48.05	1655222.03	14276966.96	39°18'57.314"N	80°56'51.552"W	56.08	301.027	0.62	
2712.00	0.340	281.710	2710.69	-44.95	28.94	-48.20	1655221.89	14276967.00	39°18'57.314"N	80°56'51.554"W	56.22	300.984	0.13	
2737.00	0.360	282.220	2735.69	-45.03	28.97	-48.35	1655221.74	14276967.03	39°18'57.314"N	80°56'51.555"W	56.36	300.933	0.08	
2762.00	0.340	291.920	2760.69	-45.13	29.02	-48.49	1655221.60	14276967.08	39°18'57.315"N	80°56'51.557"W	56.51	300.896	0.25	
2787.00	0.340	299.120	2785.69	-45.24	29.08	-48.62	1655221.46	14276967.14	39°18'57.315"N	80°56'51.559"W	56.66	300.882	0.17	
2812.00	0.300	282.330	2810.69	-45.33	29.13	-48.75	1655221.34	14276967.19	39°18'57.316"N	80°56'51.561"W	56.79	300.859	0.41	
2837.00	0.250	332.480	2835.69	-45.42	29.19	-48.84	1655221.25	14276967.25	39°18'57.317"N	80°56'51.562"W	56.90	300.867	0.95	
2862.00	0.270	296.570	2860.69	-45.52	29.27	-48.92	1655221.17	14276967.33	39°18'57.317"N	80°56'51.563"W	57.01	300.891	0.65	
2887.00	0.260	276.750	2885.69	-45.59	29.30	-49.03	1655221.06	14276967.36	39°18'57.318"N	80°56'51.564"W	57.12	300.863	0.37	
2912.00	0.300	271.090	2910.69	-45.65	29.31	-49.15	1655220.94	14276967.37	39°18'57.318"N	80°56'51.566"W	57.23	300.807	0.19	
2937.00	0.200	282.020	2935.69	-45.70	29.32	-49.26	1655220.83	14276967.38	39°18'57.318"N	80°56'51.567"W	57.32	300.761	0.44	
2962.00	0.180	280.950	2960.69	-45.74	29.34	-49.34	1655220.75	14276967.39	39°18'57.318"N	80°56'51.568"W	57.40	300.734	0.08	
2987.00	0.220	290.010	2985.69	-45.80	29.36	-49.42	1655220.67	14276967.42	39°18'57.318"N	80°56'51.569"W	57.49	300.711	0.20	
3012.00	0.330	267.350	3010.69	-45.85	29.37	-49.54	1655220.55	14276967.43	39°18'57.318"N	80°56'51.571"W	57.59	300.663	0.61	
3037.00	0.230	271.140	3035.69	-45.90	29.37	-49.66	1655220.43	14276967.43	39°18'57.318"N	80°56'51.572"W	57.70	300.599	0.41	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #05
Area	Ritchie County, WV		Well
Field	Ritchie		Wellbore
Facility	Buck Run Pad		Charleston Unit 2H AWB

WELLPATH DATA (359 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]	Comments
3062.00	0.170	268.970	3060.69	-45.93	29.37	-49.75	1655220.34	14276967.43	39°18'57.318"N	80°56'51.573"W	57.77	300.556	0.24	
3087.00	0.210	281.860	3085.69	-45.97	29.38	-49.83	1655220.26	14276967.44	39°18'57.318"N	80°56'51.574"W	57.85	300.522	0.23	
3112.00	0.210	279.430	3110.69	-46.02	29.40	-49.92	1655220.17	14276967.45	39°18'57.319"N	80°56'51.576"W	57.93	300.491	0.04	
3137.00	0.110	305.550	3135.69	-46.06	29.42	-49.99	1655220.10	14276967.48	39°18'57.319"N	80°56'51.576"W	58.00	300.477	0.49	
3162.00	0.110	294.560	3160.69	-46.10	29.44	-50.03	1655220.06	14276967.50	39°18'57.319"N	80°56'51.577"W	58.05	300.477	0.08	
3187.00	0.230	267.990	3185.69	-46.14	29.45	-50.10	1655219.99	14276967.51	39°18'57.319"N	80°56'51.578"W	58.12	300.448	0.56	
3212.00	0.320	276.860	3210.69	-46.19	29.46	-50.22	1655219.87	14276967.51	39°18'57.319"N	80°56'51.579"W	58.22	300.394	0.40	
3237.00	0.110	299.570	3235.69	-46.24	29.48	-50.31	1655219.78	14276967.53	39°18'57.319"N	80°56'51.580"W	58.31	300.366	0.89	
3262.00	0.160	258.450	3260.69	-46.26	29.48	-50.37	1655219.72	14276967.54	39°18'57.319"N	80°56'51.581"W	58.36	300.343	0.42	
3287.00	0.270	279.110	3285.69	-46.30	29.48	-50.46	1655219.63	14276967.54	39°18'57.319"N	80°56'51.582"W	58.44	300.299	0.53	
3312.00	0.270	296.820	3310.69	-46.38	29.52	-50.57	1655219.52	14276967.58	39°18'57.320"N	80°56'51.584"W	58.55	300.274	0.33	
3337.00	0.780	293.110	3335.68	-46.54	29.61	-50.78	1655219.31	14276967.67	39°18'57.321"N	80°56'51.586"W	58.78	300.250	2.04	
3362.00	1.730	293.020	3360.68	-46.93	29.83	-51.28	1655218.81	14276967.89	39°18'57.323"N	80°56'51.593"W	59.33	300.184	3.80	
3387.00	2.750	291.550	3385.66	-47.61	30.20	-52.19	1655217.90	14276968.25	39°18'57.326"N	80°56'51.604"W	60.29	300.054	4.09	
3412.00	3.650	289.800	3410.62	-48.56	30.69	-53.49	1655216.60	14276968.74	39°18'57.331"N	80°56'51.621"W	61.67	299.840	3.62	
3437.00	4.630	289.640	3435.55	-49.76	31.29	-55.19	1655214.90	14276969.35	39°18'57.337"N	80°56'51.643"W	63.45	299.553	3.92	
3462.00	5.170	288.820	3460.46	-51.17	32.00	-57.21	1655212.88	14276970.05	39°18'57.344"N	80°56'51.668"W	65.55	299.218	2.18	
3487.00	5.780	286.590	3485.35	-52.69	32.72	-59.48	1655210.61	14276970.78	39°18'57.351"N	80°56'51.697"W	67.89	298.814	2.58	
3512.00	6.420	284.440	3510.21	-54.31	33.43	-62.04	1655208.05	14276971.48	39°18'57.358"N	80°56'51.730"W	70.47	298.315	2.72	
3537.00	7.070	282.080	3535.03	-56.01	34.10	-64.90	1655205.20	14276972.15	39°18'57.365"N	80°56'51.766"W	73.31	297.717	2.83	
3562.00	7.770	280.980	3559.82	-57.80	34.74	-68.06	1655202.03	14276972.80	39°18'57.371"N	80°56'51.806"W	76.42	297.041	2.86	
3587.00	8.390	281.080	3584.58	-59.72	35.41	-71.51	1655198.59	14276973.47	39°18'57.378"N	80°56'51.850"W	79.80	296.345	2.48	
3612.00	8.840	280.400	3609.29	-61.75	36.11	-75.19	1655194.91	14276974.17	39°18'57.385"N	80°56'51.897"W	83.41	295.653	1.85	
3637.00	9.460	280.380	3633.98	-63.88	36.83	-79.10	1655191.00	14276974.88	39°18'57.392"N	80°56'51.947"W	87.25	294.966	2.48	
3662.00	10.260	279.490	3658.61	-66.15	37.57	-83.32	1655186.78	14276975.62	39°18'57.399"N	80°56'52.000"W	91.40	294.269	3.26	
3687.00	10.850	278.680	3683.18	-68.52	38.29	-87.84	1655182.26	14276976.34	39°18'57.407"N	80°56'52.058"W	95.82	293.551	2.43	
3712.00	11.220	278.030	3707.72	-70.95	38.98	-92.57	1655177.53	14276977.04	39°18'57.414"N	80°56'52.118"W	100.45	292.836	1.56	
3737.00	11.770	276.290	3732.22	-73.38	39.60	-97.52	1655172.59	14276977.66	39°18'57.420"N	80°56'52.181"W	105.25	292.102	2.60	
3762.00	12.170	275.130	3756.68	-75.80	40.12	-102.68	1655167.43	14276978.17	39°18'57.425"N	80°56'52.247"W	110.24	291.341	1.87	
3787.00	12.580	274.210	3781.09	-78.21	40.55	-108.02	1655162.10	14276978.61	39°18'57.429"N	80°56'52.315"W	115.38	290.577	1.82	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj 16260'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	BuckRun Pad		

WELLPATH DATA (359 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]	Comments
3812.00	12.750	273.730	3805.49	-80.62	40.93	-113.48	1655156.63	14276978.99	39°18'57.433"N	80°56'52.384"W	120.64	289.833	0.80	
3837.00	12.980	273.680	3829.86	-83.04	41.29	-119.04	1655151.08	14276979.34	39°18'57.436"N	80°56'52.455"W	126.00	289.130	0.92	
3862.00	13.310	274.200	3854.20	-85.54	41.68	-124.71	1655145.41	14276979.74	39°18'57.440"N	80°56'52.527"W	131.49	288.481	1.40	
3887.00	13.960	275.070	3878.50	-88.19	42.16	-130.59	1655139.54	14276980.21	39°18'57.445"N	80°56'52.602"W	137.22	287.893	2.73	
3912.00	14.480	276.060	3902.73	-91.04	42.76	-136.70	1655133.43	14276980.81	39°18'57.451"N	80°56'52.680"W	143.23	287.369	2.30	
3937.00	15.350	276.380	3926.89	-94.10	43.45	-143.09	1655127.03	14276981.51	39°18'57.458"N	80°56'52.761"W	149.55	286.892	3.50	
3962.00	15.880	277.100	3950.97	-97.34	44.24	-149.78	1655120.35	14276982.30	39°18'57.466"N	80°56'52.846"W	156.17	286.457	2.26	
3987.00	16.640	278.310	3974.97	-100.82	45.18	-156.71	1655113.42	14276983.24	39°18'57.475"N	80°56'52.934"W	163.10	286.084	3.33	
4012.00	17.530	278.860	3998.86	-104.57	46.28	-163.97	1655106.16	14276984.33	39°18'57.486"N	80°56'53.027"W	170.38	285.762	3.62	
4037.00	18.440	278.670	4022.64	-108.53	47.46	-171.60	1655098.54	14276985.51	39°18'57.498"N	80°56'53.124"W	178.04	285.459	3.65	
4062.00	19.070	277.290	4046.31	-112.56	48.57	-179.56	1655090.58	14276986.62	39°18'57.509"N	80°56'53.225"W	186.02	285.136	3.08	
4087.00	19.550	274.070	4069.91	-116.41	49.39	-187.79	1655082.36	14276987.44	39°18'57.517"N	80°56'53.329"W	194.17	284.735	4.67	
4112.00	20.150	270.540	4093.42	-119.91	49.72	-196.27	1655073.88	14276987.77	39°18'57.520"N	80°56'53.437"W	202.47	284.217	5.36	
4137.00	20.670	267.540	4116.86	-123.05	49.58	-204.98	1655065.17	14276987.63	39°18'57.519"N	80°56'53.548"W	210.89	283.596	4.67	
4162.00	21.040	265.260	4140.22	-125.87	49.02	-213.86	1655056.30	14276987.07	39°18'57.513"N	80°56'53.661"W	219.41	282.909	3.57	
4187.00	21.640	262.600	4163.50	-128.38	48.05	-222.90	1655047.25	14276986.10	39°18'57.504"N	80°56'53.776"W	228.02	282.165	4.55	
4212.00	22.110	261.850	4186.70	-130.69	46.79	-232.13	1655038.03	14276984.84	39°18'57.491"N	80°56'53.894"W	236.80	281.396	2.19	
4237.00	23.030	260.120	4209.79	-132.86	45.28	-241.61	1655028.56	14276983.34	39°18'57.477"N	80°56'54.014"W	245.82	280.616	4.54	
4262.00	24.030	258.930	4232.71	-134.86	43.47	-251.42	1655018.75	14276981.52	39°18'57.459"N	80°56'54.139"W	255.15	279.809	4.43	
4287.00	24.480	258.600	4255.50	-136.80	41.47	-261.50	1655008.68	14276979.52	39°18'57.439"N	80°56'54.267"W	264.76	279.011	1.88	
4312.00	25.000	258.620	4278.21	-138.74	39.40	-271.75	1654998.43	14276977.45	39°18'57.419"N	80°56'54.398"W	274.59	278.250	2.08	
4337.00	25.210	258.750	4300.85	-140.73	37.32	-282.15	1654988.03	14276975.37	39°18'57.398"N	80°56'54.530"W	284.61	277.534	0.87	
4362.00	25.190	259.500	4323.47	-142.80	35.31	-292.61	1654977.58	14276973.37	39°18'57.378"N	80°56'54.663"W	294.73	276.881	1.28	
4387.00	24.940	260.560	4346.11	-145.03	33.48	-303.04	1654967.16	14276971.53	39°18'57.360"N	80°56'54.796"W	304.88	276.304	2.06	
4412.00	24.700	261.900	4368.80	-147.45	31.88	-313.41	1654956.79	14276969.93	39°18'57.345"N	80°56'54.928"W	315.02	275.807	2.45	
4437.00	24.600	263.030	4391.53	-150.07	30.51	-323.74	1654946.46	14276968.57	39°18'57.331"N	80°56'55.059"W	325.18	275.383	1.93	
4462.00	24.020	264.680	4414.31	-152.89	29.41	-333.97	1654936.23	14276967.46	39°18'57.320"N	80°56'55.190"W	335.27	275.032	3.57	
4487.00	23.480	266.550	4437.19	-155.96	28.63	-344.01	1654926.20	14276966.69	39°18'57.313"N	80°56'55.317"W	345.20	274.758	3.71	
4512.00	24.160	267.960	4460.06	-159.30	28.15	-354.10	1654916.12	14276966.21	39°18'57.308"N	80°56'55.446"W	355.21	274.546	3.55	
4537.00	25.080	269.350	4482.79	-163.00	27.91	-364.51	1654905.71	14276965.97	39°18'57.306"N	80°56'55.578"W	365.58	274.379	4.35	





# Actual Wellpath Report

Charleston Unit 2H AWP Proj 16260'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

WELLPATH DATA (359 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]	Comments
4562.00	23.850	269.830	4505.55	-166.82	27.83	-374.86	1654895.36	14276965.89	39°18'57.305"N	80°56'55.710"W	375.89	274.247	4.98	
4587.00	24.830	270.140	4528.32	-170.70	27.83	-385.16	1654885.06	14276965.89	39°18'57.305"N	80°56'55.841"W	386.17	274.133	3.95	
4612.00	26.340	270.210	4550.87	-174.79	27.87	-395.96	1654874.27	14276965.92	39°18'57.305"N	80°56'55.978"W	396.94	274.026	6.04	
4637.00	24.160	270.320	4573.48	-178.85	27.91	-406.62	1654863.61	14276965.97	39°18'57.306"N	80°56'56.114"W	407.58	273.927	8.72	
4662.00	25.120	270.530	4596.20	-182.84	27.99	-417.05	1654853.19	14276966.05	39°18'57.307"N	80°56'56.247"W	417.99	273.840	3.86	
4687.00	26.040	270.720	4618.75	-187.01	28.11	-427.84	1654842.40	14276966.17	39°18'57.308"N	80°56'56.384"W	428.76	273.759	3.69	
4712.00	26.240	270.890	4641.20	-191.30	28.27	-438.85	1654831.39	14276966.32	39°18'57.310"N	80°56'56.524"W	439.76	273.685	0.85	
4737.00	27.420	270.930	4663.51	-195.71	28.44	-450.14	1654820.12	14276966.50	39°18'57.311"N	80°56'56.668"W	451.03	273.616	4.72	
4762.00	25.890	270.950	4685.85	-200.10	28.63	-461.35	1654808.91	14276966.69	39°18'57.313"N	80°56'56.810"W	462.24	273.551	6.12	
4787.00	29.040	270.390	4708.03	-204.55	28.76	-472.88	1654797.38	14276966.82	39°18'57.315"N	80°56'56.957"W	473.75	273.480	12.64	
4812.00	25.710	269.200	4730.23	-208.85	28.73	-484.37	1654785.89	14276966.78	39°18'57.314"N	80°56'57.103"W	485.22	273.394	13.50	
4837.00	25.910	268.000	4752.73	-212.69	28.46	-495.25	1654775.02	14276966.52	39°18'57.312"N	80°56'57.242"W	496.07	273.289	2.24	
4862.00	26.480	267.370	4775.16	-216.43	28.01	-506.28	1654764.00	14276966.07	39°18'57.307"N	80°56'57.382"W	507.05	273.167	2.54	
4887.00	25.100	266.900	4797.67	-220.01	27.47	-517.14	1654753.14	14276965.53	39°18'57.302"N	80°56'57.520"W	517.87	273.041	5.58	
4912.00	25.480	266.810	4820.28	-223.48	26.88	-527.80	1654742.48	14276964.94	39°18'57.296"N	80°56'57.656"W	528.49	272.916	1.53	
4937.00	26.960	266.790	4842.70	-227.06	26.27	-538.83	1654731.45	14276964.33	39°18'57.290"N	80°56'57.796"W	539.47	272.791	5.92	
4962.00	28.620	266.960	4864.82	-230.85	25.63	-550.47	1654719.82	14276963.69	39°18'57.284"N	80°56'57.944"W	551.07	272.666	6.65	
4987.00	25.920	267.090	4887.04	-234.60	25.04	-561.91	1654708.39	14276963.10	39°18'57.278"N	80°56'58.090"W	562.47	272.551	10.80	
5012.00	26.370	267.250	4909.48	-238.24	24.49	-572.91	1654697.39	14276962.55	39°18'57.273"N	80°56'58.230"W	573.43	272.448	1.82	
5037.00	27.360	267.300	4931.78	-241.99	23.96	-584.20	1654686.11	14276962.02	39°18'57.268"N	80°56'58.373"W	584.69	272.348	3.96	
5062.00	27.820	267.270	4953.94	-245.83	23.41	-595.76	1654674.55	14276961.47	39°18'57.262"N	80°56'58.520"W	596.22	272.250	1.84	
5087.00	26.730	267.460	4976.16	-249.65	22.88	-607.20	1654663.11	14276960.94	39°18'57.257"N	80°56'58.666"W	607.64	272.158	4.37	
5112.00	26.060	267.520	4998.55	-253.37	22.39	-618.31	1654652.01	14276960.46	39°18'57.253"N	80°56'58.807"W	618.71	272.074	2.68	
5137.00	25.160	267.670	5021.10	-257.01	21.94	-629.10	1654641.22	14276960.00	39°18'57.248"N	80°56'58.945"W	629.49	271.997	3.61	
5162.00	24.830	267.720	5043.76	-260.59	21.52	-639.66	1654630.67	14276959.58	39°18'57.244"N	80°56'59.079"W	640.02	271.927	1.32	
5187.00	25.760	267.630	5066.36	-264.20	21.08	-650.33	1654620.00	14276959.14	39°18'57.240"N	80°56'59.215"W	650.67	271.857	3.72	
5212.00	26.650	267.810	5088.79	-267.95	20.64	-661.36	1654608.97	14276958.71	39°18'57.235"N	80°56'59.355"W	661.69	271.788	3.57	
5237.00	27.610	267.820	5111.04	-271.83	20.21	-672.76	1654597.59	14276958.27	39°18'57.231"N	80°56'59.500"W	673.06	271.721	3.84	
5262.00	27.990	267.850	5133.15	-275.81	19.77	-684.41	1654585.94	14276957.83	39°18'57.227"N	80°56'59.648"W	684.69	271.655	1.52	
5287.00	27.330	267.970	5155.30	-279.78	19.35	-696.00	1654574.35	14276957.41	39°18'57.223"N	80°56'59.796"W	696.27	271.592	2.65	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj 16260'  
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #05
Area	Ritchie County, WV		Well	Charleston Unit 2H
Field	Ritchie		Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad			

WELLPATH DATA (359 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]	Comments
5312.00	26.400	268.220	5177.60	-283.68	18.97	-707.29	1654563.06	14276957.03	39°18'57.219"N	80°56'59.940"W	707.55	271.536	3.75	
5337.00	26.040	268.100	5200.02	-287.50	18.61	-718.33	1654552.02	14276956.68	39°18'57.216"N	80°57'00.080"W	718.58	271.484	1.46	
5362.00	26.360	268.370	5222.46	-291.34	18.28	-729.37	1654541.00	14276956.34	39°18'57.212"N	80°57'00.220"W	729.60	271.435	1.37	
5387.00	26.670	268.620	5244.83	-295.26	17.98	-740.52	1654529.84	14276956.04	39°18'57.210"N	80°57'00.362"W	740.74	271.391	1.32	
5412.00	26.380	268.920	5267.19	-299.24	17.74	-751.69	1654518.69	14276955.81	39°18'57.207"N	80°57'00.504"W	751.90	271.352	1.28	
5437.00	25.160	269.190	5289.71	-303.16	17.56	-762.55	1654507.82	14276955.63	39°18'57.206"N	80°57'00.643"W	762.76	271.319	4.90	
5462.00	24.560	269.580	5312.39	-307.01	17.45	-773.06	1654497.32	14276955.51	39°18'57.204"N	80°57'00.776"W	773.26	271.293	2.49	
5487.00	24.310	269.470	5335.15	-310.82	17.36	-783.40	1654486.98	14276955.43	39°18'57.204"N	80°57'00.908"W	783.60	271.270	1.02	
5512.00	25.800	269.490	5357.80	-314.72	17.27	-793.99	1654476.40	14276955.33	39°18'57.203"N	80°57'01.043"W	794.18	271.246	5.96	
5537.00	26.640	269.110	5380.23	-318.75	17.13	-805.03	1654465.36	14276955.20	39°18'57.202"N	80°57'01.183"W	805.22	271.219	3.43	
5562.00	27.890	268.400	5402.45	-322.82	16.88	-816.48	1654453.91	14276954.94	39°18'57.199"N	80°57'01.329"W	816.66	271.184	5.17	
5587.00	26.180	267.900	5424.72	-326.76	16.52	-827.84	1654442.56	14276954.58	39°18'57.196"N	80°57'01.473"W	828.01	271.143	6.90	
5612.00	25.540	267.250	5447.21	-330.43	16.06	-838.74	1654431.67	14276954.12	39°18'57.191"N	80°57'01.612"W	838.89	271.097	2.80	
5637.00	25.680	266.510	5469.76	-333.94	15.47	-849.53	1654420.89	14276953.53	39°18'57.185"N	80°57'01.749"W	849.67	271.043	1.40	
5662.00	25.180	266.180	5492.33	-337.34	14.78	-860.24	1654410.18	14276952.85	39°18'57.179"N	80°57'01.886"W	860.37	270.985	2.08	
5687.00	25.640	265.570	5514.92	-340.65	14.01	-870.94	1654399.48	14276952.08	39°18'57.171"N	80°57'02.022"W	871.05	270.922	2.12	
5712.00	23.330	265.160	5537.67	-343.76	13.18	-881.27	1654389.16	14276951.24	39°18'57.163"N	80°57'02.153"W	881.36	270.857	9.26	
5737.00	24.210	265.190	5560.54	-346.75	12.33	-891.31	1654379.12	14276950.39	39°18'57.155"N	80°57'02.281"W	891.39	270.792	3.52	
5762.00	24.210	265.840	5583.35	-349.86	11.53	-901.53	1654368.91	14276949.59	39°18'57.147"N	80°57'02.411"W	901.60	270.733	1.07	
5787.00	22.930	266.510	5606.26	-352.99	10.86	-911.50	1654358.94	14276948.92	39°18'57.140"N	80°57'02.538"W	911.57	270.682	5.23	
5812.00	25.740	267.370	5629.04	-356.35	10.31	-921.79	1654348.65	14276948.38	39°18'57.135"N	80°57'02.669"W	921.84	270.641	11.33	
5837.00	26.430	268.560	5651.49	-360.13	9.92	-932.77	1654337.67	14276947.99	39°18'57.131"N	80°57'02.808"W	932.82	270.610	3.46	
5862.00	23.780	268.900	5674.13	-363.90	9.69	-943.37	1654327.07	14276947.75	39°18'57.129"N	80°57'02.943"W	943.42	270.588	10.62	
5887.00	24.610	269.600	5696.93	-367.63	9.55	-953.62	1654316.83	14276947.62	39°18'57.127"N	80°57'03.074"W	953.67	270.574	3.51	
5888.00	24.650	269.630	5697.84	-367.78	9.55	-954.04	1654316.42	14276947.62	39°18'57.127"N	80°57'03.079"W	954.08	270.574	4.19	
6083.00	26.360	265.780	5873.84	-396.13	6.10	-1037.89	1654232.60	14276944.17	39°18'57.094"N	80°57'04.146"W	1037.90	270.337	1.22	BHI AT Curve <8-1/2">(5888')(6083' - 16236')
6137.00	25.940	257.970	5922.33	-401.88	2.76	-1061.40	1654209.10	14276940.83	39°18'57.061"N	80°57'04.445"W	1061.40	270.149	6.42	
6184.00	26.780	246.040	5964.47	-403.33	-3.69	-1081.14	1654189.36	14276934.38	39°18'56.997"N	80°57'04.696"W	1081.15	269.804	11.39	
6232.00	27.210	234.280	6007.27	-400.40	-14.50	-1099.95	1654170.56	14276923.58	39°18'56.891"N	80°57'04.936"W	1100.05	269.245	11.14	
6279.00	28.990	223.620	6048.76	-393.18	-29.02	-1116.54	1654153.98	14276909.06	39°18'56.747"N	80°57'05.147"W	1116.92	268.511	11.32	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj 16260'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #05
Area	Ritchie County, WV		Well
Field	Ritchie		Wellbore
Facility	Buck Run Pad		Charleston Unit 2H AWB

WELLPATH DATA (359 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]	Comments
6326.00	31.360	216.690	6089.40	-382.15	-47.08	-1131.71	1654138.81	14276891.00	39°18'56.569"N	80°57'05.340"W	1132.69	267.618	8.96	
6373.00	34.120	212.130	6128.93	-368.11	-68.06	-1146.04	1654124.49	14276870.04	39°18'56.361"N	80°57'05.522"W	1148.06	266.601	7.87	
6421.00	37.600	206.820	6167.84	-350.60	-92.54	-1159.81	1654110.72	14276845.56	39°18'56.119"N	80°57'05.698"W	1163.50	265.438	9.72	
6468.00	40.790	201.840	6204.27	-330.12	-119.60	-1172.00	1654098.54	14276818.51	39°18'55.852"N	80°57'05.853"W	1178.08	264.173	9.53	
6515.00	44.870	197.790	6238.74	-306.33	-149.66	-1182.78	1654087.76	14276788.47	39°18'55.555"N	80°57'05.990"W	1192.21	262.789	10.47	
6537.00†	47.103	196.069	6254.02	-294.04	-164.80	-1187.38	1654083.16	14276773.34	39°18'55.405"N	80°57'06.049"W	1198.76	262.098	11.60	Middlesex 6,537' MD
6562.00	49.670	194.260	6270.62	-279.16	-182.83	-1192.27	1654078.28	14276755.31	39°18'55.227"N	80°57'06.111"W	1206.20	261.282	11.60	
6610.00	53.060	191.960	6300.59	-248.52	-219.35	-1200.75	1654069.80	14276718.81	39°18'54.866"N	80°57'06.220"W	1220.62	259.648	7.99	
6655.00	56.150	189.760	6326.65	-217.74	-255.37	-1207.65	1654062.91	14276682.81	39°18'54.510"N	80°57'06.308"W	1234.35	258.060	7.94	
6704.00	60.320	185.800	6352.45	-181.62	-296.63	-1213.25	1654057.30	14276641.56	39°18'54.103"N	80°57'06.379"W	1248.99	256.261	10.94	
6721.00†	62.132	184.861	6360.63	-168.40	-311.46	-1214.64	1654055.92	14276626.73	39°18'53.956"N	80°57'06.397"W	1253.93	255.618	11.71	Burkett: 6,721' MD
6749.00	65.130	183.380	6373.07	-145.89	-336.48	-1216.43	1654054.12	14276601.73	39°18'53.709"N	80°57'06.420"W	1262.11	254.538	11.71	
6787.00†	68.409	181.252	6388.06	-114.10	-371.36	-1217.84	1654052.72	14276566.86	39°18'53.364"N	80°57'06.438"W	1273.20	253.042	10.05	Tully: 6,787' MD
6799.00	69.450	180.600	6392.37	-103.80	-382.56	-1218.02	1654052.54	14276555.66	39°18'53.253"N	80°57'06.440"W	1276.68	252.563	10.05	
6846.00	75.570	178.330	6406.49	-62.12	-427.36	-1217.58	1654052.98	14276510.88	39°18'52.811"N	80°57'06.435"W	1290.41	250.659	13.81	
6854.00†	76.265	177.807	6408.44	-54.84	-435.11	-1217.32	1654053.24	14276503.13	39°18'52.734"N	80°57'06.432"W	1292.75	250.331	10.76	Marcellus: 6,854' MD
6893.00	79.670	175.300	6416.57	-18.71	-473.18	-1215.02	1654055.53	14276465.08	39°18'52.358"N	80°57'06.403"W	1303.91	248.722	10.76	
6941.00	82.560	171.890	6423.98	26.94	-520.29	-1209.73	1654060.83	14276417.98	39°18'51.892"N	80°57'06.336"W	1316.87	246.728	9.25	
6988.00	86.120	169.390	6428.62	72.55	-566.43	-1202.12	1654068.43	14276371.87	39°18'51.436"N	80°57'06.239"W	1328.89	244.771	9.24	
7032.00	90.120	165.720	6430.06	115.88	-609.36	-1192.65	1654077.90	14276328.96	39°18'51.012"N	80°57'06.119"W	1339.30	242.936	12.33	
7082.00	89.850	162.030	6430.08	165.60	-657.38	-1178.76	1654091.78	14276280.95	39°18'50.537"N	80°57'05.943"W	1349.68	240.852	7.40	
7177.00	91.690	163.900	6428.80	260.22	-748.20	-1150.94	1654119.60	14276190.17	39°18'49.639"N	80°57'05.589"W	1372.75	236.973	2.76	
7271.00	90.180	164.250	6427.27	353.66	-838.58	-1125.15	1654145.37	14276099.83	39°18'48.746"N	80°57'05.262"W	1403.27	233.303	1.65	
7366.00	90.220	160.850	6426.93	448.33	-929.19	-1096.67	1654173.84	14276009.25	39°18'47.850"N	80°57'04.900"W	1437.38	229.726	3.58	
7460.00	90.150	155.890	6426.63	542.30	-1016.54	-1062.03	1654208.47	14275921.94	39°18'46.986"N	80°57'04.460"W	1470.12	226.254	5.28	
7554.00	90.060	153.570	6426.46	636.15	-1101.54	-1021.90	1654248.58	14275836.97	39°18'46.146"N	80°57'03.950"W	1502.56	222.852	2.47	
7649.00	90.280	154.590	6426.18	730.93	-1186.98	-980.38	1654290.09	14275751.56	39°18'45.301"N	80°57'03.422"W	1539.50	219.555	1.10	
7743.00	92.280	155.740	6424.08	824.80	-1272.26	-940.91	1654329.54	14275666.32	39°18'44.458"N	80°57'02.921"W	1582.39	216.485	2.45	
7838.00	90.220	152.830	6422.00	919.57	-1357.82	-899.70	1654370.73	14275580.79	39°18'43.612"N	80°57'02.397"W	1628.85	213.529	3.75	
7932.00	90.150	152.230	6421.70	1013.16	-1441.22	-856.34	1654414.07	14275497.43	39°18'42.788"N	80°57'01.846"W	1676.44	210.718	0.64	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj: 16260'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

WELLPATH DATA (359 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]	Comments
8026.00	89.910	153.590	6421.65	1106.80	-1524.91	-813.54	1654456.86	14275413.78	39°18'41.961"N	80°57'01.302"W	1728.35	208.080	1.47	
8121.00	89.910	155.960	6421.80	1201.65	-1610.84	-773.06	1654497.33	14275327.88	39°18'41.111"N	80°57'00.788"W	1786.74	205.637	2.49	
8216.00	89.780	158.950	6422.06	1296.63	-1698.57	-736.64	1654533.73	14275240.18	39°18'40.244"N	80°57'00.325"W	1851.43	203.445	3.15	
8310.00	89.880	160.750	6422.34	1390.58	-1786.81	-704.26	1654566.10	14275151.97	39°18'39.371"N	80°56'59.914"W	1920.59	201.511	1.92	
8404.00	89.820	160.690	6422.58	1484.46	-1875.54	-673.22	1654597.12	14275063.28	39°18'38.494"N	80°56'59.519"W	1992.71	199.745	0.09	
8499.00	90.520	161.830	6422.30	1579.30	-1965.50	-642.70	1654627.63	14274973.36	39°18'37.605"N	80°56'59.132"W	2067.91	198.107	1.41	
8593.00	91.420	165.670	6420.71	1672.77	-2055.72	-616.40	1654653.91	14274883.18	39°18'36.713"N	80°56'58.798"W	2146.14	196.691	4.20	
8688.00	90.550	162.360	6419.07	1767.21	-2147.02	-590.25	1654680.06	14274791.92	39°18'35.811"N	80°56'58.466"W	2226.67	195.372	3.60	
8782.00	90.860	158.430	6417.92	1861.09	-2235.54	-558.72	1654711.58	14274703.43	39°18'34.935"N	80°56'58.065"W	2304.30	194.032	4.19	
8877.00	90.740	154.330	6416.59	1956.03	-2322.56	-520.67	1654749.61	14274616.45	39°18'34.075"N	80°56'57.582"W	2380.20	192.636	4.32	
8971.00	89.940	151.570	6416.03	2049.67	-2406.26	-477.92	1654792.34	14274532.77	39°18'33.248"N	80°56'57.039"W	2453.27	191.234	3.06	
9066.00	92.280	156.010	6414.19	2144.37	-2491.45	-435.99	1654834.26	14274447.62	39°18'32.405"N	80°56'56.506"W	2529.31	189.926	5.28	
9160.00	90.120	150.890	6412.22	2238.03	-2575.49	-393.99	1654876.24	14274363.62	39°18'31.575"N	80°56'55.972"W	2605.45	188.698	5.91	
9255.00	89.850	147.820	6412.25	2331.97	-2657.21	-345.58	1654924.63	14274281.93	39°18'30.767"N	80°56'55.357"W	2679.59	187.410	3.24	
9349.00	89.820	151.600	6412.52	2424.99	-2738.36	-298.17	1654972.02	14274200.81	39°18'29.964"N	80°56'54.754"W	2754.55	186.214	4.02	
9443.00	89.850	156.780	6412.79	2518.76	-2822.96	-257.26	1655012.91	14274116.25	39°18'29.128"N	80°56'54.234"W	2834.65	185.207	5.51	
9538.00	89.750	158.100	6413.12	2613.76	-2910.68	-220.82	1655049.34	14274028.56	39°18'28.261"N	80°56'53.771"W	2919.05	184.338	1.39	
9633.00	89.820	161.300	6413.48	2708.70	-2999.77	-187.86	1655082.28	14273939.50	39°18'27.380"N	80°56'53.353"W	3005.65	183.583	3.37	
9727.00	89.850	160.610	6413.75	2802.56	-3088.63	-157.19	1655112.95	14273850.69	39°18'26.502"N	80°56'52.963"W	3092.62	182.913	0.73	
9822.00	89.630	156.980	6414.18	2897.53	-3177.18	-122.83	1655147.29	14273762.17	39°18'25.626"N	80°56'52.527"W	3179.55	182.214	3.83	
9916.00	89.660	163.130	6414.76	2991.42	-3265.49	-90.78	1655179.32	14273673.89	39°18'24.753"N	80°56'52.120"W	3266.76	181.592	6.54	
10011.00	89.630	162.830	6415.35	3086.04	-3356.33	-62.98	1655207.12	14273583.09	39°18'23.855"N	80°56'51.767"W	3356.92	181.075	0.32	
10105.00	89.600	158.600	6415.98	3179.91	-3445.04	-31.94	1655238.14	14273494.42	39°18'22.978"N	80°56'51.372"W	3445.18	180.531	4.50	
10200.00	89.690	159.790	6416.57	3274.88	-3533.84	1.80	1655271.87	14273405.65	39°18'22.100"N	80°56'50.944"W	3533.84	179.971	1.26	
10295.00	89.780	161.100	6417.01	3369.78	-3623.36	33.60	1655303.66	14273316.17	39°18'21.215"N	80°56'50.540"W	3623.51	179.469	1.38	
10389.00	89.750	161.240	6417.40	3463.63	-3712.32	63.94	1655333.98	14273227.24	39°18'20.336"N	80°56'50.155"W	3712.87	179.013	0.15	
10483.00	89.820	159.530	6417.75	3557.54	-3800.86	95.49	1655365.52	14273138.73	39°18'19.461"N	80°56'49.754"W	3802.06	178.561	1.82	
10578.00	89.850	156.320	6418.02	3652.52	-3888.89	131.19	1655401.21	14273050.74	39°18'18.590"N	80°56'49.300"W	3891.10	178.068	3.38	
10672.00	89.780	154.820	6418.33	3746.44	-3974.47	170.07	1655440.07	14272965.20	39°18'17.744"N	80°56'48.807"W	3978.11	177.550	1.60	
10767.00	89.850	157.080	6418.63	3841.38	-4061.22	208.78	1655478.77	14272878.48	39°18'16.887"N	80°56'48.315"W	4066.58	177.057	2.38	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj: 16260'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

WELLPATH DATA (359 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]	Comments
10861.00	89.970	158.070	6418.78	3935.38	-4148.11	244.64	1655514.61	14272791.63	39°18'16.028"N	80°56'47.859"W	4155.31	176.625	1.06	
10956.00	89.880	161.890	6418.90	4030.30	-4237.35	277.15	1655547.11	14272702.42	39°18'15.145"N	80°56'47.446"W	4246.40	176.258	4.02	
11050.00	89.850	162.270	6419.13	4124.05	-4326.79	306.08	1655576.02	14272613.02	39°18'14.261"N	80°56'47.079"W	4337.60	175.954	0.41	
11145.00	90.310	161.960	6418.99	4218.79	-4417.20	335.25	1655605.19	14272522.65	39°18'13.368"N	80°56'46.708"W	4429.90	175.660	0.58	
11239.00	90.280	159.780	6418.51	4312.66	-4506.00	366.05	1655635.98	14272433.88	39°18'12.490"N	80°56'46.317"W	4520.84	175.356	2.32	
11334.00	90.340	156.440	6417.99	4407.64	-4594.14	401.47	1655671.38	14272345.78	39°18'11.618"N	80°56'45.867"W	4611.65	175.006	3.52	
11429.00	90.250	156.170	6417.51	4502.60	-4681.13	439.64	1655709.54	14272258.82	39°18'10.758"N	80°56'45.382"W	4701.73	174.635	0.30	
11523.00	90.280	155.970	6417.07	4596.55	-4767.05	477.77	1655747.65	14272172.94	39°18'09.909"N	80°56'44.898"W	4790.93	174.277	0.22	
11617.00	90.310	156.860	6416.59	4690.52	-4853.19	515.38	1655785.24	14272086.83	39°18'09.057"N	80°56'44.420"W	4880.48	173.938	0.95	
11712.00	90.310	158.990	6416.07	4785.51	-4941.22	551.08	1655820.93	14271998.83	39°18'08.187"N	80°56'43.967"W	4971.86	173.636	2.24	
11806.00	90.310	154.690	6415.56	4879.47	-5027.62	588.04	1655857.88	14271912.46	39°18'07.333"N	80°56'43.497"W	5061.90	173.329	4.57	
11901.00	90.310	155.850	6415.05	4974.37	-5113.91	627.78	1655897.60	14271826.21	39°18'06.480"N	80°56'42.993"W	5152.30	173.001	1.22	
11995.00	90.310	156.540	6414.54	5068.33	-5199.91	665.72	1655935.53	14271740.25	39°18'05.630"N	80°56'42.511"W	5242.35	172.704	0.73	
12090.00	90.340	157.960	6414.00	5163.32	-5287.52	702.46	1655972.25	14271652.68	39°18'04.763"N	80°56'42.044"W	5333.97	172.432	1.50	
12184.00	89.850	158.740	6413.85	5257.31	-5374.88	737.14	1656006.91	14271565.35	39°18'03.900"N	80°56'41.603"W	5425.20	172.191	0.98	
12279.00	89.850	158.340	6414.10	5352.31	-5463.30	771.90	1656041.66	14271476.97	39°18'03.026"N	80°56'41.162"W	5517.56	171.958	0.42	
12373.00	89.820	158.230	6414.37	5446.30	-5550.63	806.67	1656076.42	14271389.67	39°18'02.162"N	80°56'40.720"W	5608.94	171.731	0.12	
12468.00	89.850	158.010	6414.64	5541.30	-5638.78	842.08	1656111.81	14271301.55	39°18'01.291"N	80°56'40.271"W	5701.31	171.506	0.23	
12562.00	89.880	158.830	6414.86	5635.30	-5726.19	876.65	1656146.37	14271214.18	39°18'00.427"N	80°56'39.832"W	5792.91	171.296	0.87	
12657.00	89.910	160.310	6415.04	5730.26	-5815.21	909.81	1656179.51	14271125.19	39°17'59.547"N	80°56'39.410"W	5885.96	171.108	1.56	
12752.00	89.850	159.020	6415.23	5825.21	-5904.29	942.82	1656212.51	14271036.15	39°17'58.666"N	80°56'38.991"W	5979.10	170.927	1.36	
12846.00	89.880	157.520	6415.46	5919.20	-5991.61	977.62	1656247.30	14270948.87	39°17'57.803"N	80°56'38.549"W	6070.84	170.733	1.60	
12940.00	89.850	155.890	6415.68	6013.18	-6077.94	1014.80	1656284.46	14270862.57	39°17'56.949"N	80°56'38.077"W	6162.08	170.521	1.73	
13035.00	89.320	157.150	6416.37	6108.15	-6165.07	1052.64	1656322.29	14270775.47	39°17'56.088"N	80°56'37.596"W	6254.29	170.311	1.44	
13129.00	89.350	157.760	6417.46	6202.14	-6251.88	1088.68	1656358.32	14270688.70	39°17'55.230"N	80°56'37.139"W	6345.97	170.122	0.65	
13223.00	89.320	157.900	6418.55	6296.13	-6338.93	1124.15	1656393.77	14270601.69	39°17'54.369"N	80°56'36.688"W	6437.84	169.944	0.15	
13318.00	89.570	158.250	6419.47	6391.13	-6427.05	1159.62	1656429.23	14270513.60	39°17'53.498"N	80°56'36.238"W	6530.83	169.772	0.45	
13412.00	89.570	158.370	6420.17	6485.12	-6514.39	1194.36	1656463.95	14270426.29	39°17'52.634"N	80°56'35.796"W	6622.98	169.611	0.13	
13507.00	89.540	158.620	6420.91	6580.11	-6602.78	1229.19	1656498.76	14270337.94	39°17'51.761"N	80°56'35.354"W	6716.22	169.454	0.27	
13601.00	89.600	158.110	6421.62	6674.11	-6690.15	1263.84	1656533.40	14270250.60	39°17'50.897"N	80°56'34.914"W	6808.48	169.302	0.55	



# Actual Wellpath Report

Charleston Unit 2H AWP Proj: 16260'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

## WELLPATH DATA (359 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]	Comments
13696.00	89.630	155.710	6422.25	6769.08	-6777.53	1301.10	1656570.64	14270163.26	39°17'50.033"N	80°56'34.441"W	6901.29	169.133	2.53	
13790.00	89.540	156.420	6422.94	6863.03	-6863.45	1339.23	1656608.76	14270077.38	39°17'49.183"N	80°56'33.957"W	6992.89	168.959	0.76	
13885.00	89.570	157.960	6423.67	6958.02	-6951.01	1376.06	1656645.57	14269989.85	39°17'48.318"N	80°56'33.489"W	7085.91	168.802	1.62	
13979.00	89.630	158.830	6424.33	7052.01	-7038.41	1410.67	1656680.17	14269902.49	39°17'47.454"N	80°56'33.049"W	7178.38	168.667	0.93	
14074.00	89.570	157.320	6424.99	7147.01	-7126.53	1446.14	1656715.63	14269814.40	39°17'46.583"N	80°56'32.599"W	7271.78	168.529	1.59	
14168.00	89.570	157.740	6425.70	7241.00	-7213.39	1482.06	1656751.54	14269727.58	39°17'45.724"N	80°56'32.143"W	7364.07	168.390	0.45	
14263.00	89.750	158.640	6426.26	7336.00	-7301.59	1517.36	1656786.82	14269639.41	39°17'44.852"N	80°56'31.694"W	7457.59	168.260	0.97	
14357.00	89.630	160.270	6426.77	7429.96	-7389.61	1550.34	1656819.79	14269551.43	39°17'43.982"N	80°56'31.275"W	7550.49	168.151	1.74	
14452.00	89.600	157.560	6427.41	7524.93	-7478.24	1584.52	1656853.95	14269462.84	39°17'43.106"N	80°56'30.842"W	7644.26	168.037	2.85	
14547.00	89.850	156.080	6427.87	7619.91	-7565.56	1621.91	1656891.33	14269375.55	39°17'42.242"N	80°56'30.367"W	7737.46	167.900	1.58	
14641.00	89.690	161.420	6428.24	7713.87	-7653.14	1655.97	1656925.37	14269288.01	39°17'41.376"N	80°56'29.934"W	7830.25	167.791	5.68	
14736.00	89.750	160.430	6428.71	7808.73	-7742.92	1687.01	1656956.40	14269198.26	39°17'40.489"N	80°56'29.540"W	7924.57	167.709	1.04	
14830.00	89.630	163.520	6429.22	7902.48	-7832.30	1716.09	1656985.48	14269108.92	39°17'39.605"N	80°56'29.171"W	8018.09	167.642	3.29	
14925.00	89.660	158.370	6429.80	7997.31	-7922.06	1747.10	1657016.47	14269019.19	39°17'38.718"N	80°56'28.777"W	8112.42	167.563	5.42	
15019.00	89.780	151.280	6430.26	8091.12	-8007.07	1787.06	1657056.41	14268934.21	39°17'37.877"N	80°56'28.270"W	8204.07	167.419	7.54	
15114.00	89.750	152.450	6430.65	8185.59	-8090.85	1831.86	1657101.19	14268850.47	39°17'37.049"N	80°56'27.701"W	8295.63	167.243	1.23	
15209.00	89.750	156.160	6431.07	8280.38	-8176.44	1873.04	1657142.36	14268764.92	39°17'36.203"N	80°56'27.177"W	8388.23	167.097	3.91	
15303.00	89.690	154.700	6431.53	8374.29	-8261.92	1912.12	1657181.42	14268679.47	39°17'35.358"N	80°56'26.681"W	8480.30	166.969	1.55	
15397.00	89.600	152.250	6432.11	8468.00	-8346.02	1954.10	1657223.38	14268595.40	39°17'34.526"N	80°56'26.148"W	8571.73	166.822	2.61	
15492.00	90.520	159.310	6432.01	8562.88	-8432.60	1993.05	1657262.31	14268508.86	39°17'33.670"N	80°56'25.653"W	8664.93	166.702	7.49	
15586.00	90.090	160.400	6431.51	8656.82	-8520.85	2025.42	1657294.67	14268420.65	39°17'32.798"N	80°56'25.242"W	8758.26	166.629	1.25	
15681.00	90.220	160.170	6431.25	8751.74	-8610.28	2057.46	1657326.71	14268331.25	39°17'31.914"N	80°56'24.835"W	8852.69	166.561	0.28	
15775.00	90.090	159.560	6431.00	8845.68	-8698.53	2089.82	1657359.05	14268243.03	39°17'31.041"N	80°56'24.425"W	8946.05	166.491	0.66	
15870.00	90.120	159.440	6430.83	8940.64	-8787.52	2123.09	1657392.31	14268154.08	39°17'30.162"N	80°56'24.002"W	9040.35	166.417	0.13	
15964.00	90.090	157.770	6430.65	9034.63	-8875.04	2157.38	1657426.58	14268066.60	39°17'29.296"N	80°56'23.567"W	9133.49	166.337	1.78	
16058.00	90.060	155.490	6430.53	9128.60	-8961.32	2194.67	1657463.85	14267980.35	39°17'28.443"N	80°56'23.093"W	9226.15	166.239	2.43	
16153.00	90.000	157.520	6430.48	9223.57	-9048.44	2232.54	1657501.71	14267893.27	39°17'27.582"N	80°56'22.612"W	9319.79	166.140	2.14	
16236.00	90.060	157.630	6430.44	9306.57	-9125.16	2264.20	1657533.36	14267816.57	39°17'26.823"N	80°56'22.210"W	9401.87	166.065	0.15	
16260.00	90.060	157.630	6430.41	9330.57	-9147.36	2273.33	1657542.49	14267794.39	39°17'26.604"N	80°56'22.094"W	9425.61	166.043	0.00	Projected MD at TD: 16260'

## HOLE & CASING SECTIONS - Ref Wellbore: Charleston Unit 2H AWB Ref Wellpath: Charleston Unit 2H AWP Proj: 16260'

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 Casing Surface	25.00	65.00	40.00	25.00	65.00	0.00	0.00	0.03	0.01
13.375in Casing Surface	25.00	554.00	529.00	25.00	554.00	0.00	0.00	0.03	0.36
9.625in Casing Intermediate	25.00	2592.00	2567.00	25.00	2590.69	0.00	0.00	28.65	-47.59

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Charleston Unit 2H BHL Rev-2	6430.00	-9103.26	2249.27	1657518.44	14267838.47	39°17'27.040"N	80°56'22.400"W	point

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Charleston Unit 2H LP Rev-2	6430.00	-672.14	-1175.09	1654095.45	14276266.20	39°18'50.391"N	80°57'05.896"W	point

WELLPATH COMPOSITION - Ref Wellbore: Charleston Unit 2H AWB    Ref Wellpath: Charleston Unit 2H AWP Proj: 16260'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	5888.00	BHI Generic gyro - northseeking (Standard)	01_SDI Gyro (100' - 5876')	Charleston Unit 2H AWB
5888.00	16236.00	NaviTrak (AT Curve Short Spaced)	02_BHI AT Curve <8-1/2">(5888')(6083'-16236')	Charleston Unit 2H AWB
16236.00	16260.00	Blind Drilling (std)	Projection to bit	Charleston Unit 2H AWB



# Actual Wellpath Report

Charleston Unit 2H AWP Proj: 16260'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Charleston Unit 2H
Field	Ritchie	Wellbore	Charleston Unit 2H AWB
Facility	Buck Run Pad		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
112.00	0.210	14.070	112.00	SDI Gyro (112' - 5888')	
6083.00	26.360	265.780	5873.84	BHI AT Curve <8-1/2">(5888')(6083' - 16236')	
6537.00	47.103	196.069	6254.02	Middlesex: 6,537' MD	
6721.00	62.132	184.861	6360.63	Burkett: 6,721' MD	
6787.00	68.409	181.252	6388.06	Tully: 6,787' MD	
6854.00	76.265	177.807	6408.44	Marcellus: 6,854' MD	
16260.00	90.060	157.630	6430.41	Projected MD at TD: 16260'	

COMMENTS
Wellpath general comments API: 47-085-10268-0000 BHI Job #: 7879017 Rig: Patterson 343 Duration: 03.29.2016-04.02.2016 SDI Gyro (112' - 5888') BHI AT Curve <8-1/2">(5888')(6083' - 16236') Middlesex: 6,537' MD Burkett: 6,721' MD Tully: 6,787' MD Marcellus: 6,854' MD Projected MD at TD: 16260'