

ANTERO RESOURCES CORPORATION

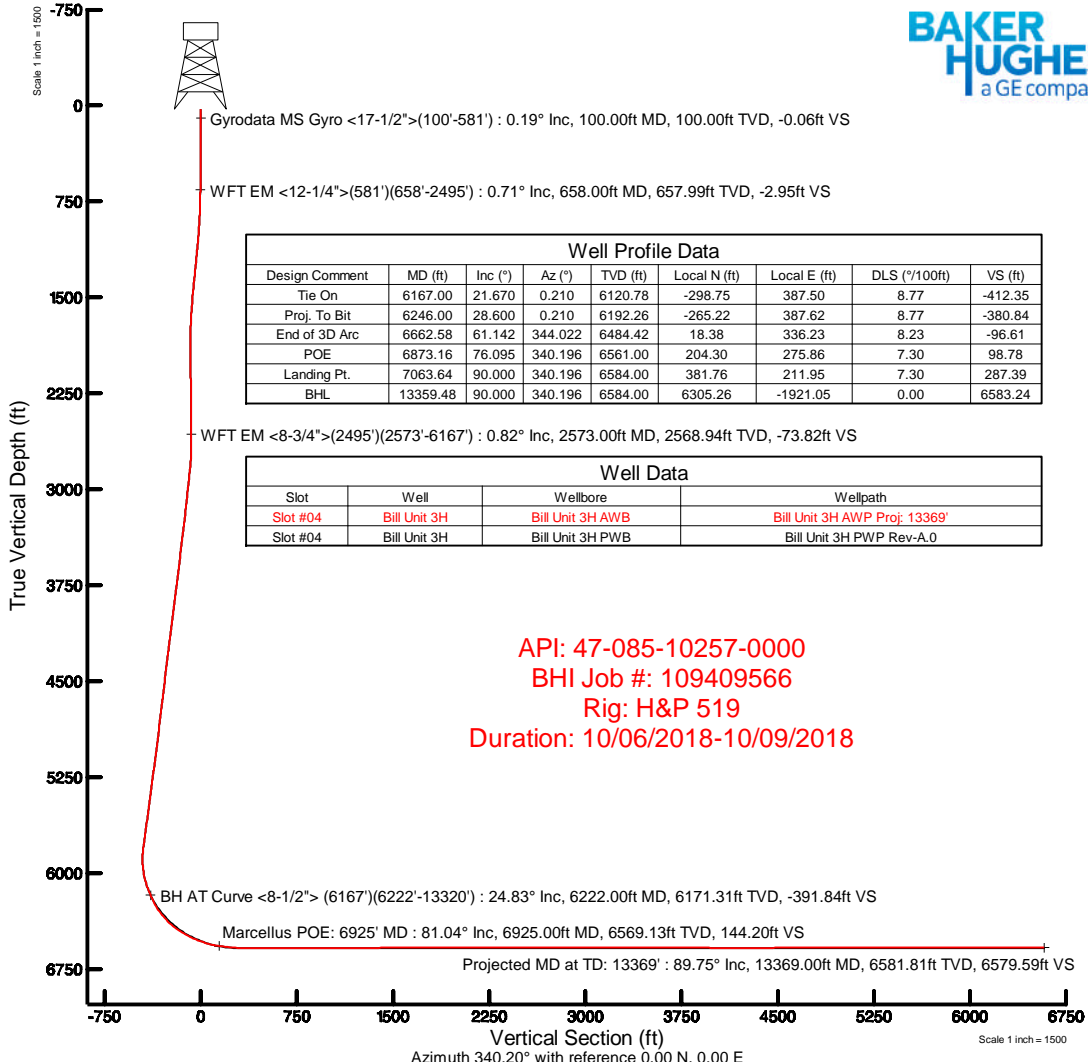
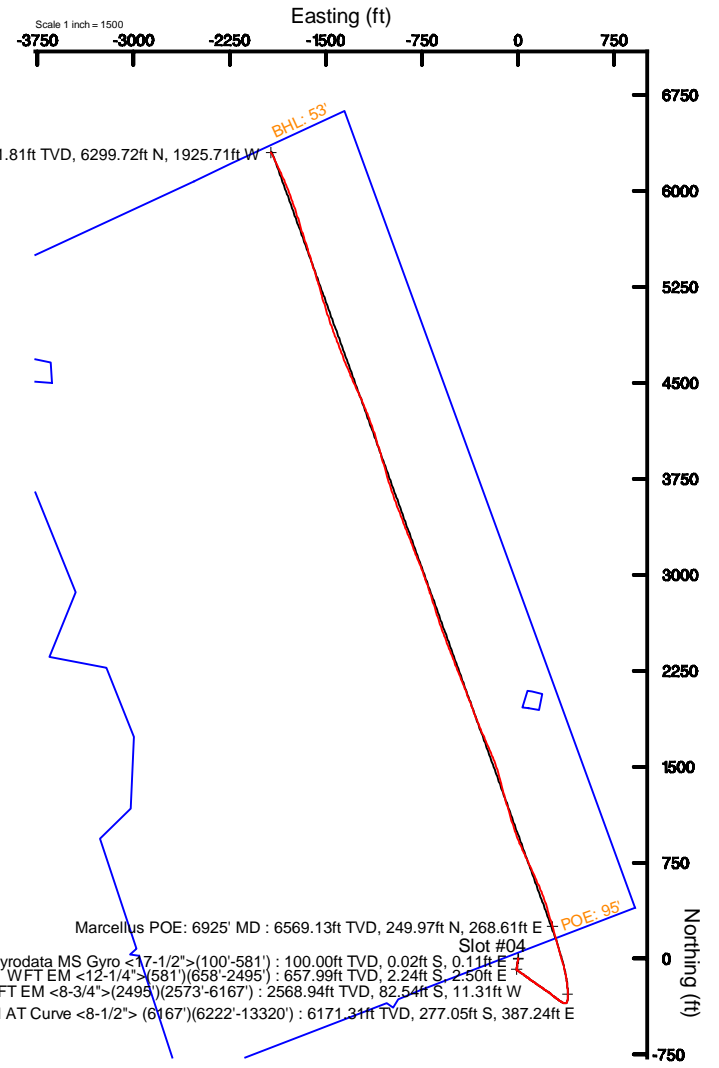
Location: Ritchie County, WV
 Field: Ritchie
 Facility: Bison Pad

Slot: Slot #04
 Well: Bill Unit 3H
 Wellbore: Bill Unit 3H PWB

Plot reference wellpath is Bill Unit 3H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 1250.5 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #04): -1220.5 feet	Created by: delaset on 2018-10-16
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

Location Information

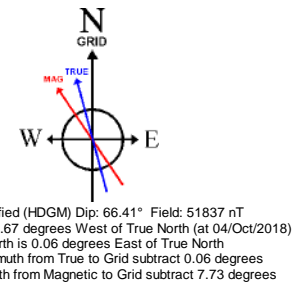
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
Bison Pad	1668323.988	14269435.805	39°17'42.740"N	80°54'04.890"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #04	-1.06	-40.09	1668283.909	14269434.750	39°17'42.730"N	80°54'05.400"W
H&P 519 (RKB) to Ground level (At Slot: Slot #04)				30ft		
Mean Sea Level to Ground level (At Slot: Slot #04)				-1220.5ft		
H&P 519 (RKB) to Mean Sea Level				1250.5ft		



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	6167.00	21.670	0.210	6120.78	-298.75	387.50	8.77	-412.35
Proj. To Bit	6246.00	28.600	0.210	6192.26	-265.22	387.62	8.77	-380.84
End of 3D Arc	6662.58	61.142	344.022	6484.42	18.38	336.23	8.23	-96.61
POE	6873.16	76.095	340.196	6561.00	204.30	275.86	7.30	98.78
Landing Pt.	7063.64	90.000	340.196	6584.00	381.76	211.95	7.30	287.39
BHL	13359.48	90.000	340.196	6584.00	6305.26	-1921.05	0.00	6583.24

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #04	Bill Unit 3H	Bill Unit 3H AWB	Bill Unit 3H AWP Proj: 13369'
Slot #04	Bill Unit 3H	Bill Unit 3H PWB	Bill Unit 3H PWP Rev-A.0

API: 47-085-10257-0000
 BHI Job #: 109409566
 Rig: H&P 519
 Duration: 10/06/2018-10/09/2018





Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Ritchie County, WV	Well	Bill Unit 3H
Field	Ritchie	Wellbore	Bill Unit 3H AWB
Facility	Bison Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999601	Report Generated	16/Oct/2018 at 14:52
Convergence at slot	0.06° East	Database/Source file	WA_MPL_EasternUS_Defn/Bill_Unit_3H_AWP_Proj_13369_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1.06	-40.09	1668283.91	14269434.75	39°17'42.730"N	80°54'05.400"W
Facility Reference Pt			1668323.99	14269435.81	39°17'42.740"N	80°54'04.890"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	30.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1250.50ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #04)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	340.20°



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Ritchie County, WV	Well	Bill Unit 3H
Field	Ritchie	Wellbore	Bill Unit 3H AWB
Facility	Bison Pad		

WELLPATH DATA (179 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	100.880	0.00	0.00	0.00	0.00	1668283.91	14269434.75	39°17'42.730"N	80°54'05.400"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	100.880	30.00	0.00	0.00	0.00	1668283.91	14269434.75	39°17'42.730"N	80°54'05.400"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.190	100.880	100.00	-0.06	-0.02	0.11	1668284.02	14269434.73	39°17'42.730"N	80°54'05.399"W	0.12	100.880	0.27	0.27	144.11	Gyrodata MS Gyro <17-1/2">(100'-581')
125.00	0.140	112.810	125.00	-0.10	-0.04	0.18	1668284.09	14269434.71	39°17'42.730"N	80°54'05.398"W	0.19	102.810	0.24	-0.20	47.72	
150.00	0.140	131.630	150.00	-0.15	-0.07	0.23	1668284.14	14269434.68	39°17'42.729"N	80°54'05.397"W	0.25	107.495	0.18	0.00	75.28	
175.00	0.210	102.480	175.00	-0.20	-0.10	0.30	1668284.21	14269434.65	39°17'42.729"N	80°54'05.396"W	0.32	109.020	0.44	0.28	-116.60	
200.00	0.170	118.400	200.00	-0.25	-0.13	0.38	1668284.29	14269434.62	39°17'42.729"N	80°54'05.395"W	0.40	109.138	0.26	-0.16	63.68	
225.00	0.230	121.310	225.00	-0.32	-0.18	0.45	1668284.36	14269434.58	39°17'42.728"N	80°54'05.394"W	0.49	111.086	0.24	0.24	11.64	
250.00	0.260	121.910	250.00	-0.40	-0.23	0.55	1668284.45	14269434.52	39°17'42.728"N	80°54'05.393"W	0.59	112.979	0.12	0.12	2.40	
275.00	0.260	126.910	275.00	-0.49	-0.30	0.64	1668284.55	14269434.46	39°17'42.727"N	80°54'05.392"W	0.70	114.808	0.09	0.00	20.00	
300.00	0.310	123.940	300.00	-0.60	-0.37	0.74	1668284.65	14269434.38	39°17'42.726"N	80°54'05.391"W	0.83	116.377	0.21	0.20	-11.88	
325.00	0.380	127.990	325.00	-0.72	-0.46	0.86	1668284.77	14269434.29	39°17'42.725"N	80°54'05.389"W	0.97	117.881	0.30	0.28	16.20	
350.00	0.440	128.750	350.00	-0.87	-0.57	1.00	1668284.91	14269434.18	39°17'42.724"N	80°54'05.387"W	1.15	119.507	0.24	0.24	3.04	
375.00	0.220	139.560	375.00	-1.00	-0.66	1.11	1668285.02	14269434.09	39°17'42.723"N	80°54'05.386"W	1.29	120.921	0.91	-0.88	43.24	
400.00	0.210	138.230	400.00	-1.09	-0.73	1.17	1668285.08	14269434.02	39°17'42.723"N	80°54'05.385"W	1.38	122.123	0.04	-0.04	-5.32	
425.00	0.290	133.470	425.00	-1.19	-0.81	1.25	1668285.15	14269433.94	39°17'42.722"N	80°54'05.384"W	1.49	123.092	0.33	0.32	-19.04	
450.00	0.190	147.220	450.00	-1.28	-0.89	1.31	1668285.22	14269433.86	39°17'42.721"N	80°54'05.383"W	1.59	124.115	0.46	-0.40	55.00	
475.00	0.270	150.510	475.00	-1.38	-0.98	1.37	1668285.27	14269433.77	39°17'42.720"N	80°54'05.383"W	1.68	125.564	0.32	0.32	13.16	
500.00	0.330	141.400	500.00	-1.51	-1.08	1.44	1668285.35	14269433.67	39°17'42.719"N	80°54'05.382"W	1.80	126.979	0.31	0.24	-36.44	
525.00	0.410	142.890	525.00	-1.66	-1.21	1.54	1668285.45	14269433.54	39°17'42.718"N	80°54'05.380"W	1.96	128.221	0.32	0.32	5.96	
550.00	0.490	144.130	549.99	-1.85	-1.37	1.66	1668285.56	14269433.38	39°17'42.716"N	80°54'05.379"W	2.15	129.607	0.32	0.32	4.96	
575.00	0.630	142.010	574.99	-2.08	-1.56	1.80	1668285.71	14269433.19	39°17'42.715"N	80°54'05.377"W	2.39	130.959	0.57	0.56	-8.48	
581.00	0.660	144.100	580.99	-2.15	-1.62	1.84	1668285.75	14269433.13	39°17'42.714"N	80°54'05.377"W	2.45	131.290	0.64	0.50	34.83	
658.00	0.710	122.740	657.99	-2.95	-2.24	2.50	1668286.41	14269432.52	39°17'42.708"N	80°54'05.368"W	3.36	131.758	0.34	0.06	-27.74	WFT EM <12-1/4">(581')(658'-2495')
749.00	1.930	203.500	748.97	-4.51	-3.95	2.37	1668286.28	14269430.81	39°17'42.691"N	80°54'05.370"W	4.60	149.038	2.14	1.34	88.75	
839.00	3.380	200.920	838.87	-7.63	-7.81	0.82	1668284.72	14269426.94	39°17'42.653"N	80°54'05.390"W	7.86	174.040	1.62	1.61	-2.87	
934.00	4.610	195.930	933.64	-12.85	-14.10	-1.23	1668282.68	14269420.65	39°17'42.591"N	80°54'05.416"W	14.16	184.993	1.34	1.29	-5.25	
1029.00	5.290	192.750	1028.28	-19.64	-22.04	-3.25	1668280.66	14269412.71	39°17'42.512"N	80°54'05.442"W	22.28	188.378	0.77	0.72	-3.35	
1123.00	5.970	189.040	1121.83	-27.58	-31.10	-4.97	1668278.94	14269403.66	39°17'42.423"N	80°54'05.464"W	31.49	189.082	0.82	0.72	-3.95	
1218.00	6.350	187.140	1216.28	-36.59	-41.19	-6.40	1668277.51	14269393.58	39°17'42.323"N	80°54'05.482"W	41.68	188.832	0.45	0.40	-2.00	



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #04
Area	Ritchie County, WV		Well	Bill Unit 3H
Field	Ritchie		Wellbore	Bill Unit 3H AWB
Facility	Bison Pad			

WELLPATH DATA (179 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
1312.00	6.630	183.790	1309.68	-46.19	-51.76	-7.40	1668276.51	14269383.01	39°17'42.218"N	80°54'05.495"W	52.29	188.141	0.50	0.30	-3.56	
1407.00	6.090	184.910	1404.09	-55.80	-62.26	-8.20	1668275.71	14269372.52	39°17'42.115"N	80°54'05.505"W	62.79	187.502	0.58	-0.57	1.18	
1502.00	5.330	187.030	1498.62	-64.31	-71.66	-9.17	1668274.74	14269363.12	39°17'42.022"N	80°54'05.518"W	72.24	187.293	0.83	-0.80	2.23	
1596.00	3.940	181.700	1592.31	-71.21	-79.22	-9.80	1668274.11	14269355.56	39°17'41.947"N	80°54'05.526"W	79.82	187.052	1.55	-1.48	-5.67	
1691.00	2.990	175.550	1687.14	-76.64	-84.95	-9.70	1668274.21	14269349.83	39°17'41.890"N	80°54'05.525"W	85.50	186.517	1.07	-1.00	-6.47	
1785.00	1.920	171.160	1781.05	-80.55	-88.95	-9.27	1668274.64	14269345.84	39°17'41.851"N	80°54'05.519"W	89.43	185.951	1.15	-1.14	-4.67	
1880.00	0.400	112.630	1876.03	-82.34	-90.65	-8.72	1668275.19	14269344.14	39°17'41.834"N	80°54'05.512"W	91.07	185.496	1.84	-1.60	-61.61	
1974.00	1.310	10.140	1970.02	-81.63	-89.72	-8.23	1668275.68	14269345.07	39°17'41.843"N	80°54'05.506"W	90.10	185.241	1.54	0.97	-109.03	
2069.00	1.530	5.710	2064.99	-79.54	-87.39	-7.91	1668276.00	14269347.40	39°17'41.866"N	80°54'05.502"W	87.75	185.174	0.26	0.23	-4.66	
2163.00	0.970	359.480	2158.97	-77.66	-85.34	-7.79	1668276.12	14269349.44	39°17'41.887"N	80°54'05.500"W	85.70	185.219	0.61	-0.60	-6.63	
2257.00	0.580	278.700	2252.96	-76.68	-84.48	-8.27	1668275.64	14269350.31	39°17'41.895"N	80°54'05.506"W	84.88	185.593	1.11	-0.41	-85.94	
2352.00	0.650	323.040	2347.96	-75.94	-83.97	-9.07	1668274.84	14269350.81	39°17'41.900"N	80°54'05.517"W	84.46	186.166	0.49	0.07	46.67	
2446.00	0.630	302.160	2441.95	-75.02	-83.27	-9.83	1668274.08	14269351.51	39°17'41.907"N	80°54'05.526"W	83.85	186.732	0.25	-0.02	-22.21	
2495.00	0.750	298.070	2490.95	-74.57	-82.98	-10.34	1668273.57	14269351.81	39°17'41.910"N	80°54'05.533"W	83.62	187.104	0.26	0.24	-8.35	
2573.00	0.820	291.260	2568.94	-73.82	-82.54	-11.31	1668272.60	14269352.25	39°17'41.914"N	80°54'05.545"W	83.31	187.804	0.15	0.09	-8.73	WFT EM <8-3/4">(2495')(2573'-6167')
2668.00	0.890	137.240	2663.94	-74.06	-82.83	-11.44	1668272.47	14269351.95	39°17'41.911"N	80°54'05.547"W	83.62	187.866	1.75	0.07	-162.13	
2762.00	3.520	133.550	2757.86	-77.31	-85.36	-8.86	1668275.06	14269349.43	39°17'41.886"N	80°54'05.514"W	85.81	185.924	2.80	2.80	-3.93	
2857.00	6.740	133.950	2852.46	-84.92	-91.24	-2.73	1668281.18	14269343.55	39°17'41.828"N	80°54'05.436"W	91.28	181.712	3.39	3.39	0.42	
2951.00	7.570	129.760	2945.73	-95.20	-99.02	6.00	1668289.91	14269335.77	39°17'41.751"N	80°54'05.325"W	99.21	176.531	1.04	0.88	-4.46	
3046.00	6.710	127.660	3040.00	-105.28	-106.42	15.21	1668299.11	14269328.38	39°17'41.678"N	80°54'05.208"W	107.50	171.867	0.95	-0.91	-2.21	
3144.00	7.840	121.420	3137.21	-115.31	-113.40	25.44	1668309.34	14269321.40	39°17'41.609"N	80°54'05.078"W	116.22	167.353	1.41	1.15	-6.37	
3239.00	8.770	121.230	3231.21	-126.00	-120.53	37.17	1668321.06	14269314.27	39°17'41.538"N	80°54'04.929"W	126.13	162.863	0.98	0.98	-0.20	
3333.00	8.650	129.120	3324.13	-137.62	-128.71	48.78	1668332.67	14269306.09	39°17'41.457"N	80°54'04.781"W	137.64	159.244	1.28	-0.13	8.39	
3428.00	7.970	128.330	3418.13	-149.33	-137.30	59.49	1668343.37	14269297.50	39°17'41.372"N	80°54'04.645"W	149.63	156.574	0.73	-0.72	-0.83	
3522.00	6.990	125.640	3511.33	-159.58	-144.68	69.25	1668353.13	14269290.13	39°17'41.299"N	80°54'04.521"W	160.39	154.422	1.11	-1.04	-2.86	
3616.00	7.930	127.550	3604.53	-169.75	-151.96	79.04	1668362.92	14269282.85	39°17'41.227"N	80°54'04.397"W	171.29	152.520	1.03	1.00	2.03	
3711.00	8.990	127.550	3698.50	-181.52	-160.48	90.12	1668373.99	14269274.34	39°17'41.143"N	80°54'04.256"W	184.05	150.683	1.12	1.12	0.00	
3805.00	8.320	122.000	3791.43	-193.05	-168.56	101.71	1668385.58	14269266.26	39°17'41.063"N	80°54'04.109"W	196.87	148.893	1.14	-0.71	-5.90	
3900.00	8.680	125.620	3885.39	-204.35	-176.38	113.37	1668397.23	14269258.45	39°17'40.986"N	80°54'03.960"W	209.67	147.269	0.68	0.38	3.81	
3994.00	9.160	125.100	3978.25	-216.31	-184.81	125.25	1668409.11	14269250.02	39°17'40.902"N	80°54'03.809"W	223.25	145.873	0.52	0.51	-0.55	



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Ritchie County, WV	Well	Bill Unit 3H
Field	Ritchie	Wellbore	Bill Unit 3H AWB
Facility	Bison Pad		

WELLPATH DATA (179 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
4089.00	8.680	126.650	4072.10	-228.47	-193.44	137.19	1668421.05	14269241.39	39°17'40.817"N	80°54'03.658"W	237.15	144.654	0.57	-0.51	1.63	
4183.00	8.740	123.940	4165.02	-240.14	-201.66	148.81	1668432.66	14269233.17	39°17'40.735"N	80°54'03.510"W	250.62	143.576	0.44	0.06	-2.88	
4278.00	8.490	124.480	4258.94	-251.66	-209.66	160.58	1668444.42	14269225.18	39°17'40.656"N	80°54'03.360"W	264.08	142.552	0.28	-0.26	0.57	
4372.00	8.730	125.550	4351.88	-263.16	-217.73	172.10	1668455.94	14269217.10	39°17'40.576"N	80°54'03.214"W	277.54	141.677	0.31	0.26	1.14	
4467.00	9.060	123.690	4445.74	-275.10	-226.07	184.19	1668468.02	14269208.77	39°17'40.494"N	80°54'03.060"W	291.61	140.829	0.46	0.35	-1.96	
4562.00	7.640	124.180	4539.73	-286.22	-233.77	195.64	1668479.47	14269201.07	39°17'40.417"N	80°54'02.915"W	304.83	140.075	1.50	-1.49	0.52	
4656.00	8.270	126.770	4632.83	-296.92	-241.33	206.22	1668490.05	14269193.52	39°17'40.343"N	80°54'02.780"W	317.44	139.485	0.77	0.67	2.76	
4750.00	8.920	126.330	4725.77	-308.61	-249.69	217.51	1668501.33	14269185.16	39°17'40.260"N	80°54'02.637"W	331.14	138.941	0.70	0.69	-0.47	
4845.00	8.500	121.380	4819.68	-320.19	-257.71	229.44	1668513.25	14269177.14	39°17'40.180"N	80°54'02.485"W	345.05	138.322	0.90	-0.44	-5.21	
4939.00	8.060	119.810	4912.70	-330.63	-264.61	241.09	1668524.90	14269170.25	39°17'40.112"N	80°54'02.337"W	357.96	137.663	0.53	-0.47	-1.67	
5034.00	7.980	131.710	5006.77	-341.50	-272.30	251.79	1668535.60	14269162.56	39°17'40.036"N	80°54'02.201"W	370.87	137.242	1.75	-0.08	12.53	
5128.00	9.220	133.260	5099.72	-353.94	-281.81	262.14	1668545.95	14269153.06	39°17'39.942"N	80°54'02.070"W	384.88	137.070	1.34	1.32	1.65	
5222.00	9.090	128.290	5192.52	-366.96	-291.57	273.46	1668557.25	14269143.30	39°17'39.845"N	80°54'01.926"W	399.74	136.836	0.85	-0.14	-5.29	
5317.00	8.680	125.700	5286.38	-379.24	-300.40	285.17	1668568.96	14269134.47	39°17'39.758"N	80°54'01.777"W	414.20	136.490	0.60	-0.43	-2.73	
5411.00	9.350	127.240	5379.22	-391.49	-309.16	297.01	1668580.80	14269125.71	39°17'39.671"N	80°54'01.627"W	428.71	136.149	0.76	0.71	1.64	
5506.00	8.780	123.720	5473.03	-403.80	-317.86	309.18	1668592.97	14269117.02	39°17'39.585"N	80°54'01.472"W	443.43	135.793	0.84	-0.60	-3.71	
5600.00	9.700	125.970	5565.81	-416.11	-326.49	321.56	1668605.34	14269108.39	39°17'39.500"N	80°54'01.315"W	458.25	135.436	1.05	0.98	2.39	
5695.00	9.780	122.020	5659.44	-429.07	-335.47	334.88	1668618.65	14269099.41	39°17'39.411"N	80°54'01.145"W	474.01	135.051	0.71	0.08	-4.16	
5742.00	9.790	121.400	5705.76	-435.32	-339.67	341.67	1668625.44	14269095.22	39°17'39.369"N	80°54'01.059"W	481.78	134.832	0.23	0.02	-1.32	
5789.00	10.080	126.600	5752.06	-441.86	-344.20	348.38	1668632.15	14269090.69	39°17'39.324"N	80°54'00.974"W	489.74	134.654	2.01	0.62	11.06	
5836.00	9.670	112.640	5798.37	-447.96	-348.18	355.33	1668639.10	14269086.71	39°17'39.285"N	80°54'00.885"W	497.48	134.417	5.15	-0.87	-29.70	
5884.00	9.200	94.130	5845.73	-452.23	-350.00	362.88	1668646.64	14269084.89	39°17'39.267"N	80°54'00.789"W	504.17	133.965	6.37	-0.98	-38.56	
5931.00	8.830	72.920	5892.16	-453.93	-349.21	370.08	1668653.84	14269085.68	39°17'39.274"N	80°54'00.698"W	508.83	133.339	7.07	-0.79	-45.13	
5978.00	9.670	44.590	5938.57	-452.39	-345.34	376.30	1668660.06	14269089.55	39°17'39.313"N	80°54'00.619"W	510.75	132.544	9.75	1.79	-60.28	
6025.00	12.600	25.920	5984.70	-447.10	-337.92	381.31	1668665.07	14269096.97	39°17'39.386"N	80°54'00.555"W	509.50	131.547	9.81	6.23	-39.72	
6073.00	14.440	14.250	6031.37	-438.49	-327.40	385.08	1668668.83	14269107.48	39°17'39.490"N	80°54'00.507"W	505.45	130.372	6.84	3.83	-24.31	
6120.00	17.730	3.800	6076.54	-427.07	-314.58	387.00	1668670.75	14269120.30	39°17'39.617"N	80°54'00.482"W	498.72	129.107	9.30	7.00	-22.23	
6167.00	21.670	0.210	6120.78	-412.35	-298.75	387.50	1668671.26	14269136.12	39°17'39.773"N	80°54'00.475"W	489.30	127.631	8.77	8.38	-7.64	
6222.00	24.830	358.500	6171.31	-391.84	-277.05	387.24	1668670.99	14269157.81	39°17'39.988"N	80°54'00.478"W	476.14	125.582	5.87	5.75	-3.11	BH AT Curve <-8-1/2"> (6167')(6222'-13320')
6270.00	27.450	357.870	6214.39	-371.73	-255.91	386.56	1668670.32	14269178.94	39°17'40.196"N	80°54'00.487"W	463.60	123.506	5.49	5.46	-1.31	



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #04
Area	Ritchie County, WV		Well	Bill Unit 3H
Field	Ritchie		Wellbore	Bill Unit 3H AWB
Facility	Bison Pad			

WELLPATH DATA (179 stations) † = interpolated/extrapolated station																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
6318.00	30.780	357.110	6256.32	-349.43	-232.58	385.53	1668669.29	14269202.26	39°17'40.427"N	80°54'00.500"W	450.25	121.102	6.98	6.94	-1.58	
6365.00	35.630	354.340	6295.64	-324.63	-206.93	383.57	1668667.33	14269227.90	39°17'40.681"N	80°54'00.524"W	435.83	118.347	10.81	10.32	-5.89	
6412.00	39.890	352.330	6332.79	-296.61	-178.36	380.21	1668663.97	14269256.46	39°17'40.963"N	80°54'00.566"W	419.97	115.132	9.43	9.06	-4.28	
6459.00	44.210	350.550	6367.68	-265.74	-147.24	375.50	1668659.26	14269287.56	39°17'41.271"N	80°54'00.626"W	403.34	111.411	9.53	9.19	-3.79	
6500.00†	48.076	348.314	6396.09	-236.56	-118.20	370.07	1668653.83	14269316.60	39°17'41.558"N	80°54'00.695"W	388.48	107.713	10.21	9.43	-5.45	Middlesex: 6500' MD
6507.00	48.740	347.960	6400.73	-231.38	-113.07	368.99	1668652.75	14269321.72	39°17'41.608"N	80°54'00.708"W	385.93	107.037	10.21	9.49	-5.06	
6554.00	53.420	345.620	6430.25	-195.06	-77.49	360.61	1668644.38	14269357.29	39°17'41.960"N	80°54'00.814"W	368.85	102.128	10.68	9.96	-4.98	
6602.00	57.370	344.420	6457.51	-155.70	-39.34	350.39	1668634.16	14269395.43	39°17'42.337"N	80°54'00.944"W	352.59	96.406	8.48	8.23	-2.50	
6649.00	61.170	344.500	6481.52	-115.42	-0.42	339.57	1668623.35	14269434.33	39°17'42.722"N	80°54'01.081"W	339.57	90.071	8.09	8.09	0.17	
6696.00	64.690	344.620	6502.91	-73.70	39.91	328.43	1668612.21	14269474.65	39°17'43.121"N	80°54'01.222"W	330.85	83.071	7.49	7.49	0.26	
6703.00†	65.250	344.612	6505.87	-67.38	46.03	326.75	1668610.53	14269480.76	39°17'43.181"N	80°54'01.243"W	329.98	81.982	8.00	8.00	-0.11	Burkett: 6703' MD
6743.00	68.450	344.570	6521.59	-30.71	81.48	316.98	1668600.76	14269516.20	39°17'43.532"N	80°54'01.367"W	327.28	75.584	8.00	8.00	-0.11	
6791.00	71.750	344.060	6537.93	14.30	124.93	304.78	1668588.56	14269559.63	39°17'43.961"N	80°54'01.522"W	329.39	67.711	6.95	6.87	-1.06	
6794.00†	71.974	344.066	6538.86	17.15	127.67	303.99	1668587.78	14269562.37	39°17'43.989"N	80°54'01.532"W	329.71	67.219	7.47	7.47	0.22	Tully: 6794' MD
6838.00	75.260	344.160	6551.27	59.26	168.26	292.44	1668576.23	14269602.95	39°17'44.390"N	80°54'01.678"W	337.39	60.085	7.47	7.47	0.21	
6885.00	78.380	343.480	6561.99	104.92	212.21	279.69	1668563.49	14269646.87	39°17'44.824"N	80°54'01.840"W	351.08	52.811	6.79	6.64	-1.45	
6925.00†	81.044	343.821	6569.13	144.20	249.97	268.61	1668552.41	14269684.62	39°17'45.198"N	80°54'01.980"W	366.93	47.059	6.71	6.66	0.85	Marcellus POE: 6925' MD
6932.00	81.510	343.880	6570.19	151.11	256.62	266.69	1668550.49	14269691.26	39°17'45.263"N	80°54'02.004"W	370.10	46.103	6.71	6.66	0.84	
6980.00	83.620	344.030	6576.40	198.60	302.36	253.53	1668537.34	14269736.98	39°17'45.716"N	80°54'02.171"W	394.59	39.981	4.41	4.40	0.31	
7027.00	85.720	344.170	6580.77	245.29	347.36	240.71	1668524.53	14269781.97	39°17'46.161"N	80°54'02.333"W	422.61	34.721	4.48	4.47	0.30	
7074.00	86.000	342.500	6584.16	292.09	392.27	227.27	1668511.09	14269826.86	39°17'46.605"N	80°54'02.504"W	453.35	30.087	3.59	0.60	-3.55	
7121.00	89.630	341.300	6585.95	339.03	436.90	212.68	1668496.50	14269871.47	39°17'47.046"N	80°54'02.689"W	485.92	25.957	8.13	7.72	-2.55	
7169.00	90.060	339.640	6586.08	387.02	482.14	196.64	1668480.47	14269916.69	39°17'47.493"N	80°54'02.892"W	520.69	22.188	3.57	0.90	-3.46	
7264.00	89.940	336.750	6586.08	481.96	570.33	161.35	1668445.20	14270004.85	39°17'48.365"N	80°54'03.340"W	592.71	15.797	3.04	-0.13	-3.04	
7359.00	90.090	335.200	6586.06	576.70	657.10	122.67	1668406.53	14270091.58	39°17'49.223"N	80°54'03.830"W	668.45	10.575	1.64	0.16	-1.63	
7453.00	90.000	335.390	6585.98	670.35	742.49	83.39	1668367.26	14270176.95	39°17'50.068"N	80°54'04.329"W	747.16	6.408	0.22	-0.10	0.20	
7548.00	89.850	335.660	6586.11	765.03	828.96	44.03	1668327.92	14270263.37	39°17'50.923"N	80°54'04.828"W	830.13	3.040	0.33	-0.16	0.28	
7642.00	89.970	337.060	6586.26	858.82	915.07	6.34	1668290.24	14270349.45	39°17'51.774"N	80°54'05.307"W	915.09	0.397	1.49	0.13	1.49	
7737.00	90.120	341.780	6586.18	953.79	1003.98	-27.05	1668256.87	14270438.33	39°17'52.653"N	80°54'05.730"W	1004.34	358.457	4.97	0.16	4.97	
7832.00	90.220	344.010	6585.90	1048.67	1094.77	-54.99	1668228.94	14270529.08	39°17'53.551"N	80°54'06.084"W	1096.15	357.125	2.35	0.11	2.35	



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #04
Area	Ritchie County, WV		Well	Bill Unit 3H
Field	Ritchie		Wellbore	Bill Unit 3H AWB
Facility	Bison Pad			

WELLPATH DATA (179 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
7927.00	90.120	342.780	6585.62	1143.52	1185.81	-82.13	1668201.81	14270620.08	39°17'54.451"N	80°54'06.428"W	1188.65	356.038	1.30	-0.11	-1.29	
8021.00	90.650	345.710	6584.99	1237.28	1276.26	-107.65	1668176.30	14270710.50	39°17'55.345"N	80°54'06.752"W	1280.79	355.178	3.17	0.56	3.12	
8116.00	90.620	345.130	6583.93	1331.88	1368.20	-131.57	1668152.39	14270802.40	39°17'56.254"N	80°54'07.055"W	1374.51	354.507	0.61	-0.03	-0.61	
8210.00	91.450	343.050	6582.24	1425.64	1458.58	-157.33	1668126.64	14270892.74	39°17'57.148"N	80°54'07.381"W	1467.04	353.844	2.38	0.88	-2.21	
8305.00	90.150	339.250	6580.91	1520.60	1548.45	-188.01	1668095.97	14270982.58	39°17'58.036"N	80°54'07.770"W	1559.83	353.077	4.23	-1.37	-4.00	
8400.00	89.910	335.850	6580.86	1615.48	1636.24	-224.29	1668059.71	14271070.33	39°17'58.905"N	80°54'08.230"W	1651.54	352.195	3.59	-0.25	-3.58	
8494.00	89.780	336.840	6581.11	1709.27	1722.34	-262.00	1668022.01	14271156.40	39°17'59.756"N	80°54'08.709"W	1742.16	351.351	1.06	-0.14	1.05	
8589.00	89.850	338.020	6581.42	1804.15	1810.06	-298.46	1667985.57	14271244.09	39°18'00.623"N	80°54'09.171"W	1834.51	350.637	1.24	0.07	1.24	
8683.00	89.880	338.120	6581.64	1898.09	1897.26	-333.57	1667950.47	14271331.25	39°18'01.486"N	80°54'09.617"W	1926.36	350.028	0.11	0.03	0.11	
8778.00	90.830	339.320	6581.05	1993.05	1985.78	-368.05	1667916.01	14271419.73	39°18'02.361"N	80°54'10.054"W	2019.60	349.500	1.61	1.00	1.26	
8873.00	90.520	339.760	6579.93	2088.04	2074.78	-401.25	1667882.82	14271508.70	39°18'03.241"N	80°54'10.475"W	2113.22	349.054	0.57	-0.33	0.46	
8967.00	90.060	338.550	6579.46	2182.02	2162.62	-434.70	1667849.38	14271596.51	39°18'04.109"N	80°54'10.900"W	2205.88	348.635	1.38	-0.49	-1.29	
9062.00	89.690	337.670	6579.67	2276.96	2250.77	-470.12	1667813.98	14271684.62	39°18'04.981"N	80°54'11.349"W	2299.35	348.202	1.00	-0.39	-0.93	
9156.00	89.750	339.000	6580.12	2370.90	2338.13	-504.82	1667779.29	14271771.94	39°18'05.845"N	80°54'11.789"W	2392.01	347.816	1.42	0.06	1.41	
9251.00	89.880	338.600	6580.43	2465.87	2426.70	-539.17	1667744.95	14271860.48	39°18'06.721"N	80°54'12.225"W	2485.88	347.473	0.44	0.14	-0.42	
9345.00	89.780	339.720	6580.71	2559.86	2514.55	-572.61	1667711.53	14271948.29	39°18'07.589"N	80°54'12.649"W	2578.92	347.171	1.20	-0.11	1.19	
9440.00	90.460	340.580	6580.51	2654.86	2603.90	-604.87	1667679.28	14272037.61	39°18'08.473"N	80°54'13.058"W	2673.23	346.922	1.15	0.72	0.91	
9535.00	90.550	342.430	6579.67	2749.82	2693.99	-635.00	1667649.16	14272127.66	39°18'09.363"N	80°54'13.440"W	2767.82	346.737	1.95	0.09	1.95	
9629.00	89.880	342.500	6579.32	2843.75	2783.62	-663.33	1667620.85	14272217.25	39°18'10.250"N	80°54'13.800"W	2861.56	346.597	0.72	-0.71	0.07	
9723.00	89.850	341.900	6579.54	2937.69	2873.12	-692.06	1667592.13	14272306.72	39°18'11.134"N	80°54'14.164"W	2955.29	346.457	0.64	-0.03	-0.64	
9818.00	89.850	340.370	6579.79	3032.67	2963.01	-722.78	1667561.42	14272396.58	39°18'12.023"N	80°54'14.553"W	3049.89	346.291	1.61	0.00	-1.61	
9913.00	89.780	339.120	6580.10	3127.67	3052.14	-755.66	1667528.55	14272485.66	39°18'12.904"N	80°54'14.971"W	3144.29	346.094	1.32	-0.07	-1.32	
10007.00	89.880	338.380	6580.38	3221.64	3139.74	-789.73	1667494.49	14272573.24	39°18'13.771"N	80°54'15.403"W	3237.54	345.881	0.79	0.11	-0.79	
10102.00	90.490	338.740	6580.07	3316.60	3228.17	-824.46	1667459.78	14272661.62	39°18'14.645"N	80°54'15.843"W	3331.79	345.673	0.75	0.64	0.38	
10196.00	89.820	338.790	6579.82	3410.57	3315.79	-858.50	1667425.75	14272749.21	39°18'15.511"N	80°54'16.275"W	3425.12	345.484	0.71	-0.71	0.05	
10291.00	90.150	338.770	6579.84	3505.54	3404.34	-892.89	1667391.38	14272837.73	39°18'16.387"N	80°54'16.711"W	3519.49	345.304	0.35	0.35	-0.02	
10386.00	89.690	339.060	6579.97	3600.51	3492.98	-927.07	1667357.22	14272926.33	39°18'17.263"N	80°54'17.145"W	3613.92	345.136	0.57	-0.48	0.31	
10480.00	89.630	340.020	6580.53	3694.50	3581.05	-959.92	1667324.37	14273014.37	39°18'18.134"N	80°54'17.562"W	3707.48	344.994	1.02	-0.06	1.02	
10575.00	88.980	341.740	6581.68	3789.49	3670.80	-991.04	1667293.27	14273104.08	39°18'19.022"N	80°54'17.956"W	3802.23	344.892	1.94	-0.68	1.81	
10669.00	89.750	343.260	6582.73	3883.40	3760.44	-1019.30	1667265.02	14273193.68	39°18'19.908"N	80°54'18.315"W	3896.14	344.834	1.81	0.82	1.62	



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Ritchie County, WV	Well	Bill Unit 3H
Field	Ritchie	Wellbore	Bill Unit 3H AWB
Facility	Bison Pad		

WELLPATH DATA (179 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
10764.00	89.940	344.790	6582.98	3978.19	3851.77	-1045.44	1667238.88	14273284.97	39°18'20.811"N	80°54'18.646"W	3991.13	344.815	1.62	0.20	1.61	
10859.00	89.660	343.190	6583.31	4072.98	3943.08	-1071.64	1667212.69	14273376.25	39°18'21.714"N	80°54'18.978"W	4086.11	344.795	1.71	-0.29	-1.68	
10953.00	89.820	343.230	6583.74	4166.84	4033.07	-1098.80	1667185.55	14273466.21	39°18'22.603"N	80°54'19.322"W	4180.08	344.760	0.18	0.17	0.04	
11048.00	89.880	341.800	6583.99	4261.76	4123.68	-1127.34	1667157.02	14273556.78	39°18'23.499"N	80°54'19.684"W	4275.00	344.710	1.51	0.06	-1.51	
11142.00	90.520	339.980	6583.66	4355.75	4212.50	-1158.11	1667126.26	14273645.56	39°18'24.377"N	80°54'20.075"W	4368.79	344.628	2.05	0.68	-1.94	
11237.00	90.220	337.870	6583.05	4450.72	4301.13	-1192.27	1667092.12	14273734.16	39°18'25.254"N	80°54'20.508"W	4463.32	344.507	2.24	-0.32	-2.22	
11332.00	90.460	334.770	6582.48	4545.49	4388.12	-1230.42	1667053.98	14273821.11	39°18'26.114"N	80°54'20.992"W	4557.36	344.337	3.27	0.25	-3.26	
11426.00	90.460	335.920	6581.73	4639.15	4473.55	-1269.63	1667014.79	14273906.51	39°18'26.959"N	80°54'21.490"W	4650.23	344.156	1.22	0.00	1.22	
11521.00	89.940	336.940	6581.40	4733.94	4560.62	-1307.62	1666976.82	14273993.54	39°18'27.820"N	80°54'21.972"W	4744.38	344.001	1.21	-0.55	1.07	
11616.00	90.180	337.890	6581.30	4828.83	4648.34	-1344.10	1666940.35	14274081.22	39°18'28.687"N	80°54'22.435"W	4838.76	343.872	1.03	0.25	1.00	
11710.00	90.950	339.600	6580.37	4922.79	4735.93	-1378.18	1666906.29	14274168.78	39°18'29.553"N	80°54'22.867"W	4932.39	343.775	1.99	0.82	1.82	
11805.00	89.880	338.870	6579.68	5017.77	4824.76	-1411.86	1666872.62	14274257.57	39°18'30.431"N	80°54'23.295"W	5027.09	343.689	1.36	-1.13	-0.77	
11900.00	89.880	339.970	6579.88	5112.76	4913.69	-1445.25	1666839.24	14274346.47	39°18'31.311"N	80°54'23.718"W	5121.83	343.610	1.16	0.00	1.16	
11994.00	90.000	341.590	6579.98	5206.75	5002.45	-1476.19	1666808.31	14274435.19	39°18'32.188"N	80°54'24.111"W	5215.71	343.559	1.73	0.13	1.72	
12089.00	89.970	343.040	6580.01	5301.68	5092.96	-1505.05	1666779.46	14274525.67	39°18'33.083"N	80°54'24.477"W	5310.69	343.537	1.53	-0.03	1.53	
12183.00	89.880	344.540	6580.13	5395.50	5183.22	-1531.29	1666753.23	14274615.89	39°18'33.975"N	80°54'24.809"W	5404.68	343.541	1.60	-0.10	1.60	
12278.00	89.970	343.470	6580.25	5490.29	5274.54	-1557.47	1666727.07	14274707.17	39°18'34.878"N	80°54'25.141"W	5499.68	343.549	1.13	0.09	-1.13	
12373.00	89.970	342.460	6580.30	5585.18	5365.37	-1585.30	1666699.25	14274797.97	39°18'35.776"N	80°54'25.494"W	5594.67	343.539	1.06	0.00	-1.06	
12467.00	89.820	343.130	6580.47	5679.08	5455.16	-1613.10	1666671.45	14274887.73	39°18'36.664"N	80°54'25.847"W	5688.67	343.527	0.73	-0.16	0.71	
12562.00	89.690	342.540	6580.88	5773.98	5545.93	-1641.14	1666643.43	14274978.46	39°18'37.561"N	80°54'26.202"W	5783.66	343.516	0.64	-0.14	-0.62	
12657.00	89.820	341.970	6581.29	5868.91	5636.41	-1670.09	1666614.49	14275068.90	39°18'38.456"N	80°54'26.569"W	5878.63	343.495	0.62	0.14	-0.60	
12751.00	89.880	343.200	6581.53	5962.83	5726.10	-1698.23	1666586.37	14275158.55	39°18'39.343"N	80°54'26.926"W	5972.62	343.481	1.31	0.06	1.31	
12846.00	89.750	342.310	6581.84	6057.73	5816.83	-1726.39	1666558.21	14275249.24	39°18'40.240"N	80°54'27.283"W	6067.61	343.470	0.95	-0.14	-0.94	
12941.00	90.030	340.610	6582.02	6152.71	5906.89	-1756.59	1666528.02	14275339.27	39°18'41.130"N	80°54'27.666"W	6162.55	343.439	1.81	0.29	-1.79	
13036.00	89.910	339.480	6582.07	6247.71	5996.19	-1789.02	1666495.61	14275428.53	39°18'42.013"N	80°54'28.078"W	6257.38	343.387	1.20	-0.13	-1.19	
13131.00	89.880	336.050	6582.25	6342.61	6084.11	-1824.96	1666459.68	14275516.42	39°18'42.882"N	80°54'28.534"W	6351.92	343.303	3.61	-0.03	-3.61	
13226.00	90.580	335.120	6581.86	6437.30	6170.61	-1864.23	1666420.43	14275602.89	39°18'43.738"N	80°54'29.032"W	6446.07	343.190	1.23	0.74	-0.98	
13320.00	89.750	334.250	6581.59	6530.86	6255.58	-1904.42	1666380.26	14275687.83	39°18'44.578"N	80°54'29.542"W	6539.05	343.068	1.28	-0.88	-0.93	
13369.00	89.750	334.250	6581.81	6579.59	6299.72	-1925.71	1666358.98	14275731.94	39°18'45.015"N	80°54'29.813"W	6587.47	343.003	0.00	0.00	0.00	Projected MD at TD: 13369'

HOLE & CASING SECTIONS - Ref Wellbore: Bill Unit 3H AWB Ref Wellpath: Bill Unit 3H AWP Proj: 13369'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	30.00	110.00	80.00	30.00	110.00	0.00	0.00	-0.03	0.14
17.5in Open Hole	110.00	605.60	495.60	110.00	605.59	-0.03	0.14	-1.84	2.02
13.375in Casing Surface	30.00	605.60	575.60	30.00	605.59	0.00	0.00	-1.84	2.02
12.25in Open Hole	605.60	2542.30	1936.70	605.59	2538.24	-1.84	2.02	-82.70	-10.91
9.625in Casing Intermediate	30.00	2542.30	2512.30	30.00	2538.24	0.00	0.00	-82.70	-10.91
8.75in Open Hole	2542.30	6246.00	3703.70	2538.24	6192.97	-82.70	-10.91	-266.73	386.94
8.5in Open Hole	6246.00	13369.00	7123.00	6192.97	6581.81	-266.73	386.94	6299.72	-1925.71
5.5in Casing Production	30.00	13369.00	13339.00	30.00	6581.81	0.00	0.00	6299.72	-1925.71

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Bill Unit 3H POE Rev-2	6561.00	204.30	275.86	1668559.66	14269638.97	39°17'44.746"N	80°54'01.888"W	point
Bill Unit 3H BHL Rev-2	6584.00	6305.26	-1921.05	1666363.63	14275737.49	39°18'45.069"N	80°54'29.754"W	point
Bill Unit 3H LP Rev-2	6584.00	381.76	211.95	1668495.78	14269816.36	39°17'46.501"N	80°54'02.699"W	point



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Ritchie County, WV	Well	Bill Unit 3H
Field	Ritchie	Wellbore	Bill Unit 3H AWB
Facility	Bison Pad		

WELLPATH COMPOSITION - Ref Wellbore: Bill Unit 3H AWB Ref Wellpath: Bill Unit 3H AWP Proj: 13369'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	581.00	Gyrodata standard - Drop gyro or Multi-shot	01_Gyrodata MS Gyro <17-1/2">(100'-581')	Bill Unit 3H AWB
581.00	2495.00	ISCWSA MWD, Rev. 4 (Standard)	02_WFT EM <12-1/4">(581')(658'-2495')	Bill Unit 3H AWB
2495.00	6167.00	ISCWSA MWD, Rev. 4 (Standard)	03_WFT EM <8-3/4">(2495')(2573'-6167')	Bill Unit 3H AWB
6167.00	13320.00	BHI AutoTrak Curve (Short)	04_BH AT Curve <8-1/2"> (6167')(6222'-13320')	Bill Unit 3H AWB
13320.00	13369.00	Blind Drilling (std)	Projection to bit	Bill Unit 3H AWB



Actual Wellpath Report

Bill Unit 3H AWP Proj: 13369'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Ritchie County, WV	Well	Bill Unit 3H
Field	Ritchie	Wellbore	Bill Unit 3H AWB
Facility	Bison Pad		

COMMENTS
<p>Wellpath general comments API: 47-085-10257-0000 BHI Job #: 109409566 Rig: H&P 519 Duration: 10/06/2018-10/09/2018 Gyrodata MS Gyro <17-1/2">(100'-581') WFT EM <12-1/4">(581')(658'-2495') WFT EM <8-3/4">(2495')(2573'-6167') BH AT Curve <8-1/2"> (6167')(6222'-13320') Middlesex: 6500' MD Burkett: 6703' MD Tully: 6794' MD Marcellus POE: 6925' MD Projected MD at TD: 13369'</p>