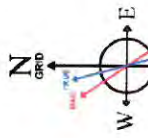




# ANTERO RESOURCES CORPORATION

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

Slot: Slot #01  
 Well: Hattie Unit 3H  
 Wellbore: Hattie Unit 3H PWB



User specified Dip: 66.34° Field: 51927.0T  
 Magnetic North is 7.65 degrees West of True North (at 17/Sep/2018)  
 Grid North is 0.08 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.08 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.73 degrees

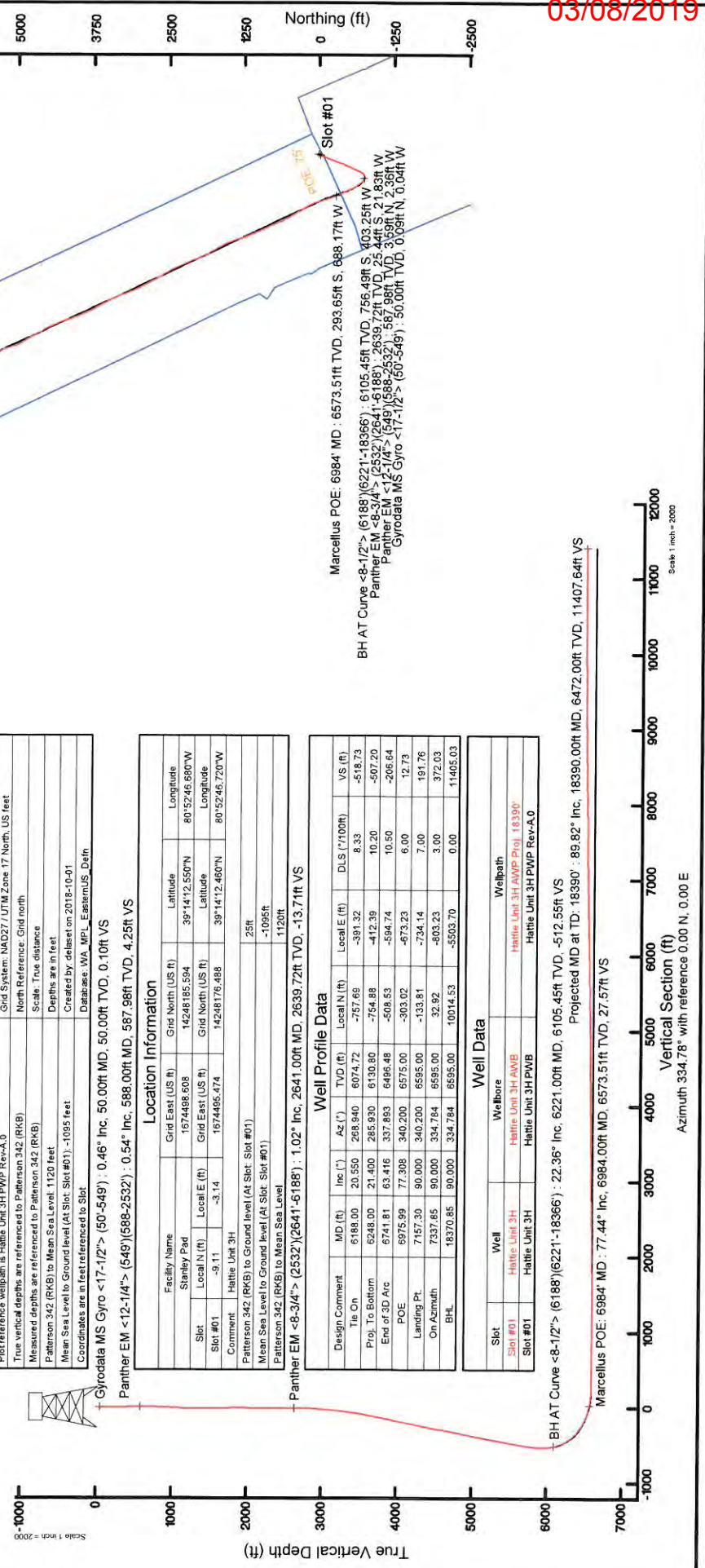
API: 47-017-06837-0000  
 BHI Job #: 109393757  
 Rig: Patterson 342  
 Duration: 09/20/2018-09/23/2018

Plot reference wellpath is Hattie Unit 3H PWB Rev-A-0		Grid System: MAD27/UTM Zone 17 North, US feet	
True vertical depths are referenced to Patterson 342 (RKB)	North Reference: Grid north	Grid East (US ft)	Grid North (US ft)
Measured depths are referenced to Patterson 342 (RKB)	Scale: True distance	1674488.608	14248165.594
Patterson 342 (RKB) to Mean Sea Level: 1120 feet	Depths are in feet	Grid East (US ft)	Grid North (US ft)
Mean Sea Level to Ground level (At Slot, Slot #01): -1095 feet	Created by: deliset on 2018-10-01	1674485.474	14248176.488
Coordinates are in feet referenced to Sibt	Datbase: WA_MPL_EasternUS_Dain		

Location Information			
Facility Name	Grid East (US ft)	Latitude	Longitude
Stanley Pad	1674488.608	39°14'12.550"N	80°52'46.890"W
Slot	Local N (ft)	Local E (ft)	DLS (1/100ft)
Slot #01	-9.11	-3.14	8.33
Comment	Hattie Unit 3H		
Patterson 342 (RKB) to Ground level (At Slot, Slot #01)	25ft		
Mean Sea Level to Ground level (At Slot, Slot #01)	-1095ft		
Patterson 342 (RKB) to Mean Sea Level	1120ft		

Well Profile Data						
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)
Tile On	6188.00	20.550	298.940	6074.72	-757.69	-391.32
Proj. To Bottom	6248.00	21.400	285.930	6130.80	-754.88	-412.39
End of 3D Arc	6741.81	63.416	337.893	6496.48	-508.53	-594.74
POE	6975.99	77.308	340.200	6575.00	-303.02	-673.23
Landing Pt	7157.30	90.000	340.200	6595.00	-133.81	-734.14
On Acctmth	7337.85	90.000	334.784	6595.00	32.92	-803.23
BHL	18370.85	90.000	334.784	6595.00	10014.53	-5503.70
						0.00
						11405.03

Well Data	
Slot	Wellbore
Slot #01	Hattie Unit 3H
Slot #01	Hattie Unit 3H PWB
Slot #01	Hattie Unit 3H AWP
Slot #01	Hattie Unit 3H AWP Proj. 18390
Slot #01	Hattie Unit 3H PWB Rev-A-0



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# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Stanley Pad
Slot	Slot #01
Well	Hattie Unit 3H
Wellbore	Hattie Unit 3H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999601
Convergence at slot	0.08° East
Software System	WellArchitect® 5.1
User	Delaset
Report Generated	01/Oct/2018 at 13:47
Database/Source file	WA_MPL_EasternUS_Defn/Hattie_Unit_3H_AWP_Proj_18390_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-9.11	-3.14	1674495.47	14248176.49	39°14'12.460"N	80°52'46.720"W
Facility Reference Pt			1674488.61	14248185.59	39°14'12.550"N	80°52'46.680"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Patterson 342 (RKB)
MD Reference Pt	Patterson 342 (RKB)
Field Vertical Reference	Mean Sea Level
	Patterson 342 (RKB) to Facility Vertical Datum
	Patterson 342 (RKB) to Mean Sea Level
	Patterson 342 (RKB) to Ground Level at Slot (Slot #01)
	Section Origin
	Section Azimuth
	25.00ft
	1120.00ft
	25.00ft
	N 0.00, E 0.00 ft
	334.78°

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# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Hattie Unit 3H
Field	Doddridge	Wellbore	Hattie Unit 3H AWB
Facility	Stanley Pad		

## WELLPATH DATA (228 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00	0.00	337.110	0.00	0.00	0.00	0.00	1674495.47	14248176.49	39°14'12.460"N	80°52'46.720"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.00	337.110	25.00	0.00	0.00	0.00	1674495.47	14248176.49	39°14'12.460"N	80°52'46.720"W	0.00	0.000	0.00	0.00	0.00	
50.00	0.460	337.110	50.00	0.10	0.09	-0.04	1674495.44	14248176.58	39°14'12.461"N	80°52'46.720"W	0.10	337.110	1.84	1.84	1.84	-91.56 Gyrodatta MS Gyro <17-1/2"> (50'-549')
75.00	0.420	342.480	75.00	0.29	0.27	-0.11	1674495.37	14248176.76	39°14'12.463"N	80°52'46.721"W	0.29	338.793	0.23	-0.16	21.48	
100.00	0.550	353.410	100.00	0.50	0.48	-0.15	1674495.33	14248176.97	39°14'12.465"N	80°52'46.722"W	0.50	342.934	0.64	0.52	43.72	
125.00	0.580	348.090	125.00	0.73	0.72	-0.19	1674495.29	14248177.21	39°14'12.467"N	80°52'46.722"W	0.73	345.485	0.24	0.12	-21.28	
150.00	0.590	343.990	150.00	0.98	0.97	-0.25	1674495.23	14248177.46	39°14'12.470"N	80°52'46.723"W	1.00	345.622	0.17	0.04	-16.40	
175.00	0.510	330.560	174.99	1.22	1.19	-0.34	1674495.14	14248177.68	39°14'12.472"N	80°52'46.723"W	1.24	344.113	0.60	-0.32	-53.72	
200.00	0.510	318.230	199.99	1.44	1.37	-0.47	1674495.01	14248177.86	39°14'12.474"N	80°52'46.726"W	1.45	341.157	0.44	0.00	-49.32	
225.00	0.510	310.500	224.99	1.65	1.53	-0.63	1674494.85	14248178.01	39°14'12.475"N	80°52'46.728"W	1.65	337.677	0.28	0.00	-30.92	
250.00	0.320	317.990	249.99	1.81	1.65	-0.76	1674494.72	14248178.14	39°14'12.476"N	80°52'46.730"W	1.81	335.330	0.79	-0.76	29.96	
275.00	0.260	317.320	274.99	1.94	1.74	-0.84	1674494.63	14248178.23	39°14'12.477"N	80°52'46.731"W	1.94	334.195	0.24	-0.24	-2.68	
300.00	0.300	310.150	299.99	2.05	1.83	-0.93	1674494.54	14248178.31	39°14'12.478"N	80°52'46.732"W	2.05	332.989	0.21	-0.08	-33.48	
350.00	0.360	329.120	349.99	2.33	2.05	-1.12	1674494.27	14248178.54	39°14'12.480"N	80°52'46.734"W	2.34	331.469	0.27	0.16	37.94	
375.00	0.420	327.540	424.99	2.81	2.45	-1.39	1674493.87	14248178.80	39°14'12.482"N	80°52'46.736"W	2.65	330.622	0.15	-0.04	23.12	
400.00	0.350	326.590	399.99	2.64	2.31	-1.30	1674494.17	14248178.80	39°14'12.483"N	80°52'46.736"W	2.50	331.056	0.23	-0.08	-33.48	
425.00	0.420	327.540	424.99	2.81	2.45	-1.39	1674493.87	14248178.80	39°14'12.483"N	80°52'46.736"W	2.65	330.622	0.15	-0.04	23.12	
450.00	0.480	331.710	449.99	3.01	2.62	-1.49	1674493.08	14248178.94	39°14'12.484"N	80°52'46.738"W	2.82	330.411	0.28	0.28	4.04	
475.00	0.550	324.970	474.99	3.23	2.81	-1.61	1674493.87	14248179.11	39°14'12.486"N	80°52'46.739"W	3.01	330.369	0.27	0.24	16.68	
500.00	0.620	322.870	499.99	3.48	3.02	-1.76	1674493.72	14248179.30	39°14'12.488"N	80°52'46.740"W	3.24	330.213	0.37	0.28	-26.96	
525.00	0.580	323.090	524.98	3.74	3.23	-1.92	1674493.56	14248179.50	39°14'12.490"N	80°52'46.742"W	3.49	329.749	0.29	0.28	-8.40	
549.00	0.540	321.360	548.98	3.96	3.41	-2.06	1674493.41	14248179.71	39°14'12.492"N	80°52'46.744"W	3.75	329.278	0.16	-0.16	0.88	
588.00	0.540	282.070	587.98	4.25	3.59	-2.36	1674493.12	14248180.08	39°14'12.496"N	80°52'46.750"W	4.30	326.759	0.93	0.00	-100.74 Panther EM <12-1/4"> (549')(588-2532)	
679.00	1.420	249.140	678.97	4.60	3.28	-3.83	1674491.65	14248179.77	39°14'12.492"N	80°52'46.769"W	5.04	310.604	1.11	0.97	-36.19	
770.00	3.850	226.760	769.87	3.74	0.79	-7.11	1674488.37	14248177.27	39°14'12.468"N	80°52'46.810"W	7.15	276.317	2.85	2.67	-24.59	
864.00	4.410	212.180	863.62	0.82	-4.43	-11.33	1674484.15	14248172.06	39°14'12.416"N	80°52'46.864"W	12.17	248.630	1.26	0.60	-15.51	
958.00	4.520	205.570	957.34	-3.47	-10.83	-14.86	1674480.62	14248165.66	39°14'12.353"N	80°52'46.909"W	18.39	233.896	0.56	0.12	-7.03	
1051.00	3.370	197.350	1050.12	-7.80	-16.75	-17.25	1674478.23	14248159.75	39°14'12.295"N	80°52'46.940"W	24.05	225.848	1.37	-1.24	-8.84	
1145.00	3.080	190.240	1143.97	-11.89	-21.87	-18.53	1674476.96	14248154.63	39°14'12.244"N	80°52'46.956"W	28.66	220.265	0.53	-0.31	-7.56	
1240.00	2.130	202.110	1238.87	-15.17	-26.02	-19.64	1674475.84	14248150.48	39°14'12.203"N	80°52'46.970"W	32.60	217.052	1.14	-1.00	12.49	





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #01
Operator	ANTERO RESOURCES CORPORATION	Well	Hattie Unit 3H
Area	Doddridge Co., WV	Wellbore	Hattie Unit 3H AWP
Field	Doddridge		
Facility	Stanley Pad		

WELLPATH DATA (228 stations)																
MD ft	Inclination °	Azimuth °	TVD ft	Vert Sect ft	North ft	East ft	Grid East [US FT]	Grid North [US FT]	Latitude	Longitude	Closure Dist ft	Closure Dir °	DLS ft/100ft	Build Rate ft/100ft	Turn Rate °/100ft	Comments
1335.00	0.160	270.020	1333.85	-16.31	-27.65	-20.44	1674475.04	14248148.84	39°14'12.18"N	80°52'46.980"W	34.39	216.470	2.18	-2.07	71.48	
1429.00	0.740	352.190	1427.85	-15.67	-27.05	-20.65	1674474.83	14248149.45	39°14'12.193"N	80°52'46.983"W	34.04	217.361	0.78	0.62	87.41	
1523.00	1.030	358.590	1521.84	-14.32	-25.61	-20.76	1674474.73	14248150.89	39°14'12.207"N	80°52'46.984"W	32.96	219.029	0.33	0.31	6.81	
1618.00	0.710	331.800	1616.82	-12.95	-24.23	-21.06	1674474.43	14248152.26	39°14'12.221"N	80°52'46.988"W	32.10	220.986	0.54	-0.34	-28.20	
1712.00	1.020	347.420	1710.81	-11.55	-22.90	-21.51	1674473.97	14248153.59	39°14'12.234"N	80°52'46.994"W	31.42	223.207	0.41	0.33	16.62	
1806.00	1.050	342.670	1804.80	-9.88	-21.27	-21.95	1674473.53	14248155.23	39°14'12.250"N	80°52'46.999"W	30.56	225.911	0.10	0.03	-5.05	
1901.00	0.260	188.420	1899.79	-9.20	-20.65	-22.24	1674473.24	14248155.85	39°14'12.256"N	80°52'47.003"W	30.35	227.130	1.36	-0.83	-162.37	
1995.00	1.080	167.820	1993.79	-10.24	-21.73	-22.09	1674473.40	14248154.77	39°14'12.246"N	80°52'46.995"W	31.87	222.722	0.13	-0.02	-6.86	
2089.00	1.060	161.370	2087.77	-11.97	-23.41	-21.62	1674473.86	14248153.08	39°14'12.229"N	80°52'46.991"W	30.98	225.475	0.90	0.87	-21.91	
2183.00	0.570	176.180	2181.76	-13.27	-24.71	-21.31	1674474.17	14248151.79	39°14'12.216"N	80°52'46.994"W	32.63	220.786	0.56	-0.52	15.76	
2278.00	0.690	169.530	2276.76	-14.26	-25.74	-21.18	1674474.30	14248150.76	39°14'12.206"N	80°52'46.990"W	33.33	219.448	0.15	0.13	-7.00	
2372.00	1.010	161.780	2370.74	-15.63	-27.08	-20.82	1674474.67	14248149.42	39°14'12.193"N	80°52'46.985"W	34.16	217.548	0.36	0.34	-8.24	
2467.00	0.240	286.110	2465.74	-16.33	-27.82	-20.75	1674474.74	14248148.68	39°14'12.185"N	80°52'46.984"W	34.71	216.710	1.22	-0.81	130.87	
2532.00	1.030	335.440	2530.74	-15.66	-27.25	-21.12	1674474.36	14248149.24	39°14'12.191"N	80°52'46.989"W	34.48	217.774	1.37	1.22	75.89	
2641.00	1.020	341.860	2639.72	-13.71	-25.44	-21.83	1674473.65	14248151.06	39°14'12.209"N	80°52'46.998"W	33.52	220.631	0.11	-0.01	5.89	Panther EM <-8.3/4"> (2532)-(2641)-6188'
2736.00	1.310	237.800	2734.71	-13.01	-25.22	-23.01	1674472.47	14248151.28	39°14'12.211"N	80°52'47.013"W	34.14	222.383	1.94	0.31	-109.54	
2830.00	4.110	208.510	2828.60	-15.13	-28.75	-25.53	1674469.96	14248147.75	39°14'12.176"N	80°52'47.045"W	38.45	221.605	3.23	2.98	-31.16	
2925.00	5.920	194.870	2923.23	-20.89	-36.48	-28.41	1674467.07	14248140.03	39°14'12.100"N	80°52'47.082"W	46.24	217.915	2.27	1.91	-14.36	
3019.00	6.900	197.500	3016.64	-28.75	-46.55	-31.35	1674464.13	14248129.96	39°14'12.000"N	80°52'47.119"W	56.12	213.964	1.09	1.04	2.80	
3114.00	8.060	198.140	3110.83	-37.79	-58.32	-35.14	1674460.34	14248118.19	39°14'11.884"N	80°52'47.168"W	68.09	211.073	1.22	1.22	0.67	
3208.00	9.350	199.380	3203.75	-48.01	-71.79	-39.73	1674455.76	14248104.73	39°14'11.751"N	80°52'47.226"W	82.05	208.962	1.39	1.37	1.32	
3303.00	10.300	205.860	3300.61	-59.08	-86.84	-45.72	1674449.78	14248089.69	39°14'11.602"N	80°52'47.302"W	98.14	207.765	1.28	1.00	4.84	
3397.00	14.070	205.880	3481.22	-70.63	-103.17	-53.30	1674442.20	14248073.36	39°14'11.441"N	80°52'47.399"W	116.12	207.320	1.64	1.59	2.20	
3491.00	16.080	200.910	3577.78	-83.84	-122.09	-62.47	1674433.03	14248054.44	39°14'11.254"N	80°52'47.516"W	137.15	207.098	2.43	2.43	0.02	
3581.00	14.550	194.520	3668.45	-101.07	-145.97	-72.72	1674422.78	14248030.58	39°14'11.018"N	80°52'47.647"W	163.08	206.482	2.39	2.01	-4.97	
3685.00	14.490	199.170	3759.45	-119.17	-169.56	-80.33	1674415.18	14248006.99	39°14'10.785"N	80°52'47.744"W	187.63	205.349	2.42	-1.63	-6.80	
3779.00	15.610	203.090	3851.19	-153.65	-215.09	-96.07	1674399.44	14247961.49	39°14'10.562"N	80°52'47.831"W	210.95	204.402	1.24	-0.06	4.95	
3874.00	16.350	204.390	3941.56	-170.64	-238.77	-106.49	1674389.03	14247937.81	39°14'10.101"N	80°52'48.077"W	235.57	204.068	1.59	1.18	4.13	
3968.00	14.830	198.260	4033.06	-188.13	-262.50	-115.82	1674379.70	14247914.09	39°14'09.867"N	80°52'48.196"W	261.44	204.037	0.87	0.79	1.38	
4063.00											286.92	203.809	2.36	-1.60	-6.45	





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Hattie Unit 3H
Field	Doddridge	Wellbore	Hattie Unit 3H AWB
Facility	Stanley Pad		

WELLPATH DATA (228 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
ft	°	°	ft	ft	ft	ft	ft	ft	°	°	ft	°	"/100ft	"/100ft	"/100ft	
4157.00	15.610	198.190	4123.77	-206.04	-285.94	1674371.98	14247890.66	39°14'09.635"N	80°52'48.295"W	311.49	203.367	0.83	0.83	-0.07		
4252.00	15.990	203.460	4215.18	-223.97	-310.09	1674362.79	14247866.53	39°14'09.397"N	80°52'48.412"W	337.30	203.175	1.56	0.40	5.55		
4346.00	17.170	200.570	4305.27	-242.19	-334.95	1674352.76	14247841.67	39°14'09.151"N	80°52'48.540"W	364.11	203.086	1.53	1.26	-3.07		
4440.00	15.650	193.920	4395.45	-261.70	-360.26	1674344.84	14247815.38	39°14'08.901"N	80°52'48.641"W	390.50	202.700	2.57	-1.62	-7.07		
4535.00	14.280	201.640	4487.23	-279.66	-383.59	1674337.44	14247793.05	39°14'08.671"N	80°52'48.736"W	414.89	202.400	2.54	-1.44	8.13		
4630.00	16.780	207.450	4578.76	-295.99	-406.65	1674326.80	14247770.00	39°14'08.443"N	80°52'48.871"W	440.27	202.537	3.10	2.63	6.12		
4723.00	17.220	206.900	4667.70	-312.58	-430.84	1674314.38	14247745.82	39°14'08.204"N	80°52'49.030"W	467.38	202.806	0.50	0.47	-0.59		
4817.00	16.590	203.140	4757.64	-330.04	-455.59	1674302.82	14247721.08	39°14'07.960"N	80°52'49.177"W	494.68	202.930	1.34	-0.67	-4.00		
4911.00	16.000	201.970	4847.87	-347.76	-479.94	1674292.70	14247696.74	39°14'07.719"N	80°52'49.306"W	521.05	202.912	0.72	-0.63	-1.24		
5005.00	16.890	201.540	4938.02	-365.92	-504.66	1674282.85	14247672.03	39°14'07.475"N	80°52'49.432"W	547.66	202.855	0.96	0.95	-0.46		
5100.00	16.890	202.840	5028.92	-384.60	-530.22	1674272.43	14247646.48	39°14'07.222"N	80°52'49.565"W	575.26	202.823	0.40	0.00	1.37		
5194.00	16.300	208.250	5119.01	-401.58	-554.42	1674260.89	14247622.29	39°14'06.983"N	80°52'49.712"W	602.05	202.942	1.76	-0.63	5.76		
5289.00	15.270	204.920	5210.43	-417.53	-577.51	1674249.31	14247599.21	39°14'06.755"N	80°52'49.859"W	627.83	203.094	1.44	-1.08	-3.51		
5383.00	16.150	203.240	5300.92	-434.13	-600.75	1674238.94	14247575.98	39°14'06.526"N	80°52'49.992"W	653.27	203.132	1.05	0.94	-1.79		
5477.00	15.760	203.080	5391.30	-451.30	-624.51	1674228.78	14247552.23	39°14'06.291"N	80°52'50.121"W	679.11	203.133	0.42	-0.41	-0.17		
5572.00	15.180	202.370	5482.85	-468.27	-647.88	1674218.99	14247528.87	39°14'06.060"N	80°52'50.246"W	704.45	203.119	0.64	-0.61	-0.75		
5666.00	15.110	205.790	5573.59	-484.28	-670.29	1674208.98	14247506.47	39°14'05.839"N	80°52'50.374"W	728.99	203.151	0.95	-0.07	3.64		
5760.00	15.810	208.460	5664.19	-499.57	-692.58	1674197.55	14247484.18	39°14'05.619"N	80°52'50.519"W	753.99	203.284	1.06	0.74	2.84		
5854.00	16.630	211.990	5754.45	-514.44	-715.25	1674184.33	14247461.53	39°14'05.395"N	80°52'50.688"W	780.04	203.518	1.36	0.87	3.76		
5949.00	15.730	231.050	5845.75	-524.87	-734.89	1674167.11	14247441.90	39°14'05.201"N	80°52'50.907"W	804.96	204.085	5.64	-0.95	20.06		
6043.00	15.970	243.040	5936.20	-528.28	-748.76	1674145.68	14247428.02	39°14'05.064"N	80°52'51.180"W	826.50	205.049	3.49	0.26	12.76		
6137.00	16.900	262.120	6026.43	-524.60	-756.50	1674120.61	14247420.29	39°14'04.988"N	80°52'51.499"W	844.36	206.369	5.80	0.99	20.30		
6188.00	20.550	268.940	6074.72	-518.73	-757.69	1674104.31	14247419.10	39°14'04.976"N	80°52'51.706"W	852.77	207.315	8.33	7.16	13.37		
6221.00	22.860	282.030	6105.45	-512.55	-756.49	1674092.38	14247420.31	39°14'04.988"N	80°52'51.858"W	857.25	208.060	15.47	5.48	39.67	BH AT Curve <8-1/2"> (6188')(6221'-18366')	
6260.00	25.070	290.780	6141.47	-502.61	-752.25	1674078.05	14247424.54	39°14'05.030"N	80°52'52.040"W	860.39	209.036	8.71	1.28	22.44		
6307.00	25.070	304.370	6184.45	-487.44	-743.38	1674061.28	14247433.40	39°14'05.118"N	80°52'52.253"W	860.98	210.298	12.62	4.70	28.91		
6355.00	28.110	313.720	6227.38	-468.10	-729.82	1674044.71	14247446.96	39°14'05.253"N	80°52'52.463"W	857.89	211.711	10.76	6.33	19.48		
6402.00	31.680	319.420	6268.13	-445.86	-712.78	1674028.68	14247463.99	39°14'05.421"N	80°52'52.667"W	852.13	213.231	9.70	7.60	12.13		
6449.00	36.260	322.870	6307.10	-420.34	-692.31	1674012.26	14247484.45	39°14'05.624"N	80°52'52.875"W	844.38	214.925	10.57	9.74	7.34		
6496.00	41.130	322.720	6343.77	-391.64	-669.02	1673994.37	14247507.74	39°14'05.854"N	80°52'53.102"W	836.00	216.945	10.41	10.36	-1.60		





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Hattie Unit 3H
Field	Doddridge	Wellbore	Hattie Unit 3H AWB
Facility	Stanley Pad		

## WELLPATH DATA (228 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
6544.00	45.020	324.500	6378.83	-359.52	-642.73	-520.86	1673974.82	14247534.02	39°14'06.114"N	80°52'53.350"W	827.28	219.021	8.78	8.10	4.96	
6577.00†	48.130	328.008	6401.52	-335.83	-622.79	-534.16	1673961.53	14247553.94	39°14'06.311"N	80°52'53.519"W	820.49	220.619	12.18	9.42	10.62	Middlesex: 6577' MD
6591.00	49.480	329.390	6410.74	-325.35	-613.79	-539.63	1673956.06	14247562.94	39°14'06.400"N	80°52'53.588"W	817.28	221.321	12.18	9.64	9.89	
6639.00	53.410	333.630	6440.66	-287.90	-580.80	-557.49	1673938.21	14247595.92	39°14'06.727"N	80°52'53.815"W	805.65	223.827	10.71	8.19	8.83	
6685.00	57.860	334.760	6466.68	-249.98	-546.66	-573.99	1673921.72	14247630.05	39°14'07.064"N	80°52'54.024"W	792.65	226.397	9.50	9.28	2.46	
6733.00	62.440	334.810	6490.63	-208.40	-509.04	-591.70	1673904.01	14247667.65	39°14'07.436"N	80°52'54.248"W	780.53	229.295	9.92	9.92	0.10	
6780.00†	65.450	334.000	6511.27	-166.18	-470.97	-609.94	1673885.77	14247705.71	39°14'07.813"N	80°52'54.480"W	770.61	232.327	6.59	6.40	-1.72	
6827.00	68.550	334.900	6529.63	-122.92	-431.94	-628.60	1673867.13	14247744.72	39°14'08.199"N	80°52'54.716"W	762.70	235.505	6.83	6.59	1.95	Burkett: 6787' MD
6874.00	72.370	336.430	6545.35	-78.64	-391.59	-646.84	1673848.89	14247785.06	39°14'08.598"N	80°52'54.947"W	756.13	238.810	8.69	8.13	3.26	
6879.00†	72.671	336.493	6546.85	-73.88	-387.21	-648.74	1673846.99	14247789.43	39°14'08.641"N	80°52'54.971"W	755.51	239.168	6.14	6.02	1.26	Tully: 6879' MD
6923.00	75.320	337.040	6558.98	-31.61	-348.35	-665.43	1673830.32	14247828.28	39°14'09.026"N	80°52'55.183"W	751.09	242.368	6.14	6.02	1.24	
6968.00	76.560	337.580	6569.91	12.00	-308.08	-682.26	1673813.48	14247868.53	39°14'09.424"N	80°52'55.396"W	748.60	245.698	2.99	2.76	1.20	
6984.00†	77.441	337.892	6573.51	27.57	-293.65	-688.17	1673807.58	14247882.95	39°14'09.567"N	80°52'55.471"W	748.20	246.891	5.83	5.51	1.95	Marcellus POE: 6984' MD
7017.00	79.260	338.530	6580.18	59.83	-263.64	-700.16	1673795.59	14247912.95	39°14'09.863"N	80°52'55.623"W	748.16	249.367	5.83	5.51	1.93	
7064.00	82.500	339.680	6587.62	106.09	-220.29	-716.71	1673779.05	14247956.28	39°14'10.292"N	80°52'55.832"W	749.80	252.914	7.30	6.89	2.45	
7112.00	85.530	341.180	6592.63	153.59	-175.32	-732.70	1673763.07	14248001.24	39°14'10.737"N	80°52'56.035"W	753.38	256.543	7.04	6.31	3.13	
7159.00	89.020	342.590	6594.86	200.17	-130.71	-747.29	1673748.48	14248045.83	39°14'11.178"N	80°52'56.219"W	758.64	260.079	8.01	7.43	3.00	
7206.00	89.970	342.400	6595.28	246.74	-85.89	-761.43	1673734.35	14248090.64	39°14'11.621"N	80°52'56.398"W	766.26	263.565	2.06	2.02	-0.40	
7300.00	89.780	341.110	6595.48	340.04	3.39	-790.86	1673704.93	14248179.87	39°14'12.504"N	80°52'56.771"W	790.86	270.245	1.39	-0.20	-1.37	
7396.00	90.830	337.770	6594.97	435.71	93.26	-824.56	1673671.24	14248269.71	39°14'13.392"N	80°52'57.198"W	829.82	276.453	3.65	1.09	-3.48	
7490.00	89.910	331.570	6594.36	529.66	178.18	-864.76	1673631.06	14248354.59	39°14'14.232"N	80°52'57.707"W	882.93	281.642	6.67	-0.98	-6.60	
7584.00	89.890	329.840	6594.54	623.42	260.15	-910.75	1673585.09	14248436.53	39°14'15.043"N	80°52'58.290"W	947.18	285.942	1.84	-0.03	-1.84	
7679.00	89.910	330.020	6594.71	718.08	342.36	-958.35	1673537.50	14248518.72	39°14'15.856"N	80°52'58.894"W	1017.67	289.659	0.19	0.03	0.19	
7774.00	91.450	330.510	6593.58	812.78	424.85	-1005.47	1673490.41	14248601.16	39°14'16.672"N	80°52'59.491"W	1091.54	292.906	1.70	1.62	0.52	
7869.00	88.950	329.920	6593.25	907.47	507.29	-1052.65	1673443.24	14248683.57	39°14'17.488"N	80°53'00.090"W	1168.51	295.730	2.70	-2.63	-0.62	
7964.00	89.350	334.730	6594.66	1002.34	591.39	-1096.76	1673399.15	14248767.64	39°14'18.319"N	80°53'00.649"W	1268.04	298.334	5.08	0.42	5.06	
8058.00	89.690	336.460	6595.45	1096.32	676.98	-1135.60	1673360.33	14248853.20	39°14'19.166"N	80°53'01.141"W	1322.08	300.801	1.88	0.36	1.84	
8152.00	89.780	334.900	6595.88	1190.31	762.64	-1174.31	1673321.64	14248938.82	39°14'20.013"N	80°53'01.632"W	1400.22	303.001	1.66	0.10	-1.66	
8246.00	89.600	335.070	6596.39	1284.31	847.82	-1214.05	1673281.91	14249023.97	39°14'20.855"N	80°53'02.136"W	1480.78	304.928	0.26	-0.19	0.18	





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #01
ANTERO RESOURCES CORPORATION	Well	Hattie Unit 3H
Doddridge Co., WV	Wellbore	Hattie Unit 3H AWB
Doddridge		
Stanley Pad		

## WELLPATH DATA (228 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
8341.00	89.910	336.860	6596.80	1379.28	934.58	-1252.75	1673243.23	14249110.69	39°14'21.713"N	80°53'02.626"W	1562.95	306.724	1.91	0.33	1.88	
8435.00	89.720	338.840	6597.10	1473.14	1021.63	-1288.18	1673207.81	14249197.71	39°14'22.574"N	80°53'03.075"W	1644.13	308.417	2.12	-0.20	2.11	
8529.00	89.880	338.380	6597.43	1566.93	1109.16	-1322.47	1673173.54	14249285.20	39°14'23.440"N	80°53'03.509"W	1726.02	309.987	0.52	0.17	-0.49	
8624.00	89.880	337.020	6597.63	1661.80	1197.05	-1358.51	1673137.50	14249373.06	39°14'24.309"N	80°53'03.966"W	1810.66	311.385	1.43	0.00	-1.43	
8719.00	93.930	342.300	6594.72	1756.36	1286.04	-1391.51	1673104.52	14249462.01	39°14'25.189"N	80°53'04.384"W	1894.78	312.744	6.81	3.95	5.56	
8813.00	89.850	339.870	6591.86	1849.73	1374.90	-1421.96	1673074.09	14249550.83	39°14'26.067"N	80°53'04.769"W	1977.96	314.036	4.78	-4.02	-2.59	
8907.00	91.450	336.090	6590.80	2037.45	1462.41	-1456.25	1673039.80	14249638.31	39°14'27.787"N	80°53'05.204"W	2063.81	315.121	2.71	0.16	-2.70	
9086.00	90.430	330.930	6589.24	2132.38	1633.72	-1535.77	1672960.32	14249809.56	39°14'28.627"N	80°53'06.212"W	2242.24	316.770	5.54	-1.07	-5.43	
9191.00	90.550	329.860	6588.43	2227.10	1716.32	-1582.70	1672913.41	14249892.12	39°14'29.444"N	80°53'06.807"W	2334.67	317.319	1.13	0.13	-1.13	
9285.00	90.950	331.880	6587.19	2320.86	1798.42	-1628.45	1672867.68	14249974.18	39°14'30.256"N	80°53'07.387"W	2426.14	317.839	2.19	0.43	2.15	
9380.00	91.020	334.970	6585.56	2415.81	1883.36	-1670.94	1672825.20	14250059.09	39°14'31.096"N	80°53'07.926"W	2517.75	318.420	3.25	0.07	3.25	
9474.00	90.980	336.020	6583.92	2509.79	1968.88	-1709.92	1672786.24	14250144.57	39°14'31.942"N	80°53'08.420"W	2607.74	319.026	1.12	-0.04	1.12	
9569.00	91.140	336.590	6582.16	2604.74	2055.85	-1748.09	1672748.08	14250231.52	39°14'32.802"N	80°53'08.903"W	2698.58	319.625	0.62	0.17	0.60	
9664.00	91.080	336.330	6580.32	2699.68	2142.93	-1786.03	1672710.16	14250318.56	39°14'33.663"N	80°53'09.384"W	2789.63	320.190	0.28	-0.06	-0.27	
9758.00	91.170	338.580	6578.48	2793.55	2229.72	-1822.06	1672674.15	14250405.32	39°14'34.521"N	80°53'09.841"W	2879.51	320.745	2.40	0.10	2.39	
9852.00	90.120	336.460	6577.42	2887.43	2316.57	-1858.00	1672638.22	14250492.13	39°14'35.380"N	80°53'10.296"W	2969.62	321.269	2.52	-1.12	-2.26	
9946.00	89.480	332.030	6577.75	2981.40	2401.21	-1898.83	1672597.40	14250576.73	39°14'36.217"N	80°53'10.814"W	3061.27	321.664	4.76	-0.68	-4.71	
10041.00	91.050	331.000	6577.31	3076.24	2484.70	-1944.14	1672552.12	14250660.20	39°14'37.043"N	80°53'11.388"W	3154.90	321.959	1.98	1.65	-1.08	
10135.00	90.830	331.400	6575.77	3170.05	2567.07	-1989.41	1672506.96	14250742.52	39°14'37.858"N	80°53'11.963"W	3247.71	322.225	0.49	-0.23	0.43	
10229.00	90.890	330.880	6574.35	3263.85	2649.38	-2034.78	1672461.51	14250824.81	39°14'38.672"N	80°53'12.538"W	3340.59	322.475	0.56	0.06	-0.55	
10324.00	90.950	331.220	6572.83	3358.63	2732.50	-2080.76	1672415.55	14250907.89	39°14'39.494"N	80°53'13.121"W	3434.55	322.711	0.36	0.06	0.36	
10418.00	90.920	332.290	6571.30	3452.49	2815.29	-2125.24	1672371.09	14250990.65	39°14'40.313"N	80°53'13.685"W	3527.40	322.951	1.14	-0.03	1.14	
10513.00	91.020	331.740	6569.69	3547.36	2899.17	-2169.81	1672326.54	14251074.50	39°14'41.142"N	80°53'14.250"W	3621.23	323.188	0.59	0.11	-0.58	
10607.00	90.400	332.270	6568.52	3641.25	2982.17	-2213.93	1672282.43	14251157.46	39°14'41.963"N	80°53'14.810"W	3714.14	323.410	0.87	-0.66	0.56	
10702.00	90.460	337.180	6567.81	3736.21	3068.04	-2254.48	1672241.90	14251243.30	39°14'42.813"N	80°53'15.324"W	3807.30	323.691	5.17	0.06	5.17	
10797.00	90.710	339.160	6566.84	3831.04	3156.22	-2289.80	1672206.59	14251331.45	39°14'43.685"N	80°53'15.771"W	3899.35	324.040	2.10	0.26	2.08	
10891.00	90.800	338.750	6565.60	3924.78	3243.95	-2323.55	1672172.85	14251419.13	39°14'44.562"N	80°53'16.199"W	3990.25	324.387	0.45	0.10	-0.44	
10885.00	90.770	337.810	6564.31	4018.60	3331.26	-2358.33	1672138.09	14251506.42	39°14'45.415"N	80°53'16.640"W	4081.55	324.704	1.00	-0.03	-1.00	
11080.00	90.620	335.650	6563.16	4113.53	3418.52	-2395.86	1672100.57	14251593.64	39°14'46.278"N	80°53'17.115"W	4174.50	324.975	2.28	-0.16	-2.27	





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #01
ANTERO RESOURCES CORPORATION	Hattie Unit 3H
Area	Well
Doddridge Co., WV	Hattie Unit 3H AWB
Field	Wellbore
Doddridge	
Facility	Stanley Pad

## WELLPATH DATA (228 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
11174.00	91.080	330.700	6561.76	4207.45	3502.37	-2438.26	1672058.19	14251677.46	39°14'47.108"N	80°53'17.553"W	4267.52	325.155	5.29	0.49	-5.27	
11268.00	91.320	331.250	6559.80	4301.22	3584.55	-2483.86	1672012.61	14251759.60	39°14'47.920"N	80°53'18.231"W	4361.02	325.281	0.64	0.26	0.59	
11362.00	90.000	329.730	6558.71	4394.95	3666.34	-2530.16	1671966.33	14251841.36	39°14'48.729"N	80°53'18.818"W	4454.63	325.390	2.14	-1.40	-1.62	
11456.00	90.430	332.290	6558.36	4488.74	3748.56	-2575.71	1671920.80	14251923.54	39°14'49.543"N	80°53'19.396"W	4548.18	325.506	2.76	0.46	2.72	
11550.00	90.650	336.050	6557.47	4582.71	3833.15	-2616.66	1671879.87	14252008.10	39°14'50.379"N	80°53'19.915"W	4641.11	325.681	4.01	0.23	4.00	
11645.00	90.710	335.830	6556.35	4677.68	3919.89	-2655.38	1671841.15	14252094.81	39°14'51.237"N	80°53'20.406"W	4734.62	325.886	0.24	0.06	-0.23	
11739.00	90.550	336.320	6555.31	4771.65	4005.81	-2693.50	1671803.05	14252180.69	39°14'52.087"N	80°53'20.889"W	4827.16	326.083	0.55	-0.17	0.52	
11833.00	90.620	341.610	6554.35	4865.37	4093.51	-2727.23	1671769.34	14252268.35	39°14'52.954"N	80°53'21.317"W	4918.80	326.327	5.63	0.07	5.63	
11928.00	91.080	341.720	6552.94	4959.67	4183.67	-2757.11	1671739.47	14252358.48	39°14'53.845"N	80°53'21.695"W	5010.47	326.614	0.50	0.48	0.12	
12022.00	91.660	336.760	6550.69	5053.33	4271.52	-2790.41	1671706.18	14252446.29	39°14'54.714"N	80°53'22.117"W	5102.18	326.845	5.31	0.62	-5.28	
12116.00	91.230	334.820	6548.32	5147.28	4357.22	-2828.94	1671667.67	14252531.96	39°14'55.561"N	80°53'22.605"W	5195.02	327.006	2.11	-0.46	-2.06	
12210.00	91.200	336.060	6546.33	5241.25	4442.69	-2868.00	1671628.62	14252617.40	39°14'56.407"N	80°53'23.101"W	5288.00	327.156	1.32	-0.03	1.32	
12305.00	90.980	332.850	6544.52	5336.22	4528.38	-2908.96	1671587.68	14252703.05	39°14'57.254"N	80°53'23.620"W	5382.22	327.284	3.39	-0.23	-3.38	
12399.00	91.110	332.340	6542.81	5430.13	4611.82	-2952.21	1671544.44	14252786.46	39°14'58.079"N	80°53'24.168"W	5475.80	327.375	0.56	0.14	-0.54	
12494.00	91.200	330.690	6540.89	5524.96	4695.30	-2997.51	1671499.16	14252869.90	39°14'58.905"N	80°53'24.743"W	5570.54	327.446	1.74	0.09	-1.74	
12588.00	91.230	329.880	6538.90	5618.65	4776.92	-3044.10	1671452.60	14252951.49	39°14'59.712"N	80°53'25.334"W	5664.40	327.493	0.86	0.03	-0.86	
12682.00	91.050	326.810	6537.03	5712.02	4856.91	-3093.41	1671403.30	14253031.45	39°15'00.503"N	80°53'25.959"W	5758.36	327.507	3.27	-0.19	-3.27	
12777.00	90.800	329.330	6535.50	5806.35	4937.51	-3143.64	1671353.09	14253112.02	39°15'01.301"N	80°53'26.597"W	5853.34	327.516	2.67	-0.26	2.65	
12871.00	90.980	341.080	6534.03	5900.18	5022.69	-3182.99	1671313.76	14253197.16	39°15'02.143"N	80°53'27.096"W	5946.33	327.637	12.50	0.19	12.50	
12966.00	91.720	344.380	6531.79	5994.22	5113.37	-3211.18	1671285.58	14253287.81	39°15'03.040"N	80°53'27.453"W	6038.06	327.871	3.56	0.78	3.47	
13060.00	91.570	341.680	6529.09	6087.20	5203.23	-3238.61	1671258.17	14253377.63	39°15'03.928"N	80°53'27.800"W	6128.80	328.101	2.88	-0.16	-2.87	
13155.00	91.320	335.970	6526.70	6181.90	5291.75	-3272.90	1671223.89	14253466.12	39°15'04.803"N	80°53'28.234"W	6222.09	328.264	6.01	-0.26	-6.01	
13249.00	91.350	332.250	6524.50	6275.85	5376.28	-3313.92	1671182.88	14253550.61	39°15'05.639"N	80°53'28.754"W	6315.57	328.350	3.96	0.03	-3.96	
13343.00	91.320	332.560	6522.31	6369.74	5459.56	-3357.45	1671139.37	14253633.86	39°15'06.463"N	80°53'29.307"W	6409.31	328.410	0.33	-0.03	0.33	
13437.00	91.320	332.020	6520.15	6463.63	5542.76	-3401.15	1671095.69	14253717.03	39°15'07.286"N	80°53'29.861"W	6503.08	328.466	0.57	0.00	-0.57	
13533.00	91.200	332.130	6518.04	6559.50	5627.56	-3446.10	1671050.76	14253801.79	39°15'08.125"N	80°53'30.431"W	6598.87	328.518	0.17	-0.12	0.11	
13627.00	91.230	331.930	6516.05	6653.37	5710.56	-3490.18	1671006.70	14253884.76	39°15'08.946"N	80°53'30.990"W	6692.67	328.568	0.22	0.03	-0.21	
13721.00	91.050	331.850	6514.17	6747.23	5793.46	-3534.46	1670962.43	14253967.62	39°15'09.765"N	80°53'31.551"W	6786.50	328.614	0.21	-0.19	-0.09	
13815.00	91.080	333.800	6512.43	6841.15	5877.06	-3577.38	1670919.53	14254051.20	39°15'10.592"N	80°53'32.096"W	6880.22	328.671	2.07	0.03	2.07	
13910.00	90.680	331.540	6510.97	6936.07	5961.44	-3620.99	1670875.94	14254135.54	39°15'11.427"N	80°53'32.649"W	6974.98	328.725	2.42	-0.42	-2.38	





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Hattie Unit 3H
Field	Doddridge	Wellbore	Hattie Unit 3H AWB
Facility	Stanley Pad		

**WELLPATH DATA (228 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
14004.00	91.540	330.450	6509.15	7029.85	6043.64	-3666.56	1670830.39	14254217.70	39°15'12.240"N	80°53'33.227"W	7068.89	328.756	1.48	0.91	-1.16	
14098.00	91.200	332.430	6506.90	7123.66	6126.17	-3711.48	1670785.48	14254300.20	39°15'13.056"N	80°53'33.797"W	7162.75	328.791	2.14	-0.36	2.11	
14193.00	90.890	330.170	6505.17	7218.46	6209.48	-3757.09	1670739.89	14254383.48	39°15'13.880"N	80°53'34.375"W	7257.64	328.824	2.40	-0.33	-2.38	
14287.00	90.490	331.490	6504.03	7312.23	6291.55	-3802.90	1670694.10	14254465.52	39°15'14.692"N	80°53'34.956"W	7351.58	328.849	1.47	-0.43	1.40	
14382.00	90.830	337.470	6502.94	7407.18	6377.24	-3843.81	1670653.21	14254551.17	39°15'15.639"N	80°53'35.475"W	7446.07	328.921	6.30	0.36	6.29	
14477.00	90.920	340.390	6501.49	7501.91	6465.87	-3877.95	1670619.07	14254639.76	39°15'16.415"N	80°53'35.908"W	7539.62	329.046	3.07	0.09	3.07	
14571.00	88.830	340.010	6501.69	7595.48	6554.30	-3909.79	1670587.25	14254728.16	39°15'17.290"N	80°53'36.311"W	7631.87	329.183	2.26	-2.22	-0.40	
14665.00	90.800	341.170	6502.00	7688.99	6642.95	-3941.03	1670556.02	14254816.78	39°15'18.166"N	80°53'36.707"W	7724.02	329.321	2.43	2.10	1.23	
14760.00	90.950	341.440	6500.55	7783.36	6732.93	-3971.48	1670525.59	14254906.72	39°15'19.056"N	80°53'37.093"W	7816.97	329.465	0.33	0.16	0.28	
14855.00	91.380	339.880	6498.61	7877.84	6822.55	-4002.93	1670494.15	14254996.30	39°15'19.942"N	80°53'37.491"W	7910.16	329.599	1.70	0.45	-1.64	
14950.00	91.110	337.900	6496.55	7972.57	6911.15	-4037.14	1670459.96	14255084.87	39°15'20.818"N	80°53'37.925"W	8003.90	329.709	2.10	-0.28	-2.08	
15045.00	91.080	338.020	6494.73	8067.41	6999.19	-4072.78	1670424.33	14255172.87	39°15'21.689"N	80°53'38.377"W	8097.91	329.805	0.13	-0.03	0.13	
15140.00	91.080	338.450	6492.94	8162.30	7086.77	-4109.53	1670387.59	14255260.42	39°15'22.555"N	80°53'38.843"W	8192.10	329.891	1.65	0.00	-1.65	
15235.00	91.170	334.720	6491.08	8257.27	7173.25	-4148.79	1670348.35	14255346.87	39°15'23.410"N	80°53'39.340"W	8286.62	329.956	1.82	0.09	-1.82	
15330.00	91.020	333.010	6489.26	8352.23	7258.52	-4190.63	1670306.53	14255432.10	39°15'24.253"N	80°53'39.871"W	8381.38	330.000	1.81	-0.16	-1.80	
15425.00	90.800	329.470	6487.75	8447.03	7341.78	-4236.32	1670260.85	14255515.33	39°15'25.077"N	80°53'40.451"W	8476.33	330.014	3.73	-0.23	-3.73	
15520.00	91.020	329.140	6486.25	8541.58	7423.46	-4284.81	1670212.38	14255596.97	39°15'25.885"N	80°53'41.066"W	8571.31	330.007	0.42	0.23	-0.35	
15615.00	90.800	329.330	6484.74	8636.12	7505.08	-4333.40	1670163.81	14255678.56	39°15'26.692"N	80°53'41.682"W	8666.29	329.998	0.31	-0.23	0.20	
15710.00	90.920	332.150	6483.31	8730.87	7587.94	-4379.82	1670117.41	14255761.39	39°15'27.511"N	80°53'42.271"W	8761.26	330.006	2.97	0.13	2.97	
15805.00	90.830	335.130	6481.86	8825.83	7673.04	-4421.99	1670075.25	14255846.46	39°15'28.353"N	80°53'42.806"W	8856.05	330.045	3.14	-0.09	3.14	
15899.00	90.710	336.420	6480.60	8919.80	7758.76	-4460.56	1670036.70	14255932.14	39°15'29.201"N	80°53'43.295"W	8949.58	330.105	1.38	-0.13	1.37	
15994.00	90.770	337.760	6479.37	9014.72	7846.25	-4497.54	1669999.74	14256019.60	39°15'30.066"N	80°53'43.764"W	9043.87	330.178	1.41	0.06	1.41	
16089.00	91.170	337.430	6477.76	9109.59	7934.07	-4533.74	1669963.55	14256107.38	39°15'30.934"N	80°53'44.223"W	9138.07	330.255	0.55	0.42	-0.35	
16183.00	90.280	337.420	6476.57	9203.48	8020.86	-4569.82	1669927.48	14256194.13	39°15'31.793"N	80°53'44.680"W	9231.33	330.328	0.95	-0.95	-0.01	
16277.00	90.430	337.620	6475.99	9297.37	8107.72	-4605.77	1669891.55	14256280.95	39°15'32.651"N	80°53'45.136"W	9324.60	330.400	0.27	0.16	0.21	
16372.00	90.680	336.100	6475.07	9392.30	8195.07	-4643.10	1669854.24	14256368.27	39°15'33.515"N	80°53'45.609"W	9418.99	330.465	1.62	0.26	-1.60	
16467.00	90.310	334.720	6474.25	9487.29	8281.44	-4682.62	1669814.73	14256454.61	39°15'34.369"N	80°53'46.111"W	9513.64	330.515	1.50	-0.39	-1.45	
16562.00	90.220	332.910	6473.81	9582.27	8366.69	-4724.54	1669772.82	14256539.83	39°15'35.212"N	80°53'46.642"W	9608.48	330.547	1.91	-0.09	-1.91	
16656.00	90.150	333.470	6473.50	9676.23	8450.59	-4766.94	1669730.44	14256623.69	39°15'36.042"N	80°53'47.180"W	9702.38	330.573	0.60	-0.07	0.60	
16751.00	90.370	334.240	6473.07	9771.22	8535.86	-4808.80	1669688.60	14256708.93	39°15'36.885"N	80°53'47.711"W	9797.22	330.605	0.84	0.23	0.81	





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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03/08/2019

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Hattie Unit 3H
Field	Doddridge	Wellbore	Hattie Unit 3H AWB
Facility	Stanley Pad		

## WELLPATH DATA (228 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
16845.00	90.400	336.490	6472.44	9865.20	8621.30	-4847.98	1669649.44	14256794.33	39°15'37.730"N	80°53'48.208"W	9860.89	330.650	2.39	0.03	2.39	
16940.00	90.220	337.140	6471.93	9960.14	8708.63	-4885.38	1669612.05	14256881.62	39°15'38.594"N	80°53'48.682"W	9985.35	330.708	0.71	-0.19	0.68	
17036.00	90.150	335.120	6471.62	10056.11	8796.41	-4924.23	1669573.22	14256969.37	39°15'39.462"N	80°53'49.175"W	10080.91	330.760	2.11	-0.07	-2.10	
17131.00	90.060	335.170	6471.44	10151.11	8882.61	-4964.16	1669533.31	14257055.54	39°15'40.314"N	80°53'49.681"W	10175.64	330.801	0.11	-0.09	0.05	
17226.00	90.250	336.010	6471.19	10246.10	8969.12	-5003.42	1669494.06	14257142.01	39°15'41.170"N	80°53'50.179"W	10270.31	330.845	0.91	0.20	0.88	
17321.00	90.060	336.230	6470.93	10341.07	9055.98	-5041.87	1669455.62	14257228.84	39°15'42.029"N	80°53'50.667"W	10364.91	330.893	0.31	-0.20	0.23	
17416.00	89.940	336.550	6470.93	10436.03	9143.03	-5079.92	1669417.59	14257315.86	39°15'42.890"N	80°53'51.149"W	10459.48	330.943	0.36	-0.13	0.34	
17512.00	90.060	336.370	6470.93	10531.99	9231.04	-5118.26	1669379.26	14257403.83	39°15'43.760"N	80°53'51.635"W	10555.04	330.993	0.23	0.12	-0.19	
17607.00	90.000	337.920	6470.88	10626.91	9318.58	-5155.16	1669342.38	14257491.34	39°15'44.625"N	80°53'52.103"W	10649.49	331.048	1.63	-0.06	1.63	
17702.00	89.880	337.650	6470.98	10721.78	9406.53	-5191.08	1669306.48	14257579.25	39°15'45.495"N	80°53'52.568"W	10743.84	331.107	0.31	-0.13	-0.28	
17797.00	90.030	334.460	6471.05	10816.74	9493.34	-5229.63	1669267.94	14257666.03	39°15'46.354"N	80°53'53.047"W	10838.48	331.151	3.36	0.16	-3.36	
17892.00	90.030	332.340	6471.00	10911.71	9578.28	-5272.16	1669225.42	14257750.93	39°15'47.194"N	80°53'53.587"W	10933.40	331.170	2.23	0.00	-2.23	
17987.00	89.940	329.410	6471.03	11006.48	9661.26	-5318.40	1669179.21	14257833.88	39°15'48.014"N	80°53'54.173"W	11028.39	331.168	3.09	-0.09	-3.08	
18083.00	89.850	329.450	6471.21	11102.06	9743.92	-5367.22	1669130.40	14257916.50	39°15'48.832"N	80°53'54.793"W	11124.34	331.153	0.10	-0.09	0.04	
18178.00	89.820	329.130	6471.48	11196.62	9825.60	-5415.74	1669081.91	14257998.15	39°15'49.640"N	80°53'55.409"W	11219.29	331.137	0.34	-0.03	-0.34	
18273.00	89.910	329.040	6471.70	11291.15	9907.10	-5464.55	1669033.12	14258079.62	39°15'50.446"N	80°53'56.028"W	11314.23	331.120	0.13	0.09	-0.09	
18366.00	89.820	329.660	6471.92	11383.74	9987.11	-5511.96	1668985.73	14258159.59	39°15'51.237"N	80°53'56.630"W	11407.19	331.105	0.67	-0.10	0.67	
18390.00	89.820	329.660	6472.00	11407.64	10007.82	-5524.08	1668973.61	14258180.30	39°15'51.442"N	80°53'56.784"W	11431.18	331.102	0.00	0.00	0.00	Projected MD at TD: 18390'





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Hattie Unit 3H
Field	Doddridge	Wellbore	Hattie Unit 3H AWB
Facility	Stanley Pad		

## HOLE & CASING SECTIONS - Ref Wellbore: Hattie Unit 3H AWB Ref Wellpath: Hattie Unit 3H AWP Proj: 18390'

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	25.00	105.00	80.00	25.00	105.00	0.00	0.00	0.00	-0.15
17.5in Open Hole	105.00	564.60	459.60	105.00	564.58	0.53	-0.15	3.51	-2.16
13.375in Casing Surface	25.00	564.60	539.60	25.00	564.58	0.00	0.00	3.51	-2.16
12.25in Open Hole	564.60	2598.30	2033.70	564.58	2597.03	3.51	-2.16	-26.16	-21.58
9.625in Casing Intermediate	25.00	2598.30	2573.30	25.00	2597.03	0.00	0.00	-26.16	-21.58
8.75in Open Hole	2598.30	6248.00	3649.70	2597.03	6130.40	-26.16	-21.58	-753.80	-413.22
8.5in Open Hole	6248.00	18390.00	12142.00	6130.40	6472.00	-753.80	-413.22	10007.82	-5524.08
5.5in Casing Production	25.00	18390.00	18365.00	25.00	6472.00	0.00	0.00	10007.82	-5524.08

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Hattie Unit 3H POE Rev-2	6575.00	-303.02	-673.23	1673822.51	14247873.59	39°14'09.474"N	80°52'55.281"W	point
Hattie Unit 3H BHL Rev-2	6595.00	10014.53	-5503.70	1668993.98	14258187.01	39°15'51.508"N	80°53'56.524"W	point
Hattie Unit 3H LP Rev-2	6595.00	-133.81	-734.14	1673761.63	14248042.73	39°14'11.147"N	80°52'56.052"W	point





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Hattie Unit 3H
Field	Doddridge	Wellbore	Hattie Unit 3H AWB
Facility	Stanley Pad		

WELLPATH COMPOSITION - Ref Wellbore: Hattie Unit 3H AWB Ref Wellpath: Hattie Unit 3H AWP Proj: 18390'			
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment
25.00	549.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(50-549)
549.00	2532.00	ISCWSA MWD, Rev. 4 (Standard)	02 Panther EM <12-1/4">(549)-(588'-2532')
2532.00	6188.00	ISCWSA MWD, Rev. 4 (Standard)	03 Panther EM <8-3/4">(2532)-(2641'-6188')
6188.00	18366.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(6188)-(6221'-18366)
18366.00	18390.00	Blind Drilling (std)	Projection to bit
			Hattie Unit 3H AWB
			Hattie Unit 3H AWB
			Hattie Unit 3H AWB
			Hattie Unit 3H AWB





# Actual Wellpath Report

Hattie Unit 3H AWP Proj: 18390'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Slot	Slot #01	
ANTERO RESOURCES CORPORATION	Well	Hattie Unit 3H	
Doddridge Co., WW	Wellbore	Hattie Unit 3H AWB	
Doddridge			
Stanley Pad			

COMMENTS
<p><b>Wellpath general comments</b>            API: 47-017-06837-0000            BHI Job #: 109393757            Rig: Patterson 342            Duration: 09/20/2018-09/23/2018            Gyrodata MS Gyro &lt;17-1/2"&gt; (50'-549')            Panther EM &lt;12-1/4"&gt; (549')(588-2532')            Panther EM &lt;8-3/4"&gt; (2532')(2641'-6188')            BH AT Curve &lt;8-1/2"&gt; (6188')(6221'-18366')            Middlesex: 6577' MD            Burkett: 6787' MD            Tully: 6879' MD            Marcellus POE: 6984' MD            Projected MD at TD: 18390'</p>