

ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: McKim Pad
 Slot: Slot #03
 Well: All Unit 3H
 Wellbore: All Unit 3H PWB

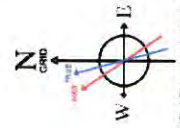
Plot reference wellpath is All Unit 3H PWB Rev#8.0	Grid System: NAD27 / UTM Zones 17 North, US feet
True vertical depths are referenced to Frontier 32 (RKB)	North Reference: Grid north
Measured depths are referenced to Frontier 32 (RKB)	Scale: True distance
Frontier 32 (RKB) to Mean Sea Level: 1204 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #03): -1172 feet	Created by: delast on 2018-01-04
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Dein

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
McKim Pad	1654145.557	14302231.123	80°57'05.090"W
Slot	Local N (ft)	Grid East (US ft)	Longitude
Slot #03	-19.22	1654151.061	80°57'05.010"W
Frontier 32 (RKB) to Ground level (At Slot: Slot #03)	32ft		
Mean Sea Level to Ground level (At Slot: Slot #03)	-1172ft		
Frontier 32 (RKB) to Mean Sea Level	1204ft		

Well Profile Data					
Design Comment	MD (ft)	Incl (°)	Az (°)	TVD (ft)	VS (ft)
The Oh	6550.00	45.810	169.930	6275.66	-411.07
Proj. To Bottom	6633.00	51.620	167.000	6330.41	-349.59
End of 3D Arc	6834.15	86.359	153.218	6431.02	-176.66
POE	6917.18	72.275	158.918	6459.00	-8.00
Landing Pt.	7138.76	90.000	158.918	6493.00	-1243.45
BHL	20036.60	90.000	158.918	8493.87	13017.27

Well Data		
Slot	Well	Wellpath
Slot #03	All Unit 3H	All Unit 3H AVE# Proj. 20053
Slot #03	All Unit 3H	All Unit 3H PWB Rev#8.0

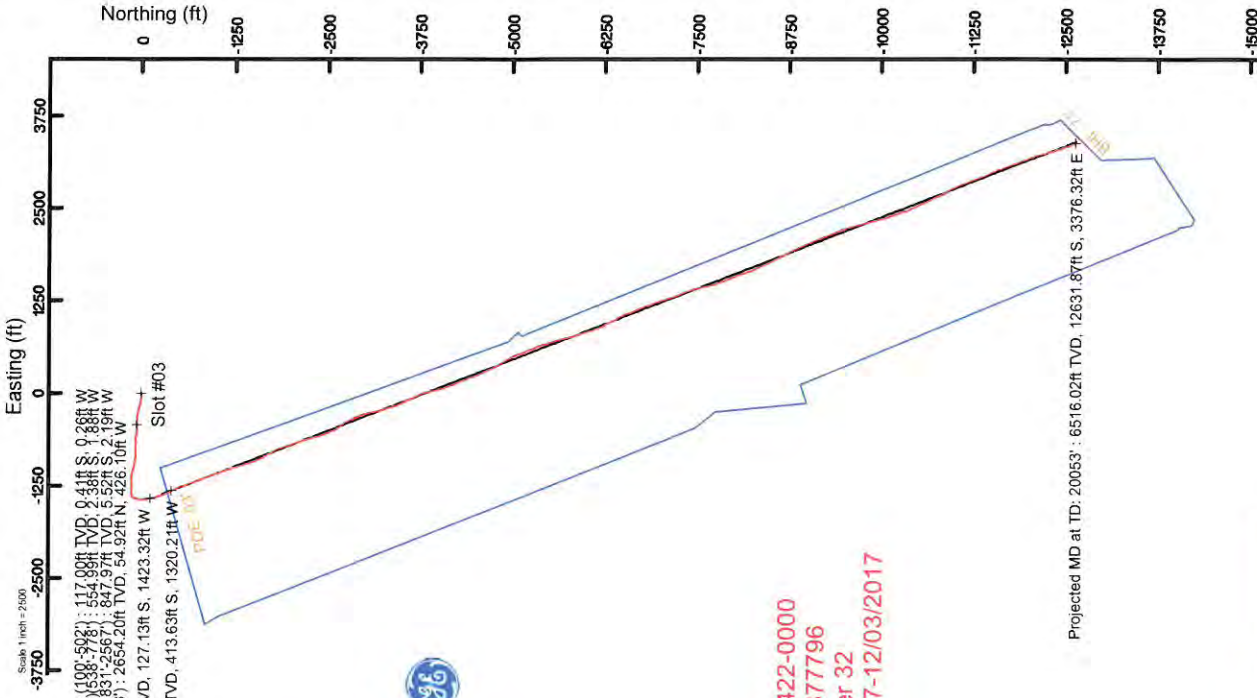
Gyrodota MS Gyro <17-1/2"> (100°-502') : 0.66° Inc. 117.00ft MD, 117.00ft TVD, 0.29ft VS
 Gyrodota MS Gyro <12-1/4"> (502°\538°-778') : 0.38° Inc. 555.00ft MD, 554.99ft TVD, 1.54ft VS
 Directional ONE MWD <12-1/4"> (778°\831°-2567') : 1.20° Inc. 848.00ft MD, 847.97ft TVD, 4.37ft VS
 Directional ONE MWD <8-3/4"> (2567°\2695°-6533') : 14.39° Inc. 2712.00ft MD, 2654.20ft TVD, -204.50ft VS



User specified Dip: 66.61° Field: 51912 nT
 Magnetic North is 7.73 degrees West of True North (at 11/26/2017)
 To correct azimuth from True to Grid subtract 0.03 degrees
 To correct azimuth from Magnetic to Grid subtract 7.76 degrees

BH AT Curve <8-1/2"> (6550°\6575°-20029') : 48.82° Inc. 6575.00ft MD, 6292.63ft TVD, -393.31ft VS
 Marcellus POE: 6925° MD : 72.16° Inc. 6925.00ft MD, 6456.36ft TVD, -88.89ft VS

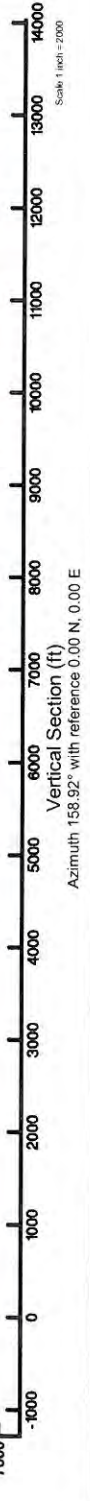
Projected MD at TD: 20053° : 89.97° Inc. 20053.00ft MD, 6516.02ft TVD, 13000.90ft VS



Gyrodota MS Gyro <17-1/2"> (100°-502') : 117.00ft TVD, 0.41ft S, 0.26ft W
 Gyrodota MS Gyro <12-1/4"> (502°\538°-778') : 554.99ft TVD, 2.38ft S, 1.88ft W
 Directional ONE MWD <12-1/4"> (778°\831°-2567') : 847.97ft TVD, 5.52ft S, 2.19ft W
 Directional ONE MWD <8-3/4"> (2567°\2695°-6533') : 2654.20ft TVD, 54.92ft S, 426.10ft W
 BH AT Curve <8-1/2"> (6550°\6575°-20029') : 6292.93ft TVD, 127.13ft S, 1423.32ft W
 Marcellus POE: 6925° MD : 6456.36ft TVD, 413.63ft S, 1320.21ft W



API: 47-095-02422-0000
 BHI Job #: 8877796
 Rig: Frontier 32
 Duration: 11/29/2017-12/03/2017



Projected MD at TD: 20053° : 89.97° Inc. 20053.00ft MD, 6516.02ft TVD, 13000.90ft VS

Azimuth 158.92° with reference 0.00 N, 0.00 E



Actual Wellpath Report

Aili Unit 3H AWP Proj: 20053'
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05/03/2019

REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	McKim Pad
Slot	Slot #03
Well	Aili Unit 3H
Wellbore	Aili Unit 3H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999600
Convergence at slot	0.03° East
Software System	WellArchitect® 5.1
User	Delaset
Report Generated	1/4/2019 at 6:19:08 PM
Database/Source file	WA_MPL_EasternUS_Defm/Aili_Unit_3H_AWP_Proj_20053_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-19.22	5.51	1654151.06	14302311.91	39°23'07.920"N	80°57'05.010"W
Facility Reference Pt			1654145.56	14302331.12	39°23'08.110"N	80°57'05.080"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Frontier 32 (RKB)
MD Reference Pt	Frontier 32 (RKB)
Field Vertical Reference	Mean Sea Level
	Frontier 32 (RKB) to Facility Vertical Datum
	Frontier 32 (RKB) to Mean Sea Level
	Frontier 32 (RKB) to Ground Level at Slot (Slot #03)
	Section Origin
	Section Azimuth
	32.00ft
	1204.00ft
	32.00ft
	N 0.00, E 0.00 ft
	158.92°



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053'
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Slot	Slot #03
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Wellbore	Alli Unit 3H AWB

WELLPATH DATA (241 stations) † = interpolated/extrapolated station																
MD Inclin (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00	0.00	212.210	0.00	0.00	0.00	0.00	1654151.06	14302311.91	39°23'07.920"N	80°57'05.010"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.00	212.210	32.00	0.00	0.00	0.00	1654151.06	14302311.91	39°23'07.920"N	80°57'05.010"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.660	212.210	117.00	0.29	-0.41	-0.26	1654150.80	14302311.50	39°23'07.916"N	80°57'05.013"W	0.49	212.210	0.78	0.78	-173.87	Syrodala MS Gyro <17-1/2"> (100'-502')
217.00	0.560	237.330	216.99	0.74	-1.17	-0.98	1654150.08	14302310.75	39°23'07.908"N	80°57'05.022"W	1.52	220.043	0.28	-0.10	25.12	
317.00	0.270	223.330	316.99	0.94	-1.60	-1.55	1654149.51	14302310.31	39°23'07.904"N	80°57'05.030"W	2.23	224.125	0.31	-0.25	-14.00	
417.00	0.150	170.400	416.99	1.17	-1.90	-1.69	1654149.37	14302310.01	39°23'07.901"N	80°57'05.032"W	2.55	221.675	0.22	-0.12	-52.93	
517.00	0.260	223.810	516.99	1.39	-2.19	-1.83	1654149.23	14302309.72	39°23'07.898"N	80°57'05.033"W	2.86	219.795	0.21	0.11	53.41	
519.00	0.260	222.130	518.99	1.39	-2.20	-1.83	1654149.23	14302309.71	39°23'07.898"N	80°57'05.033"W	2.86	219.805	0.38	0.00	-84.00	
555.00	0.380	177.030	554.99	1.54	-2.38	-1.88	1654149.18	14302309.53	39°23'07.896"N	80°57'05.033"W	3.03	218.337	0.75	0.33	-125.28	Syrodala MS Gyro <12-1/4"> (502')(538'-778')
645.00	0.600	173.230	644.98	2.28	-3.15	-1.81	1654144.56	14302308.77	39°23'07.889"N	80°57'05.033"W	3.63	209.929	0.25	0.24	-4.22	
704.00	0.720	173.750	703.98	2.94	-3.82	-1.73	1654149.33	14302308.09	39°23'07.882"N	80°57'05.032"W	4.20	204.412	0.20	0.20	0.88	
795.00	0.740	179.830	794.97	4.04	-4.98	-1.67	1654149.39	14302306.93	39°23'07.871"N	80°57'05.031"W	5.25	198.552	0.09	0.02	6.68	
848.00	1.200	248.290	847.97	4.37	-5.52	-2.19	1654148.88	14302306.39	39°23'07.865"N	80°57'05.038"W	5.94	201.578	2.18	0.87	129.17	Directional ONE MWD <12-1/4"> (778')(831'-2567')
936.00	4.520	273.000	935.85	2.96	-5.68	-6.51	1654144.56	14302306.23	39°23'07.864"N	80°57'05.093"W	8.64	228.852	3.94	3.77	28.08	
1027.00	6.890	279.530	1026.39	-1.28	-4.59	-15.47	1654135.60	14302307.32	39°23'07.875"N	80°57'05.207"W	16.14	253.465	2.70	2.60	7.18	
1115.00	7.530	276.390	1113.70	-6.63	-3.08	-26.41	1654124.67	14302308.83	39°23'07.890"N	80°57'05.346"W	26.59	263.353	0.85	0.73	-3.57	
1203.00	7.840	272.160	1200.91	-11.65	-2.21	-38.13	1654112.94	14302309.70	39°23'07.898"N	80°57'05.496"W	38.20	266.684	0.73	0.35	-4.81	
1292.00	7.800	272.600	1289.08	-16.48	-1.71	-50.23	1654100.85	14302310.20	39°23'07.903"N	80°57'05.650"W	50.26	268.054	0.08	-0.04	0.49	
1380.00	9.050	278.900	1376.13	-22.33	-0.36	-63.04	1654088.05	14302311.55	39°23'07.917"N	80°57'05.813"W	63.04	269.668	1.76	1.42	7.16	
1468.00	10.790	279.260	1462.81	-29.95	2.03	-78.01	1654073.09	14302313.94	39°23'07.940"N	80°57'06.003"W	78.03	271.492	1.98	1.98	0.41	
1557.00	12.600	278.500	1549.96	-38.95	4.81	-95.83	1654055.27	14302316.72	39°23'07.968"N	80°57'06.230"W	95.95	272.872	2.04	2.03	-0.85	
1645.00	15.270	281.690	1635.36	-49.97	8.57	-116.68	1654034.43	14302320.48	39°23'08.005"N	80°57'06.496"W	116.99	274.203	3.16	3.03	3.62	
1733.00	17.550	284.520	1719.77	-63.96	14.25	-140.87	1654010.25	14302326.15	39°23'08.062"N	80°57'06.804"W	141.59	275.776	2.74	2.55	3.22	
1821.00	17.500	285.160	1803.69	-79.51	21.04	-166.48	1653984.64	14302332.94	39°23'08.129"N	80°57'07.130"W	167.81	277.202	0.23	-0.06	0.73	
1909.00	18.530	286.460	1887.37	-95.85	28.46	-192.67	1653958.47	14302340.36	39°23'08.202"N	80°57'07.464"W	194.76	278.402	1.26	1.17	1.48	
1998.00	18.990	285.080	1971.65	-113.01	36.23	-220.21	1653930.94	14302348.13	39°23'08.279"N	80°57'07.814"W	223.17	279.344	0.72	0.52	-1.55	
2086.00	19.300	281.250	2054.78	-129.24	42.80	-248.30	1653902.86	14302354.69	39°23'08.344"N	80°57'08.172"W	251.96	279.779	1.47	0.35	-4.35	
2174.00	19.510	279.850	2137.78	-144.57	48.15	-277.04	1653874.13	14302360.04	39°23'08.397"N	80°57'08.538"W	281.19	279.859	0.58	0.24	-1.59	
2262.00	18.670	276.130	2220.95	-158.56	52.16	-305.53	1653845.66	14302364.05	39°23'08.437"N	80°57'08.901"W	309.95	279.689	1.68	-0.95	-4.23	
2351.00	18.710	274.340	2305.25	-171.20	54.77	-333.92	1653817.27	14302366.65	39°23'08.463"N	80°57'09.262"W	338.39	279.314	0.65	0.04	-2.01	



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053'
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REFERENCE WELLPATH IDENTIFICATION	
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Area	Tyler County, WV
Field	Tyler
Facility	McKim Pad
Slot	Slot #03
Well	Alli Unit 3H
Wellbore	Alli Unit 3H AWB

WELLPATH DATA (241 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
2439.00	14.250	269.260	2389.62	-181.03	55.70	-358.84	1653792.36	14302367.58	39°23'08.472"N	80°57'09.580"W	363.14	278.822	5.32	-5.07	-5.77	
2527.00	14.050	267.060	2474.95	-188.12	55.01	-380.34	1653770.88	14302366.90	39°23'08.466"N	80°57'09.854"W	384.30	278.229	0.65	-0.23	-2.50	
2584.00	14.390	268.030	2530.21	-192.60	54.41	-394.33	1653756.89	14302366.30	39°23'08.460"N	80°57'10.032"W	398.06	277.856	0.73	0.60	1.70	
2712.00	14.390	273.830	2654.20	-204.50	54.92	-426.10	1653725.14	14302366.81	39°23'08.465"N	80°57'10.436"W	429.62	277.345	1.13	0.00	4.53	Directional ONE MWD <-8-3/4"> (2567)-(2695)-(6533')
2800.00	13.440	270.080	2739.61	-212.80	55.67	-447.23	1653704.01	14302367.56	39°23'08.473"N	80°57'10.706"W	450.68	277.095	1.49	-1.08	-4.26	
2888.00	14.440	270.680	2825.02	-220.56	55.81	-468.43	1653682.82	14302367.70	39°23'08.474"N	80°57'10.976"W	471.75	276.795	1.15	1.14	0.68	
2977.00	16.020	273.760	2910.89	-229.83	56.75	-491.78	1653659.47	14302368.64	39°23'08.483"N	80°57'11.590"W	495.05	276.581	1.99	1.78	3.46	
3065.00	17.090	279.160	2995.25	-241.45	59.61	-516.67	1653634.60	14302371.49	39°23'08.512"N	80°57'11.273"W	520.10	276.672	2.18	2.13	6.14	
3153.00	18.960	277.720	3078.93	-254.85	63.59	-543.60	1653607.68	14302375.47	39°23'08.551"N	80°57'11.933"W	547.31	276.672	2.18	2.13	-1.64	
3241.00	20.800	275.950	3161.68	-268.84	67.13	-573.31	1653577.98	14302379.01	39°23'08.586"N	80°57'12.311"W	577.23	276.678	2.20	2.09	-2.01	
3329.00	20.030	273.040	3244.16	-282.10	69.54	-603.90	1653547.40	14302381.43	39°23'08.610"N	80°57'12.701"W	607.89	276.569	1.45	-0.88	-3.31	
3418.00	17.950	267.610	3328.31	-292.72	69.78	-632.83	1653518.48	14302381.66	39°23'08.613"N	80°57'13.069"W	636.67	276.292	3.06	-2.34	-6.10	
3506.00	18.380	269.060	3411.93	-301.85	68.99	-660.25	1653491.07	14302380.87	39°23'08.605"N	80°57'13.418"W	663.85	275.965	0.71	0.49	1.65	
3594.00	18.190	275.820	3495.49	-312.84	70.15	-687.79	1653463.54	14302382.04	39°23'08.617"N	80°57'13.769"W	691.36	275.824	2.42	-0.22	7.68	
3682.00	16.760	272.070	3579.43	-324.04	72.00	-714.14	1653437.21	14302383.89	39°23'08.635"N	80°57'14.105"W	717.76	275.758	2.07	-1.62	-4.26	
3770.00	18.010	270.790	3663.41	-334.10	72.65	-740.42	1653410.94	14302384.53	39°23'08.642"N	80°57'14.439"W	743.98	275.604	1.49	1.42	-1.45	
3858.00	17.230	270.340	3747.28	-343.92	72.92	-767.06	1653384.31	14302384.80	39°23'08.645"N	80°57'14.779"W	770.52	275.430	0.90	-0.89	-0.51	
3946.00	15.890	274.140	3831.63	-353.82	73.86	-792.11	1653359.27	14302385.24	39°23'08.654"N	80°57'15.098"W	795.55	275.327	1.96	-1.52	4.32	
4034.00	15.080	263.090	3916.46	-361.76	73.35	-815.49	1653335.89	14302385.74	39°23'08.658"N	80°57'15.396"W	818.79	275.140	3.47	-0.92	-12.56	
4122.00	14.810	272.920	4001.49	-369.13	72.55	-838.09	1653313.30	14302386.43	39°23'08.641"N	80°57'15.683"W	841.23	274.948	2.89	-0.31	11.17	
4211.00	15.560	275.350	4087.39	-379.07	74.24	-861.34	1653290.07	14302386.12	39°23'08.658"N	80°57'15.979"W	864.53	274.926	1.11	0.84	2.73	
4299.00	16.310	280.510	4172.01	-390.80	77.60	-885.24	1653266.17	14302389.48	39°23'08.691"N	80°57'16.284"W	888.64	275.010	1.82	0.85	5.86	
4387.00	16.770	279.750	4256.37	-403.78	82.00	-909.99	1653241.52	14302393.88	39°23'08.735"N	80°57'16.598"W	913.59	275.150	0.58	0.52	-0.86	
4475.00	15.520	276.280	4340.90	-415.70	85.44	-934.12	1653217.32	14302397.32	39°23'08.769"N	80°57'16.906"W	938.02	275.226	1.79	-1.42	-3.94	
4564.00	16.010	277.990	4426.55	-427.13	88.45	-968.11	1653193.34	14302400.32	39°23'08.799"N	80°57'17.212"W	962.18	275.274	0.76	0.55	1.92	
4652.00	15.660	280.820	4511.21	-439.31	92.36	-981.79	1653169.66	14302404.24	39°23'08.838"N	80°57'17.513"W	986.13	275.374	0.96	-0.40	3.22	
4740.00	17.540	284.500	4595.54	-453.30	97.91	-1006.30	1653145.16	14302409.79	39°23'08.893"N	80°57'17.826"W	1011.05	275.557	2.45	2.14	4.18	
4828.00	19.550	283.460	4678.97	-469.36	104.66	-1033.46	1653118.02	14302416.53	39°23'08.960"N	80°57'18.171"W	1038.75	275.783	2.31	2.28	-1.18	
4916.00	18.600	283.690	4762.14	-485.72	111.41	-1061.42	1653090.07	14302423.28	39°23'09.027"N	80°57'18.527"W	1067.25	275.992	1.08	-1.08	0.26	
5005.00	20.120	284.520	4846.10	-502.72	118.61	-1090.03	1653061.47	14302430.47	39°23'09.098"N	80°57'18.892"W	1096.46	276.210	1.74	1.71	0.93	



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Alli Unit 3H
Area	Tyler County, WV	Wellbore	Alli Unit 3H AWB
Field	Tyler		
Facility	McKim Pad		

WELLPATH DATA (241 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
5093.00	19.480	279.200	4928.91	-518.93	124.75	-1119.17	1653032.34	14302436.61	39°23'09.159"N	80°57'19.263"W	1126.10	276.360	2.17	-0.73	-6.03	
5181.00	18.260	277.000	5012.18	-532.82	128.78	-1147.34	1653004.19	14302440.63	39°23'09.199"N	80°57'19.622"W	1154.54	276.404	1.60	-1.39	-2.50	
5270.00	18.400	268.100	5096.68	-544.00	130.01	-1175.22	1652976.31	14302441.87	39°23'09.211"N	80°57'19.977"W	1182.39	276.313	3.15	0.16	-10.00	
5358.00	17.960	267.010	5180.28	-552.78	128.84	-1202.65	1652948.90	14302440.70	39°23'09.200"N	80°57'20.326"W	1209.53	276.115	0.63	-0.50	-1.24	
5446.00	15.680	272.000	5264.52	-561.65	128.55	-1228.09	1652923.47	14302440.41	39°23'09.197"N	80°57'20.650"W	1234.80	275.976	3.06	-2.59	5.67	
5535.00	15.260	270.700	5350.29	-570.72	129.11	-1251.82	1652899.75	14302440.97	39°23'09.202"N	80°57'20.952"W	1258.46	275.889	0.61	-0.47	-1.46	
5623.00	15.950	272.870	5435.05	-579.92	129.86	-1279.46	1652876.10	14302441.72	39°23'09.210"N	80°57'21.253"W	1282.07	275.813	1.03	0.78	2.47	
5711.00	15.610	274.150	5519.73	-589.88	131.32	-1295.37	1652852.22	14302443.18	39°23'09.225"N	80°57'21.568"W	1305.98	275.771	0.55	-0.39	1.45	
5800.00	16.290	277.610	5605.31	-600.97	133.84	-1323.68	1652827.92	14302446.70	39°23'09.260"N	80°57'22.331"W	1330.43	275.774	1.31	0.76	3.89	
5888.00	16.080	271.360	5689.83	-611.55	135.71	-1348.09	1652803.51	14302447.62	39°23'09.269"N	80°57'22.178"W	1354.91	275.751	1.99	-0.24	-7.10	
5932.00	15.820	259.800	5732.14	-615.01	134.85	-1360.09	1652791.52	14302446.70	39°23'09.266"N	80°57'22.476"W	1366.76	275.662	7.23	-0.59	-26.27	
6020.00	16.070	234.460	5816.83	-614.22	125.58	-1381.93	1652769.69	14302437.44	39°23'09.168"N	80°57'22.609"W	1377.77	275.475	7.89	-0.23	-29.09	
6065.00	17.700	225.700	5859.90	-609.97	117.18	-1391.90	1652759.72	14302429.05	39°23'09.085"N	80°57'22.736"W	1387.63	275.193	7.83	0.80	-28.50	
6109.00	19.510	220.630	5901.60	-603.85	106.94	-1401.47	1652750.15	14302418.80	39°23'08.984"N	80°57'22.858"W	1405.54	274.363	5.51	4.11	-11.52	
6153.00	21.180	216.050	5942.85	-596.05	94.93	-1410.93	1652740.70	14302406.80	39°23'08.865"N	80°57'22.979"W	1414.12	273.849	5.24	3.80	-10.41	
6197.00	23.430	208.410	5983.57	-586.05	80.81	-1419.78	1652731.86	14302392.68	39°23'08.726"N	80°57'23.092"W	1422.07	273.257	8.33	5.11	-17.36	
6241.00	25.050	200.220	6023.70	-573.37	64.36	-1427.16	1652724.47	14302376.25	39°23'08.563"N	80°57'23.186"W	1428.61	272.582	8.47	3.68	-18.61	
6285.00	27.090	192.900	6063.23	-558.05	45.85	-1432.62	1652719.02	14302357.74	39°23'08.380"N	80°57'23.255"W	1433.35	271.833	8.65	4.64	-16.64	
6329.00	30.540	187.310	6101.78	-539.90	24.99	-1436.28	1652715.36	14302336.89	39°23'08.174"N	80°57'23.302"W	1436.50	270.997	9.94	7.84	-12.70	
6374.00	33.090	182.930	6140.03	-518.62	1.37	-1438.36	1652713.28	14302313.28	39°23'07.941"N	80°57'23.329"W	1438.36	270.055	7.64	5.67	-9.73	
6418.00	36.230	176.750	6176.22	-495.25	-23.62	-1438.24	1652713.40	14302288.30	39°23'07.694"N	80°57'23.327"W	1438.43	269.059	10.70	7.14	-14.05	
6462.00	39.280	172.910	6211.01	-469.35	-50.43	-1438.24	1652715.86	14302261.50	39°23'07.429"N	80°57'23.296"W	1436.67	267.988	8.75	6.93	-8.73	
6506.00	42.840	170.900	6244.19	-441.19	-79.04	-1431.70	1652719.94	14302232.91	39°23'07.146"N	80°57'23.244"W	1433.88	266.840	8.63	8.09	-4.57	
6550.00	45.810	169.930	6275.66	-411.07	-109.35	-1426.57	1652725.06	14302202.61	39°23'06.846"N	80°57'23.179"W	1430.75	266.617	6.92	6.75	-2.20	
6575.00	46.820	169.380	6292.93	-393.31	-127.13	-1423.32	1652728.31	14302184.83	39°23'06.671"N	80°57'23.138"W	1428.99	264.896	4.34	4.04	-2.20	BH AT Curve <8-1/2"> (6550)(6575-20029)
6610.00	49.810	167.770	6316.20	-367.54	-152.74	-1418.14	1652733.49	14302159.23	39°23'06.418"N	80°57'23.072"W	1426.34	263.853	9.21	8.54	-4.60	
6633.00†	51.914	166.615	6330.72	-349.89	-170.14	-1414.18	1652737.45	14302141.84	39°23'06.246"N	80°57'23.022"W	1424.38	263.140	9.94	9.15	-5.02	Middlesex: 6633 MD
6666.00	54.950	165.070	6350.38	-323.58	-195.83	-1407.69	1652743.93	14302116.16	39°23'05.992"N	80°57'22.939"W	1421.25	262.080	9.94	9.20	-4.68	
6713.00	60.350	163.080	6375.52	-284.05	-233.99	-1396.78	1652754.84	14302078.01	39°23'05.614"N	80°57'22.801"W	1416.25	260.490	12.03	11.49	-4.23	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Alli Unit 3H
Area	Tyler County, WV	Wellbore	Alli Unit 3H AWB
Field	Tyler		
Facility	McKim Pad		

WELLPATH DATA (241 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
6760.00	65.520	161.120	6396.90	-242.28	-273.80	-1383.91	1652767.71	14302038.22	39°23'05.221"N	80°57'22.637"W	1410.73	258.809	11.61	11.00	-4.17	
6807.00	68.580	157.580	6415.23	-199.02	-314.28	-1368.64	1652782.97	14301997.76	39°23'04.821"N	80°57'22.443"W	1404.26	257.068	9.51	6.51	-7.53	
6833.00†	68.521	155.576	6424.74	-174.84	-336.48	-1359.02	1652792.59	14301975.57	39°23'04.601"N	80°57'22.320"W	1400.05	256.094	7.18	-0.23	-7.71	Burkett: 6833' MD
6855.00	68.490	153.880	6432.80	-154.42	-354.99	-1350.28	1652801.32	14301957.06	39°23'04.418"N	80°57'22.209"W	1396.16	255.270	7.18	-0.14	-7.71	
6896.00†	70.638	152.681	6447.11	-116.19	-389.30	-1333.00	1652818.59	14301922.76	39°23'04.079"N	80°57'21.989"W	1388.69	253.720	5.91	5.24	-2.92	Tully: 6896' MD
6924.00	72.110	151.880	6456.06	-89.84	-412.79	-1320.66	1652830.93	14301899.29	39°23'03.847"N	80°57'21.832"W	1383.67	252.643	5.91	5.26	-2.86	
6925.00†	72.160	151.920	6456.36	-88.89	-413.63	-1320.21	1652831.38	14301896.45	39°23'03.839"N	80°57'21.827"W	1383.49	252.604	6.29	4.99	4.03	Marcellus POE: 6925' MD
6949.00	73.360	152.880	6463.48	-66.12	-433.94	-1309.60	1652841.99	14301878.14	39°23'03.638"N	80°57'21.692"W	1379.62	251.667	6.29	5.00	4.00	
6996.00	76.420	156.560	6475.73	-20.88	-474.96	-1290.23	1652861.35	14301837.14	39°23'03.232"N	80°57'21.445"W	1374.88	249.790	9.98	6.51	7.83	
7044.00	81.690	158.310	6484.84	26.21	-518.47	-1272.16	1652879.41	14301793.65	39°23'02.802"N	80°57'21.215"W	1373.76	247.827	11.55	10.98	3.65	
7090.00	85.320	159.420	6490.04	71.91	-561.09	-1255.69	1652895.88	14301751.04	39°23'01.919"N	80°57'21.006"W	1375.35	245.923	8.25	7.89	2.41	
7140.00	88.000	159.630	6492.96	121.82	-607.85	-1238.23	1652913.33	14301704.31	39°23'01.919"N	80°57'20.784"W	1379.38	243.854	5.38	5.36	0.42	
7185.00	89.260	160.760	6494.03	166.79	-650.17	-1222.99	1652928.57	14301662.00	39°23'01.500"N	80°57'20.590"W	1385.07	242.004	3.76	2.80	2.51	
7234.00	90.490	161.430	6494.14	215.75	-696.53	-1207.11	1652944.43	14301615.66	39°23'01.042"N	80°57'20.388"W	1385.65	240.014	2.86	2.51	1.37	
7329.00	89.970	157.420	6493.76	310.73	-785.45	-1173.73	1652977.80	14301526.78	39°23'00.163"N	80°57'19.963"W	1412.30	236.210	4.26	-0.55	-4.22	
7425.00	89.910	159.540	6493.86	406.72	-874.75	-1138.52	1653013.00	14301437.51	39°22'59.280"N	80°57'19.516"W	1435.76	232.464	2.21	-0.06	2.21	
7520.00	90.220	160.120	6493.75	501.71	-963.93	-1105.76	1653045.74	14301348.37	39°22'58.399"N	80°57'19.099"W	1466.92	228.920	0.69	0.33	0.61	
7615.00	90.250	159.630	6493.36	596.69	-1053.12	-1073.08	1653078.42	14301259.21	39°22'57.577"N	80°57'18.683"W	1503.52	225.538	0.52	0.03	-0.52	
7709.00	89.910	159.710	6493.23	690.69	-1141.27	-1040.42	1653111.06	14301171.10	39°22'56.646"N	80°57'18.268"W	1544.33	222.353	0.37	-0.38	0.09	
7804.00	90.180	164.070	6493.15	785.53	-1231.54	-1010.90	1653140.57	14301080.86	39°22'55.753"N	80°57'17.892"W	1593.30	219.380	4.60	0.28	4.59	
7899.00	90.460	161.140	6492.86	880.17	-1322.82	-984.58	1653166.87	14300989.62	39°22'54.851"N	80°57'17.558"W	1649.02	216.660	0.32	0.00	-0.32	
7993.00	90.550	158.980	6491.49	1068.96	-1412.44	-956.25	1653195.20	14300900.04	39°22'53.965"N	80°57'17.198"W	1705.70	214.099	2.81	0.30	-2.80	
8088.00	90.550	158.980	6491.49	1068.96	-1501.74	-923.85	1653227.58	14300810.78	39°22'53.082"N	80°57'16.786"W	1763.16	211.599	2.28	0.09	-2.27	
8182.00	90.250	155.020	6490.84	1162.88	-1588.25	-887.13	1653264.28	14300724.30	39°22'52.227"N	80°57'16.319"W	1819.21	209.186	4.22	-0.32	-4.21	
8277.00	90.250	151.540	6490.42	1257.41	-1673.09	-844.43	1653306.97	14300639.50	39°22'51.388"N	80°57'15.775"W	1874.11	206.781	3.66	0.00	-3.66	
8372.00	89.230	150.710	6490.85	1351.53	-1756.27	-798.55	1653352.83	14300556.34	39°22'50.566"N	80°57'15.192"W	1929.30	204.451	1.38	-1.07	-0.87	
8466.00	90.060	157.550	6491.44	1445.14	-1840.80	-757.56	1653393.80	14300471.85	39°22'49.730"N	80°57'14.670"W	1990.59	202.369	7.33	0.88	7.28	
8561.00	90.370	161.200	6491.08	1540.12	-1929.70	-724.10	1653427.25	14300382.99	39°22'48.851"N	80°57'14.245"W	2061.08	200.568	3.86	0.33	3.84	
8655.00	90.250	160.190	6490.57	1634.07	-2018.41	-693.03	1653458.31	14300294.31	39°22'47.975"N	80°57'13.849"W	2134.07	198.950	1.08	-0.13	-1.07	
8750.00	90.180	162.610	6490.22	1728.97	-2108.44	-662.72	1653488.60	14300204.32	39°22'47.085"N	80°57'13.464"W	2210.14	197.449	2.55	-0.07	2.55	



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Alli Unit 3H
Area	Tyler County, WV	Wellbore	Alli Unit 3H AWB
Field	Tyler		
Facility	McKim Pad		

WELLPATH DATA (241 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
8845.00	90.280	162.140	6489.83	1823.80	-2198.98	-633.97	1653517.35	143000113.82	39°22'46.190"N	80°57'13.098"W	2288.54	196.082	0.51	0.11	-0.49	
8939.00	90.340	162.910	6489.33	1917.61	-2288.64	-605.74	1653545.56	14300024.19	39°22'45.303"N	80°57'12.740"W	2367.44	194.825	0.82	0.06	0.82	
9034.00	90.710	164.010	6488.45	2012.31	-2379.70	-578.70	1653572.60	14299933.16	39°22'44.403"N	80°57'12.396"W	2449.05	193.668	1.22	0.39	1.16	
9130.00	89.970	159.550	6487.88	2108.16	-2470.86	-548.69	1653602.59	14299842.04	39°22'43.502"N	80°57'12.014"W	2531.05	192.520	4.71	-0.77	-4.65	
9224.00	90.150	155.690	6487.79	2202.12	-2557.77	-512.91	1653638.36	14299755.17	39°22'42.643"N	80°57'11.559"W	2608.69	191.339	4.11	0.19	-4.11	
9319.00	89.940	148.100	6487.71	2296.34	-2641.50	-468.18	1653683.07	14299671.47	39°22'41.815"N	80°57'10.990"W	2682.67	190.051	7.99	-0.22	-7.99	
9414.00	89.780	146.200	6487.94	2389.34	-2721.31	-416.65	1653734.57	14299591.70	39°22'41.026"N	80°57'10.335"W	2753.02	188.705	2.01	-0.17	-2.00	
9509.00	89.750	152.360	6488.33	2482.95	-2802.94	-368.15	1653783.06	14299510.10	39°22'40.219"N	80°57'09.717"W	2827.01	187.483	6.48	-0.03	6.48	
9603.00	89.110	156.280	6489.27	2576.62	-2887.63	-327.42	1653823.77	14299425.44	39°22'39.382"N	80°57'09.199"W	2906.14	186.469	4.23	-0.68	4.17	
9698.00	89.690	160.400	6490.26	2671.59	-2975.90	-292.37	1653858.81	14299337.21	39°22'38.508"N	80°57'08.754"W	2990.23	185.611	4.38	0.61	4.34	
9792.00	90.090	167.920	6490.45	2765.13	-3066.26	-266.73	1653884.44	14299246.88	39°22'37.616"N	80°57'08.428"W	3077.84	184.972	8.01	0.43	8.00	
9887.00	91.140	170.400	6489.43	2858.61	-3159.56	-248.87	1653902.29	14299153.62	39°22'36.694"N	80°57'08.201"W	3169.34	184.504	2.83	1.11	2.61	
9981.00	90.060	162.120	6488.44	2951.75	-3250.78	-226.56	1653924.59	14299062.44	39°22'35.792"N	80°57'07.917"W	3258.67	183.987	8.88	-1.15	-8.81	
10075.00	89.450	162.210	6488.84	3045.60	-3340.26	-197.77	1653953.37	14298972.99	39°22'34.907"N	80°57'07.551"W	3346.11	183.388	0.66	-0.65	0.10	
10170.00	89.820	159.170	6489.45	3140.54	-3429.90	-166.36	1653984.77	14298883.38	39°22'34.021"N	80°57'07.152"W	3433.94	182.777	3.22	0.39	-3.20	
10265.00	89.910	155.290	6489.67	3235.48	-3517.48	-129.60	1654021.51	14298795.84	39°22'33.155"N	80°57'06.684"W	3519.87	182.110	4.09	0.09	-4.08	
10360.00	90.120	154.130	6489.65	3330.22	-3603.38	-89.02	1654062.08	14298709.98	39°22'32.306"N	80°57'06.168"W	3604.48	181.415	1.24	0.22	-1.22	
10454.00	89.630	156.070	6489.85	3424.01	-3688.63	-49.44	1654101.64	14298624.76	39°22'31.463"N	80°57'05.665"W	3688.97	180.768	2.13	-0.52	2.06	
10549.00	89.600	159.160	6490.49	3518.97	-3776.46	-13.27	1654137.80	14298536.96	39°22'30.595"N	80°57'05.205"W	3776.49	180.201	3.25	-0.03	3.23	
10643.00	89.910	165.210	6490.89	3612.77	-3865.91	15.48	1654166.53	14298447.55	39°22'29.711"N	80°57'04.839"W	3865.94	179.771	6.44	0.33	6.44	
10738.00	90.000	167.060	6490.97	3707.01	-3958.14	38.24	1654189.29	14298355.36	39°22'28.799"N	80°57'04.550"W	3958.33	179.446	1.95	0.09	1.95	
10832.00	90.030	164.600	6490.94	3800.32	-4049.27	61.25	1654212.29	14298264.26	39°22'27.898"N	80°57'04.258"W	4049.74	179.133	2.62	0.03	-2.62	
10927.00	89.970	158.490	6490.94	3895.18	-4139.35	91.31	1654242.33	14298174.23	39°22'27.008"N	80°57'03.876"W	4140.35	178.736	6.43	-0.06	-6.43	
11021.00	89.970	156.870	6490.99	3989.15	-4226.30	127.01	1654278.02	14298087.31	39°22'26.148"N	80°57'03.422"W	4228.21	178.279	1.72	0.00	-1.72	
11116.00	89.910	159.040	6491.09	4084.13	-4314.35	162.66	1654313.66	14297999.29	39°22'25.278"N	80°57'02.968"W	4317.41	177.841	2.29	-0.06	2.28	
11210.00	89.850	159.600	6491.29	4178.13	-4402.29	195.86	1654346.84	14297911.39	39°22'24.409"N	80°57'02.546"W	4406.65	177.453	0.60	-0.06	0.60	
11305.00	89.940	159.750	6491.46	4273.12	-4491.38	228.86	1654379.83	14297822.34	39°22'23.528"N	80°57'02.127"W	4497.20	177.083	0.18	0.09	0.16	
11399.00	89.970	156.110	6491.54	4367.09	-4578.47	264.17	1654415.12	14297735.28	39°22'22.667"N	80°57'01.678"W	4586.09	176.698	3.87	0.03	-3.87	
11494.00	89.910	154.450	6491.63	4461.90	-4664.77	303.90	1654454.83	14297649.02	39°22'21.814"N	80°57'01.172"W	4674.65	176.273	1.75	-0.06	-1.75	
11588.00	90.030	153.490	6491.68	4555.55	-4749.23	345.15	1654496.07	14297564.59	39°22'20.979"N	80°57'00.648"W	4761.75	175.843	1.03	0.13	-1.02	



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	McKim Pad
Slot	Slot #03
Well	Alli Unit 3H
Wellbore	Alli Unit 3H AWB

WELLPATH DATA (241 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
11683.00	90.060	150.510	6491.61	4649.84	-4833.10	389.74	1654540.65	14297480.75	39°22'20.150"N	80°57'00.080"W	4848.79	175.390	3.14	0.03	-3.14	
11777.00	89.850	148.650	6491.68	4742.59	-4914.16	437.33	1654588.22	14297399.73	39°22'19.348"N	80°56'59.475"W	4933.58	174.914	1.99	-0.22	-1.98	
11871.00	89.820	152.240	6491.95	4835.55	-4995.91	483.69	1654634.56	14297318.01	39°22'18.540"N	80°56'58.885"W	5019.27	174.470	3.82	-0.03	3.82	
11967.00	89.820	158.130	6492.26	4931.30	-5083.01	523.97	1654674.82	14297230.94	39°22'17.679"N	80°56'58.373"W	5109.94	174.115	6.14	0.00	6.14	
12061.00	89.940	158.620	6492.45	5025.30	-5170.39	558.61	1654709.44	14297143.59	39°22'16.815"N	80°56'57.933"W	5200.48	173.834	0.54	0.13	0.52	
12156.00	90.000	158.980	6492.50	5120.30	-5258.96	592.96	1654743.78	14297055.06	39°22'15.939"N	80°56'57.486"W	5292.29	173.567	0.38	0.06	0.38	
12251.00	89.660	159.540	6492.78	5215.30	-5347.81	626.60	1654777.41	14296966.25	39°22'15.061"N	80°56'57.068"W	5384.39	173.317	0.69	-0.36	0.59	
12346.00	89.690	162.140	6493.32	5310.23	-5437.53	657.78	1654808.58	14296876.56	39°22'14.174"N	80°56'56.672"W	5477.18	173.102	2.74	0.03	2.74	
12441.00	89.690	163.490	6493.84	5405.01	-5528.29	685.85	1654836.63	14296785.84	39°22'13.277"N	80°56'56.315"W	5570.67	172.928	1.42	0.00	1.42	
12535.00	89.750	164.290	6494.30	5498.66	-5618.60	711.93	1654862.70	14296695.57	39°22'12.384"N	80°56'55.983"W	5663.52	172.779	0.85	0.06	0.85	
12630.00	89.750	164.310	6494.71	5593.24	-5710.05	737.64	1654888.40	14296604.15	39°22'11.480"N	80°56'55.657"W	5757.50	172.639	0.02	0.00	0.02	
12725.00	89.720	162.340	6495.71	5782.56	-5892.40	790.95	1654941.69	14296421.87	39°22'10.577"N	80°56'55.328"W	5851.48	172.503	0.26	-0.09	-0.24	
12820.00	89.660	162.050	6496.23	5877.40	-5982.85	820.00	1654970.73	14296331.46	39°22'09.678"N	80°56'54.979"W	5945.25	172.355	1.83	0.06	-1.83	
12915.00	89.780	162.350	6496.69	5972.25	-6073.30	849.04	1654999.76	14296241.05	39°22'07.889"N	80°56'54.241"W	6038.78	172.196	0.31	-0.06	-0.31	
13010.00	89.750	158.450	6497.08	6066.20	-6161.84	880.57	1655031.27	14296152.55	39°22'07.014"N	80°56'53.840"W	6132.36	172.042	0.34	0.13	0.32	
13104.00	89.660	153.900	6497.57	6161.06	-6248.72	918.93	1655069.62	14296065.70	39°22'06.155"N	80°56'53.352"W	6224.44	171.867	4.15	-0.03	-4.15	
13294.00	89.630	151.990	6498.16	6255.54	-6333.32	962.14	1655112.81	14295981.14	39°22'05.319"N	80°56'52.803"W	6315.93	171.634	4.79	-0.09	-4.79	
13389.00	89.720	151.910	6498.69	6349.84	-6417.16	1006.81	1655157.47	14295897.33	39°22'04.490"N	80°56'52.235"W	6405.98	171.362	2.01	-0.03	-2.01	
13483.00	89.720	156.950	6499.15	6443.52	-6501.92	1047.37	1655198.01	14295812.60	39°22'03.652"N	80°56'51.719"W	6495.66	171.083	0.13	0.09	-0.08	
13578.00	89.660	157.060	6500.12	6531.48	-6590.03	1082.88	1655233.51	14295724.53	39°22'02.781"N	80°56'51.267"W	6585.74	170.849	5.36	0.00	5.36	
13671.00	89.720	157.960	6500.64	6626.45	-6676.31	1117.57	1655268.18	14295638.28	39°22'01.928"N	80°56'50.826"W	6678.40	170.668	2.31	0.00	2.31	
13766.00	89.660	160.040	6501.14	6820.44	-6851.83	1187.59	1655304.51	14295550.55	39°22'01.060"N	80°56'50.364"W	6769.20	170.497	2.24	-0.06	-2.24	
13860.00	89.660	160.370	6501.70	6914.42	-6940.28	1219.43	1655338.18	14295462.83	39°22'00.193"N	80°56'49.936"W	6861.80	170.319	0.95	0.06	0.95	
13954.00	89.630	162.900	6502.30	7010.30	-7031.38	1249.67	1655370.00	14295374.42	39°21'59.318"N	80°56'49.531"W	6953.99	170.167	2.21	-0.06	2.21	
14050.00	89.630	162.900	6502.30	7010.30	-7031.38	1249.67	1655400.23	14295283.36	39°21'58.418"N	80°56'49.147"W	7046.59	170.035	0.35	0.00	0.35	
14144.00	89.880	160.700	6502.70	7104.18	-7120.67	1279.03	1655429.57	14295194.10	39°21'57.535"N	80°56'48.774"W	7141.56	169.922	2.64	-0.03	2.64	
14240.00	89.690	159.870	6503.06	7200.15	-7211.04	1311.41	1655461.95	14295103.77	39°21'56.642"N	80°56'48.362"W	7234.63	169.817	2.36	0.27	-2.34	
14335.00	89.510	157.710	6503.72	7295.14	-7299.60	1345.78	1655496.30	14295015.25	39°21'55.766"N	80°56'47.925"W	7329.32	169.693	0.89	-0.20	-0.86	
14430.00	89.940	161.210	6504.18	7390.12	-7388.54	1379.10	1655529.61	14294926.34	39°21'54.887"N	80°56'47.502"W	7422.62	169.554	2.28	-0.19	-2.27	
											7516.15	169.427	3.71	0.45	3.68	



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Alli Unit 3H
Area	Tyler County, WV	Wellbore	Alli Unit 3H AWB
Field	Tyler		
Facility	McKim Pad		

WELLPATH DATA (241 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
14524.00	89.910	162.870	6504.30	7483.98	-7477.96	1408.09	1655558.58	14294836.96	39°21'54.003"N	80°56'47.133"W	7609.38	169.336	1.77	-0.03	1.77	
14619.00	89.720	169.640	6504.61	7578.14	-7570.18	1430.65	1655581.13	14294744.77	39°21'53.092"N	80°56'46.847"W	7704.18	169.298	7.13	-0.20	7.13	
14715.00	89.720	166.260	6505.08	7672.94	-7664.05	1450.69	1655601.16	14294650.93	39°21'52.164"N	80°56'46.592"W	7800.14	169.282	3.52	0.00	-3.52	
14810.00	89.630	161.510	6505.62	7767.55	-7755.29	1477.05	1655627.51	14294559.73	39°21'51.262"N	80°56'46.257"W	7894.70	169.217	5.00	-0.09	-5.00	
14904.00	89.600	158.190	6506.25	7861.53	-7843.53	1509.42	1655659.88	14294471.53	39°21'50.389"N	80°56'45.846"W	7987.44	169.107	3.53	-0.03	-3.53	
14999.00	89.720	158.170	6506.81	7956.52	-7931.72	1544.73	1655695.17	14294383.38	39°21'49.518"N	80°56'45.397"W	8080.74	168.979	0.13	0.13	-0.02	
15094.00	89.630	158.190	6507.35	8051.51	-8019.91	1580.04	1655730.47	14294295.22	39°21'48.646"N	80°56'44.948"W	8174.08	168.855	0.10	-0.09	0.02	
15188.00	89.720	159.950	6507.89	8145.50	-8107.70	1613.62	1655764.03	14294207.46	39°21'47.778"N	80°56'44.521"W	8266.72	168.744	1.87	0.10	1.87	
15283.00	89.880	160.610	6508.22	8240.47	-8197.13	1645.67	1655796.07	14294118.07	39°21'46.894"N	80°56'44.114"W	8360.69	168.648	0.71	0.17	0.69	
15378.00	89.970	157.490	6508.34	8335.46	-8285.84	1679.64	1655830.02	14294029.40	39°21'46.017"N	80°56'43.682"W	8454.37	168.541	3.29	0.09	-3.28	
15473.00	90.000	153.010	6508.37	8430.24	-8372.09	1719.40	1655869.77	14293940.29	39°21'44.317"N	80°56'42.654"W	8546.83	168.394	4.72	0.03	-4.72	
15568.00	90.000	155.710	6508.37	8524.93	-8457.73	1760.50	1655910.86	14293857.58	39°21'43.465"N	80°56'42.148"W	8639.01	168.242	2.84	0.00	2.84	
15663.00	89.780	154.740	6508.55	8619.73	-8543.98	1800.31	1655950.65	14293771.36	39°21'42.630"N	80°56'41.621"W	8731.60	168.101	1.05	-0.23	-1.02	
15757.00	89.850	152.990	6508.85	8713.36	-8628.37	1841.72	1655992.04	14293687.01	39°21'41.792"N	80°56'41.076"W	8822.74	167.951	1.86	0.07	-1.86	
15852.00	89.750	153.390	6509.18	8807.89	-8713.16	1884.57	1656034.87	14293602.29	39°21'40.953"N	80°56'40.535"W	8914.63	167.796	0.43	-0.11	0.42	
15947.00	89.850	153.350	6509.52	8902.44	-8798.08	1927.15	1656077.43	14293517.37	39°21'40.108"N	80°56'40.007"W	9006.67	167.645	0.11	0.11	-0.04	
16042.00	89.880	154.840	6509.74	8997.10	-8883.53	1968.65	1656118.92	14293431.95	39°21'39.255"N	80°56'39.532"W	9099.05	167.505	1.57	0.03	1.57	
16136.00	89.820	158.250	6509.99	9091.01	-8969.75	2006.06	1656156.31	14293345.76	39°21'38.389"N	80°56'39.067"W	9191.34	167.393	3.63	-0.06	3.63	
16231.00	89.880	156.460	6510.23	9185.97	-9057.42	2042.63	1656192.87	14293258.13	39°21'37.517"N	80°56'38.618"W	9284.89	167.291	1.89	0.06	-1.88	
16326.00	89.910	159.940	6510.41	9280.95	-9145.62	2077.91	1656228.14	14293169.97	39°21'36.645"N	80°56'38.205"W	9378.70	167.200	3.66	0.03	3.66	
16420.00	89.880	159.590	6510.58	9374.94	-9233.81	2110.42	1656260.63	14293081.81	39°21'35.770"N	80°56'37.733"W	9471.92	167.126	0.37	-0.03	-0.37	
16516.00	89.940	154.860	6510.73	9470.87	-9322.30	2147.57	1656297.77	14292993.35	39°21'34.909"N	80°56'37.251"W	9566.47	167.027	4.93	0.06	-4.93	
16611.00	89.780	158.170	6510.96	9565.72	-9409.42	2185.43	1656335.61	14292906.27	39°21'34.034"N	80°56'36.849"W	9659.88	166.924	3.49	-0.17	3.48	
16705.00	89.850	162.430	6511.27	9659.72	-9497.90	2217.11	1656367.28	14292817.83	39°21'33.144"N	80°56'36.508"W	9753.24	166.861	4.53	0.07	4.53	
16799.00	89.910	164.360	6511.46	9753.43	-9587.97	2243.97	1656394.13	14292727.79	39°21'32.238"N	80°56'36.188"W	9847.06	166.828	2.05	0.06	2.05	
16894.00	89.940	164.890	6511.59	9847.96	-9679.57	2269.15	1656419.30	14292636.22	39°21'31.339"N	80°56'35.886"W	9941.99	166.807	0.56	0.03	0.56	
16988.00	89.970	165.870	6511.66	9941.36	-9770.53	2292.88	1656443.02	14292545.31	39°21'30.439"N	80°56'35.588"W	10035.96	166.793	1.04	0.03	1.04	
17082.00	89.910	165.150	6511.76	10034.74	-9861.54	2316.40	1656466.53	14292454.33	39°21'29.540"N	80°56'35.286"W	10129.94	166.781	0.77	-0.06	-0.77	
17176.00	89.910	165.580	6511.91	10128.14	-9952.49	2340.15	1656490.27	14292363.42	39°21'28.634"N	80°56'34.970"W	10223.91	166.768	0.46	0.00	0.46	
17271.00	89.850	164.050	6512.11	10222.64	-10044.17	2365.03	1656515.14	14292271.78			10318.85	166.750	1.61	-0.06	-1.61	



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Alli Unit 3H
Area	Tyler County, WV	Wellbore	Alli Unit 3H AWB
Field	Tyler		
Facility	McKim Pad		

WELLPATH DATA (241 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
17366.00	89.940	160.230	6512.28	10317.47	-10134.57	2394.16	1656544.26	14292181.41	39°21'27.740"N	80°56'34.600"W	10413.53	166.708	4.02	0.09	-4.02	
17460.00	89.940	157.870	6512.38	10411.46	-10222.35	2427.77	1656577.86	14292093.66	39°21'26.872"N	80°56'34.173"W	10506.69	166.640	2.51	0.00	-2.51	
17555.00	90.000	163.630	6512.43	10506.38	-10312.00	2459.08	1656609.15	14292004.05	39°21'25.986"N	80°56'33.775"W	10601.16	166.587	6.06	0.06	6.06	
17650.00	89.970	157.000	6512.45	10601.29	-10401.40	2491.06	1656664.12	14291914.69	39°21'25.102"N	80°56'33.368"W	10695.54	166.532	6.98	-0.03	-6.98	
17743.00	89.880	155.830	6512.58	10694.20	-10486.63	2528.27	1656678.32	14291829.49	39°21'24.260"N	80°56'32.995"W	10787.10	166.445	1.26	-0.10	-1.26	
17838.00	89.970	153.750	6512.70	10788.95	-10572.58	2568.73	1656718.76	14291743.58	39°21'23.410"N	80°56'32.381"W	10880.16	166.344	2.19	0.09	-2.19	
17933.00	89.820	156.320	6512.88	10883.73	-10658.70	2608.83	1656758.84	14291657.50	39°21'22.559"N	80°56'31.871"W	10973.32	166.247	2.71	-0.16	2.71	
18027.00	90.030	155.050	6513.00	10977.57	-10744.36	2647.53	1656797.53	14291571.87	39°21'21.712"N	80°56'31.379"W	11065.74	166.157	1.37	0.22	-1.35	
18122.00	89.880	151.760	6513.07	11072.12	-10829.29	2690.06	1656840.04	14291486.97	39°21'20.872"N	80°56'30.838"W	11158.40	166.050	3.48	-0.16	-3.47	
18216.00	90.000	152.120	6513.17	11165.42	-10912.24	2734.28	1656884.25	14291404.06	39°21'20.052"N	80°56'30.276"W	11249.59	165.933	0.41	0.13	0.39	
18311.00	89.910	156.210	6513.25	11260.08	-10997.72	2775.68	1656925.62	14291321.15	39°21'19.207"N	80°56'29.750"W	11342.59	165.835	4.31	-0.09	4.31	
18405.00	89.940	157.700	6513.37	11354.02	-11084.22	2812.47	1656962.40	14291232.15	39°21'18.352"N	80°56'29.282"W	11435.47	165.762	1.59	0.03	1.59	
18499.00	89.910	159.580	6513.49	11448.01	-11171.76	2846.71	1656996.62	14291144.64	39°21'17.486"N	80°56'28.847"W	11528.74	165.705	2.00	-0.03	2.00	
18593.00	89.910	159.780	6513.64	11542.00	-11259.91	2879.35	1657029.25	14291056.53	39°21'16.615"N	80°56'28.432"W	11622.23	165.656	0.21	0.00	0.21	
18688.00	89.910	158.660	6513.79	11637.00	-11348.73	2913.05	1657062.94	14290967.74	39°21'15.737"N	80°56'28.004"W	11716.63	165.604	1.18	0.00	-1.18	
18782.00	89.940	157.120	6513.91	11730.98	-11436.81	2948.43	1657098.31	14290880.69	39°21'14.876"N	80°56'27.554"W	11809.78	165.543	1.64	0.03	-1.64	
18877.00	89.910	156.870	6514.04	11825.93	-11523.26	2985.56	1657135.42	14290793.28	39°21'14.011"N	80°56'27.082"W	11903.74	165.475	0.27	-0.03	-0.26	
18972.00	89.880	158.920	6514.21	11920.91	-11611.27	3021.31	1657171.15	14290705.31	39°21'13.141"N	80°56'26.628"W	11997.91	165.415	2.16	-0.03	2.16	
19067.00	89.940	161.160	6514.36	12015.88	-11700.56	3053.73	1657203.57	14290616.06	39°21'12.259"N	80°56'26.216"W	12092.49	165.373	2.36	0.06	2.36	
19162.00	89.850	159.650	6514.53	12110.85	-11790.05	3085.59	1657235.41	14290526.60	39°21'11.374"N	80°56'25.811"W	12187.13	165.334	1.59	-0.09	-1.59	
19256.00	89.940	159.120	6514.71	12204.85	-11878.03	3118.69	1657268.50	14290438.65	39°21'10.504"N	80°56'25.391"W	12280.63	165.289	0.57	0.10	-0.56	
19351.00	89.880	158.220	6514.86	12299.84	-11966.52	3153.24	1657303.04	14290350.20	39°21'09.629"N	80°56'24.991"W	12375.00	165.238	0.95	-0.06	-0.95	
19445.00	89.820	161.030	6515.10	12393.83	-12054.63	3185.97	1657335.75	14290262.12	39°21'08.758"N	80°56'24.536"W	12468.54	165.196	2.99	-0.06	2.99	
19540.00	89.970	162.420	6515.28	12488.71	-12144.84	3215.76	1657365.53	14290171.95	39°21'07.866"N	80°56'24.157"W	12563.37	165.169	1.47	0.16	1.46	
19635.00	89.840	164.360	6515.35	12583.42	-12235.87	3242.91	1657392.67	14290080.96	39°21'06.966"N	80°56'23.812"W	12658.32	165.156	2.04	-0.03	2.04	
19730.00	89.880	162.590	6515.50	12678.11	-12326.94	3269.93	1657419.68	14289989.92	39°21'06.066"N	80°56'23.469"W	12753.27	165.143	1.86	-0.06	-1.86	
19824.00	89.850	159.990	6515.72	12772.02	-12415.97	3300.08	1657449.82	14289900.93	39°21'05.186"N	80°56'23.086"W	12847.05	165.115	2.77	-0.03	-2.77	
19919.00	89.940	159.580	6515.89	12867.01	-12505.11	3332.91	1657482.63	14289811.82	39°21'04.305"N	80°56'22.669"W	12941.65	165.076	0.44	0.09	-0.43	
20014.00	89.940	161.720	6515.99	12961.96	-12594.74	3364.38	1657514.09	14289722.23	39°21'03.419"N	80°56'22.269"W	13036.36	165.044	2.25	0.00	2.25	
20029.00	89.970	162.290	6516.01	12976.94	-12609.01	3369.02	1657518.73	14289707.97	39°21'03.278"N	80°56'22.210"W	13051.34	165.041	3.81	0.20	3.80	



Actual Wellpath Report

Alii Unit 3H AWP Proj: 20053
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05/03/2019

REFERENCE WELLPATH IDENTIFICATION										
Operator	ANTERO RESOURCES CORPORATION							Slot	Slot #03	
Area	Tyler County, WV							Well	Alii Unit 3H	
Field	Tyler							Wellbore	Alii Unit 3H AWB	
Facility	McKim Pad									

WELLPATH DATA (241 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
20053.00	89.970	162.290	6516.02	13000.90	-12631.87	3376.32	1657526.02	14289685.11	39°21'03.052"N	80°56'22.117"W	13075.31	165.035	0.00	0.00	0.00	Projected MD at TD: 20053'

HOLE & CASING SECTIONS - Ref Wellbore: Alii Unit 3H AWB Ref Wellpath: Alii Unit 3H AWP Proj: 20053'									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	End N/S [ft]	Start E/W [ft]	End E/W [ft]
20in Conductor	32.00	112.00	80.00	32.00	112.00	0.00	0.00	0.00	0.00
17.5in Open Hole	112.00	550.60	438.60	112.00	550.59	-0.37	-2.35	-0.23	-1.88
13.375in Casing Surface	32.00	550.60	518.60	32.00	550.59	0.00	-2.35	0.00	-1.88
12.25in Open Hole	550.60	2658.60	2108.00	550.59	2602.47	-2.35	54.32	-1.88	-412.85
9.625in Casing Intermediate	32.00	2658.60	2626.60	32.00	2602.47	0.00	54.32	0.00	-412.85
8.75in Open Hole	2658.60	6633.00	3974.40	2602.47	6330.72	54.32	-170.14	-412.85	-1414.18
8.5in Open Hole	6633.00	20053.00	13420.00	6330.72	6516.02	-170.14	-12631.87	-1414.18	3376.32
5.5in Casing Production	32.00	20053.00	20021.00	32.00	6516.02	0.00	-12631.87	0.00	3376.32



Actual Wellpath Report

Alii Unit 3H AWP Proj: 20053
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05/03/2019

REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Alii Unit 3H
Field	Tyler	Wellbore	Alii Unit 3H AWB
Facility	McKim Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Alii Unit 3H POE Rev-3	6459.00	-403.84	-1321.88	1652829.71	14301908.23	39°23'03.935"N	80°57'21.848"W	point
Alii Unit 3H BHL Rev-3	6493.00	-12641.88	3395.87	1657545.57	14289675.11	39°21'02.963"N	80°56'21.869"W	point
Alii Unit 3H LP Rev-2	6493.00	-607.30	-1243.45	1652908.11	14301704.85	39°23'01.924"N	80°57'20.850"W	point
Alii Unit 3H 25' L/R Hard Line	6600.00	-6624.59	1076.21	1655226.84	14295689.98	39°22'02.439"N	80°56'51.352"W	rectangle

WELLPATH COMPOSITION - Ref Wellbore: Alii Unit 3H AWB Ref Wellpath: Alii Unit 3H AWP Proj: 20053				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	519.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2"> (100°502')	Alii Unit 3H AWB
519.00	795.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4"> (502)(538'-778')	Alii Unit 3H AWB
795.00	2584.00	ISWISA MWD, Rev. 4 (Standard)	03 Directional ONE MWD <12-1/4"> (778)(831'-2567')	Alii Unit 3H AWB
2584.00	6550.00	ISWISA MWD, Rev. 4 (Standard)	04 Directional ONE MWD <8-3/4"> (2567)(2695'-6533')	Alii Unit 3H AWB
6550.00	20029.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2"> (6550)(6575'-20029)	Alii Unit 3H AWB
20029.00	20053.00	Blind Drilling (sid)	Projection to bit	Alii Unit 3H AWB



Actual Wellpath Report

Alli Unit 3H AWP Proj: 20053
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Alli Unit 3H
Field	Tyler	Wellbore	Alli Unit 3H AWB
Facility	McKim Pad		

COMMENTS

Wellpath general comments
 API: 47-095-02422-0000
 BHI Job #: 8877796
 Rig: Frontier 32
 Duration: 11/29/2017-12/03/2017
 Gyrodatta MS Gyro <17-1/2"> (100'-502')
 Gyrodatta MS Gyro <12-1/4"> (502')(538'-778')
 Directional ONE MWD <12-1/4"> (778')(831'-2567')
 Directional ONE MWD <8-3/4"> (2567')(2695'-6533')
 BH AT Curve <8-1/2"> (6550')(6575'-20029')
 Middlesex: 6633' MD
 Burkett: 6833' MD
 Tully: 6896' MD
 Marcellus POE: 6925' MD
 Projected MD at TD: 20053'