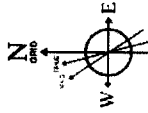




ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
Field: Tyler
Facility: Dale Pad
Slot: Slot #01
Well: Johnston Unit 2H
Wellbore: Johnston_Unit 2H PWB



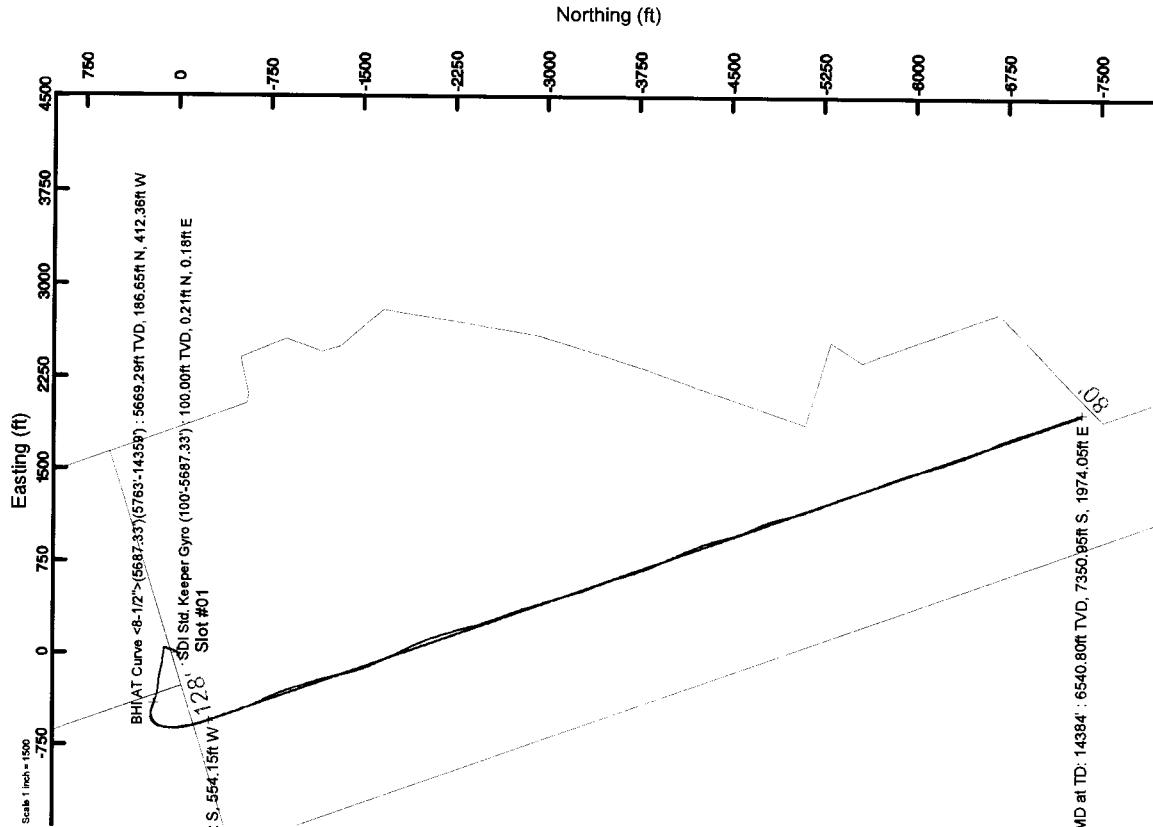
User specified Dip: 68.82° Field: 52188 o.T
Magnetic North is 7.50 degrees West of True North (at 7/9/2016)
Grid North is 0.09 degrees East of True North
To correct azimuth from Magnetic to Grid subtract 7.59 degrees

SDI Std. Keeper Gyro (100'-5687.33') : 0.40° Inc, 100.00ft TVD, 100.00ft TVD, -0.14ft VS

Well Information			
Well	Wellbore	Wellpath	
Slot #01	Johnston Unit 2H	Johnston Unit 2H AWB	Johnston Unit 2H AWB Proj. 14384
Slot #01	Johnston Unit 2H	Johnston Unit 2H PWB	Johnston Unit 2H PWB Rev-A.0

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Dale Pad	1679131.080	14319219.570	80°51'46.413"W
Slot	Local E (ft)	Grid East (US ft)	Longitude
Slot #01	49.65	1679229.240	80°51'45.190"W
Slot #01	98.19	14319269.200	39°25'55.329"N
Comment:	Johnston Unit 2H		
PD 523 (RXB) to Mud line (At Slot: Slot #01)		19ft	
Mean Sea Level to Mud line (At Slot: Slot #01)		-1017ft	
PD 523 (RXB) to Mean Sea Level		1036ft	

API #: 47-095-02306-0000
BHI Job #: 8047120
Rig: PD 523
Duration: 07.11.2016-07.13.2016



11/10/2017



Actual Wellpath Report

Johnston Unit 2H AWP Proj: 14384'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Date Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Hareluk
Scale	0.999602	Report Generated	7/29/2016 at 9:57:57 AM
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Johnston_Unit_2H_AWP_Proj_14384_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	49.65	98.19	1679229.24	14319269.20	39°25'55.329"N	80°51'45.160"W
Facility Reference Pt			1679131.09	14319219.57	39°25'54.840"N	80°51'46.413"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	PD 523 (RKB) to Facility Vertical Datum	19.00ft
Horizontal Reference Pt	Slot	PD 523 (RKB) to Mean Sea Level	1036.00ft
Vertical Reference Pt	PD 523 (RKB)	PD 523 (RKB) to Mud Line at Slot (Slot #01)	19.00ft
MD Reference Pt	PD 523 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.47°



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Daie Pad		

WELLPATH DATA (342 stations) † = interpolated/extrapolated station																
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)	(US ft)	(US ft)	(°)	(°)	(ft)	(°)	(%/100ft)	(%/100ft)	(%/100ft)	
0.00	0.00	40.710	0.00	0.00	0.00	0.00	1679229.24	14319289.20	39°25'55.329"N	80°51'45.160"W	0.00	0.000	0.00	0.00	0.00	
19.00	0.00	40.710	19.00	0.00	0.00	0.00	1679229.24	14319289.20	39°25'55.329"N	80°51'45.160"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.40	40.710	100.00	-0.14	0.21	0.18	1679229.42	14319289.41	39°25'55.331"N	80°51'45.158"W	0.28	40.710	0.49	0.49	50.28	SDI Std. Keeper Gyro (100'.5687.33')
125.00	0.32	359.790	125.00	-0.25	0.35	0.24	1679229.42	14319289.55	39°25'55.333"N	80°51'45.157"W	0.43	34.537	1.05	-0.32	-163.68	
150.00	0.31	32.240	150.00	-0.37	0.49	0.26	1679229.60	14319289.69	39°25'55.334"N	80°51'45.157"W	0.55	27.691	0.28	-0.04	49.80	
175.00	0.28	14.510	175.00	-0.48	0.61	0.28	1679229.52	14319289.81	39°25'55.335"N	80°51'45.157"W	0.67	24.976	0.13	-0.12	9.05	
200.00	0.30	32.630	200.00	-0.57	0.73	0.34	1679229.58	14319289.93	39°25'55.336"N	80°51'45.156"W	0.80	24.806	0.37	0.08	72.45	
225.00	0.20	335.990	225.00	-0.66	0.82	0.35	1679229.59	14319270.02	39°25'55.337"N	80°51'45.156"W	0.89	23.271	1.01	-0.40	-226.56	
250.00	0.24	8.360	250.00	-0.75	0.91	0.34	1679229.58	14319270.11	39°25'55.338"N	80°51'45.156"W	0.97	20.593	0.51	0.16	129.48	
275.00	0.08	18.610	275.00	-0.81	0.98	0.36	1679229.60	14319270.18	39°25'55.339"N	80°51'45.156"W	1.04	19.951	0.65	-0.64	41.00	
300.00	0.13	97.730	300.00	-0.81	0.99	0.39	1679229.63	14319270.19	39°25'55.339"N	80°51'45.155"W	1.07	21.417	0.56	0.20	316.48	
325.00	0.19	77.260	325.00	-0.79	1.00	0.46	1679229.70	14319270.20	39°25'55.339"N	80°51'45.154"W	1.10	24.644	0.33	0.24	-81.88	
350.00	0.17	124.210	350.00	-0.75	0.99	0.53	1679229.77	14319270.19	39°25'55.339"N	80°51'45.154"W	1.12	28.203	0.58	-0.08	187.80	
375.00	0.13	168.920	375.00	-0.70	0.94	0.57	1679229.81	14319270.14	39°25'55.339"N	80°51'45.153"W	1.10	31.072	0.48	-0.16	178.84	
400.00	0.11	166.250	400.00	-0.64	0.89	0.58	1679229.82	14319270.09	39°25'55.338"N	80°51'45.153"W	1.06	33.019	0.08	-0.08	-10.68	
425.00	0.12	142.270	425.00	-0.59	0.84	0.60	1679229.84	14319270.04	39°25'55.338"N	80°51'45.153"W	1.03	35.359	0.20	0.04	-95.92	
450.00	0.14	135.450	450.00	-0.54	0.80	0.64	1679229.88	14319270.00	39°25'55.337"N	80°51'45.152"W	1.02	38.449	0.10	0.08	-27.28	
475.00	0.09	162.930	475.00	-0.49	0.76	0.66	1679229.90	14319269.96	39°25'55.337"N	80°51'45.152"W	1.01	41.091	0.29	-0.20	109.92	
500.00	0.08	223.140	500.00	-0.47	0.73	0.66	1679229.90	14319269.93	39°25'55.336"N	80°51'45.152"W	0.98	42.029	0.34	-0.04	240.84	
525.00	0.14	22.080	525.00	-0.44	0.70	0.67	1679229.91	14319269.90	39°25'55.336"N	80°51'45.152"W	0.97	43.788	0.70	0.24	-404.24	
550.00	0.18	63.700	550.00	-0.42	0.70	0.73	1679229.97	14319269.90	39°25'55.336"N	80°51'45.151"W	1.01	46.236	0.64	0.16	-233.52	
575.00	0.12	31.060	575.00	-0.44	0.74	0.78	1679230.02	14319269.94	39°25'55.337"N	80°51'45.150"W	1.08	46.499	0.41	-0.24	-130.56	
600.00	0.46	51.490	600.00	-0.49	0.83	0.87	1679230.11	14319270.03	39°25'55.337"N	80°51'45.149"W	1.20	46.583	1.40	1.36	81.72	
625.00	1.24	37.660	624.99	-0.67	1.10	1.12	1679230.36	14319270.30	39°25'55.340"N	80°51'45.146"W	1.57	45.364	3.20	3.12	-55.32	
650.00	1.69	34.800	649.99	-1.03	1.62	1.48	1679230.73	14319270.82	39°25'55.345"N	80°51'45.141"W	2.20	42.660	1.82	1.80	-11.44	
675.00	2.07	34.900	674.97	-1.50	2.29	1.96	1679231.20	14319271.49	39°25'55.352"N	80°51'45.135"W	3.02	40.544	1.52	1.52	0.40	
700.00	2.45	33.690	699.95	-2.09	3.11	2.52	1679231.75	14319272.31	39°25'55.360"N	80°51'45.128"W	4.00	38.994	1.53	1.52	-4.84	
725.00	3.26	32.530	724.92	-2.84	4.15	3.19	1679232.43	14319273.35	39°25'55.370"N	80°51'45.120"W	5.24	37.578	3.25	3.24	-4.64	
750.00	3.96	30.560	749.87	-3.84	5.49	4.02	1679233.25	14319274.69	39°25'55.383"N	80°51'45.109"W	6.80	36.163	2.84	2.80	-7.88	
775.00	4.33	31.480	774.81	-4.98	7.04	4.95	1679234.18	14319276.24	39°25'55.399"N	80°51'45.097"W	8.61	35.089	1.50	1.48	3.68	



Actual Wellpath Report

Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #01
Operator	ANTERO RESOURCES CORPORATION	Well	Johnston Unit 2H
Area	Tyler County, WV	Wellbore	Johnston Unit 2H AWB
Field	Tyler		
Facility	Dale Pad		

WELLPATH DATA (342 stations)

MD	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
800.00	4.340	32.200	799.73	-6.16	8.65	5.94	1679235.18	14319277.84	39°25'55.415"N	80°51'45.084"W	10.49	34.504	0.22	0.04	2.88	
825.00	4.440	30.940	824.66	-7.36	10.28	6.95	1679236.18	14319279.47	39°25'55.431"N	80°51'45.072"W	12.40	34.051	0.56	0.40	-5.04	
850.00	4.620	32.120	849.58	-8.61	11.96	7.98	1679237.22	14319281.16	39°25'55.447"N	80°51'45.056"W	14.38	33.706	0.81	0.72	4.72	
875.00	4.620	32.070	874.50	-9.86	13.67	9.05	1679238.28	14319282.86	39°25'55.464"N	80°51'45.045"W	16.39	33.508	0.02	0.00	-0.20	
900.00	4.690	31.350	899.42	-11.11	15.37	10.10	1679239.34	14319284.57	39°25'55.481"N	80°51'45.031"W	18.40	33.312	0.26	-0.12	-2.88	
925.00	4.430	30.650	924.34	-12.36	17.06	11.12	1679240.35	14319286.25	39°25'55.498"N	80°51'45.018"W	20.36	33.090	0.68	-0.64	-2.80	
950.00	4.500	30.060	949.27	-13.62	18.74	12.10	1679241.33	14319287.93	39°25'55.514"N	80°51'45.006"W	22.30	32.851	0.33	0.28	-2.36	
975.00	4.630	30.800	974.19	-14.90	20.45	13.11	1679242.34	14319289.65	39°25'55.531"N	80°51'44.993"W	24.29	32.653	0.57	0.52	2.96	
1000.00	4.680	30.630	999.11	-16.19	22.20	14.14	1679243.38	14319291.39	39°25'55.548"N	80°51'44.980"W	26.32	32.504	0.21	0.20	-0.68	
1025.00	4.470	27.970	1024.03	-17.60	23.94	15.12	1679244.36	14319293.13	39°25'55.566"N	80°51'44.967"W	28.31	32.280	1.19	-0.84	-10.64	
1050.00	4.260	25.170	1048.95	-18.82	25.64	15.97	1679245.94	14319294.83	39°25'55.582"N	80°51'44.955"W	30.21	31.923	1.20	-0.84	-11.20	
1075.00	4.100	19.660	1098.82	-20.17	27.33	16.70	1679245.94	14319296.52	39°25'55.599"N	80°51'44.942"W	32.03	31.492	1.10	-0.20	-14.60	
1100.00	4.010	19.490	1123.76	-22.93	30.69	17.93	1679247.17	14319298.21	39°25'55.616"N	80°51'44.939"W	33.81	30.855	0.70	-0.44	-7.44	
1125.00	4.200	18.700	1148.69	-24.33	32.38	18.52	1679247.75	14319301.57	39°25'55.632"N	80°51'44.931"W	35.55	30.298	0.36	-0.36	-0.68	
1150.00	4.070	18.190	1173.63	-25.75	34.09	19.09	1679248.32	14319303.28	39°25'55.649"N	80°51'44.924"W	37.30	29.763	0.79	0.76	-3.16	
1175.00	4.040	17.820	1198.57	-27.15	35.77	19.64	1679248.87	14319304.96	39°25'55.666"N	80°51'44.916"W	39.07	29.245	0.54	-0.52	-2.04	
1200.00	3.990	16.980	1223.50	-28.55	37.44	20.16	1679249.39	14319306.63	39°25'55.683"N	80°51'44.909"W	40.81	28.761	0.16	-0.12	-1.48	
1225.00	4.050	16.520	1248.44	-29.96	39.12	20.66	1679249.90	14319308.31	39°25'55.700"N	80°51'44.903"W	42.53	28.296	0.31	-0.20	-3.36	
1250.00	4.120	14.330	1298.31	-32.92	42.59	21.59	1679250.82	14319310.03	39°25'55.716"N	80°51'44.896"W	44.24	27.842	0.27	0.24	-1.84	
1275.00	4.140	14.400	1273.38	-31.43	40.84	21.14	1679250.37	14319311.77	39°25'55.733"N	80°51'44.890"W	45.99	27.365	0.70	0.36	-8.48	
1300.00	4.140	15.030	1323.25	-34.41	44.33	22.04	1679251.27	14319313.51	39°25'55.750"N	80°51'44.884"W	47.75	26.879	0.08	-0.08	-0.28	
1325.00	4.190	14.100	1348.18	-35.91	46.09	22.50	1679251.73	14319315.27	39°25'55.767"N	80°51'44.879"W	49.51	26.438	0.22	0.08	2.80	
1350.00	4.350	13.440	1373.11	-37.47	47.89	22.94	1679252.17	14319317.08	39°25'55.784"N	80°51'44.873"W	51.28	26.021	0.34	0.20	-3.72	
1375.00	4.270	14.120	1398.04	-39.04	49.72	23.39	1679252.82	14319318.90	39°25'55.802"N	80°51'44.867"W	53.11	25.595	0.67	0.64	-2.64	
1425.00	4.350	12.120	1422.97	-40.62	51.55	23.82	1679253.06	14319320.73	39°25'55.820"N	80°51'44.861"W	54.95	25.193	0.38	-0.32	2.72	
1450.00	4.290	12.430	1447.90	-42.22	53.39	24.22	1679253.45	14319322.57	39°25'55.838"N	80°51'44.856"W	56.78	24.797	0.68	0.32	-8.00	
1475.00	4.340	11.540	1472.83	-43.83	55.23	24.61	1679253.84	14319324.41	39°25'55.857"N	80°51'44.851"W	58.62	24.398	0.26	-0.24	1.24	
1500.00	4.260	10.900	1497.76	-45.44	57.07	24.97	1679254.20	14319326.24	39°25'55.875"N	80°51'44.846"W	60.46	24.014	0.33	0.20	-3.56	
1525.00	4.090	8.990	1522.69	-47.02	58.86	25.29	1679254.52	14319328.04	39°25'55.911"N	80°51'44.837"W	62.29	23.633	0.37	-0.32	-2.56	
											64.06	23.248	0.88	-0.88	-7.64	



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Date Pad
Slot	Slot #01
Well	Johnston Unit 2H
Wellbore	Johnston Unit 2H AWB

WELLPATH DATA (342 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	ft/100ft	°/100ft	
1550.00	3.970	7.370	1547.63	-48.58	60.60	25.54	1679254.77	14319329.77	39°25'55.928"N	80°51'44.834"W	65.76	22.850	0.66	-0.48	-6.48	
1575.00	3.980	7.050	1572.57	-50.12	62.32	25.75	1679254.98	14319331.49	39°25'55.945"N	80°51'44.831"W	67.43	22.453	0.10	0.04	-1.28	
1600.00	4.030	6.010	1597.51	-51.89	64.05	25.95	1679255.18	14319333.23	39°25'55.962"N	80°51'44.828"W	69.11	22.056	0.35	0.20	-4.16	
1625.00	4.070	7.540	1622.45	-53.27	65.81	26.16	1679255.39	14319334.98	39°25'55.979"N	80°51'44.826"W	70.81	21.660	0.46	0.16	6.12	
1650.00	3.920	5.710	1647.39	-54.84	67.54	26.36	1679255.59	14319336.71	39°25'55.996"N	80°51'44.823"W	72.50	21.323	0.79	-0.60	-7.32	
1675.00	3.590	8.860	1672.33	-56.30	69.16	26.57	1679255.80	14319338.33	39°25'56.012"N	80°51'44.820"W	74.09	21.014	1.56	-1.32	12.60	
1700.00	3.070	16.640	1697.29	-57.53	70.57	26.88	1679256.11	14319339.75	39°25'56.026"N	80°51'44.816"W	75.52	20.850	2.75	-2.08	31.12	
1725.00	2.880	23.560	1722.26	-58.50	71.75	27.30	1679256.53	14319340.92	39°25'56.038"N	80°51'44.811"W	76.77	20.834	2.09	-1.56	27.68	
1750.00	2.820	29.260	1747.23	-59.30	72.79	27.82	1679257.05	14319341.96	39°25'56.048"N	80°51'44.804"W	77.92	20.916	1.08	-0.24	22.80	
1775.00	2.650	30.320	1772.21	-60.05	73.78	28.39	1679257.52	14319342.95	39°25'56.068"N	80°51'44.797"W	79.06	21.045	0.23	0.12	4.24	
1800.00	2.800	30.680	1797.18	-60.78	74.77	28.97	1679258.20	14319343.94	39°25'56.068"N	80°51'44.790"W	80.19	21.179	0.21	-0.20	1.44	
1825.00	2.760	31.140	1822.15	-61.53	75.77	29.57	1679258.80	14319344.94	39°25'56.078"N	80°51'44.782"W	81.34	21.319	0.65	0.64	1.84	
1850.00	2.900	29.290	1847.12	-62.33	76.84	30.19	1679259.42	14319346.01	39°25'56.088"N	80°51'44.774"W	82.56	21.451	0.67	0.56	-7.40	
1875.00	3.320	29.160	1872.09	-63.22	78.02	30.85	1679260.08	14319347.19	39°25'56.100"N	80°51'44.766"W	83.90	21.576	1.88	1.68	-0.52	
1900.00	3.520	30.590	1897.04	-64.19	79.32	31.80	1679260.82	14319348.48	39°25'56.113"N	80°51'44.756"W	85.38	21.721	0.87	0.80	5.72	
1925.00	3.540	30.500	1921.99	-65.18	80.64	32.38	1679261.61	14319349.81	39°25'56.126"N	80°51'44.746"W	86.90	21.876	0.08	0.08	-0.36	
1950.00	3.700	30.080	1946.94	-66.20	82.00	33.17	1679262.40	14319351.17	39°25'56.139"N	80°51'44.736"W	88.46	22.026	0.65	0.64	-1.68	
1975.00	3.850	28.180	1971.89	-67.28	83.44	33.98	1679263.20	14319352.61	39°25'56.153"N	80°51'44.726"W	90.09	22.155	0.78	0.60	-7.60	
2000.00	3.950	26.790	1996.83	-68.44	84.95	34.76	1679263.99	14319354.12	39°25'56.168"N	80°51'44.716"W	91.79	22.253	0.55	0.40	-5.56	
2025.00	4.130	26.770	2021.77	-69.66	86.52	35.55	1679264.78	14319355.69	39°25'56.184"N	80°51'44.706"W	93.54	22.339	0.72	0.72	-0.08	
2050.00	4.190	27.470	2046.70	-70.90	88.14	36.38	1679265.61	14319357.30	39°25'56.200"N	80°51'44.695"W	95.35	22.429	0.31	0.24	2.80	
2075.00	4.210	28.670	2071.64	-72.14	89.75	37.24	1679266.47	14319358.92	39°25'56.216"N	80°51'44.684"W	97.17	22.536	0.36	0.08	4.80	
2100.00	4.480	27.000	2096.56	-73.42	91.43	38.13	1679267.35	14319360.59	39°25'56.232"N	80°51'44.673"W	99.06	22.636	1.19	1.08	-6.68	
2125.00	4.220	25.430	2121.49	-74.74	93.13	38.96	1679268.19	14319362.29	39°25'56.249"N	80°51'44.662"W	100.95	22.704	1.14	-1.04	-6.28	
2150.00	3.720	21.310	2146.43	-76.01	94.71	39.85	1679268.88	14319363.98	39°25'56.265"N	80°51'44.653"W	102.88	22.717	2.30	-2.00	-16.48	
2175.00	3.150	16.940	2171.39	-77.18	96.13	40.15	1679269.37	14319365.29	39°25'56.279"N	80°51'44.647"W	104.17	22.668	2.51	-2.28	-17.48	
2200.00	3.010	14.130	2196.35	-78.27	97.42	40.51	1679269.73	14319366.58	39°25'56.291"N	80°51'44.642"W	105.51	22.578	0.82	-0.56	-11.24	
2225.00	2.630	4.670	2221.32	-79.34	98.63	40.72	1679269.94	14319367.99	39°25'56.303"N	80°51'44.639"W	106.70	22.432	2.40	-1.52	-37.84	
2250.00	2.610	355.050	2246.30	-80.42	99.77	40.71	1679269.94	14319368.93	39°25'56.315"N	80°51'44.640"W	107.76	22.193	1.76	-0.08	-38.48	
2275.00	2.450	349.490	2271.27	-81.50	100.88	40.57	1679269.79	14319370.02	39°25'56.325"N	80°51'44.641"W	108.71	21.910	1.17	-0.84	-22.24	



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (342 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	ft/100ft	°/100ft	
2300.00	2.110	344.370	2296.25	-82.48	101.83	40.35	1679269.57	14319370.99	39°25'56.335"N	80°51'44.644"W	109.53	21.614	1.58	-1.36	-20.48	
2325.00	1.590	332.040	2321.24	-83.29	102.58	40.06	1679269.28	14319371.74	39°25'56.342"N	80°51'44.648"W	110.12	21.331	2.61	-2.08	-49.32	
2350.00	1.240	302.710	2346.23	-83.84	103.03	39.67	1679268.89	14319372.19	39°25'56.347"N	80°51'44.653"W	110.40	21.057	3.17	-1.40	-117.32	
2375.00	1.170	296.280	2371.23	-84.24	103.29	39.21	1679268.44	14319372.45	39°25'56.350"N	80°51'44.659"W	110.48	20.788	0.61	-0.28	-25.72	
2400.00	1.210	282.650	2396.22	-84.56	103.43	38.73	1679267.95	14319372.62	39°25'56.351"N	80°51'44.665"W	110.47	20.521	1.16	0.18	-54.92	
2425.00	1.330	280.160	2421.21	-84.85	103.57	38.18	1679267.41	14319372.73	39°25'56.352"N	80°51'44.672"W	110.38	20.237	0.52	0.48	-9.56	
2450.00	1.320	278.780	2446.21	-85.13	103.66	37.61	1679266.84	14319372.82	39°25'56.353"N	80°51'44.679"W	110.28	19.942	0.13	-0.04	-5.52	
2475.00	1.350	275.190	2471.20	-85.39	103.73	37.03	1679266.26	14319372.89	39°25'56.354"N	80°51'44.686"W	110.15	19.647	0.36	0.12	-14.36	
2500.00	1.360	272.210	2496.19	-85.62	103.77	36.44	1679265.67	14319372.93	39°25'56.354"N	80°51'44.694"W	109.99	19.349	0.31	0.12	-11.92	
2525.00	1.250	266.260	2521.19	-85.81	103.77	35.87	1679265.08	14319372.93	39°25'56.354"N	80°51'44.701"W	109.79	19.068	0.75	-0.52	-23.80	
2550.00	1.170	265.870	2546.18	-85.95	103.73	35.34	1679264.57	14319372.89	39°25'56.354"N	80°51'44.708"W	109.59	18.814	0.32	-0.32	-1.56	
2575.00	1.010	261.750	2571.18	-86.06	103.68	34.87	1679264.09	14319372.84	39°25'56.353"N	80°51'44.714"W	109.39	18.588	0.71	-0.64	-16.48	
2600.00	1.060	260.650	2596.17	-86.14	103.61	34.42	1679263.65	14319372.77	39°25'56.353"N	80°51'44.720"W	109.18	18.377	0.22	0.20	-4.40	
2625.00	0.920	266.490	2621.17	-86.24	103.56	33.99	1679263.22	14319372.72	39°25'56.352"N	80°51'44.725"W	109.00	18.172	0.69	-0.56	23.36	
2650.00	0.930	266.480	2646.17	-86.35	103.54	33.59	1679262.82	14319372.70	39°25'56.352"N	80°51'44.730"W	108.85	17.974	0.04	0.04	-0.04	
2675.00	0.400	296.720	2671.16	-86.47	103.56	33.31	1679262.54	14319372.72	39°25'56.352"N	80°51'44.734"W	108.79	17.830	2.47	-2.12	120.96	
2700.00	0.700	38.140	2696.16	-86.61	103.72	33.33	1679262.55	14319372.88	39°25'56.354"N	80°51'44.734"W	108.95	17.812	3.49	1.20	405.68	
2725.00	0.810	42.810	2721.16	-86.78	103.97	33.54	1679262.77	14319373.13	39°25'56.356"N	80°51'44.731"W	109.25	17.879	0.50	0.44	18.68	
2750.00	0.940	32.970	2746.16	-86.99	104.27	33.77	1679263.00	14319373.43	39°25'56.359"N	80°51'44.728"W	109.61	17.946	0.79	0.52	-39.36	
2775.00	0.890	26.700	2771.15	-87.24	104.62	33.97	1679263.20	14319373.78	39°25'56.363"N	80°51'44.725"W	110.00	17.989	0.45	-0.20	-25.08	
2800.00	1.030	11.800	2796.15	-87.57	105.01	34.10	1679263.33	14319374.17	39°25'56.367"N	80°51'44.724"W	110.41	17.992	1.14	0.56	-59.60	
2825.00	0.930	10.120	2821.15	-87.94	105.43	34.19	1679263.41	14319374.59	39°25'56.371"N	80°51'44.723"W	110.84	17.965	0.42	-0.40	-6.72	
2850.00	0.880	15.610	2846.14	-88.27	105.82	34.27	1679263.50	14319374.98	39°25'56.375"N	80°51'44.721"W	111.23	17.947	0.40	-0.20	21.96	
2875.00	1.180	21.990	2871.14	-88.62	106.24	34.42	1679263.65	14319375.40	39°25'56.379"N	80°51'44.720"W	111.68	17.952	1.28	1.20	25.52	
2900.00	0.890	11.540	2896.14	-88.98	106.67	34.56	1679263.78	14319375.83	39°25'56.383"N	80°51'44.718"W	112.13	17.950	1.38	-1.16	-41.80	
2925.00	0.790	15.630	2921.13	-89.29	107.03	34.64	1679263.87	14319376.18	39°25'56.387"N	80°51'44.717"W	112.49	17.935	0.47	-0.40	17.32	
2950.00	0.390	33.940	2946.13	-89.48	107.26	34.74	1679263.96	14319376.42	39°25'56.389"N	80°51'44.716"W	112.75	17.944	1.75	-1.60	73.24	
2975.00	0.150	3.380	2971.13	-89.56	107.37	34.79	1679264.01	14319376.52	39°25'56.390"N	80°51'44.715"W	112.86	17.952	1.09	-0.96	-122.24	
3000.00	0.050	58.910	2996.13	-89.59	107.40	34.80	1679264.02	14319376.56	39°25'56.390"N	80°51'44.715"W	112.90	17.951	0.51	-0.40	222.12	
3025.00	0.230	51.830	3021.13	-89.61	107.44	34.85	1679264.07	14319376.60	39°25'56.391"N	80°51'44.714"W	112.95	17.969	0.72	0.72	-26.32	



Actual Wellpath Report
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (342 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	ft/100ft	°/100ft	
3050.00	0.320	64.490	3046.13	-89.63	107.50	34.95	1679264.17	14319376.66	39°25'56.391"N	80°51'44.713"W	113.04	18.009	0.43	0.36	50.64	
3075.00	0.310	19.750	3071.13	-89.69	107.60	35.03	1679264.26	14319376.75	39°25'56.392"N	80°51'44.712"W	113.16	18.035	0.36	-0.04	-178.96	
3100.00	0.380	343.800	3096.13	-89.83	107.74	35.03	1679264.26	14319376.90	39°25'56.394"N	80°51'44.712"W	113.29	18.013	0.89	0.28	-143.80	
3125.00	0.410	1.040	3121.13	-90.00	107.91	35.01	1679264.24	14319377.07	39°25'56.395"N	80°51'44.712"W	113.45	17.976	0.49	0.12	68.96	
3150.00	0.450	332.370	3146.13	-90.18	108.08	34.87	1679264.19	14319377.24	39°25'56.397"N	80°51'44.713"W	113.60	17.928	0.87	0.16	-114.88	
3175.00	0.460	333.680	3171.13	-90.37	108.26	34.88	1679264.10	14319377.42	39°25'56.399"N	80°51'44.714"W	113.74	17.857	0.06	0.04	5.24	
3200.00	0.380	318.270	3196.13	-90.55	108.41	34.78	1679264.00	14319377.57	39°25'56.400"N	80°51'44.715"W	113.86	17.786	0.55	-0.32	-61.64	
3225.00	0.560	330.300	3221.13	-90.75	108.58	34.66	1679263.89	14319377.74	39°25'56.402"N	80°51'44.716"W	113.98	17.705	0.82	0.72	48.12	
3250.00	0.480	327.910	3246.13	-90.97	108.78	34.55	1679263.77	14319377.93	39°25'56.404"N	80°51'44.718"W	114.13	17.618	0.29	-0.28	-9.56	
3275.00	0.380	344.460	3271.13	-91.16	108.95	34.47	1679263.69	14319378.10	39°25'56.406"N	80°51'44.719"W	114.27	17.555	0.66	-0.44	66.20	
3300.00	0.320	349.970	3296.13	-91.31	109.10	34.43	1679263.66	14319378.25	39°25'56.407"N	80°51'44.719"W	114.40	17.516	0.27	-0.24	22.04	
3325.00	0.460	321.360	3321.12	-91.47	109.24	34.36	1679263.58	14319378.40	39°25'56.408"N	80°51'44.720"W	114.52	17.458	0.94	0.56	-114.44	
3350.00	0.340	307.650	3346.12	-91.64	109.40	34.28	1679263.50	14319378.55	39°25'56.410"N	80°51'44.721"W	114.64	17.398	0.86	-0.48	105.16	
3375.00	0.230	303.420	3371.12	-91.76	109.50	34.22	1679263.45	14319378.65	39°25'56.411"N	80°51'44.722"W	114.72	17.356	0.95	-0.44	-176.92	
3400.00	0.410	167.270	3396.12	-91.71	109.44	34.20	1679263.42	14319378.59	39°25'56.410"N	80°51'44.722"W	114.65	17.364	2.39	0.72	-544.80	
3425.00	0.610	144.810	3421.12	-91.49	109.24	34.29	1679263.52	14319378.40	39°25'56.408"N	80°51'44.721"W	114.50	17.429	1.12	0.80	-89.84	
3450.00	0.640	153.320	3446.12	-91.22	109.01	34.43	1679263.66	14319378.16	39°25'56.406"N	80°51'44.719"W	114.32	17.531	0.39	0.12	34.04	
3475.00	0.580	143.840	3471.12	-90.96	108.78	34.57	1679263.80	14319377.94	39°25'56.404"N	80°51'44.718"W	114.14	17.631	0.47	-0.24	-37.92	
3500.00	0.520	146.900	3496.12	-90.73	108.58	34.71	1679263.93	14319377.74	39°25'56.402"N	80°51'44.716"W	113.99	17.726	0.27	-0.24	12.24	
3525.00	0.470	141.390	3521.12	-90.52	108.41	34.83	1679264.06	14319377.56	39°25'56.400"N	80°51'44.714"W	113.87	17.814	0.28	-0.20	-22.04	
3550.00	0.400	134.700	3546.12	-90.35	108.27	34.96	1679264.19	14319377.42	39°25'56.399"N	80°51'44.713"W	113.77	17.896	0.35	-0.28	-26.76	
3575.00	0.400	139.790	3571.12	-90.19	108.14	35.08	1679264.30	14319377.29	39°25'56.397"N	80°51'44.711"W	113.68	17.972	0.14	0.00	20.36	
3600.00	0.330	144.080	3596.12	-90.04	108.01	35.18	1679264.40	14319377.17	39°25'56.396"N	80°51'44.710"W	113.60	18.039	0.30	-0.28	17.16	
3625.00	0.370	145.490	3621.12	-89.89	107.89	35.27	1679264.49	14319377.04	39°25'56.395"N	80°51'44.709"W	113.50	18.101	0.16	0.16	5.64	
3650.00	0.350	144.420	3646.11	-89.74	107.76	35.36	1679264.58	14319376.92	39°25'56.394"N	80°51'44.708"W	113.41	18.164	0.08	-0.08	-4.28	
3675.00	0.440	143.560	3671.11	-89.57	107.62	35.46	1679264.68	14319376.78	39°25'56.392"N	80°51'44.706"W	113.31	18.235	0.36	0.36	-3.44	
3700.00	0.600	138.940	3696.11	-89.36	107.44	35.60	1679264.83	14319376.60	39°25'56.391"N	80°51'44.705"W	113.19	18.332	0.66	0.64	-20.08	
3725.00	0.720	142.550	3721.11	-89.09	107.22	35.78	1679265.01	14319376.38	39°25'56.388"N	80°51'44.702"W	113.03	18.455	0.51	0.48	16.04	
3750.00	0.680	163.380	3746.11	-88.79	106.95	35.92	1679265.15	14319376.11	39°25'56.386"N	80°51'44.700"W	112.83	18.564	1.02	-0.16	83.32	
3775.00	0.680	138.840	3771.11	-88.51	106.70	36.05	1679265.29	14319375.86	39°25'56.383"N	80°51'44.699"W	112.63	18.673	1.16	0.00	-88.16	



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Daile Pad		

WELLPATH DATA (342 stations)

MD	Inclination P1	Azimuth P1	TVD ft	Vert Sect ft	North ft	East ft	Grid East IUS ft	Grid North IUS ft	Latitude	Longitude	Closure Dist ft	Closure Dir P1	DLS P1/100ft	Build Rate P1/100ft	Turn Rate P1/100ft	Comments
3800.00	0.630	139.910	3796.11	-88.24	106.48	36.25	1679265.47	14319375.64	39°25'56.381"N	80°51'44.696"W	112.48	18.798	0.21	-0.20	4.28	
3825.00	0.690	139.600	3821.10	-87.97	106.26	36.43	1679265.66	14319375.42	39°25'56.379"N	80°51'44.694"W	112.34	18.924	0.24	0.24	-1.24	
3850.00	0.630	139.910	3846.10	-87.70	106.04	36.62	1679265.84	14319375.20	39°25'56.377"N	80°51'44.692"W	112.19	19.051	0.24	-0.24	1.24	
3875.00	0.750	141.710	3871.10	-87.42	105.81	36.81	1679266.03	14319374.97	39°25'56.374"N	80°51'44.689"W	112.03	19.181	0.49	0.48	7.20	
3900.00	0.760	142.010	3896.10	-87.11	105.55	37.01	1679266.24	14319374.71	39°25'56.372"N	80°51'44.687"W	111.88	19.323	0.04	0.04	1.20	
3925.00	0.720	139.360	3921.10	-86.80	105.30	37.22	1679266.44	14319374.46	39°25'56.369"N	80°51'44.684"W	111.69	19.465	0.21	-0.16	-10.60	
3950.00	0.720	133.090	3946.10	-86.52	105.08	37.43	1679266.66	14319374.23	39°25'56.367"N	80°51'44.681"W	111.54	19.609	0.31	0.00	-25.08	
3975.00	0.650	143.610	3971.09	-86.26	104.87	37.62	1679266.84	14319374.03	39°25'56.365"N	80°51'44.679"W	111.41	19.734	0.82	-0.68	42.08	
4000.00	0.780	148.120	3996.09	-85.98	104.63	37.78	1679267.01	14319373.79	39°25'56.363"N	80°51'44.677"W	111.24	19.854	0.94	0.92	18.04	
4025.00	0.790	147.490	4021.09	-85.65	104.34	37.96	1679267.19	14319373.50	39°25'56.360"N	80°51'44.674"W	111.03	19.993	0.05	0.04	-2.52	
4050.00	0.830	152.810	4046.09	-85.30	104.03	38.14	1679267.36	14319373.19	39°25'56.357"N	80°51'44.672"W	110.80	20.133	0.34	0.16	21.28	
4075.00	0.860	145.890	4071.08	-84.94	103.72	38.33	1679267.55	14319372.88	39°25'56.354"N	80°51'44.670"W	110.57	20.281	0.43	0.12	-27.68	
4100.00	0.770	153.060	4096.08	-84.59	103.41	38.51	1679267.73	14319372.57	39°25'56.351"N	80°51'44.668"W	110.35	20.424	0.54	-0.36	28.68	
4125.00	0.730	153.460	4121.08	-84.27	103.12	38.65	1679267.88	14319372.28	39°25'56.348"N	80°51'44.666"W	110.13	20.549	0.16	-0.16	1.60	
4150.00	0.840	153.760	4146.08	-83.97	102.85	38.79	1679268.01	14319372.01	39°25'56.345"N	80°51'44.664"W	109.92	20.662	0.36	-0.36	1.20	
4175.00	0.630	165.110	4171.08	-83.69	102.59	38.88	1679268.11	14319371.75	39°25'56.343"N	80°51'44.663"W	109.72	20.757	0.50	-0.04	45.40	
4200.00	0.570	251.390	4196.08	-83.56	102.42	38.80	1679268.07	14319371.58	39°25'56.341"N	80°51'44.664"W	109.53	20.749	3.29	-0.24	345.12	
4225.00	2.110	286.030	4221.07	-83.83	102.51	38.24	1679267.47	14319371.92	39°25'56.342"N	80°51'44.671"W	109.41	20.458	6.69	6.16	138.66	
4250.00	2.070	285.940	4246.05	-84.36	102.76	37.37	1679266.59	14319371.92	39°25'56.344"N	80°51'44.682"W	109.34	19.982	0.16	-0.16	-0.36	
4275.00	2.410	290.630	4271.03	-84.96	103.07	36.44	1679265.66	14319372.23	39°25'56.347"N	80°51'44.694"W	109.32	19.471	1.54	1.36	18.76	
4300.00	3.190	293.840	4296.00	-85.77	103.54	35.51	1679264.54	14319372.69	39°25'56.352"N	80°51'44.708"W	109.39	18.832	3.18	3.12	12.84	
4325.00	3.400	294.230	4320.96	-86.77	104.12	34.00	1679263.23	14319373.28	39°25'56.358"N	80°51'44.725"W	109.53	18.084	0.84	0.84	1.56	
4350.00	3.400	293.280	4345.92	-87.78	104.72	32.64	1679261.87	14319373.88	39°25'56.364"N	80°51'44.742"W	109.69	17.313	0.23	0.00	-3.80	
4375.00	3.360	292.340	4370.87	-88.77	105.29	31.28	1679260.51	14319374.45	39°25'56.369"N	80°51'44.760"W	109.84	16.548	0.27	-0.16	-3.76	
4400.00	3.070	291.540	4395.83	-89.70	105.81	29.98	1679259.21	14319374.97	39°25'56.375"N	80°51'44.776"W	109.98	15.820	1.17	-1.16	-3.20	
4425.00	3.120	291.080	4420.80	-90.59	106.30	28.73	1679257.95	14319375.46	39°25'56.379"N	80°51'44.792"W	110.12	15.121	0.22	0.20	-1.84	
4450.00	3.330	287.170	4445.76	-91.46	106.76	27.40	1679256.63	14319375.92	39°25'56.384"N	80°51'44.809"W	110.22	14.392	1.22	0.84	-15.64	
4475.00	4.550	286.110	4470.70	-92.47	107.25	25.75	1679254.96	14319376.41	39°25'56.389"N	80°51'44.830"W	110.30	13.501	4.89	4.88	-4.24	
4500.00	6.320	281.820	4495.59	-93.77	107.81	23.45	1679252.68	14319376.97	39°25'56.394"N	80°51'44.859"W	110.33	12.272	7.26	7.08	-17.16	
4525.00	6.750	290.000	4520.42	-95.21	108.35	20.66	1679249.89	14319377.50	39°25'56.400"N	80°51'44.895"W	110.30	10.794	1.91	1.72	-7.28	



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (342 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 (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
4550.00	7.440	278.480	4545.23	-96.69	108.84	17.61	1679246.84	14319378.00	39°25'56.405"N	80°51'44.934"W	110.26	9.190	2.86	2.76	-6.08	
4575.00	9.510	278.570	4569.96	-98.43	109.39	13.97	1679243.20	14319378.54	39°25'56.410"N	80°51'44.980"W	110.28	7.276	8.28	8.28	0.36	
4600.00	10.400	279.580	4594.58	-100.50	110.07	9.70	1679238.93	14319379.23	39°25'56.417"N	80°51'45.039"W	110.50	5.035	3.63	3.56	4.04	
4625.00	11.250	279.180	4619.14	-102.77	110.84	5.07	1679234.30	14319379.99	39°25'56.425"N	80°51'45.094"W	110.95	2.617	3.41	3.40	-1.60	
4650.00	11.980	279.750	4643.62	-105.21	111.66	0.10	1679229.34	14319380.82	39°25'56.433"N	80°51'45.157"W	111.66	0.052	2.96	2.92	2.28	
4675.00	12.390	279.450	4668.06	-107.77	112.54	-5.10	1679224.14	14319381.70	39°25'56.442"N	80°51'45.223"W	112.66	357.405	1.66	1.64	-1.20	
4700.00	12.550	278.890	4692.47	-110.37	113.40	-10.43	1679218.81	14319382.56	39°25'56.450"N	80°51'45.291"W	113.88	354.745	0.80	0.84	-2.24	
4725.00	12.930	277.990	4716.85	-112.95	114.21	-15.88	1679213.36	14319383.37	39°25'56.458"N	80°51'45.361"W	115.31	352.082	1.71	1.52	-3.60	
4750.00	13.440	276.410	4741.20	-115.51	114.93	-21.54	1679207.71	14319384.08	39°25'56.465"N	80°51'45.433"W	116.93	349.384	2.50	2.04	-6.32	
4775.00	13.820	274.750	4765.50	-118.00	115.49	-27.56	1679201.89	14319384.85	39°25'56.471"N	80°51'45.507"W	118.69	346.672	1.71	0.72	-6.64	
4800.00	13.530	273.690	4789.80	-120.36	115.93	-33.21	1679196.04	14319385.08	39°25'56.475"N	80°51'45.581"W	120.59	344.013	1.06	-0.36	-4.24	
4825.00	13.940	273.460	4814.09	-122.69	116.30	-39.14	1679190.12	14319385.45	39°25'56.479"N	80°51'45.657"W	122.70	341.400	1.65	1.64	-0.92	
4850.00	14.720	273.740	4838.31	-125.12	116.68	-45.31	1679183.95	14319385.84	39°25'56.483"N	80°51'45.736"W	125.17	338.777	3.13	3.12	1.12	
4875.00	16.080	273.300	4862.41	-127.72	117.09	-51.94	1679177.32	14319386.24	39°25'56.487"N	80°51'45.820"W	128.09	336.079	5.46	5.44	-1.76	
4900.00	17.500	273.500	4886.35	-130.53	117.52	-59.15	1679170.12	14319386.67	39°25'56.492"N	80°51'45.912"W	131.57	333.284	5.68	5.68	0.80	
4925.00	18.540	275.620	4910.12	-133.69	118.14	-66.86	1679162.41	14319387.29	39°25'56.498"N	80°51'46.010"W	135.74	330.494	4.92	4.16	8.48	
4950.00	19.780	278.140	4933.73	-137.35	119.13	-75.00	1679154.27	14319388.28	39°25'56.508"N	80°51'46.114"W	140.77	327.807	5.96	4.96	10.08	
4975.00	21.390	280.290	4957.14	-141.58	120.54	-83.67	1679145.60	14319389.69	39°25'56.522"N	80°51'46.224"W	146.73	325.234	7.11	6.44	8.60	
5000.00	23.500	282.450	4980.33	-146.38	122.39	-92.83	1679136.45	14319391.54	39°25'56.540"N	80°51'46.341"W	153.61	322.820	5.49	4.44	8.64	
5025.00	24.670	283.400	5003.32	-151.64	124.56	-102.36	1679126.90	14319393.73	39°25'56.562"N	80°51'46.463"W	161.25	320.566	4.91	4.68	3.80	
5050.00	24.720	283.550	5026.13	-157.22	126.97	-112.35	1679116.94	14319396.12	39°25'56.586"N	80°51'46.590"W	169.54	318.496	4.21	4.20	0.60	
5100.00	24.620	283.000	5071.48	-168.57	131.74	-132.85	1679106.69	14319398.53	39°25'56.610"N	80°51'46.720"W	178.24	316.540	1.96	1.64	-2.56	
5125.00	23.860	282.660	5094.28	-174.06	134.02	-142.86	1679096.44	14319400.88	39°25'56.633"N	80°51'46.851"W	187.09	314.759	2.05	-2.04	0.36	
5150.00	22.930	281.790	5117.22	-178.29	136.12	-152.56	1679086.74	14319403.16	39°25'56.656"N	80°51'46.978"W	195.88	313.171	3.09	-3.04	-1.36	
5175.00	22.510	281.060	5140.28	-184.26	138.03	-162.02	1679076.28	14319407.18	39°25'56.671"N	80°51'47.102"W	204.46	311.741	3.07	-3.72	-3.46	
5200.00	23.370	280.390	5163.17	-189.16	139.84	-171.60	1679067.71	14319408.99	39°25'56.696"N	80°51'47.223"W	212.85	310.429	2.02	-1.68	-2.92	
5225.00	24.340	280.120	5186.30	-194.19	141.64	-181.55	1679047.77	14319410.79	39°25'56.721"N	80°51'47.345"W	221.36	309.179	3.60	3.44	-2.68	
5250.00	24.840	279.080	5208.90	-199.25	143.38	-191.80	1679037.51	14319412.52	39°25'56.749"N	80°51'47.471"W	230.47	307.962	3.90	3.88	-1.08	
5275.00	25.460	278.480	5231.53	-204.29	145.00	-202.30	1679027.02	14319414.14	39°25'56.785"N	80°51'47.736"W	248.90	305.631	2.88	2.48	-2.40	



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #01
Operator	ANTERO RESOURCES CORPORATION	Well	Johnston Unit 2H
Area	Tyler County, WV	Wellbore	Johnston Unit 2H AWB
Field	Tyler		
Facility	Date Pad		

WELLPATH DATA (342 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
3300.00	26.0802	77.8003	254.04	209.33	146.54	213.06	1679016.26	14319415.68	39°25'56.78"N	80°51'47.873"W	258.59	304.519	2.75	2.48	-2.72	
3325.00	25.8102	76.7806	276.52	214.27	147.93	223.91	1679005.42	14319417.07	39°25'56.795"N	80°51'48.011"W	268.36	303.450	2.09	-1.08	-4.08	
3350.00	25.1502	75.7705	299.09	218.95	149.10	234.60	1678994.73	14319418.24	39°25'56.806"N	80°51'48.147"W	277.97	302.438	3.16	-2.64	-4.04	
3375.00	24.5702	74.8806	321.78	223.37	150.08	245.07	1678984.27	14319419.22	39°25'56.816"N	80°51'48.281"W	287.37	301.483	2.76	-2.32	-3.56	
3400.00	23.9902	74.0005	344.60	227.57	150.93	255.23	1678974.11	14319420.07	39°25'56.825"N	80°51'48.410"W	296.52	300.598	3.93	-3.92	-0.72	
3425.00	22.9602	74.3105	367.67	231.59	151.71	265.08	1678964.27	14319420.85	39°25'56.833"N	80°51'48.536"W	305.42	299.783	2.59	-2.52	-1.56	
3450.00	22.9502	75.2305	390.59	235.61	152.52	274.80	1678954.55	14319421.66	39°25'56.841"N	80°51'48.659"W	314.28	299.031	1.44	-0.04	3.68	
3475.00	23.7102	77.1064	413.54	239.91	153.59	284.84	1678944.72	14319422.73	39°25'56.852"N	80°51'48.785"W	323.43	298.352	4.37	3.04	7.92	
3500.00	25.0302	79.0705	436.31	244.70	155.06	294.85	1678934.51	14319424.20	39°25'56.866"N	80°51'48.915"W	333.13	297.740	6.11	5.28	7.44	
3525.00	25.7002	80.3605	459.90	249.94	156.87	305.40	1678923.96	14319426.00	39°25'56.884"N	80°51'49.049"W	343.33	297.187	3.47	2.68	5.16	
3550.00	25.8402	81.5505	481.42	255.45	158.93	316.07	1678913.30	14319428.07	39°25'56.905"N	80°51'49.185"W	353.78	296.695	2.14	0.56	4.76	
3575.00	26.6502	82.8805	503.84	261.27	161.27	326.87	1678902.50	14319430.41	39°25'56.928"N	80°51'49.323"W	364.49	296.261	4.00	3.24	5.32	
3600.00	27.6802	84.0405	526.08	267.48	163.93	337.97	1678891.40	14319433.07	39°25'56.955"N	80°51'49.464"W	375.63	295.875	4.63	4.12	4.64	
3625.00	27.6602	84.6805	548.22	273.96	166.81	349.22	1678880.16	14319435.94	39°25'56.983"N	80°51'49.608"W	387.02	295.532	1.19	-0.08	2.56	
3650.00	27.8102	85.8505	570.37	280.56	169.94	360.41	1678868.97	14319438.98	39°25'57.013"N	80°51'49.750"W	398.43	295.232	1.81	-0.20	3.88	
3675.00	28.5702	87.3205	603.32	290.89	174.85	377.22	1678852.17	14319443.98	39°25'57.063"N	80°51'49.964"W	409.88	294.978	3.17	2.08	5.12	
3700.00	30.1002	89.7505	669.29	313.76	186.65	412.36	1678817.05	14319456.77	39°25'57.333"N	80°51'50.412"W	452.63	294.353	2.56	2.02	3.21	BH AT Curve <8-1/2"> [5763-14359]
3725.00	27.8702	91.7805	748.01	341.94	202.08	453.14	1678776.28	14319471.20	39°25'57.391"N	80°51'51.176"W	496.16	294.035	2.71	-2.48	2.26	
3750.00	25.7202	91.0105	809.81	363.85	207.85	472.51	1678766.92	14319476.92	39°25'57.391"N	80°51'51.176"W	516.20	293.744	11.78	-4.78	-23.93	
3775.00	24.3402	89.3905	828.10	361.65	209.58	490.96	1678738.48	14319478.70	39°25'57.408"N	80°51'51.413"W	533.82	293.117	11.59	-3.14	-26.41	
3800.00	23.4802	89.0005	869.25	365.99	207.77	509.04	1678720.40	14319476.89	39°25'57.390"N	80°51'51.644"W	549.81	292.203	9.54	-1.89	-23.09	
3825.00	20.8102	87.5805	952.58	367.75	198.11	541.55	1678687.90	14319487.23	39°25'57.349"N	80°51'51.860"W	564.04	291.161	5.66	-2.78	-12.69	
3850.00	20.1602	86.5105	993.81	365.79	191.17	555.25	1678667.22	14319490.29	39°25'57.227"N	80°51'52.239"W	576.65	290.094	5.63	-3.18	-12.69	
3875.00	20.3602	85.7405	1036.04	361.41	182.06	567.94	1678661.63	14319494.18	39°25'57.137"N	80°51'52.394"W	596.31	289.777	7.36	-1.48	-20.61	
3900.00	22.1402	82.7005	1077.99	354.43	170.57	579.35	1678650.12	14319499.70	39°25'57.024"N	80°51'52.540"W	603.94	288.405	6.76	0.44	-19.49	
3925.00	24.1502	81.6705	1119.37	344.59	156.39	589.86	1678639.61	14319425.53	39°25'56.884"N	80°51'52.540"W	603.94	286.405	8.23	3.96	-19.93	
3950.00	25.2702	80.2070	1140.27	338.40	148.11	594.72	1678634.76	14319417.25	39°25'56.802"N	80°51'52.737"W	612.89	283.984	9.47	4.89	-19.40	Sycamore: 6279 MD
3975.00	26.4102	78.4605	1159.17	332.03	139.90	598.78	1678630.70	14319409.05	39°25'56.721"N	80°51'52.769"W	614.90	283.151	9.47	5.41	-17.84	



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (342 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
6345.00	29.900	196.000	6198.86	-315.69	120.00	-606.02	1678629.47	14319389.15	39°25'56.524"N	80°51'52.881"W	617.78	281.200	11.77	7.76	-18.80	
6390.00	34.140	190.150	6237.01	-295.57	96.77	-611.34	1678618.15	14319365.93	39°25'56.295"N	80°51'52.950"W	618.95	278.995	11.66	9.42	-13.00	
6435.00	38.610	185.060	6273.24	-271.82	70.34	-614.80	1678614.68	14319339.51	39°25'56.034"N	80°51'52.994"W	618.81	276.526	11.98	9.93	-11.31	
6480.00	42.970	181.030	6307.31	-244.67	41.00	-616.32	1678613.17	14319310.18	39°25'55.744"N	80°51'53.014"W	617.68	273.806	11.31	9.69	-8.96	
6496.00†	44.622	179.577	6318.88	-234.26	29.92	-616.37	1678613.11	14319299.11	39°25'55.634"N	80°51'53.015"W	617.10	272.779	12.09	10.33	-9.08	Middlesex: 6496' MD
6525.00	47.660	177.150	6338.95	-214.36	9.03	-615.77	1678613.72	14319278.22	39°25'55.428"N	80°51'53.008"W	615.83	270.840	12.09	10.47	-8.37	
6569.00	51.910	173.890	6367.36	-181.92	-24.45	-613.11	1678616.37	14319244.76	39°25'55.097"N	80°51'52.974"W	613.60	267.716	11.19	9.66	-7.41	
6614.00	56.230	170.890	6393.76	-146.28	-60.55	-608.26	1678621.22	14319208.68	39°25'54.740"N	80°51'52.913"W	611.27	264.315	11.01	9.60	-6.67	
6655.00†	60.055	168.521	6415.40	-111.91	-94.80	-602.03	1678627.45	14319174.44	39°25'54.401"N	80°51'52.835"W	609.45	261.051	10.54	9.33	-5.78	Burkett: 6655' MD
6659.00	60.430	168.303	6417.38	-108.47	-98.20	-601.33	1678628.15	14319171.04	39°25'54.368"N	80°51'52.828"W	609.30	260.725	10.54	9.38	-5.53	
6704.00	64.450	165.480	6438.20	-68.84	-137.04	-592.27	1678637.21	14319132.22	39°25'53.984"N	80°51'52.711"W	607.91	256.972	10.52	8.93	-6.27	
6729.00†	66.498	164.301	6448.58	-46.17	-158.99	-586.34	1678643.14	14319110.27	39°25'53.767"N	80°51'52.636"W	607.51	254.828	9.25	8.19	-4.71	Tully: 6729' MD
6748.00	68.060	163.430	6455.92	-28.67	-175.83	-581.47	1678648.01	14319093.44	39°25'53.600"N	80°51'52.574"W	607.47	253.175	9.25	8.22	-4.59	
6793.00	72.160	161.660	6471.23	13.60	-216.18	-568.77	1678660.70	14319053.11	39°25'53.201"N	80°51'52.413"W	608.47	249.189	9.83	9.11	-3.93	
6837.00	75.650	160.660	6483.42	55.87	-256.18	-555.12	1678674.35	14319013.12	39°25'52.806"N	80°51'52.240"W	611.38	245.227	8.23	7.93	-2.27	
6842.00†	75.861	160.650	6484.16	58.78	-258.93	-554.15	1678675.31	14319010.38	39°25'52.778"N	80°51'52.228"W	611.66	244.956	7.03	7.02	-0.34	Marcellus: 6840' MD
6882.00	78.810	160.510	6493.37	99.75	-297.57	-540.53	1678688.93	14318971.75	39°25'52.396"N	80°51'52.055"W	617.02	241.167	7.03	7.02	-0.33	
6927.00	80.310	160.690	6501.52	144.00	-339.31	-525.83	1678703.62	14318930.03	39°25'51.984"N	80°51'51.868"W	625.80	237.166	3.36	3.33	0.40	
7017.00	89.870	160.900	6509.14	233.57	-423.90	-496.37	1678733.07	14318845.47	39°25'51.147"N	80°51'51.494"W	652.74	229.503	10.74	10.73	0.23	
7106.00	89.970	159.640	6509.19	322.57	-507.87	-486.32	1678763.10	14318761.73	39°25'50.319"N	80°51'51.113"W	689.34	222.569	1.42	0.00	-1.42	
7196.00	89.940	156.830	6509.26	412.49	-591.25	-432.95	1678796.46	14318678.19	39°25'49.492"N	80°51'50.689"W	732.82	216.214	3.12	-0.03	-3.12	
7285.00	89.590	154.290	6509.62	501.16	-672.28	-396.13	1678833.26	14318597.21	39°25'48.691"N	80°51'50.222"W	780.30	210.509	2.88	-0.39	-2.85	
7375.00	89.290	154.600	6510.50	590.66	-753.45	-357.31	1678872.07	14318516.05	39°25'47.888"N	80°51'49.729"W	833.89	205.372	0.48	-0.33	0.34	
7464.00	89.470	157.440	6511.46	679.37	-834.76	-321.15	1678908.22	14318434.77	39°25'47.084"N	80°51'49.269"W	894.40	201.043	3.20	0.20	3.19	
7554.00	89.410	161.990	6512.34	766.34	-916.15	-286.95	1678939.40	14318350.42	39°25'46.249"N	80°51'48.673"W	963.80	197.508	5.06	-0.07	5.06	
7643.00	89.410	163.850	6513.26	858.25	-1004.22	-263.82	1678985.53	14318265.38	39°25'45.408"N	80°51'48.542"W	1038.29	194.720	2.09	0.00	2.09	
7733.00	89.380	161.750	6514.21	948.16	-1090.18	-237.21	1678992.13	14318179.45	39°25'44.558"N	80°51'48.204"W	1115.69	192.275	2.33	-0.03	-2.33	
7822.00	89.560	163.470	6515.03	1037.09	-1175.11	-210.61	1679018.72	14318094.56	39°25'43.718"N	80°51'47.867"W	1193.93	190.161	1.94	0.20	1.93	
7912.00	89.560	167.460	6515.73	1126.73	-1262.21	-188.03	1679041.29	14318007.50	39°25'42.857"N	80°51'47.581"W	1276.14	188.473	4.43	0.00	4.43	
8001.00	90.330	168.440	6515.81	1214.97	-1349.25	-169.45	1679059.86	14317920.49	39°25'41.997"N	80°51'47.346"W	1359.84	187.168	1.40	0.87	1.10	



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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #01
Operator	ANTERO RESOURCES CORPORATION	Well	Johnston Unit 2H
Area	Tyler County, WV	Wellbore	Johnston Unit 2H AWB
Field	Tyler		
Facility	Dale Pad		

WELLPATH DATA (342 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	ft/100ft	°/100ft	
8091.00	89.650	163.090	6515.83	1304.56	-1436.45	-147.32	167908.197	14317833.33	39°25'41.134"N	80°51'47.066"W	1443.98	185.856	5.99	-0.76	-5.94	
8180.00	89.500	158.600	6516.49	1393.53	-1520.50	-118.13	167911.116	14317749.31	39°25'40.303"N	80°51'46.695"W	1525.08	184.442	5.05	-0.17	-5.04	
8270.00	89.620	156.900	6517.18	1483.42	-1603.79	-84.05	1679145.22	14317866.05	39°25'39.479"N	80°51'46.263"W	1605.99	183.000	1.89	0.13	-1.89	
8359.00	89.400	155.260	6517.94	1572.15	-1685.14	-47.97	1679181.29	14317584.73	39°25'38.675"N	80°51'45.804"W	1685.82	181.631	1.86	-0.25	-1.84	
8448.00	89.370	153.480	6518.91	1661.63	-1766.27	-9.03	1679220.21	14317503.64	39°25'37.872"N	80°51'45.310"W	1766.29	180.293	2.00	-0.03	-2.00	
8538.00	89.340	153.040	6519.91	1749.92	-1845.74	31.03	1679260.25	14317424.20	39°25'37.086"N	80°51'44.801"W	1846.00	179.037	0.47	-0.03	-0.47	
8628.00	89.620	155.220	6520.73	1839.36	-1926.71	70.29	1679299.50	14317343.26	39°25'36.286"N	80°51'44.302"W	1928.00	177.911	2.44	0.31	2.42	
8717.00	89.340	158.420	6521.53	1928.17	-2008.51	105.32	1679334.52	14317261.49	39°25'35.477"N	80°51'43.857"W	2011.27	176.998	3.61	-0.31	3.60	
8807.00	89.370	162.280	6522.55	2018.14	-2093.25	135.58	1679364.76	14317176.79	39°25'34.639"N	80°51'43.473"W	2097.64	176.294	4.29	0.03	4.29	
8897.00	89.430	162.150	6523.49	2106.10	-2178.95	163.06	1679392.24	14317095.79	39°25'33.791"N	80°51'43.125"W	2185.04	175.720	0.16	0.07	-0.14	
8986.00	89.490	165.090	6524.33	2196.95	-2264.32	188.16	1679417.32	14317015.79	39°25'32.947"N	80°51'42.807"W	2272.13	175.250	3.30	0.07	3.30	
9076.00	88.940	165.780	6525.56	2286.60	-2351.42	210.79	1679439.95	14316918.72	39°25'32.066"N	80°51'42.520"W	2360.85	174.877	0.98	-0.61	0.77	
9165.00	89.090	163.040	6527.09	2376.37	-2437.12	234.70	1679463.85	14316833.05	39°25'31.238"N	80°51'42.217"W	2448.40	174.499	3.08	0.17	-3.08	
9255.00	89.030	160.090	6528.57	2465.33	-2522.48	263.16	1679492.29	14316747.72	39°25'30.394"N	80°51'41.856"W	2536.17	174.044	3.28	-0.07	-3.28	
9344.00	88.850	160.050	6530.21	2554.31	-2606.14	283.49	1679522.61	14316664.10	39°25'29.567"N	80°51'41.471"W	2622.61	173.575	0.21	-0.20	-0.04	
9434.00	88.970	159.980	6531.93	2644.29	-2690.71	324.24	1679553.35	14316579.57	39°25'28.731"N	80°51'41.081"W	2710.17	173.129	0.15	0.13	-0.08	
9523.00	89.060	160.230	6533.46	2733.28	-2774.38	354.52	1679583.62	14316495.93	39°25'27.903"N	80°51'40.696"W	2796.94	172.718	0.30	0.10	0.28	
9613.00	89.090	163.010	6534.91	2823.24	-2859.77	382.90	1679611.98	14316410.57	39°25'27.059"N	80°51'40.337"W	2885.29	172.374	3.09	0.03	3.09	
9703.00	89.060	161.360	6536.36	2913.19	-2945.44	410.43	1679639.50	14316324.94	39°25'26.212"N	80°51'39.987"W	2973.90	172.067	1.83	-0.03	-1.83	
9792.00	89.120	163.450	6537.75	3002.12	-3030.26	437.33	1679666.39	14316240.15	39°25'25.373"N	80°51'39.646"W	3061.66	171.788	2.35	0.10	2.35	
9882.00	89.150	162.760	6539.11	3092.01	-3116.37	463.48	1679692.53	14316154.08	39°25'24.522"N	80°51'39.315"W	3150.64	171.541	0.77	-0.03	-0.77	
9971.00	89.340	165.150	6540.31	3180.83	-3201.89	488.07	1679717.12	14316068.60	39°25'23.676"N	80°51'38.900"W	3238.87	171.333	2.70	0.25	2.69	
10061.00	89.280	160.890	6541.39	3270.72	-3287.94	514.35	1679743.38	14315982.58	39°25'22.825"N	80°51'38.670"W	3327.92	171.109	4.73	-0.07	-4.73	
10151.00	89.180	158.680	6542.60	3360.70	-3372.94	544.44	1679774.46	14315898.17	39°25'21.990"N	80°51'38.275"W	3416.20	170.813	2.46	-0.11	-2.46	
10241.00	89.370	159.230	6543.74	3450.66	-3456.37	577.76	1679806.77	14315814.21	39°25'21.160"N	80°51'37.865"W	3504.33	170.510	0.65	0.21	0.61	
10330.00	89.370	161.310	6544.72	3539.65	-3540.14	607.80	1679836.80	14315730.48	39°25'20.331"N	80°51'37.484"W	3591.93	170.258	2.34	0.00	2.34	
10420.00	90.570	164.140	6544.77	3629.57	-3626.07	634.52	1679863.51	14315644.59	39°25'19.481"N	80°51'37.145"W	3681.16	170.074	3.42	1.33	3.14	
10509.00	90.050	162.590	6544.29	3718.45	-3711.34	660.00	1679888.98	14315559.33	39°25'18.638"N	80°51'36.822"W	3769.56	169.916	1.84	-0.58	-1.74	
10599.00	90.320	159.460	6543.99	3808.43	-3796.43	689.26	1679918.23	14315474.28	39°25'17.797"N	80°51'36.451"W	3858.50	169.710	3.43	0.30	-3.48	
10688.00	90.380	155.160	6543.45	3897.28	-3878.53	723.58	1679952.53	14315392.23	39°25'16.965"N	80°51'36.015"W	3945.45	169.432	4.83	0.07	-4.83	



Actual Wellpath Report

Johnston Unit 2H AWP Proj: 14384'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (342 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 (ft/100ft)	Turn Rate (°/100ft)	Comments
10778.00	90.260	154.830	6542.95	3986.87	-3960.11	761.58	1679990.52	14315310.68	39°25'16.178"N	80°51'35.533"W	4032.88	169.114	0.33	-0.13	-0.30	
10897.00	90.080	156.020	6542.68	4075.53	-4041.06	798.55	1680027.47	14315229.75	39°25'15.377"N	80°51'35.063"W	4119.21	168.822	1.29	-0.20	1.27	
10957.00	90.260	156.100	6542.42	4165.26	-4123.32	835.07	1680063.98	14315147.53	39°25'14.564"N	80°51'34.600"W	4207.03	168.551	0.22	0.20	0.09	
11047.00	90.140	157.940	6542.10	4255.09	-4206.18	870.21	1680099.10	14315064.71	39°25'13.744"N	80°51'34.154"W	4295.25	168.311	2.05	-0.13	2.04	
11136.00	90.010	161.240	6541.99	4344.07	-4289.58	901.24	1680130.12	14314981.34	39°25'12.920"N	80°51'33.760"W	4383.23	168.195	3.71	-0.15	3.71	
11226.00	90.140	165.000	6541.87	4433.96	-4375.68	927.37	1680156.24	14314898.27	39°25'12.068"N	80°51'33.429"W	4472.88	168.034	4.18	0.14	4.18	
11315.00	90.290	165.330	6541.53	4522.66	-4461.72	950.16	1680179.02	14314815.02	39°25'11.218"N	80°51'33.140"W	4561.77	167.978	0.41	0.17	0.37	
11405.00	90.200	161.070	6541.15	4612.53	-4547.85	976.16	1680205.01	14314732.17	39°25'10.368"N	80°51'32.810"W	4651.44	167.886	4.73	-0.10	-4.73	
11494.00	90.170	158.000	6540.86	4701.51	-4631.23	1007.28	1680236.12	14314649.83	39°25'09.541"N	80°51'32.415"W	4739.50	167.729	3.45	-0.03	-3.45	
11584.00	90.140	154.190	6540.62	4791.23	-4713.43	1043.74	1680272.56	14314567.60	39°25'08.728"N	80°51'31.952"W	4827.67	167.574	4.23	-0.03	-4.23	
11674.00	90.230	157.210	6538.11	4881.06	-4796.63	1078.07	1680306.88	14314474.49	39°25'07.905"N	80°51'31.517"W	4916.29	167.333	7.50	0.00	7.50	
11763.00	90.320	166.080	6540.04	4969.91	-4881.94	1103.32	1680332.12	14314389.21	39°25'07.082"N	80°51'31.197"W	5005.06	167.265	5.78	0.20	5.78	
11853.00	90.290	166.340	6539.56	5059.45	-4969.34	1124.77	1680353.56	14314301.84	39°25'06.198"N	80°51'30.925"W	5095.05	167.246	0.29	-0.03	0.29	
11942.00	90.320	164.280	6539.09	5148.13	-5055.43	1147.34	1680376.12	14314215.79	39°25'05.346"N	80°51'30.639"W	5183.99	167.213	2.31	0.03	-2.31	
12032.00	90.350	161.490	6538.56	5238.04	-5141.43	1173.83	1680402.80	14314129.82	39°25'04.496"N	80°51'30.304"W	5273.73	167.139	3.10	0.03	-3.10	
12121.00	90.230	157.210	6538.11	5327.00	-5224.70	1205.20	1680433.96	14314046.60	39°25'03.673"N	80°51'29.905"W	5361.90	167.011	4.81	-0.13	-4.81	
12211.00	90.200	156.800	6537.77	5416.84	-5307.54	1240.36	1680469.11	14313963.78	39°25'02.853"N	80°51'29.459"W	5450.55	166.846	0.46	-0.03	-0.46	
12300.00	90.090	161.040	6537.56	5505.78	-5390.57	1272.37	1680501.10	14313880.79	39°25'02.032"N	80°51'29.053"W	5538.68	166.719	4.77	-0.13	4.76	
12390.00	90.350	164.130	6537.22	5595.71	-5476.43	1299.30	1680528.02	14313794.96	39°25'01.183"N	80°51'28.711"W	5628.45	166.653	3.45	0.30	3.43	
12479.00	90.200	161.000	6536.79	5684.84	-5561.33	1325.96	1680554.67	14313710.09	39°25'00.344"N	80°51'28.373"W	5717.22	166.590	3.52	-0.17	-3.52	
12569.00	90.200	157.900	6536.48	5774.61	-5645.59	1357.55	1680586.25	14313625.87	39°24'59.510"N	80°51'27.973"W	5806.52	166.479	3.44	0.00	-3.44	
12658.00	90.230	157.200	6536.14	5863.50	-5727.85	1391.54	1680620.22	14313543.65	39°24'58.697"N	80°51'27.541"W	5894.46	166.345	0.79	0.03	-0.78	
12748.00	90.290	158.660	6535.73	5953.40	-5811.25	1425.35	1680654.02	14313460.28	39°24'57.872"N	80°51'27.112"W	5983.50	166.219	1.62	0.07	1.62	
12838.00	90.380	160.740	6535.21	6043.39	-5895.65	1456.57	1680685.23	14313375.91	39°24'57.037"N	80°51'26.716"W	6072.92	166.122	2.31	0.10	2.31	
12927.00	90.230	164.000	6534.73	6132.33	-5980.46	1483.53	1680712.17	14313291.13	39°24'56.199"N	80°51'26.374"W	6161.72	166.068	3.67	-0.17	3.66	
13017.00	89.990	165.290	6534.57	6222.09	-6067.25	1507.36	1680735.99	14313204.38	39°24'55.341"N	80°51'26.072"W	6251.69	166.048	1.46	-0.28	1.43	
13106.00	90.010	163.770	6534.58	6310.86	-6153.02	1531.10	1680759.72	14313118.64	39°24'54.493"N	80°51'25.772"W	6340.65	166.027	1.71	0.03	-1.71	
13196.00	89.990	161.400	6534.58	6400.79	-6238.89	1558.03	1680786.65	14313032.81	39°24'53.643"N	80°51'25.430"W	6430.49	165.978	2.63	-0.03	-2.63	
13285.00	89.550	160.150	6534.95	6489.79	-6322.92	1587.33	1680815.94	14312948.81	39°24'52.812"N	80°51'25.059"W	6519.12	165.907	1.49	-0.48	-1.40	
13375.00	89.450	159.080	6535.70	6579.77	-6407.28	1618.68	1680847.27	14312864.48	39°24'51.976"N	80°51'24.661"W	6608.58	165.822	1.18	-0.07	-1.19	



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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #01
Operator	ANTERO RESOURCES CORPORATION	Well	Johnston Unit 2H
Area	Tyler County, WV	Wellbore	Johnston Unit 2H AWB
Field	Tyler		
Facility	Daie Pad		

WELLPATH DATA (342 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)	(°)	(ft/100ft)	(°/100ft)	(°/100ft)	
13465.00	89.610	157.520	6536.41	6689.70	-6490.90	1651.96	1680880.54	14312780.90	39°24'51.151"N	80°51'24.239"W	6697.81	165.721	1.74	0.13	-1.73	
13554.00	89.340	155.390	6537.23	6758.48	-6572.48	1687.51	1680916.07	14312699.35	39°24'50.344"N	80°51'23.787"W	6785.66	165.600	2.41	-0.30	-2.39	
13644.00	89.270	155.880	6538.32	6848.15	-6654.46	1724.63	1680953.18	14312617.41	39°24'49.533"N	80°51'23.316"W	6874.31	165.470	0.55	-0.08	0.54	
13733.00	89.430	159.960	6539.33	6937.01	-6736.62	1758.80	1680987.34	14312535.28	39°24'48.721"N	80°51'22.882"W	6962.43	165.368	3.47	0.18	3.46	
13823.00	89.520	162.080	6540.15	7026.98	-6821.45	1788.81	1681017.33	14312450.48	39°24'47.892"N	80°51'22.502"W	7052.10	165.308	3.47	0.10	3.47	
13912.00	90.040	161.690	6540.49	7115.96	-6906.04	1816.48	1681044.99	14312365.92	39°24'47.046"N	80°51'22.151"W	7140.94	165.263	0.73	0.58	-0.44	
14002.00	89.830	160.310	6540.60	7205.96	-6991.14	1845.78	1681074.28	14312280.86	39°24'46.204"N	80°51'21.779"W	7230.69	165.210	1.55	-0.23	-1.53	
14091.00	90.010	160.090	6540.72	7294.96	-7074.87	1875.93	1681104.42	14312197.16	39°24'45.376"N	80°51'21.397"W	7319.36	165.150	0.32	0.20	-0.25	
14181.00	89.980	160.070	6540.73	7384.95	-7159.49	1906.59	1681135.07	14312112.58	39°24'44.539"N	80°51'21.008"W	7409.01	165.088	0.04	-0.03	-0.02	
14270.00	89.980	160.220	6540.76	7473.95	-7243.20	1936.82	1681165.28	14312028.90	39°24'43.711"N	80°51'20.624"W	7497.68	165.029	0.17	0.00	0.17	
14359.00	89.980	161.400	6540.79	7562.95	-7327.25	1966.07	1681194.53	14311944.88	39°24'42.880"N	80°51'20.253"W	7586.44	164.980	1.33	0.00	1.33	
14384.00	89.980	161.400	6540.80	7587.95	-7350.95	1974.05	1681202.50	14311921.20	39°24'42.646"N	80°51'20.152"W	7611.39	164.968	0.00	0.00	0.00	Projected MD at TD: 14384'

HOLE & CASING SECTIONS - Ref Wellbore: Johnston Unit 2H AWB Ref Wellpath: Johnston Unit 2H AWP Proj: 14384'

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	19.00	59.00	40.00	19.00	59.00	0.00	0.00	0.05	0.04
13.375in Casing Surface	19.00	494.00	475.00	19.00	494.00	0.00	0.00	0.74	0.66
9.625in Casing Intermediate	19.00	2485.00	2466.00	19.00	2481.20	0.00	0.00	103.75	36.80



Actual Wellpath Report
Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Dale Pad		

TARGETS								
Name	TVD (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Shape
Johnston Unit 2H POE Rev-1	6487.00	-250.27	-554.83	1678674.64	14319019.03	39°25'52.864"N	80°51'52.236"W	point
Johnston Unit 2H BHL Rev-1	6509.00	-7338.41	1959.30	1681187.75	14311933.73	39°24'42.770"N	80°51'20.340"W	point
Johnston Unit 2H LP Rev-1	6509.00	-398.47	-502.26	1678727.18	14318870.89	39°25'51.398"N	80°51'51.569"W	point

WELLPATH COMPOSITION - Ref Wellbores: Johnston Unit 2H AWB Ref Wellpath: Johnston Unit 2H AWP Proj: 14384'			
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment
19.00	5687.33	SDI Keeper v1.04	
5687.33	14359.00	BHI AutoTrak Curve w/ Surcon (MagCAD, Short spacing)	01 SDI Std. Keeper Gyro (100'-5687.33')
14359.00	14384.00	Blind Drilling (std)	02_BHI AT Curve <8-1/2">(5763'-14359') Projection to bit
			Johnston Unit 2H AWB
			Johnston Unit 2H AWB
			Johnston Unit 2H AWB



Actual Wellpath Report

Johnston Unit 2H AWP Proj: 14384'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Johnston Unit 2H
Field	Tyler	Wellbore	Johnston Unit 2H AWB
Facility	Date Pad		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
100.00	0.400	40.710	100.00	SDI Std. Keeper Gyro (100'-5687.33')
5763.00	30.100	289.750	5669.29	BHI AT Curve <8-1/2">(5687.33')(5763'-14359')
6279.00	25.275	208.207	6140.27	Sycamore: 6279' MD
6496.00	44.622	179.577	6318.86	Middlesex: 6496' MD
6655.00	60.055	168.521	6415.40	Burkett: 6655' MD
6729.00	66.498	164.301	6448.58	Tully: 6729' MD
6840.00	75.861	160.650	6484.16	Marcellus: 6840' MD
14384.00	89.980	161.400	6540.80	Projected MD at TD: 14384'

COMMENTS

Wellpath general comments
 API #: 47-095-02306-0000
 BHI Job #: 8047120
 Rig: PD 523
 Duration: 07.11.2016-07.13.2016
 SDI Std. Keeper Gyro (100'-5687.33')
 BHI AT Curve <8-1/2">(5687.33')(5763'-14359')
 Sycamore: 6279' MD
 Middlesex: 6496' MD
 Burkett: 6655' MD
 Tully: 6729' MD
 Marcellus: 6840' MD
 Projected MD at TD: 14384'