



# ANTERO RESOURCES CORPORATION

Location: Tyler County, WV  
 Field: Tyler  
 Facility: Dale Pad

Slot: Slot #06  
 Well: Jug Unit 2H  
 Wellbore: Jug Unit 2H PWB

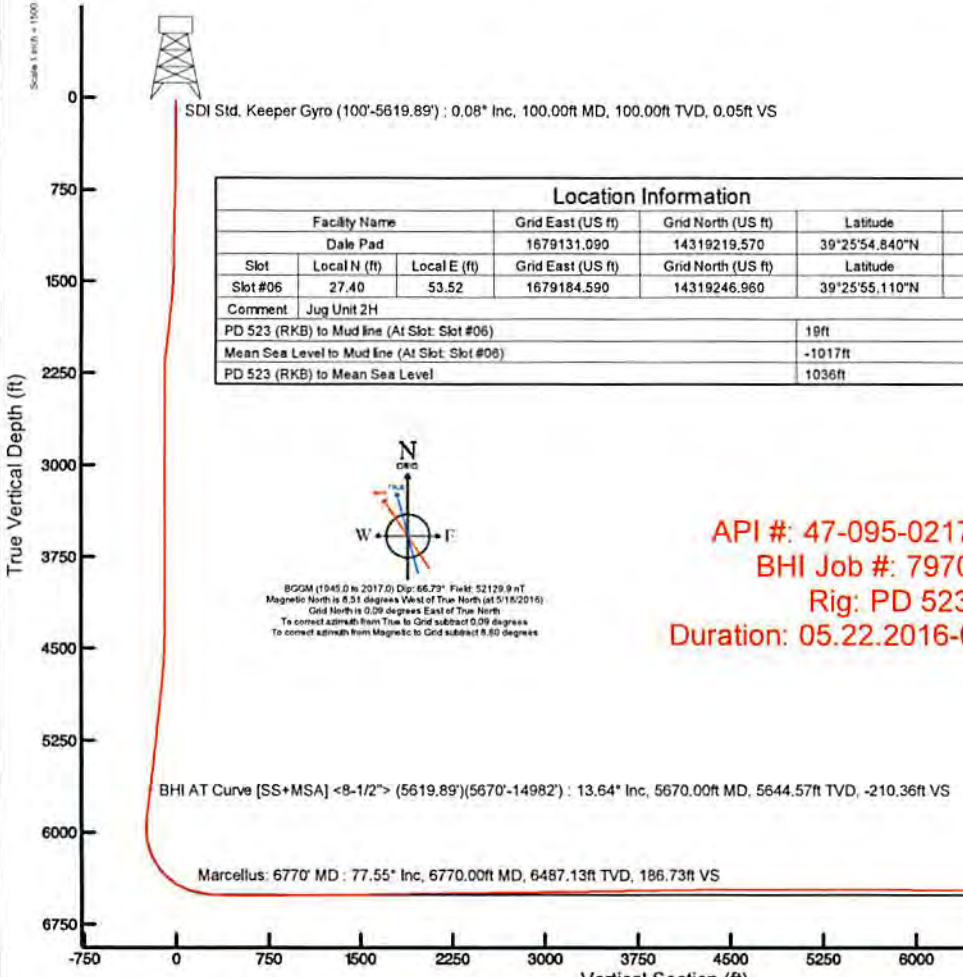
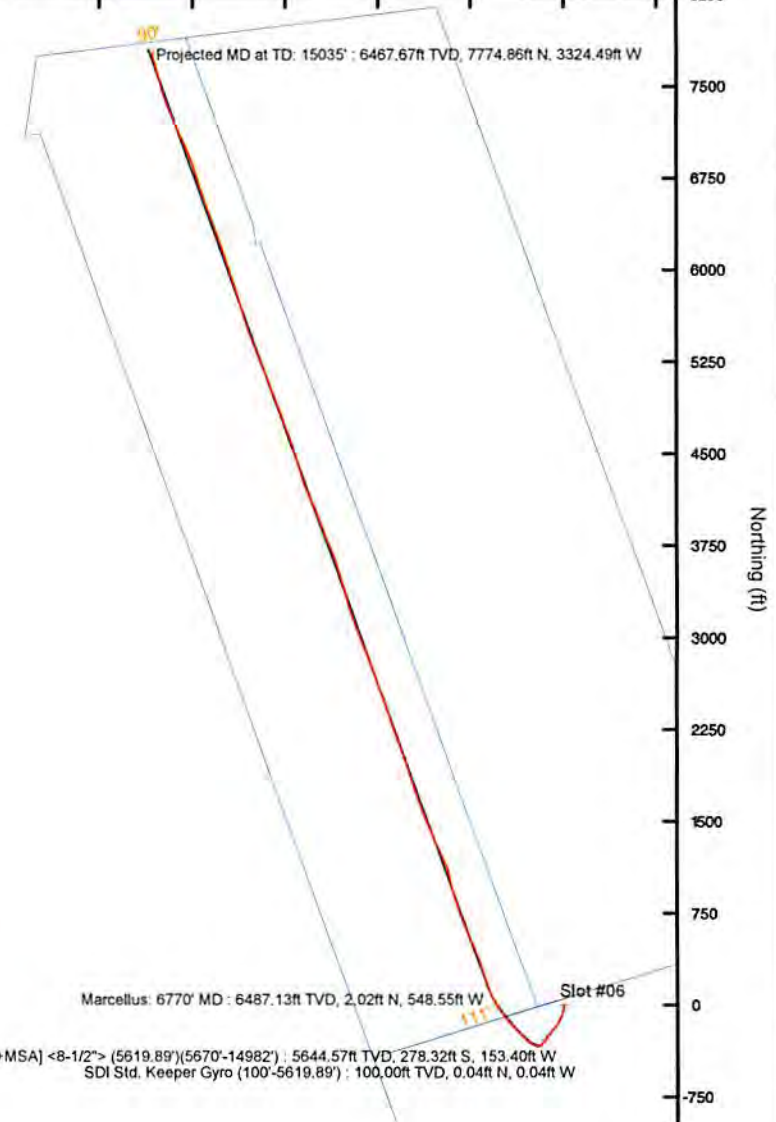


Scale 1 inch = 1500  
 Easting (ft)  
 -3750 -3000 -2250 -1500 -750 0 750

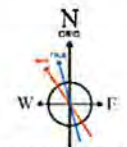
Plot reference wellpath is Jug Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to PD 523 (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to PD 523 (RKB)	North Reference: Grid north
PD 523 (RKB) to Mean Sea Level: 1036 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #06): -1017 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: harelik on 2016-06-10
	Database: WA_MPL_EASTERNUS_Defn

## Well Data

Slot	Well	Wellbore	Wellpath
Slot #06	Jug Unit 2H	Jug Unit 2H AWP	Jug Unit 2H AWP Proj: 15035'
Slot #06	Jug Unit 2H	Jug Unit 2H PWB	Jug Unit 2H PWP Rev-A.0



Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Dale Pad		1679131.090	14319219.570	39°25'54.840"N	80°51'46.413"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #06	27.40	53.52	1679184.590	14319246.960	39°25'55.110"N	80°51'45.730"W
Comment		Jug Unit 2H				
PD 523 (RKB) to Mud line (At Slot: Slot #06)		19ft				
Mean Sea Level to Mud line (At Slot: Slot #06)		-1017ft				
PD 523 (RKB) to Mean Sea Level		1036ft				



BGGM (1945.0 to 2017.0) Dip: 66.73° Field: 52129.9 nT  
 Magnetic North is 8.51 degrees West of True North (at 5/18/2016)  
 Grid North is 0.09 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.09 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.50 degrees

API #: 47-095-02171-0000  
 BHI Job #: 7970373  
 Rig: PD 523  
 Duration: 05.22.2016-05.25.2016

Azimuth 340.31° with reference 0.00 N, 0.00 E



## Actual Wellpath Report

Jug Unit 2H AWP Proj: 15035'

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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Dale 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	6/10/2016 at 1:37:21 PM
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Jug_Unit_2H_AWP_Proj_15035_.xml

### WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	27.40	53.52	1679184.59	14319246.96	39°25'55.110"N	80°51'45.730"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 #06)	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	340.31°



Actual Wellpath Report  
Jug Unit 2H AWP Proj: 15035  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (346 stations) † = interpolated/extrapolated station														
MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
0.00	0.00	308.730	19.00	0.00	0.00	0.00	1679184.59	14319246.96	39°25'55.10"N	80°51'45.73"W	0.00	0.00	0.00	
19.00	0.000	308.730	19.00	0.00	0.00	0.00	1679184.59	14319246.96	39°25'55.10"N	80°51'45.73"W	0.00	0.00	0.00	
100.00	0.080	308.730	100.00	0.05	0.04	-0.04	1679184.55	14319247.00	39°25'55.110"N	80°51'45.731"W	0.06	308.730	0.10	SDI Std. Keeper Gyro (100°56'19.89")
150.00	0.110	250.050	150.00	0.08	0.05	-0.12	1679184.47	14319247.01	39°25'55.111"N	80°51'45.732"W	0.13	294.424	0.31	
175.00	0.050	209.280	175.00	0.08	0.04	-0.15	1679184.44	14319247.00	39°25'55.110"N	80°51'45.732"W	0.15	284.016	0.32	
200.00	0.030	288.100	200.00	0.08	0.03	-0.16	1679184.43	14319246.99	39°25'55.110"N	80°51'45.732"W	0.16	280.474	0.21	
225.00	0.120	272.520	225.00	0.10	0.03	-0.19	1679184.40	14319246.99	39°25'55.110"N	80°51'45.732"W	0.20	279.665	0.37	
250.00	0.120	306.960	250.00	0.13	0.05	-0.24	1679184.35	14319247.01	39°25'55.111"N	80°51'45.733"W	0.24	281.715	0.28	
275.00	0.060	228.560	275.00	0.14	0.06	-0.27	1679184.32	14319247.02	39°25'55.111"N	80°51'45.733"W	0.28	281.858	0.49	
300.00	0.100	265.080	300.00	0.15	0.05	-0.30	1679184.29	14319247.01	39°25'55.110"N	80°51'45.734"W	0.31	278.705	0.25	
325.00	0.120	258.200	325.00	0.15	0.04	-0.35	1679184.24	14319247.00	39°25'55.110"N	80°51'45.734"W	0.35	276.371	0.10	
350.00	0.080	230.620	350.00	0.15	0.02	-0.39	1679184.20	14319246.98	39°25'55.110"N	80°51'45.735"W	0.39	273.325	0.25	
375.00	0.070	265.480	375.00	0.15	0.01	-0.42	1679184.17	14319246.97	39°25'55.110"N	80°51'45.735"W	0.42	271.412	0.18	
400.00	0.100	263.260	400.00	0.16	0.01	-0.45	1679184.14	14319246.97	39°25'55.110"N	80°51'45.736"W	0.45	270.823	0.12	
425.00	0.090	271.850	425.00	0.17	0.00	-0.50	1679184.10	14319246.96	39°25'55.110"N	80°51'45.736"W	0.50	270.531	0.07	
450.00	0.130	218.700	450.00	0.16	0.02	-0.53	1679184.06	14319246.94	39°25'55.110"N	80°51'45.737"W	0.53	268.181	0.42	
475.00	0.340	164.960	475.00	0.07	-0.11	-0.53	1679184.06	14319246.85	39°25'55.109"N	80°51'45.737"W	0.54	258.226	1.13	
500.00	0.390	167.210	500.00	-0.08	-0.27	-0.49	1679184.10	14319246.69	39°25'55.107"N	80°51'45.736"W	0.56	241.711	0.21	
525.00	0.450	160.670	525.00	-0.27	-0.44	-0.44	1679184.15	14319246.52	39°25'55.106"N	80°51'45.736"W	0.62	225.045	0.31	
550.00	0.460	160.460	550.00	-0.46	-0.63	-0.38	1679184.21	14319246.33	39°25'55.104"N	80°51'45.735"W	0.73	210.874	0.04	
575.00	0.620	182.800	575.00	-0.69	-0.86	-0.35	1679184.24	14319246.10	39°25'55.102"N	80°51'45.734"W	0.93	202.115	1.05	
600.00	0.910	181.580	599.99	-1.00	-1.19	-0.36	1679184.23	14319245.77	39°25'55.098"N	80°51'45.735"W	1.24	196.843	1.16	
625.00	1.070	186.920	624.99	-1.39	-1.62	-0.39	1679184.20	14319245.34	39°25'55.094"N	80°51'45.735"W	1.67	193.666	0.74	
650.00	1.180	183.600	649.99	-1.84	-2.11	-0.44	1679184.15	14319244.85	39°25'55.089"N	80°51'45.736"W	2.16	191.740	0.51	
675.00	1.290	186.130	674.98	-2.33	-2.65	-0.48	1679184.11	14319244.31	39°25'55.084"N	80°51'45.736"W	2.69	190.378	0.49	
700.00	1.450	187.350	699.97	-2.86	-3.24	-0.56	1679184.03	14319243.72	39°25'55.078"N	80°51'45.737"W	3.29	189.724	0.65	
725.00	1.590	187.140	724.96	-3.46	-3.90	-0.64	1679183.95	14319243.06	39°25'55.072"N	80°51'45.738"W	3.95	189.307	0.56	
750.00	1.660	187.220	749.95	-4.09	-4.60	-0.73	1679183.86	14319242.36	39°25'55.065"N	80°51'45.739"W	4.66	188.984	0.28	
775.00	1.840	185.830	774.94	-4.77	-5.36	-0.81	1679183.78	14319241.60	39°25'55.057"N	80°51'45.740"W	5.42	188.632	0.74	



**Actual Wellpath Report**  
 Jug Unit 2H AWP Proj: 15035  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWP
Facility	Date Pad		

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
800.00	1.980	185.780	799.93	-5.52	-6.19	-0.90	1679183.69	14319240.77	39°25'55.049"N	80°51'45.742"W	6.25	188.256	0.56	
825.00	2.180	182.650	824.91	-6.35	-7.09	-0.96	1679183.63	14319239.87	39°25'55.040"N	80°51'45.742"W	7.16	187.735	0.92	
850.00	2.230	182.930	849.89	-7.24	-8.05	-1.01	1679183.58	14319238.91	39°25'55.030"N	80°51'45.743"W	8.12	187.150	0.20	
875.00	2.200	180.820	874.87	-8.14	-9.02	-1.04	1679183.55	14319237.94	39°25'55.021"N	80°51'45.743"W	9.08	186.590	0.35	
900.00	2.170	184.750	899.86	-9.02	-9.97	-1.09	1679183.50	14319236.99	39°25'55.011"N	80°51'45.744"W	10.03	186.228	0.61	
925.00	2.410	183.290	924.84	-9.94	-10.97	-1.16	1679183.43	14319236.00	39°25'55.002"N	80°51'45.745"W	11.03	186.024	0.99	
950.00	2.220	181.600	949.82	-10.87	-11.98	-1.20	1679183.39	14319234.99	39°25'54.992"N	80°51'45.746"W	12.04	185.727	0.81	
975.00	2.070	186.260	974.80	-11.73	-12.91	-1.26	1679183.33	14319234.06	39°25'54.982"N	80°51'45.746"W	12.97	185.592	1.42	
1000.00	1.720	184.460	999.78	-12.48	-13.73	-1.34	1679183.25	14319233.23	39°25'54.974"N	80°51'45.747"W	13.80	185.583	1.32	
1025.00	1.460	188.430	1024.78	-13.10	-14.42	-1.42	1679183.17	14319232.54	39°25'54.968"N	80°51'45.748"W	14.49	185.616	1.13	
1050.00	1.130	188.260	1049.77	-13.60	-14.98	-1.50	1679183.09	14319231.99	39°25'54.962"N	80°51'45.749"W	15.06	185.719	1.32	
1075.00	1.070	189.850	1074.76	-14.02	-15.45	-1.58	1679183.01	14319231.51	39°25'54.957"N	80°51'45.750"W	15.53	185.821	0.27	
1100.00	1.050	187.560	1099.76	-14.43	-15.91	-1.65	1679182.94	14319231.05	39°25'54.953"N	80°51'45.751"W	16.00	185.905	0.19	
1125.00	1.030	189.080	1124.76	-14.83	-16.36	-1.71	1679182.88	14319230.61	39°25'54.948"N	80°51'45.752"W	16.45	185.971	0.14	
1150.00	0.990	192.420	1149.75	-15.21	-16.79	-1.79	1679182.80	14319230.17	39°25'54.944"N	80°51'45.753"W	16.89	186.095	0.28	
1175.00	0.930	191.070	1174.75	-15.56	-17.20	-1.88	1679182.71	14319229.76	39°25'54.940"N	80°51'45.754"W	17.31	186.232	0.26	
1200.00	1.100	195.750	1199.74	-15.93	-17.63	-1.98	1679182.61	14319229.33	39°25'54.936"N	80°51'45.756"W	17.74	186.415	0.76	
1225.00	1.090	195.160	1224.74	-16.32	-18.09	-2.11	1679182.48	14319228.87	39°25'54.931"N	80°51'45.757"W	18.22	186.652	0.06	
1250.00	1.240	201.400	1249.73	-16.72	-18.58	-2.27	1679182.32	14319228.39	39°25'54.926"N	80°51'45.759"W	18.71	186.970	0.78	
1275.00	1.250	208.240	1274.73	-17.11	-19.07	-2.50	1679182.09	14319227.90	39°25'54.922"N	80°51'45.762"W	19.23	187.466	0.60	
1300.00	1.270	207.730	1299.72	-17.48	-19.55	-2.76	1679181.83	14319227.42	39°25'54.917"N	80°51'45.766"W	19.75	188.025	0.09	
1325.00	1.380	209.150	1324.72	-17.87	-20.06	-3.03	1679181.56	14319226.91	39°25'54.912"N	80°51'45.769"W	20.29	188.595	0.46	
1350.00	1.410	208.120	1349.71	-18.27	-20.60	-3.32	1679181.27	14319226.37	39°25'54.907"N	80°51'45.773"W	20.86	189.168	0.16	
1375.00	1.460	213.350	1374.70	-18.67	-21.13	-3.64	1679180.95	14319225.84	39°25'54.901"N	80°51'45.777"W	21.44	189.783	0.56	
1400.00	1.690	206.480	1399.69	-19.12	-21.73	-3.98	1679180.61	14319225.24	39°25'54.895"N	80°51'45.781"W	22.09	190.388	1.19	
1425.00	2.480	204.610	1424.67	-19.76	-22.55	-4.37	1679180.22	14319224.42	39°25'54.887"N	80°51'45.786"W	22.97	190.975	3.17	
1450.00	2.960	201.850	1449.65	-20.63	-23.64	-4.84	1679179.75	14319223.33	39°25'54.876"N	80°51'45.792"W	24.13	191.566	1.99	
1475.00	3.080	202.500	1474.61	-21.61	-24.86	-5.34	1679179.26	14319222.11	39°25'54.864"N	80°51'45.798"W	25.43	192.113	0.50	
1500.00	3.690	200.460	1499.57	-22.72	-26.23	-5.87	1679178.72	14319220.74	39°25'54.851"N	80°51'45.805"W	26.88	192.620	2.49	
1525.00	4.290	197.620	1524.51	-24.08	-27.88	-6.44	1679178.15	14319219.09	39°25'54.835"N	80°51'45.813"W	28.61	193.003	2.53	



**Actual Wellpath Report**  
 Jug Unit 2H AWP Proj: 15035  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Date Pad		

**WELLPATH DATA (346 stations)**

MD	Inclination	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
1550.00	4.710	196.610	1549.43	-25.65	-29.75	-7.01	1679177.58	14319217.22	39.2554,816	80.5145,820	193.265	1.71
1575.00	5.030	195.650	1574.34	-27.37	-31.79	-7.60	1679176.99	14319215.18	39.2554,796	80.5145,828	193.450	1.32
1600.00	5.590	194.250	1599.23	-29.28	-34.03	-8.20	1679176.39	14319212.94	39.2554,774	80.5145,835	193.547	2.30
1625.00	6.230	191.700	1624.10	-31.45	-36.54	-8.77	1679175.82	14319210.44	39.2554,749	80.5145,843	193.603	2.77
1650.00	6.470	192.010	1648.95	-33.80	-39.24	-9.34	1679175.25	14319207.73	39.2554,722	80.5145,850	193.390	0.97
1675.00	6.500	191.050	1673.78	-36.26	-42.06	-9.92	1679174.68	14319204.91	39.2554,694	80.5145,857	193.266	1.20
1700.00	6.840	190.810	1698.60	-38.81	-44.97	-10.48	1679174.12	14319202.01	39.2554,667	80.5145,864	193.117	0.38
1725.00	6.940	190.350	1723.42	-41.40	-47.92	-11.03	1679173.57	14319199.06	39.2554,637	80.5145,871	192.962	0.46
1750.00	7.080	190.630	1748.24	-44.04	-50.92	-11.58	1679173.01	14319196.06	39.2554,607	80.5145,879	192.818	0.58
1775.00	7.090	192.130	1773.05	-46.68	-53.94	-12.19	1679172.40	14319193.04	39.2554,577	80.5145,886	192.737	0.74
1800.00	7.090	194.920	1797.85	-49.26	-56.94	-12.91	1679171.68	14319190.05	39.2554,547	80.5145,896	192.779	1.38
1825.00	7.060	196.580	1822.66	-51.77	-59.90	-13.75	1679170.85	14319187.08	39.2554,518	80.5145,906	192.928	0.83
1850.00	7.010	199.290	1847.48	-54.19	-62.81	-14.69	1679169.90	14319184.17	39.2554,489	80.5145,918	193.165	1.34
1875.00	7.200	200.130	1872.28	-56.58	-65.72	-15.74	1679168.86	14319181.26	39.2554,461	80.5145,932	193.464	0.87
1900.00	7.280	201.180	1897.09	-58.98	-68.67	-16.85	1679167.75	14319178.32	39.2554,432	80.5145,946	193.784	0.82
1925.00	7.420	201.100	1921.88	-61.40	-71.66	-18.00	1679166.60	14319175.33	39.2554,402	80.5145,961	194.101	0.56
1950.00	7.680	201.070	1946.66	-63.89	-74.72	-19.18	1679165.42	14319172.27	39.2554,372	80.5145,976	194.398	1.04
1975.00	7.880	200.890	1971.43	-66.45	-77.88	-20.39	1679164.20	14319169.11	39.2554,341	80.5145,991	194.674	0.81
2000.00	8.100	200.790	1996.19	-69.10	-81.13	-21.63	1679162.97	14319165.87	39.2554,309	80.5146,007	194.928	0.88
2025.00	8.120	200.520	2020.94	-71.78	-84.43	-22.87	1679161.73	14319162.57	39.2554,276	80.5146,023	195.169	0.17
2050.00	7.760	197.880	2045.70	-74.47	-87.69	-24.01	1679160.59	14319159.31	39.2554,244	80.5146,038	195.313	2.05
2075.00	7.020	195.570	2070.49	-77.06	-90.77	-24.94	1679159.66	14319156.23	39.2554,213	80.5146,050	195.364	3.19
2100.00	6.940	194.870	2095.31	-79.55	-93.70	-25.74	1679158.86	14319153.30	39.2554,184	80.5146,060	195.359	0.47
2125.00	6.320	195.190	2120.14	-81.92	-96.48	-26.48	1679158.12	14319150.51	39.2554,157	80.5146,069	195.349	2.48
2150.00	5.160	195.390	2145.01	-83.97	-98.90	-27.14	1679157.46	14319148.10	39.2554,133	80.5146,078	195.348	4.64
2175.00	4.150	193.550	2169.93	-85.65	-100.86	-27.66	1679156.95	14319146.14	39.2554,114	80.5146,084	195.333	4.08
2200.00	3.660	194.570	2194.87	-87.06	-102.51	-28.07	1679156.53	14319144.49	39.2554,097	80.5146,090	195.312	1.98
2225.00	2.360	199.360	2219.84	-88.12	-103.77	-28.44	1679156.16	14319143.23	39.2554,085	80.5146,094	195.326	5.29
2250.00	1.290	207.950	2244.83	-88.71	-104.50	-28.74	1679155.86	14319142.50	39.2554,078	80.5146,098	195.377	4.41
2275.00	0.720	216.290	2269.82	-88.99	-104.88	-28.96	1679155.64	14319142.12	39.2554,074	80.5146,101	195.438	2.33



**Actual Wellpath Report**  
 Jug Unit 2H AWP Proj: 15035  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Date Pad		

**WELLPATH DATA (346 stations)**

MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grd East	Grd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
2300.00	0.540	258.630	2294.82	-9.06	-105.03	-29.17	1679155.43	14319141.97	39.2554,072°N	80.5146,104°W	109.01	195.521	1.98	
2325.00	0.580	293.370	2319.82	-88.66	-105.01	-29.40	1679155.20	14319142.00	39.2554,073°N	80.5146,107°W	109.04	195.642	1.35	
2350.00	0.710	310.910	2344.82	-88.74	-104.85	-29.63	1679154.97	14319142.15	39.2554,074°N	80.5146,110°W	108.96	195.782	0.94	
2375.00	0.550	320.660	2369.82	-88.49	-104.66	-29.83	1679154.77	14319142.34	39.2554,076°N	80.5146,112°W	108.83	195.907	0.77	
2400.00	0.490	320.240	2394.81	-88.28	-104.48	-29.97	1679154.63	14319142.52	39.2554,078°N	80.5146,114°W	108.70	196.006	0.24	
2425.00	0.410	29.470	2419.81	-88.12	-104.32	-30.00	1679154.61	14319142.68	39.2554,079°N	80.5146,114°W	108.55	196.042	2.06	
2450.00	0.540	48.210	2444.81	-88.01	-104.17	-29.86	1679154.74	14319142.83	39.2554,081°N	80.5146,113°W	108.36	195.997	0.80	
2475.00	0.450	62.220	2469.81	-87.96	-104.04	-29.69	1679154.91	14319142.96	39.2554,082°N	80.5146,110°W	108.20	195.927	0.60	
2500.00	0.370	73.030	2494.81	-87.95	-103.97	-29.53	1679155.08	14319143.03	39.2554,083°N	80.5146,108°W	108.09	195.853	0.44	
2525.00	0.450	60.770	2519.81	-87.93	-103.90	-29.36	1679155.24	14319143.10	39.2554,084°N	80.5146,106°W	107.97	195.780	0.47	
2550.00	0.400	65.940	2544.81	-87.91	-103.82	-29.20	1679155.40	14319143.18	39.2554,084°N	80.5146,104°W	107.85	195.708	0.25	
2575.00	0.250	60.140	2569.81	-87.90	-103.76	-29.07	1679155.53	14319143.25	39.2554,085°N	80.5146,102°W	107.75	195.652	0.61	
2600.00	0.260	53.640	2594.81	-87.87	-103.70	-28.98	1679155.62	14319143.31	39.2554,086°N	80.5146,101°W	107.67	195.613	0.12	
2625.00	0.310	32.300	2619.81	-87.81	-103.60	-28.90	1679155.71	14319143.40	39.2554,086°N	80.5146,100°W	107.56	195.584	0.47	
2650.00	0.160	32.140	2669.81	-87.66	-103.43	-28.86	1679155.74	14319143.57	39.2554,088°N	80.5146,100°W	107.38	195.590	0.71	
2675.00	0.220	14.280	2644.81	-87.73	-103.50	-28.85	1679155.75	14319143.50	39.2554,088°N	80.5146,100°W	107.45	195.674	0.49	
2700.00	0.120	330.790	2694.81	-87.60	-103.38	-28.89	1679155.71	14319143.62	39.2554,089°N	80.5146,100°W	107.34	195.615	0.19	
2725.00	0.130	355.440	2719.81	-87.55	-103.33	-28.91	1679155.69	14319143.67	39.2554,089°N	80.5146,100°W	107.29	195.630	0.22	
2750.00	0.060	334.380	2744.81	-87.50	-103.29	-28.92	1679155.69	14319143.72	39.2554,090°N	80.5146,101°W	107.26	195.640	0.31	
2775.00	0.260	336.650	2769.81	-87.44	-103.22	-28.94	1679155.66	14319143.78	39.2554,090°N	80.5146,101°W	107.21	195.663	0.76	
2800.00	0.310	311.670	2794.81	-87.32	-103.13	-29.02	1679155.59	14319143.87	39.2554,091°N	80.5146,102°W	107.13	195.714	0.52	
2825.00	0.370	288.960	2819.81	-87.21	-103.06	-29.14	1679155.46	14319143.94	39.2554,092°N	80.5146,103°W	107.10	195.790	0.58	
2850.00	0.200	282.370	2844.81	-87.14	-103.02	-29.26	1679155.34	14319143.98	39.2554,092°N	80.5146,105°W	107.10	195.856	0.69	
2875.00	0.210	295.140	2869.81	-87.08	-102.99	-29.35	1679155.26	14319144.01	39.2554,093°N	80.5146,106°W	107.09	195.904	0.19	
2900.00	0.360	320.740	2894.81	-86.98	-102.91	-29.44	1679155.16	14319144.09	39.2554,093°N	80.5146,107°W	107.04	195.963	0.77	
2925.00	0.350	311.820	2919.81	-86.84	-102.80	-29.54	1679155.06	14319144.20	39.2554,094°N	80.5146,109°W	106.96	196.034	0.22	
2950.00	0.450	325.980	2944.81	-86.68	-102.67	-29.66	1679154.95	14319144.33	39.2554,096°N	80.5146,110°W	106.87	196.111	0.56	
2975.00	0.420	304.770	2969.81	-86.51	-102.54	-29.79	1679154.82	14319144.46	39.2554,097°N	80.5146,112°W	106.78	196.198	0.65	
3000.00	0.450	317.310	2994.80	-86.34	-102.41	-29.93	1679154.67	14319144.59	39.2554,098°N	80.5146,113°W	106.70	196.290	0.40	
3025.00	0.440	305.030	3019.80	-86.17	-102.28	-30.07	1679154.53	14319144.72	39.2554,100°N	80.5146,115°W	106.61	196.384	0.38	



**Actual Wellpath Report**  
 Jug Unit 2H AWP Proj: 15035  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Date Pad		

**WELLPATH DATA (346 stations)**

MD	Inclination	Azimuth	TVD	Vert Sect	East	North	East	Grd East	Grd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
3050.00	0.410	291.890	3044.80	-86.03	-102.20	-30.23	1679154.37	14319144.80	39.2554,100N	80.5146,117W	106.58	196.481	0.41		
3075.00	0.360	298.780	3069.80	-85.92	-102.13	-30.39	1679154.22	14319144.88	39.2554,101N	80.5146,119W	106.55	196.570	0.27		
3100.00	0.410	277.520	3094.80	-85.82	-102.08	-30.54	1679154.06	14319144.92	39.2554,102N	80.5146,121W	106.55	196.659	0.60		
3125.00	0.380	293.680	3119.80	-85.72	-102.03	-30.71	1679153.89	14319144.97	39.2554,102N	80.5146,123W	106.55	196.751	0.46		
3150.00	0.390	286.680	3144.80	-85.61	-101.97	-30.87	1679153.74	14319145.03	39.2554,103N	80.5146,125W	106.54	196.841	0.19		
3175.00	0.410	291.630	3169.80	-85.50	-101.92	-31.03	1679153.57	14319145.08	39.2554,103N	80.5146,127W	106.54	196.934	0.16		
3200.00	0.360	268.390	3194.80	-85.42	-101.89	-31.19	1679153.41	14319145.12	39.2554,104N	80.5146,130W	106.55	197.022	0.65		
3225.00	0.200	247.240	3219.80	-85.40	-101.90	-31.31	1679153.29	14319145.10	39.2554,103N	80.5146,131W	106.61	197.080	0.75		
3250.00	0.200	204.680	3244.80	-85.43	-101.96	-31.37	1679153.23	14319145.04	39.2554,103N	80.5146,132W	106.68	197.101	0.58		
3275.00	0.160	195.850	3269.80	-85.49	-102.03	-31.40	1679153.20	14319144.97	39.2554,102N	80.5146,132W	106.76	197.104	0.19		
3300.00	0.140	174.240	3294.80	-85.55	-102.10	-31.40	1679153.20	14319144.90	39.2554,101N	80.5146,132W	106.82	197.097	0.24		
3325.00	0.080	237.190	3319.80	-85.58	-102.14	-31.42	1679153.19	14319144.86	39.2554,101N	80.5146,132W	106.86	197.097	0.50		
3350.00	0.080	165.730	3344.80	-85.60	-102.16	-31.43	1679153.18	14319144.84	39.2554,101N	80.5146,132W	106.89	197.098	0.37		
3375.00	0.100	216.640	3369.80	-85.63	-102.20	-31.43	1679153.17	14319144.80	39.2554,100N	80.5146,133W	106.92	197.097	0.32		
3400.00	0.090	239.340	3394.80	-85.65	-102.23	-31.46	1679153.14	14319144.77	39.2554,100N	80.5146,133W	106.96	197.108	0.15		
3425.00	0.130	254.290	3419.80	-85.65	-102.24	-31.51	1679153.09	14319144.76	39.2554,100N	80.5146,134W	106.99	197.128	0.20		
3450.00	0.250	250.260	3444.80	-85.65	-102.27	-31.59	1679153.02	14319144.73	39.2554,100N	80.5146,135W	107.04	197.164	0.48		
3475.00	0.250	262.450	3469.80	-85.64	-102.30	-31.69	1679152.91	14319144.71	39.2554,099N	80.5146,136W	107.09	197.214	0.21		
3500.00	0.260	261.890	3494.80	-85.62	-102.32	-31.80	1679152.80	14319144.68	39.2554,099N	80.5146,137W	107.15	197.265	0.19		
3525.00	0.270	228.010	3519.80	-85.64	-102.38	-31.90	1679152.70	14319144.62	39.2554,099N	80.5146,138W	107.23	197.306	0.44		
3550.00	0.250	211.560	3544.80	-85.70	-102.46	-31.97	1679152.63	14319144.54	39.2554,098N	80.5146,139W	107.34	197.329	0.31		
3575.00	0.220	231.960	3569.80	-85.75	-102.54	-32.04	1679152.57	14319144.46	39.2554,097N	80.5146,140W	107.43	197.351	0.35		
3600.00	0.200	222.050	3594.80	-85.79	-102.60	-32.10	1679152.50	14319144.40	39.2554,096N	80.5146,141W	107.51	197.375	0.17		
3625.00	0.230	221.360	3619.80	-85.83	-102.67	-32.17	1679152.44	14319144.33	39.2554,096N	80.5146,142W	107.59	197.396	0.12		
3650.00	0.160	191.490	3644.80	-85.88	-102.74	-32.21	1679152.40	14319144.26	39.2554,095N	80.5146,142W	107.67	197.405	0.48		
3675.00	0.110	234.810	3669.80	-85.92	-102.79	-32.23	1679152.37	14319144.21	39.2554,095N	80.5146,143W	107.73	197.410	0.44		
3700.00	0.240	234.240	3694.80	-85.94	-102.84	-32.30	1679152.31	14319144.17	39.2554,094N	80.5146,144W	107.79	197.435	0.52		
3725.00	0.140	201.370	3719.80	-85.98	-102.89	-32.35	1679152.25	14319144.11	39.2554,094N	80.5146,144W	107.86	197.453	0.58		
3750.00	0.160	125.770	3744.80	-86.03	-102.94	-32.33	1679152.27	14319144.06	39.2554,093N	80.5146,144W	107.90	197.436	0.74		
3775.00	0.360	115.740	3769.80	-86.12	-103.00	-32.23	1679152.37	14319144.00	39.2554,093N	80.5146,143W	107.92	197.377	0.82		



## Actual Wellpath Report

Jug Unit 2H AWP Proj: 15035  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWP
Facility	Date Pad		

WELLPATH DATA (346 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 (°)
3800.00	0.390	108.670	3794.80	-86.22	-103.06	-32.08	1679152.52	14319143.94	39°25'54.092"N	80°51'46.141"W	107.94	197.291
3825.00	0.410	115.130	3819.80	-86.34	-103.12	-31.92	1679152.68	14319143.88	39°25'54.091"N	80°51'46.139"W	107.95	197.199
3850.00	0.460	109.630	3844.79	-86.47	-103.20	-31.74	1679152.86	14319143.80	39°25'54.091"N	80°51'46.137"W	107.97	197.098
3875.00	0.440	115.550	3869.79	-86.60	-103.27	-31.56	1679153.04	14319143.73	39°25'54.090"N	80°51'46.134"W	107.99	196.995
3900.00	0.470	100.860	3894.79	-86.72	-103.33	-31.38	1679153.23	14319143.67	39°25'54.089"N	80°51'46.132"W	107.99	196.890
3925.00	0.480	108.520	3919.79	-86.84	-103.38	-31.18	1679153.43	14319143.62	39°25'54.089"N	80°51'46.129"W	107.98	196.781
3950.00	0.370	115.650	3944.79	-86.96	-103.45	-31.00	1679153.60	14319143.55	39°25'54.088"N	80°51'46.127"W	108.00	196.683
3975.00	0.490	84.960	3969.79	-87.04	-103.48	-30.82	1679153.78	14319143.52	39°25'54.088"N	80°51'46.125"W	107.97	196.588
4000.00	0.280	111.870	3994.79	-87.11	-103.49	-30.66	1679153.94	14319143.51	39°25'54.088"N	80°51'46.123"W	107.94	196.503
4025.00	0.290	198.540	4019.79	-87.20	-103.57	-30.62	1679153.98	14319143.43	39°25'54.087"N	80°51'46.122"W	108.01	196.472
4050.00	0.200	165.010	4044.79	-87.29	-103.58	-30.63	1679153.97	14319143.32	39°25'54.086"N	80°51'46.122"W	108.11	196.461
4075.00	0.230	170.680	4069.79	-87.39	-103.77	-30.61	1679153.99	14319143.23	39°25'54.085"N	80°51'46.122"W	108.19	196.437
4100.00	0.410	174.580	4094.79	-87.52	-103.91	-30.60	1679154.00	14319143.09	39°25'54.084"N	80°51'46.122"W	108.32	196.408
4125.00	0.470	176.930	4119.79	-87.71	-104.10	-30.58	1679154.02	14319142.90	39°25'54.082"N	80°51'46.122"W	108.50	196.373
4150.00	0.440	170.820	4144.79	-87.90	-104.30	-30.56	1679154.04	14319142.71	39°25'54.080"N	80°51'46.122"W	108.68	196.333
4175.00	0.360	184.380	4169.79	-88.07	-104.47	-30.55	1679154.05	14319142.53	39°25'54.078"N	80°51'46.121"W	108.85	196.302
4200.00	0.320	188.250	4194.79	-88.20	-104.62	-30.57	1679154.03	14319142.39	39°25'54.077"N	80°51'46.122"W	108.99	196.289
4225.00	0.300	194.590	4219.79	-88.32	-104.75	-30.60	1679154.01	14319142.25	39°25'54.075"N	80°51'46.122"W	109.13	196.283
4250.00	0.340	202.430	4244.79	-88.42	-104.88	-30.64	1679153.96	14319142.12	39°25'54.074"N	80°51'46.123"W	109.26	196.286
4275.00	0.340	218.970	4269.79	-88.52	-105.01	-30.72	1679153.89	14319142.00	39°25'54.073"N	80°51'46.123"W	109.41	196.305
4300.00	0.450	225.870	4294.79	-88.60	-105.13	-30.83	1679153.77	14319141.87	39°25'54.071"N	80°51'46.125"W	109.56	196.345
4325.00	0.680	231.360	4319.78	-88.69	-105.29	-31.02	1679153.58	14319141.71	39°25'54.070"N	80°51'46.127"W	109.77	196.415
4350.00	0.740	230.360	4344.78	-88.79	-105.49	-31.26	1679153.34	14319141.51	39°25'54.068"N	80°51'46.130"W	110.02	196.506
4375.00	1.250	226.770	4369.78	-88.95	-105.78	-31.58	1679153.02	14319141.22	39°25'54.066"N	80°51'46.135"W	110.39	196.624
4400.00	1.810	221.290	4394.77	-89.25	-106.26	-32.04	1679152.56	14319140.74	39°25'54.060"N	80°51'46.140"W	110.99	196.780
4425.00	1.900	217.560	4419.76	-89.67	-106.89	-32.55	1679152.05	14319140.12	39°25'54.054"N	80°51'46.147"W	111.74	196.939
4450.00	2.140	219.390	4444.74	-90.13	-107.58	-33.10	1679151.50	14319139.43	39°25'54.047"N	80°51'46.154"W	112.56	197.104
4475.00	2.650	208.160	4469.72	-90.76	-108.45	-33.67	1679150.93	14319138.56	39°25'54.039"N	80°51'46.161"W	113.55	197.250
4500.00	2.850	201.440	4494.69	-91.62	-109.54	-34.17	1679150.43	14319137.47	39°25'54.028"N	80°51'46.168"W	114.74	197.327
4525.00	2.950	202.190	4519.66	-92.56	-110.71	-34.64	1679149.96	14319136.29	39°25'54.016"N	80°51'46.174"W	116.00	197.376





**Actual Wellpath Report**  
 Jug Unit 2H AWP Proj: 15035



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (346 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
4550.00	3.160	198.950	4544.62	-93.58	-111.96	-35.11	1679149.49	14319135.05	39°25'54.00"N	80°51'46.180"W	117.33	197.411	1.09	
4575.00	3.970	201.750	4569.57	-94.77	-113.41	-35.65	1679148.95	14319133.59	39°25'53.990"N	80°51'46.187"W	118.88	197.452	3.31	
4600.00	4.340	202.850	4594.51	-96.11	-115.09	-36.34	1679148.26	14319131.92	39°25'53.973"N	80°51'46.195"W	120.69	197.525	1.51	
4625.00	4.900	201.290	4619.43	-97.62	-116.95	-37.10	1679147.51	14319130.05	39°25'53.956"N	80°51'46.205"W	122.70	197.599	2.30	
4650.00	5.900	200.440	4644.32	-99.41	-119.15	-37.93	1679146.67	14319127.85	39°25'53.933"N	80°51'46.215"W	125.05	197.659	4.01	
4675.00	6.730	201.400	4669.16	-101.49	-121.72	-38.92	1679145.69	14319125.29	39°25'53.908"N	80°51'46.228"W	127.79	197.730	3.35	
4700.00	6.940	200.260	4693.99	-103.75	-124.50	-39.97	1679144.63	14319122.51	39°25'53.880"N	80°51'46.242"W	130.76	197.800	1.00	
4725.00	7.400	200.160	4718.79	-106.12	-127.41	-41.10	1679143.51	14319119.60	39°25'53.851"N	80°51'46.256"W	133.88	197.878	2.02	
4750.00	8.420	205.450	4743.55	-108.61	-130.56	-42.49	1679142.12	14319116.45	39°25'53.820"N	80°51'46.274"W	137.30	198.026	4.51	
4775.00	8.860	206.800	4768.27	-111.23	-133.93	-44.14	1679140.47	14319113.08	39°25'53.787"N	80°51'46.295"W	141.02	198.242	1.94	
4800.00	9.280	209.160	4792.96	-113.96	-137.46	-45.90	1679138.71	14319109.56	39°25'53.752"N	80°51'46.318"W	144.92	198.465	1.73	
4825.00	9.820	208.530	4817.61	-116.78	-141.14	-47.81	1679136.80	14319105.88	39°25'53.716"N	80°51'46.342"W	149.02	198.712	2.67	
4850.00	10.190	213.370	4842.23	-119.55	-144.88	-50.02	1679134.59	14319102.14	39°25'53.679"N	80°51'46.370"W	153.27	199.047	3.22	
4875.00	10.620	213.370	4866.82	-122.29	-148.66	-52.48	1679132.13	14319098.36	39°25'53.642"N	80°51'46.402"W	157.65	199.443	1.80	
4900.00	10.810	213.430	4891.38	-125.08	-152.54	-55.03	1679129.58	14319094.48	39°25'53.603"N	80°51'46.434"W	162.17	199.839	0.76	
4925.00	10.900	215.050	4915.94	-127.85	-156.43	-57.68	1679126.93	14319090.59	39°25'53.565"N	80°51'46.468"W	166.73	200.241	1.27	
4950.00	11.280	216.410	4940.47	-130.58	-160.34	-60.49	1679124.12	14319086.69	39°25'53.526"N	80°51'46.504"W	171.37	200.671	1.85	
4975.00	11.880	216.090	4964.96	-133.39	-164.38	-63.46	1679121.16	14319082.64	39°25'53.486"N	80°51'46.542"W	176.21	201.109	2.41	
5000.00	12.110	217.010	4989.41	-136.28	-168.56	-66.55	1679118.06	14319078.47	39°25'53.445"N	80°51'46.581"W	181.22	201.546	1.20	
5025.00	12.410	218.780	5013.84	-139.12	-172.75	-69.82	1679114.80	14319074.28	39°25'53.404"N	80°51'46.623"W	186.32	202.006	1.92	
5050.00	12.450	219.780	5038.26	-141.90	-176.91	-73.22	1679111.40	14319070.12	39°25'53.363"N	80°51'46.667"W	191.46	202.484	0.88	
5075.00	12.470	219.940	5062.67	-144.63	-181.05	-76.68	1679107.94	14319065.98	39°25'53.322"N	80°51'46.711"W	196.62	202.954	0.16	
5100.00	12.050	221.540	5087.10	-147.25	-185.07	-80.14	1679104.48	14319061.96	39°25'53.282"N	80°51'46.755"W	201.68	203.414	2.16	
5125.00	11.650	222.470	5111.57	-149.68	-188.89	-83.58	1679101.05	14319058.15	39°25'53.244"N	80°51'46.799"W	206.55	203.868	1.77	
5150.00	11.610	221.910	5136.05	-152.06	-192.62	-86.96	1679097.66	14319054.41	39°25'53.208"N	80°51'46.842"W	211.34	204.297	0.48	
5175.00	11.990	221.070	5160.52	-154.52	-196.45	-90.35	1679094.28	14319050.59	39°25'53.170"N	80°51'46.885"W	216.23	204.698	1.87	
5200.00	12.140	219.860	5184.97	-157.13	-200.43	-93.74	1679090.89	14319046.61	39°25'53.131"N	80°51'46.929"W	221.27	205.065	1.18	
5225.00	12.160	219.430	5209.41	-159.81	-204.48	-97.10	1679087.53	14319042.56	39°25'53.091"N	80°51'46.971"W	226.36	205.400	0.37	
5250.00	12.490	218.670	5233.84	-162.58	-208.62	-100.46	1679084.17	14319038.42	39°25'53.050"N	80°51'47.014"W	231.55	205.712	1.47	
5275.00	12.800	217.560	5258.23	-165.49	-212.93	-103.84	1679080.80	14319034.12	39°25'53.007"N	80°51'47.057"W	236.90	205.996	1.58	



## Actual Wellpath Report

Jug Unit 2H AWP Proj: 15035'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Dale Pad		

WELLPATH DATA (346 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Comments
5300.00	12.930	217.560	5282.60	-168.51	-217.34	-107.23	1679077.40	14319029.70	39°25'52.964"N	80°51'47.101"W	242.35	206.260	0.52	
5325.00	13.280	217.440	5306.95	-171.58	-221.84	-110.68	1679073.96	14319025.21	39°25'52.919"N	80°51'47.145"W	247.92	206.515	1.40	
5350.00	12.940	217.330	5331.30	-174.66	-226.35	-114.12	1679070.51	14319020.71	39°25'52.875"N	80°51'47.189"W	253.49	206.757	1.36	
5375.00	11.940	218.570	5355.71	-177.54	-230.59	-117.43	1679067.21	14319016.46	39°25'52.833"N	80°51'47.231"W	258.77	206.988	4.14	
5400.00	11.410	218.350	5380.19	-180.21	-234.55	-120.58	1679064.06	14319012.50	39°25'52.794"N	80°51'47.271"W	263.73	207.207	2.13	
5425.00	11.160	217.510	5404.71	-182.83	-238.41	-123.59	1679061.05	14319008.64	39°25'52.756"N	80°51'47.310"W	268.54	207.401	1.20	
5450.00	11.130	217.480	5429.24	-185.45	-242.25	-126.53	1679058.11	14319004.81	39°25'52.718"N	80°51'47.347"W	273.30	207.578	0.12	
5475.00	11.180	215.850	5453.77	-188.13	-246.13	-129.42	1679055.23	14319000.93	39°25'52.679"N	80°51'47.384"W	278.08	207.736	1.28	
5500.00	11.230	214.600	5478.29	-190.92	-250.09	-132.22	1679052.43	14318996.97	39°25'52.640"N	80°51'47.420"W	282.89	207.864	0.99	
5525.00	11.320	214.790	5502.81	-193.77	-254.11	-135.00	1679049.84	14318992.95	39°25'52.601"N	80°51'47.455"W	287.75	207.980	0.39	
5550.00	11.570	216.320	5527.31	-196.60	-258.15	-137.88	1679046.76	14318988.91	39°25'52.561"N	80°51'47.492"W	292.66	208.108	1.57	
5575.00	11.590	218.000	5551.80	-199.34	-262.15	-140.92	1679043.73	14318984.92	39°25'52.521"N	80°51'47.531"W	297.62	208.260	1.35	
5600.00	11.950	217.330	5576.28	-202.09	-266.18	-144.03	1679040.62	14318980.88	39°25'52.481"N	80°51'47.571"W	302.65	208.418	1.54	
5619.89	12.150	216.860	5595.73	-204.37	-269.50	-146.54	1679038.11	14318977.57	39°25'52.449"N	80°51'47.603"W	306.76	208.535	1.12	
5670.00	13.640	218.790	5644.57	-210.36	-278.32	-153.40	1679031.25	14318968.75	39°25'52.362"N	80°51'47.690"W	317.80	208.862	3.09	BHI AT Curve [SS+MSA] <8-1/2"> (5619.89')(5670'-14982')
5760.00	12.830	216.940	5732.18	-221.41	-294.58	-166.05	1679018.60	14318952.50	39°25'52.201"N	80°51'47.852"W	338.16	209.410	1.02	
5804.00	13.070	213.070	5775.06	-227.11	-302.65	-171.70	1679012.95	14318944.43	39°25'52.121"N	80°51'47.924"W	347.97	209.568	2.04	
5849.00	11.990	212.810	5818.99	-233.03	-310.85	-177.01	1679007.65	14318936.24	39°25'52.040"N	80°51'47.992"W	357.71	209.660	2.40	
5894.00	12.100	214.910	5863.00	-238.61	-318.64	-182.25	1679002.42	14318928.44	39°25'51.963"N	80°51'48.059"W	367.08	209.767	1.00	
5939.00	11.960	223.050	5907.02	-243.48	-325.92	-188.13	1678996.54	14318921.17	39°25'51.892"N	80°51'48.134"W	376.32	209.995	3.78	
5983.00	12.440	242.430	5950.04	-246.21	-331.45	-195.44	1678989.22	14318915.65	39°25'51.837"N	80°51'48.227"W	384.78	210.527	9.33	
6028.00	13.560	259.820	5993.90	-246.01	-334.62	-204.94	1678979.73	14318912.47	39°25'51.806"N	80°51'48.348"W	392.39	211.485	9.00	
6073.00	15.410	275.410	6037.49	-242.60	-334.99	-216.09	1678968.59	14318912.10	39°25'51.802"N	80°51'48.490"W	398.64	212.824	9.55	
6117.00	18.440	286.980	6079.59	-235.96	-332.41	-228.57	1678956.11	14318914.69	39°25'51.828"N	80°51'48.649"W	403.41	214.513	10.27	
6162.00	22.040	295.950	6121.81	-225.67	-326.63	-242.98	1678941.71	14318920.46	39°25'51.885"N	80°51'48.833"W	407.09	216.645	10.54	
6207.00	26.020	301.100	6162.91	-211.97	-317.83	-259.03	1678925.67	14318929.25	39°25'51.973"N	80°51'49.037"W	410.02	219.179	9.99	
6252.00	30.400	305.890	6202.56	-194.92	-306.05	-276.71	1678907.99	14318941.03	39°25'52.089"N	80°51'49.262"W	412.60	222.118	10.95	
6296.00	34.330	309.590	6239.72	-175.06	-291.61	-295.30	1678889.40	14318955.46	39°25'52.232"N	80°51'49.499"W	415.02	225.360	10.00	
6341.00	38.190	312.390	6276.00	-151.85	-274.14	-315.37	1678869.35	14318972.93	39°25'52.405"N	80°51'49.754"W	417.86	229.000	9.33	
6386.00	42.580	314.550	6310.27	-125.84	-254.07	-336.50	1678848.22	14318992.99	39°26'52.604"N	80°51'50.023"W	421.64	232.946	10.24	



# Actual Wellpath Report

Jug Unit 2H AWP Proj: 15035  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Date Pad		

WELLPATH DATA (346 stations) † = interpolated/extrapolated station														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	East	Gnd East	Gnd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS Comments
6405.00	44.601	315.117	6324.03	-114.01	-244.83	-345.79	1678838.94	14319002.22	39°25'52.695"N	80°51'50.142"W	423.69	234.700	10.83	Middlesex: 6405 MD
6431.00	47.370	315.830	6342.10	-97.04	-231.50	-358.90	1678825.84	14319015.55	39°25'52.827"N	80°51'50.308"W	427.08	237.177	10.83	
6476.00	51.900	316.770	6371.24	-65.73	-206.71	-382.57	1678802.17	14319040.33	39°25'53.073"N	80°51'50.610"W	434.85	241.616	10.19	
6521.00	56.350	317.670	6397.60	-32.19	-179.95	-407.33	1678777.43	14319067.08	39°25'53.338"N	80°51'50.925"W	445.31	246.165	10.02	
6564.00	60.963	318.619	6419.96	1.81	-152.60	-431.82	1678752.94	14319094.42	39°25'53.608"N	80°51'51.236"W	457.99	250.537	10.89	Burkett: 6564 MD
6565.00	61.070	318.640	6420.45	2.63	-151.95	-432.40	1678752.37	14319095.07	39°25'53.615"N	80°51'51.244"W	458.32	250.638	10.89	
6610.00	66.520	319.930	6440.28	40.32	-121.34	-458.72	1678726.05	14319125.67	39°25'53.918"N	80°51'51.578"W	474.50	255.184	12.60	
6645.00	69.994	321.308	6453.21	70.93	-99.20	-479.35	1678705.43	14319150.80	39°25'54.166"N	80°51'51.841"W	488.91	258.652	10.31	Tully: 6645 MD
6665.00	70.960	321.690	6456.55	79.85	-88.82	-485.22	1678699.57	14319158.17	39°25'54.239"N	80°51'51.915"W	493.28	259.626	10.31	
6700.00	74.410	324.610	6469.95	120.89	-54.45	-510.97	1678673.83	14319192.53	39°25'54.580"N	80°51'52.243"W	513.86	263.917	9.86	
6744.00	76.000	326.610	6481.18	162.04	-19.35	-534.99	1678649.81	14319227.62	39°25'54.927"N	80°51'52.548"W	535.34	267.929	5.69	
6770.00	77.549	328.577	6487.13	186.73	2.02	-548.55	1678636.26	14319248.98	39°25'55.138"N	80°51'52.721"W	548.56	270.211	9.47	Marcellus: 6770 MD
6789.00	78.690	330.000	6491.04	204.98	18.01	-558.05	1678626.76	14319264.96	39°25'55.296"N	80°51'52.842"W	558.34	271.848	9.47	
6833.00	82.180	335.740	6498.36	247.98	56.60	-577.81	1678607.01	14319303.54	39°25'55.678"N	80°51'53.093"W	580.58	275.595	15.11	
6823.00	88.120	340.640	6505.97	337.53	139.80	-611.09	1678573.75	14319386.71	39°25'56.501"N	80°51'53.515"W	626.88	282.886	8.54	
7013.00	89.990	341.660	6507.45	427.50	224.96	-640.16	1678544.68	14319471.83	39°25'57.343"N	80°51'53.884"W	678.54	289.362	2.37	
7102.00	89.900	342.320	6507.54	516.46	309.60	-667.68	1678517.18	14319556.44	39°25'58.180"N	80°51'54.233"W	735.97	294.877	0.75	
7192.00	90.050	349.670	6507.58	606.44	394.69	-696.99	1678487.88	14319641.49	39°25'59.201"N	80°51'54.605"W	800.98	299.522	2.95	
7281.00	90.110	349.540	6507.46	695.37	477.26	-730.17	1678454.71	14319724.03	39°25'59.838"N	80°51'55.026"W	872.31	303.170	3.52	
7371.00	89.960	337.730	6507.40	785.23	560.18	-765.14	1678419.76	14319806.92	39°26'00.658"N	80°51'55.471"W	948.28	306.208	1.33	
7460.00	90.210	338.100	6507.27	874.15	642.65	-798.60	1678386.31	14319889.36	39°26'01.474"N	80°51'55.895"W	1025.07	308.824	0.50	
7639.00	89.990	340.520	6506.85	1053.13	810.60	-860.47	1678324.46	14320057.24	39°26'03.134"N	80°51'56.681"W	1182.15	313.291	0.36	
7729.00	90.530	344.630	6506.36	1143.03	896.45	-887.42	1678297.53	14320143.05	39°26'03.983"N	80°51'57.023"W	1261.40	315.280	4.62	
7818.00	90.510	346.470	6505.47	1231.85	982.63	-909.62	1678275.33	14320229.20	39°26'04.835"N	80°51'57.304"W	1339.02	317.209	2.07	
7908.00	90.480	347.100	6504.70	1321.08	1070.24	-930.20	1678254.76	14320316.77	39°26'05.702"N	80°51'57.564"W	1417.99	319.005	0.70	
7997.00	90.480	338.570	6503.95	1409.91	1155.20	-956.44	1678228.53	14320401.69	39°26'06.542"N	80°51'57.897"W	1499.75	320.377	9.58	
8087.00	90.570	332.820	6503.12	1499.57	1237.18	-993.47	1678191.52	14320483.65	39°26'07.352"N	80°51'58.368"W	1586.69	321.235	6.39	
8176.00	90.850	336.900	6502.02	1588.14	1317.73	-1031.26	1678153.74	14320564.16	39°26'08.149"N	80°51'58.848"W	1673.29	321.953	4.59	
8266.00	90.790	335.560	6500.73	1677.90	1400.08	-1067.54	1678117.48	14320646.48	39°26'08.964"N	80°51'59.308"W	1760.64	322.675	1.49	



### Actual Wellpath Report

Jug Unit 2H AWP Proj: 15035  
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#### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Date Pad
Slot	Slot #06
Well	Jug Unit 2H
Wellbore	Jug Unit 2H AWB

#### WELLPATH DATA (346 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	East	Grd East	Grd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
8355.00	90.660	6499.61	1766.64	1481.35	-1103.80	1678081.24	1432072.72	39°26'09.76"N	80°51'59.76"W	1847.37	323.309	0.90	
8445.00	91.250	6498.10	1856.53	1564.67	-1137.76	1678047.28	1432081.01	39°26'10.59"N	80°52'00.20"W	1934.61	323.977	3.33	
8534.00	90.910	6496.43	1945.51	1648.62	-1167.25	1678017.80	14320894.92	39°26'11.42"N	80°52'00.57"W	2020.01	324.701	3.07	
8624.00	90.730	6495.14	2035.46	1734.17	-1195.18	1677989.89	14320980.43	39°26'12.26"N	80°52'00.92"W	2106.13	325.426	0.27	
8714.00	91.160	6493.65	2125.43	1819.54	-1223.62	1677961.46	14321065.77	39°26'13.12"N	80°52'01.29"W	2192.71	326.080	0.76	
8803.00	90.720	6492.19	2214.40	1903.85	-1252.09	1677933.00	14321150.05	39°26'13.94"N	80°52'01.65"W	2278.68	326.669	0.50	
8893.00	90.690	6491.09	2304.39	1988.97	-1281.30	1677903.81	14321235.14	39°26'14.78"N	80°52'02.02"W	2365.95	327.210	0.71	
8982.00	91.120	6489.68	2393.37	2072.94	-1310.76	1677874.35	14321319.07	39°26'15.61"N	80°52'02.39"W	2452.69	327.694	0.51	
9072.00	90.690	6488.26	2483.36	2157.75	-1340.84	1677844.28	14321403.85	39°26'16.46"N	80°52'02.77"W	2540.43	328.143	0.55	
9161.00	90.720	6487.16	2572.35	2241.54	-1370.85	1677814.29	14321487.60	39°26'17.28"N	80°52'03.15"W	2627.49	328.551	0.13	
9251.00	90.630	6486.10	2662.35	2326.23	-1401.28	1677783.87	14321572.26	39°26'18.12"N	80°52'03.54"W	2715.68	328.936	0.10	
9340.00	90.720	6485.06	2751.34	2410.20	-1430.75	1677754.41	14321656.19	39°26'18.95"N	80°52'03.91"W	2802.88	329.306	0.97	
9430.00	90.720	6483.93	2841.32	2495.35	-1459.87	1677725.30	14321741.31	39°26'19.79"N	80°52'04.28"W	2891.02	329.671	0.07	
9519.00	90.810	6482.74	2930.31	2579.33	-1489.32	1677695.86	14321825.25	39°26'20.62"N	80°52'04.66"W	2978.42	329.998	1.07	
9609.00	90.720	6481.54	3020.30	2664.06	-1519.63	1677665.57	14321909.86	39°26'21.46"N	80°52'05.04"W	3067.00	330.299	0.28	
9699.00	90.660	6480.45	3110.30	2748.87	-1549.75	1677635.46	14321994.72	39°26'22.30"N	80°52'05.42"W	3155.63	330.587	0.07	
9788.00	90.690	6479.40	3199.29	2832.53	-1580.09	1677605.13	14322078.35	39°26'23.12"N	80°52'05.81"W	3243.44	330.845	0.87	
9878.00	90.690	6478.32	3289.19	2916.91	-1613.91	1677574.33	14322161.70	39°26'23.95"N	80°52'06.24"W	3332.75	331.036	3.90	
9967.00	91.000	6477.01	3378.07	2998.17	-1647.83	1677543.42	14322243.93	39°26'24.76"N	80°52'06.67"W	3421.17	331.206	3.22	
10057.00	90.870	6475.54	3468.04	3082.27	-1679.84	1677513.35	14322328.00	39°26'25.59"N	80°52'07.08"W	3510.31	331.410	0.34	
10147.00	91.150	6473.95	3558.02	3166.80	-1710.71	1677474.56	14322412.49	39°26'26.43"N	80°52'07.47"W	3599.32	331.622	1.44	
10237.00	91.120	6472.17	3647.94	3252.51	-1738.07	1677444.22	14322498.16	39°26'27.28"N	80°52'07.82"W	3687.77	331.881	3.64	
10326.00	91.030	6470.50	3736.73	3338.09	-1762.44	1677422.86	14322583.71	39°26'28.12"N	80°52'08.12"W	3774.79	332.167	0.20	
10416.00	91.030	6468.88	3826.52	3424.62	-1787.12	1677398.19	14322670.21	39°26'28.98"N	80°52'08.44"W	3862.88	332.442	0.22	
10505.00	91.060	6467.26	3915.34	3510.07	-1811.97	1677373.35	14322756.62	39°26'29.82"N	80°52'08.75"W	3950.16	332.696	0.44	
10595.00	90.930	6465.69	4005.19	3596.33	-1837.60	1677347.73	14322841.85	39°26'30.68"N	80°52'09.08"W	4038.61	332.935	0.34	
10684.00	90.810	6464.34	4094.15	3680.49	-1866.43	1677318.90	14322925.98	39°26'31.51"N	80°52'09.44"W	4126.69	333.110	4.99	
10774.00	91.150	6462.80	4184.05	3763.81	-1900.42	1677284.93	14323009.26	39°26'32.33"N	80°52'09.80"W	4216.38	333.210	2.39	
10863.00	90.930	6461.19	4272.97	3846.60	-1933.00	1677252.37	14323092.02	39°26'33.16"N	80°52'10.29"W	4304.97	333.320	3.98	
10953.00	90.530	6460.04	4362.97	3931.33	-1963.32	1677222.06	14323176.72	39°26'33.994"N	80°52'10.679"W	4394.31	333.462	0.45	



**Actual Wellpath Report**  
 Jug Unit 2H AWP Proj.: 15035  
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Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Date Pad
Wellbore	Jug Unit 2H AWP
Well	Jug Unit 2H
Slot	Slot #06

**REFERENCE WELLPATH IDENTIFICATION**

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
11043.00	90.690	339.900	6459.08	4462.96	4015.96	-1993.93	1677191.46	14323261.31	39°26'34.831"N	80°52'11.067"W	4483.71	333.596	0.51	
11132.00	90.600	335.200	6458.08	4541.83	4098.19	-2027.90	1677157.50	14323343.51	39°26'35.644"N	80°52'11.499"W	4572.47	333.672	5.28	
11222.00	90.010	335.190	6457.60	4631.47	4179.88	-2065.66	1677119.76	14323425.17	39°26'36.452"N	80°52'11.979"W	4662.44	333.702	0.66	
11311.00	89.050	340.590	6458.32	4720.35	4262.30	-2099.14	1677086.29	14323507.56	39°26'37.267"N	80°52'12.404"W	4751.17	333.780	6.16	
11401.00	89.980	344.100	6459.08	4810.27	4348.05	-2126.43	1677059.01	14323593.27	39°26'38.115"N	80°52'12.750"W	4840.17	333.939	4.03	
11490.00	90.040	343.630	6459.06	4899.10	4433.54	-2151.17	1677034.28	14323678.73	39°26'39.960"N	80°52'13.064"W	4927.86	334.117	0.53	
11580.00	90.380	341.430	6458.73	4989.03	4519.38	-2178.18	1677007.28	14323764.53	39°26'39.809"N	80°52'13.407"W	5016.90	334.268	2.47	
11669.00	89.730	340.570	6458.65	5078.02	4603.53	-2207.16	1676978.31	14323848.65	39°26'40.641"N	80°52'13.775"W	5105.30	334.385	1.21	
11759.00	89.800	340.370	6459.02	5168.02	4688.35	-2237.25	1676948.24	14323933.44	39°26'41.480"N	80°52'14.156"W	5194.80	334.490	0.24	
11849.00	89.860	340.200	6459.28	5258.02	4773.08	-2267.61	1676917.89	14324018.13	39°26'42.318"N	80°52'14.542"W	5284.35	334.588	0.20	
11938.00	89.760	339.940	6459.58	5347.02	4856.75	-2297.94	1676887.57	14324101.76	39°26'43.145"N	80°52'14.927"W	5372.95	334.679	0.31	
12028.00	89.800	339.980	6459.92	5437.02	4941.30	-2328.79	1676856.74	14324186.28	39°26'43.981"N	80°52'15.319"W	5462.57	334.766	0.06	
12117.00	89.830	339.690	6460.21	5526.01	5024.84	-2359.47	1676826.07	14324269.79	39°26'44.807"N	80°52'15.708"W	5551.23	334.847	0.33	
12207.00	89.830	338.700	6460.48	5615.99	5108.97	-2391.43	1676794.12	14324353.89	39°26'45.639"N	80°52'16.114"W	5640.97	334.916	1.10	
12296.00	89.640	338.070	6460.89	5704.94	5191.71	-2424.22	1676761.34	14324438.59	39°26'46.457"N	80°52'16.531"W	5729.81	334.970	0.74	
12386.00	89.700	338.570	6461.41	5794.89	5275.34	-2457.46	1676728.11	14324520.19	39°26'47.284"N	80°52'16.953"W	5819.65	335.022	0.56	
12476.00	89.730	339.290	6461.66	5884.66	5359.32	-2489.82	1676695.77	14324604.14	39°26'48.115"N	80°52'17.364"W	5909.45	335.082	0.80	
12565.00	89.770	340.820	6462.24	5973.85	5442.72	-2520.91	1676664.69	14324687.50	39°26'48.940"N	80°52'17.759"W	5998.18	335.148	0.60	
12654.00	89.770	340.970	6462.60	6062.85	5526.56	-2550.77	1676634.84	14324771.30	39°26'49.769"N	80°52'18.138"W	6086.81	335.224	1.29	
12744.00	89.700	342.390	6463.02	6152.82	5611.99	-2579.06	1676606.57	14324856.70	39°26'50.613"N	80°52'18.497"W	6176.24	335.318	1.58	
12833.00	89.640	343.900	6463.53	6241.71	5697.16	-2604.86	1676580.77	14324941.84	39°26'51.456"N	80°52'18.824"W	6264.42	335.429	1.70	
12923.00	89.860	343.170	6463.92	6331.56	5783.47	-2630.37	1676555.27	14325028.12	39°26'52.309"N	80°52'19.148"W	6353.53	335.544	0.85	
13012.00	89.640	341.170	6464.31	6420.51	5868.19	-2657.62	1676528.04	14325112.80	39°26'53.147"N	80°52'19.493"W	6441.94	335.635	2.26	
13102.00	89.860	340.890	6464.70	6510.50	5953.30	-2686.88	1676498.79	14325197.88	39°26'53.988"N	80°52'19.865"W	6531.55	335.709	0.40	
13191.00	89.950	342.090	6464.85	6599.48	6037.70	-2715.13	1676474.55	14325282.24	39°26'54.823"N	80°52'20.224"W	6620.10	335.787	1.35	
13281.00	89.640	343.120	6465.17	6689.41	6123.58	-2742.03	1676443.65	14325366.09	39°26'55.672"N	80°52'20.565"W	6709.47	335.878	1.20	
13370.00	89.920	340.620	6465.52	6778.37	6208.15	-2769.73	1676415.97	14325452.63	39°26'56.508"N	80°52'20.916"W	6797.98	335.956	2.83	
13460.00	89.670	339.560	6465.84	6868.36	6292.77	-2800.38	1676385.34	14325537.21	39°26'57.345"N	80°52'21.306"W	6887.75	336.010	1.21	
13549.00	89.950	339.490	6466.13	6957.35	6376.15	-2831.51	1676354.22	14325620.56	39°26'58.169"N	80°52'21.701"W	6976.58	336.055	0.32	
13639.00	89.610	339.560	6466.48	7047.34	6460.46	-2862.99	1676322.75	14325704.84	39°26'59.003"N	80°52'22.101"W	7066.42	336.099	0.39	



**Actual Wellpath Report**  
 Jug Unit 2H AWP Proj: 15035  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWP
Facility	Date Pad		

**WELLPATH DATA (346 stations)**

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grd East	Grd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments	
13729.00	89.610	339.910	6467.09	7137.34	6544.89	-2894.16	1676291.59	14325789.23	39°26'59.83"N	80°52'22.49"W	7156.24	336.145	0.39		
13818.00	89.890	342.320	6467.48	6629.09	-2922.96	1676262.80	14325873.40	39°27'00.67"N	80°52'22.86"W	7244.90	336.206	2.73			
13908.00	89.950	342.070	6467.60	7316.27	6714.78	-2950.48	1676235.29	14325959.05	39°27'01.518"N	80°52'23.212"W	7334.41	336.279	0.29		
13997.00	90.040	342.950	6467.61	7405.21	6799.67	-2977.23	1676208.55	14326043.90	39°27'02.357"N	80°52'23.551"W	7422.89	336.354	0.99		
14086.00	90.170	341.410	6467.45	7494.16	6884.39	-3004.47	1676181.32	14326128.60	39°27'03.195"N	80°52'23.897"W	7511.44	336.423	1.74		
14176.00	90.010	336.170	6467.31	7584.09	6968.27	-3037.02	1676148.79	14326212.44	39°27'04.024"N	80°52'24.310"W	7601.33	336.451	5.82		
14265.00	89.950	334.080	6467.34	7672.72	7049.01	-3074.45	1676111.37	14326293.14	39°27'04.823"N	80°52'24.786"W	7690.30	336.435	2.35		
14355.00	89.920	334.930	6467.44	7762.26	7130.24	-3113.19	1676072.65	14326374.35	39°27'05.626"N	80°52'25.278"W	7780.25	336.413	0.95		
14444.00	89.950	336.760	6467.54	7850.99	7211.44	-3149.61	1676036.24	14326455.52	39°27'06.429"N	80°52'25.741"W	7869.24	336.407	2.06		
14534.00	90.010	338.600	6467.57	7940.89	7294.70	-3183.79	1676002.08	14326538.74	39°27'07.253"N	80°52'26.175"W	7959.22	336.421	2.05		
14624.00	89.980	340.080	6467.58	8030.87	7378.91	-3215.54	1675970.34	14326622.91	39°27'08.085"N	80°52'26.579"W	8049.10	336.454	1.64		
14713.00	90.010	342.590	6467.59	8119.85	7463.22	-3244.02	1675941.87	14326707.19	39°27'08.919"N	80°52'26.940"W	8137.77	336.507	2.82		
14803.00	89.950	345.020	6467.62	8209.68	7549.64	-3269.12	1675916.78	14326793.58	39°27'09.774"N	80°52'27.259"W	8227.04	336.587	2.70		
14892.00	89.980	344.500	6467.67	8298.41	7635.51	-3292.52	1675893.39	14326879.42	39°27'10.623"N	80°52'27.555"W	8315.15	336.674	0.59		
14982.00	90.010	348.260	6467.68	8387.89	7722.97	-3313.71	1675872.21	14326968.83	39°27'11.487"N	80°52'27.824"W	8403.86	336.777	4.18		Projected MD at TD: 15035
15035.00	90.010	348.260	6467.67	8440.38	7774.86	-3324.49	1675861.43	14327018.70	39°27'12.000"N	80°52'27.960"W	8455.80	336.849	0.00		

**TARGETS**

Name	TVD	North	East	Grd East	Grd North	Latitude	Longitude	Shape
Jug Unit 2H POE - Plat	6481.00	-29.73	-524.27	1678660.53	14319217.24	39°25'54.824"N	80°51'52.412"W	point
Jug Unit 2H BHL - Plat	6507.00	7802.81	-3357.13	1675828.81	14327046.64	39°27'12.277"N	80°52'28.376"W	point
Jug Unit 2H LP Rev-1	6507.00	150.93	-618.87	1678565.97	14319397.83	39°25'56.611"N	80°51'53.614"W	point



## Actual Wellpath Report

Jug Unit 2H AWP Proj: 15035'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Dale Pad		

WELLPATH COMPOSITION - Ref Wellbore: Jug Unit 2H AWB Ref Wellpath: Jug Unit 2H AWP Proj: 15035'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	5619.89	SDI Keeper v1.04	01 SDI Std. Keeper Gyro (100'-5619.89')	Jug Unit 2H AWB
5619.89	14982.00	BHI AutoTrak Curve w/ Surcon (MagCAD, Short spacing)	02 BHI AT Curve [SS+MSA] <8-1/2"> (5619.89')(5670'-14982')	Jug Unit 2H AWB
14982.00	15035.00	Blind Drilling (std)	Projection to bit	Jug Unit 2H AWB



## Actual Wellpath Report

Jug Unit 2H AWP Proj: 15035'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Jug Unit 2H
Field	Tyler	Wellbore	Jug Unit 2H AWB
Facility	Dale Pad		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
100.00	0.080	308.730	100.00	SDI Std. Keeper Gyro (100'-5619.89')
5670.00	13.640	218.790	5644.57	BHI AT Curve [SS+MSA] <8-1/2"> (5619.89')(5670'-14982')
6405.00	44.601	315.117	6324.03	Middlesex: 6405' MD
6564.00	60.963	318.619	6419.06	Burkett: 6564' MD
6645.00	69.994	321.308	6453.21	Tully: 6645' MD
6770.00	77.549	328.577	6487.13	Marcellus: 6770' MD
15035.00	90.010	348.260	6467.67	Projected MD at TD: 15035'

COMMENTS
<p><b>Wellpath general comments</b>            API #: 47-095-02171-0000            BHI Job #: 7970373            Rig: PD 523            Duration: 05.22.2016-05.25.2016            SDI Std. Keeper Gyro (100'-5619.89')            BHI AT Curve [SS+MSA] &lt;8-1/2"&gt; (5619.89')(5670'-14982')            Middlesex: 6405' MD            Burkett: 6564' MD            Tully: 6645' MD            Marcellus: 6770' MD            Projected MD at TD: 15035'</p>