



# ANTERO RESOURCES CORPORATION



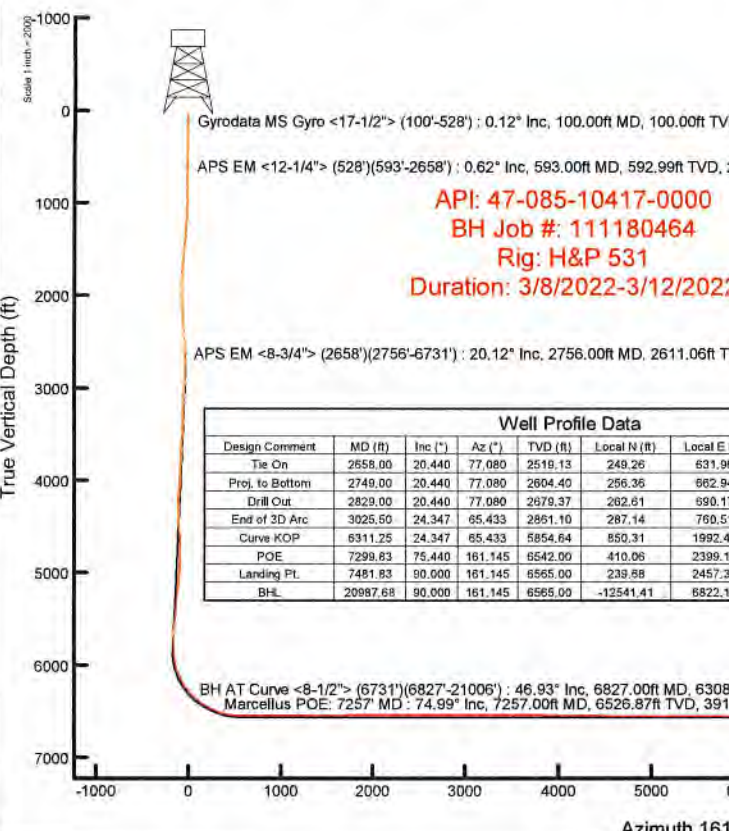
Location: Ritchie County, WV  
 Field: Ritchie  
 Facility: Weekley West Pad

Slot: Slot F  
 Well: Sandy Unit 1H  
 Wellbore: Sandy Unit 1H PWB

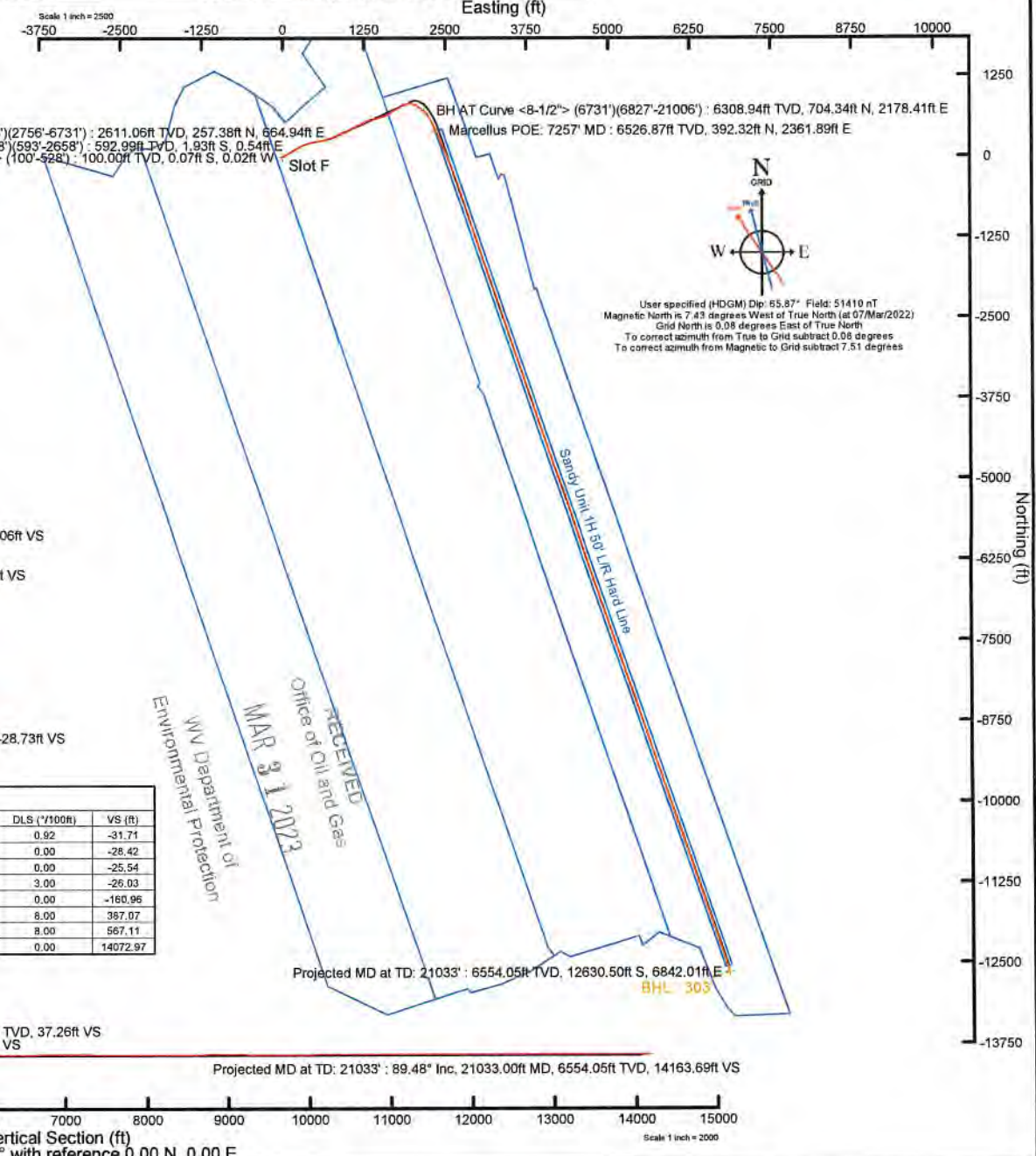
Plot reference wellpath is Sandy Unit 1H PWP Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 531 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 531 (RKB)	Scale: True distance
H&P 531 (RKB) to Mean Sea Level: 1155 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot F): -1125 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: entytar on 2022-03-29; Database: WA_MPL_EASTERNUS_Data

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Weekley West Pad	1675735.170	14223718.080	39°10'10.6030"N	80°52'31.3880"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot F	74.97	-0.26	1675734.910	14223793.020
Latitude	39°10'11.3440"N			
Longitude	80°52'31.3880"W			
Comment	Sandy Unit 1H			
H&P 531 (RKB) to Ground level (At Slot: Slot F)	30ft			
Mean Sea Level to Ground level (At Slot: Slot F)	-1125ft			
H&P 531 (RKB) to Mean Sea Level	1155ft			

Well Data			
Slot	Well	Wellbore	Wellpath
Slot F	Sandy Unit 1H	Sandy Unit 1HAWB	Sandy Unit 1H AWP Proj: 21033
Slot F	Sandy Unit 1H	Sandy Unit 1H PWB	Sandy Unit 1H PWP Rev-B.0



Well Profile Data							
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	2658.00	20.440	77.080	2519.13	249.26	631.95	-31.71
Proj. to Bottom	2749.00	20.440	77.080	2604.40	256.36	662.94	-28.42
Drill Out	2829.00	20.440	77.080	2679.37	262.61	690.17	-25.54
End of 3D Arc	3025.50	24.347	65.433	2851.10	287.14	760.51	-26.03
Curve KOP	6311.25	24.347	65.433	6854.64	850.31	1992.47	-160.96
POE	7299.83	75.440	161.145	6542.00	410.06	2399.13	367.07
Landing Pt.	7481.83	90.000	161.145	6565.00	239.88	2457.32	567.11
BHL	20987.68	90.000	161.145	6565.00	-12541.41	6822.14	0.00



User specified (HDGM) Dip: 85.87° Field: 51410 nT  
 Magnetic North is 7.43 degrees West of True North (at 07/Mar/2022)  
 Grid North is 0.08 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.99 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.51 degrees

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Projected MD at TD: 21033' : 6554.05ft TVD, 12630.50ft S, 6842.01ft E  
 BHL 303  
 Projected MD at TD: 21033' : 89.48° Inc, 21033.00ft MD, 6554.05ft TVD, 14163.69ft VS



# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999601	Report Generated	28/Mar/2022 at 16:01
Convergence at slot	0.08° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	74.97	-0.26	1675734.91	14223793.02	39°10'11.3440"N	80°52'31.3880"W
Facility Reference Pt			1675735.17	14223718.08	39°10'10.6030"N	80°52'31.3860"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 531 (RKB) to Facility Vertical Datum	1155.00ft
Horizontal Reference Pt	Slot	H&P 531 (RKB) to Mean Sea Level	1155.00ft
Vertical Reference Pt	H&P 531 (RKB)	H&P 531 (RKB) to Ground Level at Slot (Slot F)	30.00ft
MD Reference Pt	H&P 531 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.15°

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION			
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Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

WELLPATH DATA (216 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00	0.00	199.940	0.00	0.00	0.00	0.00	1675734.91	14223793.02	39°10'11.3440"N	80°52'31.3880"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.00	199.940	30.00	0.00	0.00	0.00	1675734.91	14223793.02	39°10'11.3440"N	80°52'31.3880"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.120	199.940	100.00	0.06	-0.07	-0.02	1675734.89	14223792.95	39°10'11.3433"N	80°52'31.3883"W	0.07	199.940	0.17	0.17	0.00	Gyrodata MS Gyro <17-1/2"> (100'-528')
200.00	0.290	152.250	200.00	0.39	-0.39	0.06	1675734.97	14223792.63	39°10'11.3401"N	80°52'31.3872"W	0.40	171.695	0.23	0.17	-47.69	
300.00	0.360	137.220	300.00	0.93	-0.85	0.39	1675735.30	14223792.17	39°10'11.3356"N	80°52'31.3830"W	0.93	155.341	0.11	0.07	-15.03	
400.00	0.210	166.480	400.00	1.40	-1.25	0.64	1675735.55	14223791.77	39°10'11.3316"N	80°52'31.3798"W	1.41	152.809	0.20	-0.15	29.26	
500.00	0.140	180.640	500.00	1.69	-1.55	0.69	1675735.60	14223791.47	39°10'11.3286"N	80°52'31.3793"W	1.70	156.194	0.08	-0.07	14.16	
528.00	0.030	196.080	528.00	1.73	-1.60	0.68	1675735.59	14223791.42	39°10'11.3282"N	80°52'31.3793"W	1.74	156.816	0.40	-0.39	55.14	
593.00	0.620	204.110	592.99	2.00	-1.93	0.54	1675735.45	14223791.09	39°10'11.3249"N	80°52'31.3812"W	2.01	164.527	0.91	0.91	12.35	APS EM <12-1/4"> (528')(593'-2658')
684.00	1.800	93.190	683.98	2.90	-2.46	1.76	1675736.67	14223790.56	39°10'11.3196"N	80°52'31.3656"W	3.03	144.428	2.31	1.30	-121.89	
776.00	5.590	71.750	775.78	3.49	-1.14	7.46	1675742.37	14223791.88	39°10'11.3326"N	80°52'31.2932"W	7.55	98.681	4.31	4.12	-23.30	
867.00	10.020	68.590	865.91	3.18	3.14	19.05	1675753.95	14223796.16	39°10'11.3748"N	80°52'31.1461"W	19.30	80.636	4.89	4.87	-3.47	
958.00	12.990	63.460	955.07	1.46	10.60	35.57	1675770.47	14223803.62	39°10'11.4483"N	80°52'30.9361"W	37.12	73.403	3.45	3.26	-5.64	
1048.00	13.970	61.520	1042.59	-1.71	20.30	54.17	1675789.06	14223813.31	39°10'11.5439"N	80°52'30.6998"W	57.85	69.454	1.20	1.09	-2.16	
1143.00	14.370	60.810	1134.70	-5.75	31.52	74.54	1675809.42	14223824.53	39°10'11.6545"N	80°52'30.4410"W	80.93	67.078	0.46	0.42	-0.75	
1238.00	16.130	58.320	1226.36	-10.79	44.20	96.06	1675830.94	14223837.20	39°10'11.7796"N	80°52'30.1675"W	105.75	65.292	1.98	1.85	-2.62	
1332.00	19.080	58.300	1315.94	-17.11	59.14	120.25	1675855.12	14223852.13	39°10'11.9269"N	80°52'29.8601"W	134.01	63.814	3.14	3.14	-0.02	
1427.00	22.160	57.870	1404.85	-24.68	76.83	148.64	1675883.49	14223869.82	39°10'12.1013"N	80°52'29.4993"W	167.32	62.668	3.25	3.24	-0.45	
1522.00	24.210	58.020	1492.17	-33.22	96.67	180.34	1675915.18	14223889.66	39°10'12.2971"N	80°52'29.0965"W	204.62	61.806	2.16	2.16	0.16	
1617.00	24.650	58.150	1578.66	-42.10	117.45	213.69	1675948.52	14223910.42	39°10'12.5019"N	80°52'28.6727"W	243.84	61.207	0.47	0.46	0.14	
1711.00	26.660	60.140	1663.39	-50.54	138.29	248.64	1675983.45	14223931.26	39°10'12.7075"N	80°52'28.2286"W	284.51	60.917	2.33	2.14	2.12	
1806.00	27.740	62.930	1747.89	-57.77	158.97	286.81	1676021.61	14223951.92	39°10'12.9113"N	80°52'27.7436"W	327.92	61.002	1.76	1.14	2.94	
1901.00	28.480	66.280	1831.69	-62.86	178.14	327.24	1676062.02	14223971.09	39°10'13.1003"N	80°52'27.2299"W	372.58	61.437	1.83	0.78	3.53	
1996.00	28.540	70.850	1915.18	-64.90	194.70	369.42	1676104.18	14223987.64	39°10'13.2634"N	80°52'26.6941"W	417.59	62.209	2.30	0.06	4.81	
2090.00	27.410	74.280	1998.20	-63.84	207.93	411.46	1676146.21	14224000.87	39°10'13.3935"N	80°52'26.1600"W	461.02	63.191	2.09	-1.20	3.65	
2184.00	26.930	75.930	2081.83	-60.88	218.97	452.94	1676187.67	14224011.90	39°10'13.5021"N	80°52'25.6332"W	503.09	64.199	0.95	-0.51	1.76	
2279.00	26.070	78.620	2166.85	-56.37	228.32	494.27	1676228.99	14224021.24	39°10'13.5939"N	80°52'25.1082"W	544.46	65.207	1.55	-0.91	2.83	
2374.00	21.960	83.880	2253.62	-49.74	234.33	532.42	1676267.12	14224027.26	39°10'13.6528"N	80°52'24.6237"W	581.71	66.245	4.87	-4.33	5.54	
2468.00	20.770	84.240	2341.16	-42.10	237.88	566.48	1676301.16	14224030.80	39°10'13.6874"N	80°52'24.1912"W	614.40	67.221	1.27	-1.27	0.38	
2563.00	20.390	79.590	2430.10	-35.85	242.56	599.52	1676334.19	14224035.48	39°10'13.7332"N	80°52'23.7716"W	646.73	67.972	1.77	-0.40	-4.89	

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

WELLPATH DATA (216 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
2658.00	20.440	77.080	2519.13	-31.71	249.26	631.96	1676366.62	14224042.18	39°10'13.7990"N	80°52'23.3595"W	679.34	68.475	0.92	0.05	-2.64	
2756.00	20.120	75.250	2611.06	-28.73	257.38	664.94	1676399.59	14224050.29	39°10'13.8788"N	80°52'22.9407"W	713.02	68.840	0.72	-0.33	-1.87	APS EM <8-3/4"> (2658')(2756'-6731')
2851.00	20.160	69.780	2700.26	-27.96	267.20	696.11	1676430.74	14224060.11	39°10'13.9754"N	80°52'22.5448"W	745.63	69.001	1.98	0.04	-5.76	
2945.00	22.430	68.930	2787.84	-29.04	279.24	728.05	1676462.67	14224072.15	39°10'14.0940"N	80°52'22.1391"W	779.76	69.016	2.44	2.41	-0.90	
3040.00	24.490	67.890	2874.98	-30.86	293.17	763.21	1676497.81	14224086.07	39°10'14.2312"N	80°52'21.6924"W	817.58	68.987	2.21	2.17	-1.09	
3135.00	25.450	64.180	2961.10	-34.46	309.47	799.83	1676534.42	14224102.37	39°10'14.3918"N	80°52'21.2271"W	857.61	68.847	1.93	1.01	-3.91	
3229.00	25.420	65.090	3045.99	-39.04	326.77	836.30	1676570.88	14224119.66	39°10'14.5623"N	80°52'20.7637"W	897.88	68.658	0.42	-0.03	0.97	
3324.00	25.620	63.280	3131.73	-44.00	344.59	873.14	1676607.70	14224137.47	39°10'14.7379"N	80°52'20.2956"W	938.68	68.463	0.85	0.21	-1.91	
3418.00	23.640	63.240	3217.17	-49.38	362.22	908.13	1676642.67	14224155.09	39°10'14.9116"N	80°52'19.8511"W	977.70	68.255	2.11	-2.11	-0.04	
3513.00	21.520	67.710	3304.89	-53.05	377.40	941.26	1676675.80	14224170.27	39°10'15.0613"N	80°52'19.4301"W	1014.11	68.151	2.87	-2.23	4.71	
3607.00	21.180	68.040	3392.44	-55.00	390.29	972.96	1676707.49	14224183.16	39°10'15.1882"N	80°52'19.0273"W	1048.33	68.142	0.38	-0.36	0.35	
3702.00	23.060	65.920	3480.44	-57.63	404.30	1005.87	1676740.38	14224197.16	39°10'15.3263"N	80°52'18.6093"W	1084.08	68.103	2.15	1.98	-2.23	
3796.00	23.920	62.980	3566.65	-62.02	420.47	1039.66	1676774.15	14224213.33	39°10'15.4856"N	80°52'18.1800"W	1121.47	67.980	1.55	0.91	-3.13	
3890.00	24.690	63.680	3652.32	-67.28	437.84	1074.23	1676808.71	14224230.68	39°10'15.6567"N	80°52'17.7407"W	1160.03	67.825	0.87	0.82	0.74	
3988.00	23.890	67.490	3741.65	-71.21	454.51	1110.91	1676845.38	14224247.35	39°10'15.8210"N	80°52'17.2747"W	1200.29	67.749	1.80	-0.82	3.89	
4082.00	22.550	64.260	3828.04	-74.58	469.63	1144.73	1676879.19	14224262.46	39°10'15.9700"N	80°52'16.8449"W	1237.32	67.694	1.97	-1.43	-3.44	
4177.00	23.240	63.230	3915.55	-79.35	485.98	1177.88	1676912.32	14224278.80	39°10'16.1311"N	80°52'16.4238"W	1274.19	67.580	0.84	0.73	-1.08	
4271.00	22.220	64.780	4002.25	-83.88	501.91	1210.52	1676944.94	14224294.73	39°10'16.2881"N	80°52'16.0091"W	1310.44	67.480	1.26	-1.09	1.65	
4365.00	21.780	60.620	4089.41	-89.04	518.04	1241.79	1676976.21	14224310.85	39°10'16.4471"N	80°52'15.6117"W	1345.52	67.356	1.72	-0.47	-4.43	
4459.00	20.460	61.550	4177.10	-94.97	534.42	1271.44	1677005.84	14224327.23	39°10'16.6086"N	80°52'15.2350"W	1379.19	67.202	1.45	-1.40	0.99	
4554.00	19.730	69.220	4266.33	-98.28	548.02	1301.03	1677035.42	14224340.82	39°10'16.7426"N	80°52'14.8590"W	1411.74	67.158	2.88	-0.77	8.07	
4648.00	20.620	66.440	4354.56	-100.17	560.27	1331.04	1677065.42	14224353.06	39°10'16.8632"N	80°52'14.4778"W	1444.15	67.173	1.39	0.95	-2.96	
4743.00	23.050	78.570	4442.79	-99.14	570.65	1364.63	1677098.99	14224363.44	39°10'16.9653"N	80°52'14.0511"W	1479.13	67.307	5.38	2.56	12.77	
4837.00	26.830	82.770	4528.01	-92.49	576.96	1403.72	1677138.07	14224369.75	39°10'17.0272"N	80°52'13.5546"W	1517.67	67.656	4.44	4.02	4.47	
4932.00	25.220	77.300	4613.39	-86.00	584.11	1444.75	1677179.08	14224376.90	39°10'17.0973"N	80°52'13.0336"W	1558.36	67.986	3.04	-1.69	-5.76	
5027.00	23.180	71.340	4700.05	-83.77	594.55	1482.21	1677216.53	14224387.33	39°10'17.1999"N	80°52'12.5577"W	1597.01	68.143	3.35	-2.15	-6.27	
5122.00	22.930	69.150	4787.46	-84.35	607.12	1517.22	1677251.53	14224399.89	39°10'17.3237"N	80°52'12.1129"W	1634.18	68.191	0.94	-0.26	-2.31	
5216.00	27.360	71.160	4872.54	-84.99	620.62	1554.80	1677289.09	14224413.39	39°10'17.4566"N	80°52'11.6356"W	1674.09	68.240	4.80	4.71	2.14	
5311.00	25.770	66.440	4957.51	-86.68	635.92	1594.40	1677328.67	14224428.69	39°10'17.6073"N	80°52'11.1325"W	1716.54	68.255	2.78	-1.67	-4.97	
5406.00	24.580	61.070	5043.50	-91.84	653.74	1630.62	1677364.88	14224446.50	39°10'17.7829"N	80°52'10.6722"W	1756.79	68.153	2.71	-1.25	-5.65	

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Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

WELLPATH DATA (216 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)	
5500.00	23.400	56.390	5129.39	-100.01	673.53	1663.28	1677397.53	14224466.28	39°10'17.9780"N	80°52'10.2571"W	1794.48	67.955	2.38	-1.26	-4.98	
5594.00	23.160	55.660	5215.73	-109.71	694.29	1694.09	1677428.32	14224487.03	39°10'18.1828"N	80°52'9.8656"W	1830.84	67.715	0.40	-0.26	-0.78	
5689.00	25.180	60.960	5302.41	-118.27	714.64	1727.19	1677461.41	14224507.38	39°10'18.3835"N	80°52'9.4449"W	1869.20	67.522	3.12	2.13	5.58	
5783.00	23.610	57.700	5388.02	-126.19	734.41	1760.59	1677494.80	14224527.14	39°10'18.5784"N	80°52'9.0205"W	1907.63	67.357	2.20	-1.67	-3.47	
5878.00	23.220	55.830	5475.20	-135.58	755.10	1792.17	1677526.36	14224547.81	39°10'18.7824"N	80°52'8.6192"W	1944.75	67.153	0.88	-0.41	-1.97	
5973.00	23.870	59.030	5562.29	-144.55	775.51	1824.15	1677558.32	14224568.22	39°10'18.9836"N	80°52'8.2128"W	1982.15	66.968	1.51	0.68	3.37	
6067.00	22.580	63.230	5648.68	-151.03	793.42	1856.57	1677590.74	14224586.13	39°10'19.1603"N	80°52'7.8008"W	2019.00	66.860	2.23	-1.37	4.47	
6164.00	23.760	70.840	5737.87	-153.70	808.23	1891.66	1677625.82	14224600.93	39°10'19.3061"N	80°52'7.3549"W	2057.09	66.865	3.32	1.22	7.85	
6258.00	20.730	74.740	5824.87	-152.76	818.83	1925.61	1677659.75	14224611.52	39°10'19.4104"N	80°52'6.9237"W	2092.48	66.963	3.58	-3.22	4.15	
6353.00	21.200	91.720	5913.67	-145.67	822.74	1959.03	1677693.16	14224615.43	39°10'19.4486"N	80°52'6.4992"W	2124.78	67.219	6.39	0.49	17.87	
6448.00	23.560	106.410	6001.57	-128.66	816.85	1994.45	1677728.56	14224609.55	39°10'19.3899"N	80°52'6.0497"W	2155.24	67.728	6.37	2.48	15.46	
6542.00	28.760	116.150	6085.95	-101.79	801.56	2032.81	1677766.91	14224594.26	39°10'19.2382"N	80°52'5.5628"W	2185.14	68.480	7.16	5.53	10.36	
6637.00	35.020	121.220	6166.59	-64.68	777.33	2076.69	1677810.77	14224570.04	39°10'18.9981"N	80°52'5.0061"W	2217.40	69.478	7.16	6.59	5.34	
6663.00†	36.857	122.425	6187.64	-52.88	769.28	2089.65	1677823.72	14224562.00	39°10'18.9183"N	80°52'4.8417"W	2226.76	69.789	7.57	7.06	4.63	Sycamore: 6663' MD
6731.00	41.710	125.140	6240.26	-18.64	745.31	2125.39	1677859.45	14224538.03	39°10'18.6809"N	80°52'4.3884"W	2252.28	70.676	7.57	7.14	3.99	
6827.00	46.930	130.030	6308.94	37.26	704.34	2178.41	1677912.45	14224497.07	39°10'18.2751"N	80°52'3.7159"W	2289.44	72.083	6.50	5.44	5.09	BH AT Curve <8-1/2"> (6731')(6827'-21006')
6905.00†	49.925	139.221	6360.76	89.41	663.36	2219.77	1677953.79	14224456.11	39°10'17.8695"N	80°52'3.1915"W	2316.77	73.362	9.61	3.84	11.78	Middlesex: 6905' MD
6922.00	50.670	141.110	6371.62	101.62	653.31	2228.15	1677962.17	14224446.07	39°10'17.7701"N	80°52'3.0853"W	2321.95	73.658	9.61	4.38	11.11	
7017.00	57.310	150.430	6427.52	175.61	589.78	2271.06	1678005.06	14224382.57	39°10'17.1415"N	80°52'2.5417"W	2346.39	75.442	10.56	6.99	9.81	
7105.00†	63.081	155.025	6471.26	251.10	521.93	2305.94	1678039.92	14224314.74	39°10'16.4703"N	80°52'2.1000"W	2364.27	77.247	7.97	6.56	5.22	Burkett: 7105' MD
7111.00	63.480	155.320	6473.96	256.43	517.06	2308.19	1678042.17	14224309.88	39°10'16.4222"N	80°52'2.0716"W	2365.39	77.374	7.97	6.65	4.92	
7188.00†	68.706	157.021	6505.15	326.53	452.69	2336.60	1678070.57	14224245.53	39°10'15.7855"N	80°52'1.7120"W	2380.05	79.035	7.08	6.79	2.21	Tully: 7188' MD
7206.00	69.930	157.400	6511.51	343.33	437.16	2343.12	1678077.09	14224230.01	39°10'15.6320"N	80°52'1.6295"W	2383.55	79.432	7.08	6.80	2.11	
7257.00†	74.992	157.173	6526.87	391.83	392.32	2361.89	1678095.86	14224185.18	39°10'15.1885"N	80°52'1.3920"W	2394.25	80.569	9.93	9.93	-0.45	Marcellus POE: 7257' MD
7300.00	79.260	156.990	6536.45	433.63	353.72	2378.21	1678112.17	14224146.60	39°10'14.8067"N	80°52'1.1855"W	2404.37	81.540	9.93	9.93	-0.43	
7395.00	88.740	158.040	6546.37	527.81	266.52	2414.30	1678148.24	14224059.43	39°10'13.9444"N	80°52'0.7290"W	2428.96	83.701	10.04	9.98	1.11	
7490.00	90.090	156.500	6547.34	622.59	178.91	2451.00	1678184.93	14223971.85	39°10'13.0779"N	80°52'0.2646"W	2457.52	85.825	2.16	1.42	-1.62	
7584.00	90.620	156.250	6546.76	716.26	92.79	2488.67	1678222.58	14223885.77	39°10'12.2261"N	80°51'59.7879"W	2490.40	87.865	0.62	0.56	-0.27	
7679.00	89.380	156.550	6546.76	810.93	5.73	2526.70	1678260.60	14223798.75	39°10'11.3651"N	80°51'59.3066"W	2526.71	89.870	1.34	-1.31	0.32	
7774.00	90.060	156.260	6547.22	905.60	-81.32	2564.73	1678298.61	14223711.73	39°10'10.5041"N	80°51'58.8255"W	2566.02	91.816	0.78	0.72	-0.31	

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Sandy Unit 1H
Field	Ritchie		API	47-085-10417-0000
Facility	Weekley West Pad		Wellbore	Sandy Unit 1H AWB
Slot	Slot F			

WELLPATH DATA (216 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
7868.00	90.090	157.210	6547.10	999.32	-167.68	2601.86	1678335.72	14223625.41	39°10'9.6501"N	80°51'58.3557"W	2607.25	93.687	1.01	0.03	1.01	
7963.00	90.180	161.380	6546.87	1094.25	-256.52	2635.44	1678369.29	14223536.60	39°10'8.7714"N	80°51'57.9310"W	2647.89	95.559	4.39	0.09	4.39	
8058.00	90.030	160.920	6546.70	1189.25	-346.43	2666.13	1678399.97	14223446.73	39°10'7.8824"N	80°51'57.5429"W	2688.54	97.403	0.51	-0.16	-0.48	
8153.00	90.310	161.510	6546.42	1284.25	-436.37	2696.72	1678430.55	14223356.83	39°10'6.9930"N	80°51'57.1562"W	2731.80	99.192	0.69	0.29	0.62	
8247.00	90.030	161.550	6546.14	1378.25	-525.52	2726.50	1678460.32	14223267.71	39°10'6.1113"N	80°51'56.7798"W	2778.69	100.910	0.30	-0.30	0.04	
8342.00	90.280	161.210	6545.88	1473.25	-615.55	2756.83	1678490.64	14223177.72	39°10'5.2211"N	80°51'56.3964"W	2824.72	102.587	0.44	0.26	-0.36	
8437.00	90.490	161.300	6545.24	1568.24	-705.51	2787.36	1678521.16	14223087.79	39°10'4.3315"N	80°51'56.0105"W	2875.26	104.204	0.24	0.22	0.09	
8531.00	90.550	161.710	6544.39	1662.24	-794.65	2817.18	1678550.96	14222998.69	39°10'3.4500"N	80°51'55.6336"W	2927.11	105.752	0.44	0.06	0.44	
8626.00	90.120	161.590	6543.84	1757.23	-884.82	2847.09	1678580.86	14222908.56	39°10'2.5583"N	80°51'55.2555"W	2981.41	107.264	0.47	-0.45	-0.13	
8720.00	90.250	162.150	6543.53	1851.22	-974.15	2876.34	1678610.09	14222819.26	39°10'1.6749"N	80°51'54.8858"W	3036.82	108.710	0.61	0.14	0.60	
8815.00	90.650	161.930	6542.79	1946.21	-1064.52	2905.63	1678639.38	14222728.93	39°10'0.7813"N	80°51'54.5156"W	3094.49	110.121	0.48	0.42	-0.23	
8910.00	90.310	161.270	6541.99	2041.20	-1154.66	2935.61	1678669.35	14222638.83	39°09'59.8899"N	80°51'54.1366"W	3154.53	111.471	0.78	-0.36	-0.69	
9004.00	90.580	161.330	6541.26	2135.20	-1243.69	2965.75	1678699.47	14222549.83	39°09'59.0095"N	80°51'53.7557"W	3215.97	112.751	0.29	0.29	0.06	
9099.00	90.340	161.450	6540.50	2230.20	-1333.72	2996.07	1678729.78	14222459.83	39°09'58.1192"N	80°51'53.3725"W	3279.52	113.997	0.28	-0.25	0.13	
9193.00	89.510	160.480	6540.62	2324.19	-1422.58	3026.72	1678760.42	14222371.01	39°09'57.2405"N	80°51'52.9850"W	3344.37	115.174	1.36	-0.88	-1.03	
9288.00	90.710	161.090	6540.44	2419.19	-1512.29	3057.99	1678791.67	14222281.34	39°09'56.3534"N	80°51'52.5897"W	3411.50	116.314	1.42	1.26	0.64	
9383.00	90.680	161.270	6539.29	2514.18	-1602.20	3088.63	1678822.31	14222191.46	39°09'55.4642"N	80°51'52.2024"W	3479.47	117.418	0.19	-0.03	0.19	
9478.00	90.370	161.050	6538.42	2609.18	-1692.11	3119.31	1678852.97	14222101.59	39°09'54.5751"N	80°51'51.8146"W	3548.71	118.478	0.40	-0.33	-0.23	
9572.00	90.340	161.710	6537.83	2703.17	-1781.18	3149.32	1678882.97	14222012.55	39°09'53.6943"N	80°51'51.4352"W	3618.13	119.491	0.70	-0.03	0.70	
9667.00	88.860	159.420	6538.50	2798.16	-1870.76	3180.93	1678914.56	14221923.01	39°09'52.8084"N	80°51'51.0357"W	3690.26	120.461	2.87	-1.56	-2.41	
9761.00	90.030	161.000	6539.41	2892.14	-1959.20	3212.75	1678946.37	14221834.60	39°09'51.9338"N	80°51'50.6333"W	3763.01	121.376	2.09	1.24	1.68	
9856.00	89.260	159.680	6540.00	2987.12	-2048.66	3244.71	1678978.32	14221745.18	39°09'51.0492"N	80°51'50.2293"W	3837.34	122.268	1.61	-0.81	-1.39	
9950.00	89.420	160.700	6541.08	3081.10	-2137.09	3276.57	1679010.16	14221656.79	39°09'50.1746"N	80°51'49.8265"W	3911.91	123.114	1.10	0.17	1.09	
10140.00	89.970	161.080	6542.09	3271.10	-2316.61	3338.77	1679072.34	14221477.33	39°09'48.3993"N	80°51'49.0403"W	4063.75	124.755	0.35	0.29	0.20	
10234.00	89.750	161.350	6542.32	3365.10	-2405.61	3369.04	1679102.60	14221388.38	39°09'47.5193"N	80°51'48.6577"W	4139.73	125.528	0.37	-0.23	0.29	
10329.00	90.060	162.020	6542.48	3460.09	-2495.79	3398.89	1679132.44	14221298.23	39°09'46.6274"N	80°51'48.2804"W	4216.80	126.290	0.78	0.33	0.71	
10424.00	89.820	161.320	6542.58	3555.09	-2585.97	3428.77	1679162.30	14221208.08	39°09'45.7356"N	80°51'47.9028"W	4294.61	127.024	0.78	-0.25	-0.74	
10519.00	89.750	161.630	6542.93	3650.08	-2676.05	3458.95	1679192.47	14221118.04	39°09'44.8449"N	80°51'47.5214"W	4373.28	127.728	0.33	-0.07	0.33	
10614.00	89.690	161.270	6543.40	3745.08	-2766.11	3489.17	1679222.68	14221028.02	39°09'43.9543"N	80°51'47.1394"W	4452.61	128.406	0.38	-0.06	-0.38	
10709.00	89.720	161.700	6543.89	3840.08	-2856.19	3519.34	1679252.84	14220937.97	39°09'43.0634"N	80°51'46.7581"W	4532.50	129.062	0.45	0.03	0.45	

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Sandy Unit 1H
Field	Ritchie		API	47-085-10417-0000
Facility	Weekley West Pad		Wellbore	Sandy Unit 1H AWB
Slot	Slot F			

WELLPATH DATA (216 stations)																	
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments	
10803.00	89.720	161.340	6544.35	3934.08	-2945.35	3549.13	1679282.62	14220848.85	39°09'42.1818"N	80°51'46.3816"W	4612.09	129.689	0.38	0.00	-0.38		
10898.00	89.510	161.270	6544.98	4029.07	-3035.33	3579.58	1679313.06	14220758.90	39°09'41.2920"N	80°51'45.9967"W	4693.26	130.296	0.23	-0.22	-0.07		
10992.00	89.380	161.640	6545.89	4123.07	-3124.45	3609.48	1679342.94	14220669.83	39°09'40.4107"N	80°51'45.6189"W	4773.94	130.880	0.42	-0.14	0.39		
11087.00	89.630	161.360	6546.72	4218.06	-3214.53	3639.62	1679373.07	14220579.77	39°09'39.5198"N	80°51'45.2380"W	4855.93	131.451	0.40	0.26	-0.29		
11182.00	89.320	161.050	6547.59	4313.06	-3304.46	3670.23	1679403.67	14220489.88	39°09'38.6305"N	80°51'44.8512"W	4938.63	131.998	0.46	-0.33	-0.33		
11371.00	89.050	160.750	6550.27	4502.04	-3483.04	3732.06	1679465.48	14220311.38	39°09'36.8646"N	80°51'44.0696"W	5104.89	133.023	0.21	-0.14	-0.16		
11465.00	89.630	161.150	6551.36	4596.03	-3571.89	3762.74	1679496.15	14220222.57	39°09'35.9860"N	80°51'43.6818"W	5188.12	133.509	0.75	0.62	0.43		
11654.00	89.820	161.070	6552.26	4785.03	-3750.70	3823.93	1679557.31	14220043.82	39°09'34.2176"N	80°51'42.9085"W	5356.33	134.446	0.11	0.10	-0.04		
11749.00	89.840	161.710	6552.55	4880.02	-3840.74	3854.25	1679587.61	14219953.82	39°09'33.3273"N	80°51'42.5253"W	5441.18	134.899	0.67	0.02	0.67		
11938.00	89.880	161.780	6553.01	5069.01	-4020.22	3913.45	1679646.79	14219774.41	39°09'31.5523"N	80°51'41.7772"W	5610.46	135.771	0.04	0.02	0.04		
12128.00	89.880	161.250	6553.41	5259.01	-4200.42	3973.69	1679707.01	14219594.28	39°09'29.7704"N	80°51'41.0160"W	5782.19	136.589	0.28	0.00	-0.28		
12223.00	89.690	161.230	6553.76	5354.01	-4290.37	4004.24	1679737.55	14219504.37	39°09'28.8808"N	80°51'40.6299"W	5868.67	136.976	0.20	-0.20	-0.02		
12317.00	89.820	162.100	6554.16	5448.00	-4379.60	4033.81	1679767.11	14219415.18	39°09'27.9985"N	80°51'40.2562"W	5954.20	137.353	0.94	0.14	0.93		
12411.00	89.380	161.130	6554.82	5542.00	-4468.80	4063.46	1679796.74	14219326.01	39°09'27.1164"N	80°51'39.8816"W	6040.02	137.720	1.13	-0.47	-1.03		
12506.00	89.750	161.330	6555.54	5638.99	-4558.74	4094.03	1679827.30	14219236.10	39°09'26.2269"N	80°51'39.4953"W	6127.25	138.074	0.44	0.39	0.21		
12601.00	89.510	160.130	6556.16	5731.99	-4648.42	4125.38	1679858.64	14219146.47	39°09'25.3401"N	80°51'39.0991"W	6215.02	138.412	1.29	-0.25	-1.26		
12791.00	89.450	159.620	6557.88	5921.93	-4826.81	4190.75	1679923.98	14218968.15	39°09'23.5759"N	80°51'38.2727"W	6392.22	139.035	0.27	-0.03	-0.27		
12980.00	89.970	161.770	6558.84	6110.91	-5005.17	4253.23	1679986.43	14218789.86	39°09'21.8121"N	80°51'37.4831"W	6568.23	139.643	1.17	0.28	1.14		
13075.00	89.450	159.680	6559.32	6205.90	-5094.84	4284.58	1680017.78	14218700.23	39°09'20.9253"N	80°51'37.0868"W	6656.95	139.937	2.27	-0.55	-2.20		
13169.00	90.460	160.730	6559.39	6299.89	-5183.28	4316.42	1680049.60	14218611.82	39°09'20.0507"N	80°51'36.6844"W	6745.21	140.214	1.55	1.07	1.12		
13264.00	90.310	161.080	6558.75	6394.88	-5273.05	4347.49	1680080.66	14218522.08	39°09'19.1629"N	80°51'36.2916"W	6834.16	140.495	0.40	-0.16	0.37		
13359.00	90.180	161.820	6558.35	6489.88	-5363.11	4377.72	1680110.87	14218432.06	39°09'18.2723"N	80°51'35.9098"W	6922.96	140.776	0.79	-0.14	0.78		
13453.00	90.490	161.820	6557.80	6583.87	-5452.42	4407.04	1680140.19	14218342.79	39°09'17.3891"N	80°51'35.5392"W	7010.77	141.052	0.33	0.33	0.00		
13642.00	90.120	161.260	6556.79	6772.86	-5631.69	4466.89	1680200.01	14218163.59	39°09'15.6163"N	80°51'34.7831"W	7188.12	141.580	0.36	-0.20	-0.30		
13737.00	90.180	160.900	6556.54	6867.86	-5721.56	4497.69	1680230.80	14218073.76	39°09'14.7276"N	80°51'34.3938"W	7277.74	141.829	0.38	0.06	-0.38		
13831.00	90.250	161.530	6556.19	6961.86	-5810.55	4527.96	1680261.06	14217984.80	39°09'13.8475"N	80°51'34.0113"W	7366.47	142.072	0.67	0.07	0.67		
13926.00	89.570	161.330	6556.34	7056.86	-5900.60	4558.21	1680291.30	14217894.78	39°09'12.9570"N	80°51'33.6290"W	7456.17	142.314	0.75	-0.72	-0.21		
14021.00	89.880	160.660	6556.79	7151.86	-5990.42	4589.15	1680322.22	14217805.00	39°09'12.0688"N	80°51'33.2381"W	7546.22	142.545	0.78	0.33	-0.71		
14211.00	89.820	161.610	6557.29	7341.85	-6170.21	4650.58	1680383.63	14217625.28	39°09'10.2908"N	80°51'32.4618"W	7726.54	142.994	0.50	-0.03	0.50		
14399.00	89.970	162.280	6557.64	7529.83	-6348.95	4708.85	1680441.87	14217446.61	39°09'8.5232"N	80°51'31.7257"W	7904.59	143.437	0.37	0.08	0.36		

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

WELLPATH DATA (216 stations)																
MD (ft)	Inclination [°]	Azimuth [°]	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
14494.00	90.090	160.660	6557.59	7624.83	-6439.03	4739.04	1680472.05	14217356.57	39°09'7.6325"N	80°51'31.3443"W	7994.97	143.647	1.71	0.13	-1.71	
14683.00	89.660	160.700	6558.00	7813.82	-6617.38	4801.57	1680534.56	14217178.29	39°09'5.8687"N	80°51'30.5541"W	8175.87	144.035	0.23	-0.23	0.02	
14777.00	89.600	161.200	6558.61	7907.82	-6706.23	4832.25	1680565.22	14217089.47	39°09'4.9900"N	80°51'30.1664"W	8265.84	144.225	0.54	-0.06	0.53	
14872.00	89.690	161.500	6559.19	8002.82	-6796.24	4862.63	1680595.59	14216999.50	39°09'4.0999"N	80°51'29.7826"W	8356.68	144.417	0.33	0.09	0.32	
14967.00	89.850	161.150	6559.58	8097.82	-6886.24	4893.05	1680626.00	14216909.54	39°09'3.2099"N	80°51'29.3982"W	8447.61	144.604	0.41	0.17	-0.37	
15061.00	90.030	161.730	6559.67	8191.81	-6975.35	4922.97	1680655.91	14216820.47	39°09'2.3286"N	80°51'29.0202"W	8537.63	144.787	0.65	0.19	0.62	
15156.00	89.910	161.490	6559.72	8286.81	-7065.50	4952.94	1680685.86	14216730.35	39°09'1.4372"N	80°51'28.6416"W	8628.61	144.969	0.28	-0.13	-0.25	
15250.00	90.000	161.130	6559.80	8380.81	-7154.54	4983.06	1680715.97	14216641.35	39°09'0.5566"N	80°51'28.2610"W	8718.85	145.143	0.39	0.10	-0.38	
15345.00	90.740	161.960	6559.18	8475.81	-7244.65	5013.13	1680746.03	14216551.27	39°08'59.6655"N	80°51'27.8811"W	8810.02	145.318	1.17	0.78	0.87	
15534.00	90.310	160.830	6557.45	8664.79	-7423.76	5073.43	1680806.31	14216372.23	39°08'57.8942"N	80°51'27.1193"W	8991.77	145.651	0.64	-0.23	-0.60	
15629.00	90.430	161.570	6556.84	8759.79	-7513.69	5104.04	1680836.91	14216282.34	39°08'57.0049"N	80°51'26.7325"W	9083.33	145.812	0.79	0.13	0.78	
15723.00	89.850	160.860	6556.61	8853.79	-7602.68	5134.31	1680867.16	14216193.38	39°08'56.1248"N	80°51'26.3501"W	9173.98	145.968	0.98	-0.62	-0.76	
15818.00	90.400	161.070	6556.40	8948.79	-7692.49	5165.30	1680898.14	14216103.61	39°08'55.2367"N	80°51'25.9586"W	9265.78	146.120	0.62	0.58	0.22	
15912.00	89.880	161.160	6556.17	9042.79	-7781.43	5195.72	1680928.55	14216014.71	39°08'54.3572"N	80°51'25.5742"W	9356.61	146.269	0.56	-0.55	0.10	
16007.00	89.600	161.300	6556.60	9137.79	-7871.38	5226.29	1680959.10	14215924.80	39°08'53.4677"N	80°51'25.1880"W	9448.42	146.417	0.33	-0.29	0.15	
16101.00	89.630	160.480	6557.24	9231.78	-7960.19	5257.06	1680989.86	14215836.02	39°08'52.5893"N	80°51'24.7992"W	9539.46	146.558	0.87	0.03	-0.87	
16196.00	90.090	160.890	6557.47	9326.78	-8049.84	5288.48	1681021.27	14215746.40	39°08'51.7027"N	80°51'24.4021"W	9631.62	146.696	0.65	0.48	0.43	
16291.00	89.600	160.510	6557.72	9421.77	-8139.50	5319.88	1681052.66	14215656.78	39°08'50.8160"N	80°51'24.0054"W	9723.82	146.832	0.65	-0.52	-0.40	
16385.00	89.880	160.640	6558.15	9515.77	-8228.15	5351.14	1681083.91	14215568.16	39°08'49.9393"N	80°51'23.6104"W	9815.15	146.962	0.33	0.30	0.14	
16480.00	89.660	161.060	6558.53	9610.77	-8317.89	5382.31	1681115.07	14215478.46	39°08'49.0519"N	80°51'23.2165"W	9907.40	147.094	0.49	-0.23	0.43	
16575.00	89.540	160.980	6559.20	9705.76	-8407.72	5413.22	1681145.96	14215388.67	39°08'48.1635"N	80°51'22.8260"W	9999.64	147.225	0.15	-0.13	-0.07	
16670.00	90.250	161.600	6559.37	9800.76	-8497.70	5443.69	1681176.42	14215298.72	39°08'47.2737"N	80°51'22.4411"W	10091.81	147.356	0.99	0.75	0.65	
16765.00	90.400	161.380	6558.83	9895.76	-8587.78	5473.85	1681206.57	14215208.68	39°08'46.3828"N	80°51'22.0601"W	10183.96	147.487	0.28	0.16	-0.23	
16859.00	90.680	161.430	6557.94	9989.75	-8676.87	5503.82	1681236.53	14215119.62	39°08'45.5018"N	80°51'21.6814"W	10275.22	147.613	0.30	0.30	0.05	
16954.00	90.250	161.460	6557.17	10084.75	-8766.93	5534.05	1681266.75	14215029.60	39°08'44.6112"N	80°51'21.2996"W	10367.49	147.738	0.45	-0.45	0.03	
17049.00	89.940	161.130	6557.02	10179.75	-8856.91	5564.52	1681297.20	14214939.65	39°08'43.7214"N	80°51'20.9147"W	10459.87	147.860	0.48	-0.33	-0.35	
17143.00	90.000	161.470	6557.07	10273.75	-8945.95	5594.66	1681327.33	14214850.65	39°08'42.8408"N	80°51'20.5340"W	10551.32	147.979	0.37	0.06	0.36	
17238.00	90.180	161.230	6556.92	10368.75	-9035.96	5625.04	1681357.69	14214760.68	39°08'41.9507"N	80°51'20.1502"W	10643.76	148.097	0.32	0.19	-0.25	
17333.00	90.060	161.410	6556.72	10463.75	-9125.96	5655.46	1681388.11	14214670.72	39°08'41.0607"N	80°51'19.7658"W	10736.27	148.213	0.23	-0.13	0.19	
17427.00	90.060	161.340	6556.62	10557.74	-9215.04	5685.49	1681418.12	14214581.68	39°08'40.1798"N	80°51'19.3866"W	10827.82	148.326	0.07	0.00	-0.07	

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

WELLPATH DATA (216 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
17522.00	89.750	161.470	6556.78	10652.74	-9305.08	5715.78	1681448.40	14214491.67	39°08'39.2894"N	80°51'19.0039"W	10920.37	148.439	0.35	-0.33	0.14	
17616.00	90.000	161.090	6556.98	10746.74	-9394.10	5745.95	1681478.56	14214402.68	39°08'38.4090"N	80°51'18.6228"W	11012.04	148.548	0.48	0.27	-0.40	
17711.00	90.090	161.330	6556.91	10841.74	-9484.04	5776.55	1681509.14	14214312.78	39°08'37.5195"N	80°51'18.2362"W	11104.75	148.655	0.27	0.09	0.25	
17806.00	90.090	161.540	6556.76	10936.74	-9574.10	5806.79	1681539.38	14214222.76	39°08'36.6289"N	80°51'17.8542"W	11197.42	148.763	0.22	0.00	0.22	
17901.00	90.030	161.260	6556.66	11031.74	-9664.13	5837.09	1681569.67	14214132.76	39°08'35.7385"N	80°51'17.4714"W	11290.13	148.868	0.30	-0.06	-0.29	
17995.00	90.060	161.580	6556.58	11125.74	-9753.23	5867.04	1681599.60	14214043.69	39°08'34.8574"N	80°51'17.0931"W	11381.91	148.971	0.34	0.03	0.34	
18090.00	90.030	161.630	6556.51	11220.74	-9843.38	5897.02	1681629.57	14213953.58	39°08'33.9659"N	80°51'16.7144"W	11474.62	149.075	0.06	-0.03	0.05	
18185.00	90.030	161.420	6556.46	11315.73	-9933.48	5927.13	1681659.66	14213863.51	39°08'33.0749"N	80°51'16.3342"W	11567.41	149.176	0.22	0.00	-0.22	
18280.00	90.490	161.360	6556.03	11410.73	-10023.52	5957.44	1681689.97	14213773.52	39°08'32.1845"N	80°51'15.9512"W	11660.27	149.275	0.49	0.48	-0.06	
18375.00	90.370	161.250	6555.32	11505.73	-10113.50	5987.89	1681720.41	14213683.57	39°08'31.2946"N	80°51'15.5666"W	11753.20	149.372	0.17	-0.13	-0.12	
18470.00	90.030	161.370	6554.98	11600.73	-10203.49	6018.34	1681750.84	14213593.62	39°08'30.4047"N	80°51'15.1821"W	11846.16	149.467	0.38	-0.36	0.13	
18564.00	90.250	161.260	6554.75	11694.73	-10292.54	6048.45	1681780.94	14213504.61	39°08'29.5241"N	80°51'14.8017"W	11938.18	149.559	0.26	0.23	-0.12	
18659.00	89.880	161.200	6554.65	11789.73	-10382.48	6079.02	1681811.49	14213414.70	39°08'28.6346"N	80°51'14.4156"W	12031.23	149.651	0.39	-0.39	-0.06	
18848.00	89.720	161.120	6555.31	11978.73	-10561.36	6140.05	1681872.50	14213235.89	39°08'26.8656"N	80°51'13.6446"W	12216.48	149.828	0.09	-0.08	-0.04	
18943.00	90.000	160.960	6555.54	12073.72	-10651.20	6170.92	1681903.36	14213146.09	39°08'25.9771"N	80°51'13.2547"W	12309.68	149.914	0.34	0.29	-0.17	
19038.00	90.150	161.290	6555.41	12168.72	-10741.09	6201.65	1681934.08	14213056.23	39°08'25.0881"N	80°51'12.8665"W	12402.88	149.999	0.38	0.16	0.35	
19133.00	89.780	161.380	6555.47	12263.72	-10831.10	6232.05	1681964.47	14212966.26	39°08'24.1981"N	80°51'12.4825"W	12496.04	150.085	0.40	-0.39	0.09	
19227.00	89.910	161.170	6555.73	12357.72	-10920.12	6262.23	1681994.63	14212877.27	39°08'23.3177"N	80°51'12.1013"W	12588.27	150.168	0.26	0.14	-0.22	
19321.00	89.940	161.310	6555.85	12451.72	-11009.13	6292.46	1682024.85	14212788.30	39°08'22.4374"N	80°51'11.7195"W	12680.53	150.249	0.15	0.03	0.15	
19416.00	90.060	161.080	6555.85	12546.72	-11099.06	6323.08	1682055.46	14212698.41	39°08'21.5481"N	80°51'11.3327"W	12773.82	150.330	0.27	0.13	-0.24	
19511.00	90.120	161.170	6555.70	12641.72	-11188.95	6353.82	1682086.18	14212608.56	39°08'20.6591"N	80°51'10.9445"W	12867.15	150.409	0.11	0.06	0.09	
19605.00	90.280	161.270	6555.37	12735.72	-11277.94	6384.08	1682116.43	14212519.60	39°08'19.7790"N	80°51'10.5622"W	12959.49	150.487	0.20	0.17	0.11	
19700.00	90.000	161.580	6555.14	12830.72	-11367.99	6414.34	1682146.68	14212429.58	39°08'18.8885"N	80°51'10.1800"W	13052.78	150.566	0.44	-0.29	0.33	
19795.00	90.340	161.270	6554.86	12925.72	-11458.04	6444.60	1682176.93	14212339.57	39°08'17.9979"N	80°51'9.7978"W	13146.09	150.644	0.48	0.36	-0.33	
19890.00	90.340	161.190	6554.29	13020.72	-11547.99	6475.17	1682207.49	14212249.66	39°08'17.1084"N	80°51'9.4117"W	13239.48	150.720	0.08	0.00	-0.08	
19985.00	90.340	161.810	6553.73	13115.71	-11638.03	6505.47	1682237.77	14212159.66	39°08'16.2180"N	80°51'9.0290"W	13332.85	150.796	0.44	0.00	0.44	
20080.00	90.150	161.240	6553.32	13210.71	-11728.08	6535.73	1682268.02	14212069.64	39°08'15.3275"N	80°51'8.6468"W	13426.23	150.870	0.44	-0.20	-0.39	
20174.00	90.280	161.490	6552.97	13304.71	-11817.15	6565.77	1682298.05	14211980.61	39°08'14.4466"N	80°51'8.2675"W	13518.66	150.943	0.30	0.14	0.27	
20269.00	90.220	161.310	6552.56	13399.71	-11907.18	6596.07	1682328.34	14211890.61	39°08'13.5562"N	80°51'7.8848"W	13612.10	151.015	0.20	-0.06	-0.19	
20364.00	90.400	161.520	6552.04	13494.71	-11997.23	6626.35	1682358.60	14211800.60	39°08'12.6657"N	80°51'7.5024"W	13705.54	151.087	0.29	0.19	0.22	

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

WELLPATH DATA (216 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
20554.00	89.660	161.360	6551.94	13684.70	-12177.35	6686.82	1682419.05	14211620.55	39°08'10.8845"N	80°51'6.7387"W	13892.49	151.228	0.40	-0.39	-0.08	
20742.00	89.910	161.250	6552.65	13872.70	-12355.42	6747.08	1682479.29	14211442.54	39°08'9.1234"N	80°51'5.9776"W	14077.63	151.362	0.15	0.13	-0.06	
20837.00	89.880	161.130	6552.82	13967.70	-12445.35	6777.71	1682509.91	14211352.65	39°08'8.2341"N	80°51'5.5907"W	14171.24	151.427	0.13	-0.03	-0.13	
20931.00	89.630	161.070	6553.23	14061.70	-12534.28	6808.16	1682540.34	14211263.76	39°08'7.3546"N	80°51'5.2062"W	14263.91	151.491	0.27	-0.27	-0.06	
21006.00	89.480	160.350	6553.81	14136.69	-12605.07	6832.93	1682565.11	14211193.00	39°08'6.6545"N	80°51'4.8932"W	14337.95	151.539	0.98	-0.20	-0.96	
21033.00‡	89.480	160.350	6554.05	14163.69	-12630.50	6842.01	1682574.18	14211167.58	39°08'6.4031"N	80°51'4.7785"W	14364.63	151.555	0.00	0.00	0.00	Projected MD at TD: 21033'

HOLE & CASING SECTIONS - Ref Wellbore: Sandy Unit 1H AWB Ref Wellpath: Sandy Unit 1H AWP Proj: 21033'									
String/Diameter	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start N/S (ft)	Start E/W (ft)	End N/S (ft)	End E/W (ft)
20in Conductor	30.00	130.00	100.00	30.00	130.00	0.00	0.00	-0.14	-0.03
17.5in Open Hole	130.00	592.00	462.00	130.00	591.99	-0.14	-0.03	-1.92	0.54
13.375in Casing Surface	30.00	572.00	542.00	30.00	572.00	0.00	0.00	-1.76	0.61
12.25in Open Hole	592.00	2749.00	2157.00	591.99	2604.49	-1.92	0.54	256.77	662.61
9.625in Casing Intermediate	30.00	2729.00	2699.00	30.00	2585.71	0.00	0.00	255.05	655.93
8.75in Open Hole	2749.00	6802.00	4053.00	2604.49	6291.65	256.77	662.61	715.81	2164.47
8.5in Open Hole	6802.00	21033.00	14231.00	6291.65	6554.05	715.81	2164.47	-12630.50	6842.01
5.5in Casing Production	30.00	21013.00	20983.00	30.00	6553.87	0.00	0.00	-12611.66	6835.29

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

WELLPATH DATA (216 stations) † = interpolated, ‡ = extrapolated station																	
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]	Comments	
20554.00	89.660	161.360	6551.94	13684.70	-12177.35	6686.82	1682419.05	14211620.55	39°08'10.8845"N	80°51'6.7387"W	13892.49	151.228	0.40	-0.39	-0.08		
20742.00	89.910	161.250	6552.65	13872.70	-12355.42	6747.08	1682479.29	14211442.54	39°08'9.1234"N	80°51'5.9776"W	14077.63	151.362	0.15	0.13	-0.06		
20837.00	89.880	161.130	6552.82	13967.70	-12445.35	6777.71	1682509.91	14211352.65	39°08'8.2341"N	80°51'5.5907"W	14171.24	151.427	0.13	-0.03	-0.13		
20931.00	89.630	161.070	6553.23	14061.70	-12534.28	6808.16	1682540.34	14211263.76	39°08'7.3546"N	80°51'5.2062"W	14263.91	151.491	0.27	-0.27	-0.06		
21006.00	89.480	160.350	6553.81	14136.69	-12605.07	6832.93	1682565.11	14211193.00	39°08'6.6545"N	80°51'4.8932"W	14337.95	151.539	0.98	-0.20	-0.96		
21033.00‡	89.480	160.350	6554.05	14163.69	-12630.50	6842.01	1682574.18	14211167.58	39°08'6.4031"N	80°51'4.7785"W	14364.63	151.555	0.00	0.00	0.00	Projected MD at TD: 21033'	

HOLE & CASING SECTIONS - Ref Wellbore: Sandy Unit 1H AWB Ref Wellpath: Sandy Unit 1H AWP Proj: 21033'									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	30.00	130.00	100.00	30.00	130.00	0.00	0.00	-0.14	-0.03
17.5in Open Hole	130.00	592.00	462.00	130.00	591.99	-0.14	-0.03	-1.92	0.54
13.375in Casing Surface	30.00	572.00	542.00	30.00	572.00	0.00	0.00	-1.76	0.61
12.25in Open Hole	592.00	2749.00	2157.00	591.99	2604.49	-1.92	0.54	256.77	662.61
9.625in Casing Intermediate	30.00	2729.00	2699.00	30.00	2585.71	0.00	0.00	255.05	655.93
8.75in Open Hole	2749.00	6802.00	4053.00	2604.49	6291.65	256.77	662.61	715.81	2164.47
8.5in Open Hole	6802.00	21033.00	14231.00	6291.65	6554.05	715.81	2164.47	-12630.50	6842.01
5.5in Casing Production	30.00	21013.00	20983.00	30.00	6553.87	0.00	0.00	-12611.66	6835.29

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Sandy Unit 1H POE Rev-3	6542.00	410.06	2399.13	1678133.08	14224202.92	39°10'15.3634"N	80°52'0.9189"W	point
Sandy Unit 1H BHL Rev-3	6565.00	-12541.41	6822.14	1682554.32	14211256.63	39°08'7.2839"N	80°51'5.0289"W	point
Sandy Unit 1H LP Rev-3	6565.00	239.68	2457.32	1678191.24	14224032.61	39°10'13.6785"N	80°52'0.1832"W	point
Sandy Unit 1H 50' L/R Hard Line	7000.00	-6065.68	4610.64	1680343.70	14217729.77	39°09'11.3246"N	80°51'32.9668"W	rectangle
2D Rectangle 13685.9 x 100.								

## WELLPATH COMPOSITION - Ref Wellbore: Sandy Unit 1H AWB Ref Wellpath: Sandy Unit 1H AWP Proj: 21033'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	528.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-528')	Sandy Unit 1H AWB	28/Dec/2021
528.00	2658.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (528')(593'-2658')	Sandy Unit 1H AWB	28/Dec/2021
2658.00	6731.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (2658')(2756'-6731')	Sandy Unit 1H AWB	07/Mar/2022
6731.00	21033.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (6731')(6827'-21006')	Sandy Unit 1H AWB	07/Mar/2022

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# Actual Wellpath Report

Sandy Unit 1H AWP Proj: 21033'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Sandy Unit 1H
Field	Ritchie	API	47-085-10417-0000
Facility	Weekley West Pad	Wellbore	Sandy Unit 1H AWB
Slot	Slot F		

COMMENTS
<p><b>Wellpath general comments</b>            API: 47-085-10417-0000            BH Job #: 111180464            Rig: H&amp;P 531            Duration: 3/8/2022-3/12/2022            Gyrodata MS Gyro &lt;17-1/2"&gt; (100'-528')            APS EM &lt;12-1/4"&gt; (528')(593'-2658')            APS EM &lt;8-3/4"&gt; (2658')(2756'-6731')            BH AT Curve &lt;8-1/2"&gt; (6731')(6827'-21006')            Sycamore: 6663' MD            Middlesex: 6905' MD            Burkett: 7105' MD            Tully: 7188' MD            Marcellus POE: 7257' MD            Projected MD at TD: 21033'</p>

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