



ANTERO RESOURCES CORPORATION

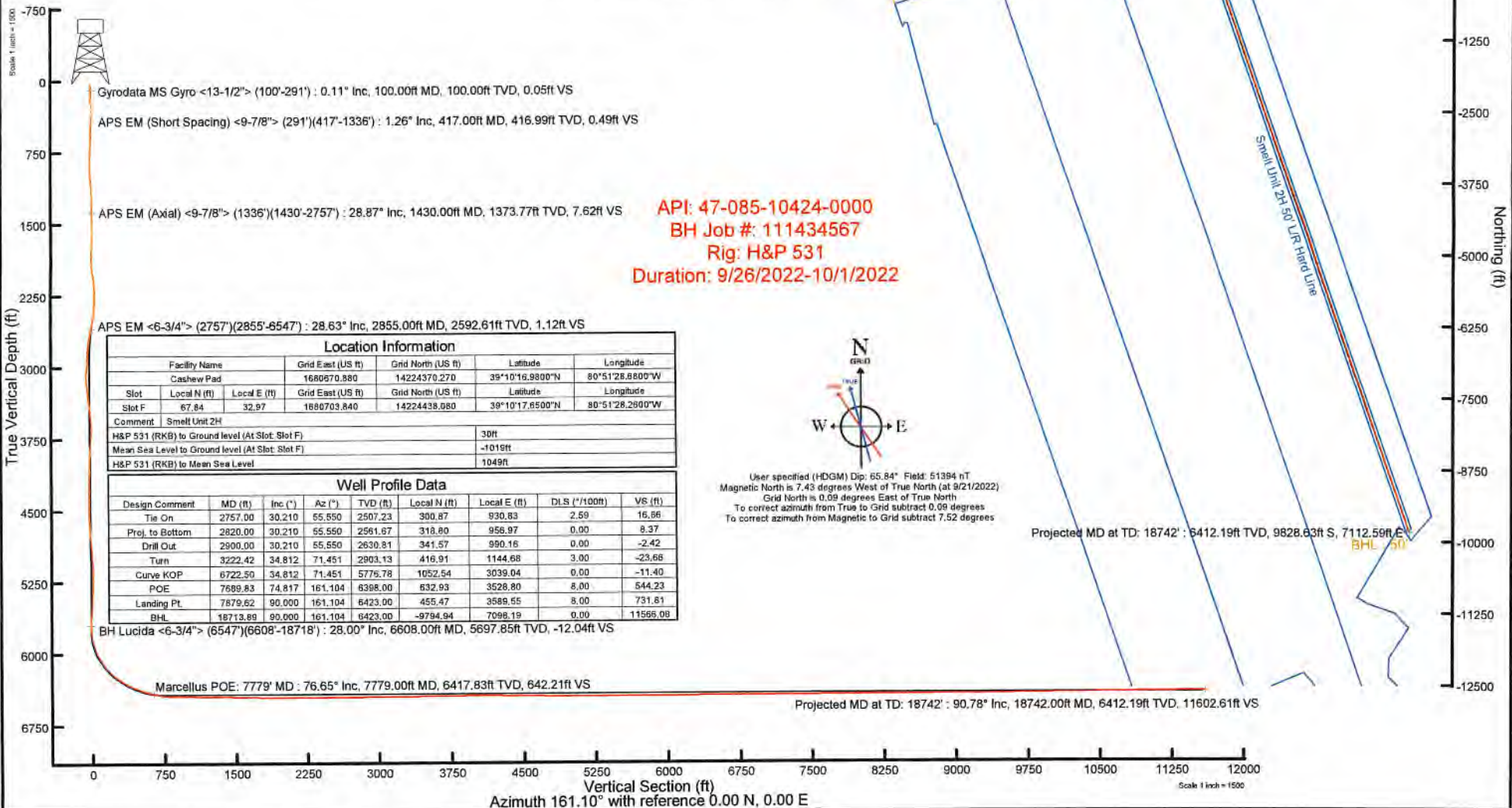
Location: Ritchie County, WV
 Field: Ritchie
 Facility: Cashew Pad

Slot: Slot F
 Well: Smelt Unit 2H
 Wellbore: Smelt Unit 2H PWB



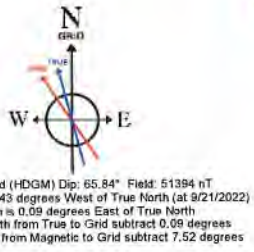
Path reference wellbore: Smelt Unit 2H PWP Rev-B.0	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 531 (RKB)	North Reference: Grid north
Reference wellbore measured depths are referenced to H&P 531 (RKB)	Scale: True distance
H&P 531 (RKB) to Mean Sea Level: 1049 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot F): -1019 feet	Depths are in feet
Offset wellbore MDs are referenced to each path's default MD datum	Created by: edswanar on 2022-10-12; Database: WA_MPL_EASTERNUS_Deils

Well Data			
Slot	Well	Wellbore	Wellpath
Slot F	Smelt Unit 2H	Smelt Unit 2H AWP	Smelt Unit 2H AWP Proj: 18742'
Slot F	Smelt Unit 2H	Smelt Unit 2H PWB	Smelt Unit 2H PWP Rev-B.0



Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Cashew Pad	1680970.880	14224370.270	39°10'16.9800"N	80°51'28.8800"W
Slot	Local N (ft)	Local E (ft)	Latitude	Longitude
Slot F	67.84	32.97	1680703.840	14224438.980
Comment	Smelt Unit 2H			
H&P 531 (RKB) to Ground level (At Slot: Slot F)			30ft	
Mean Sea Level to Ground level (At Slot: Slot F)			-1019ft	
H&P 531 (RKB) to Mean Sea Level			1049ft	

Well Profile Data							
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	2757.00	30.210	55.550	2507.23	300.87	930.83	2.59
Prej. to Bottom	2820.00	30.210	55.550	2561.67	318.80	956.97	8.37
Drill Out	2900.00	30.210	55.550	2630.81	341.57	990.16	-2.42
Turn	3222.42	34.812	71.451	2803.13	416.91	1144.68	-23.66
Curve KOP	6722.50	34.812	71.451	5776.78	1052.54	3039.04	-11.40
POE	7689.83	74.817	161.104	6398.00	632.93	3528.80	8.00
Landing Pt	7879.62	90.000	161.104	6423.00	455.47	3589.55	8.00
BHL	18713.89	90.000	161.104	9423.00	-9794.94	7098.19	0.00





Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H 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	0.999602	Report Generated	10/12/2022 at 9:20:00 AM
Convergence at slot	0.09° 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	67.84	32.97	1680703.84	14224438.08	39°10'17.6500"N	80°51'28.2600"W
Facility Reference Pt			1680670.88	14224370.27	39°10'16.9800"N	80°51'28.6800"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	1049.00ft
Horizontal Reference Pt	Slot	H&P 531 (RKB) to Mean Sea Level	1049.00ft
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	161.10°



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'
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Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

WELLPATH DATA (198 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†	0.000	202.150	0.00	0.00	0.00	0.00	1680703.84	14224438.08	39°10'17.6500"N	80°51'28.2600"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	202.150	30.00	0.00	0.00	0.00	1680703.84	14224438.08	39°10'17.6500"N	80°51'28.2600"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.110	202.150	100.00	0.05	-0.06	-0.03	1680703.81	14224438.02	39°10'17.6494"N	80°51'28.2603"W	0.07	202.150	0.16	0.16	0.00	Gyrodata MS Gyro <13-1/2"> (100'-291')
200.00	0.140	227.210	200.00	0.17	-0.23	-0.15	1680703.69	14224437.85	39°10'17.6477"N	80°51'28.2619"W	0.28	212.850	0.06	0.03	25.06	
291.00	0.260	175.950	291.00	0.42	-0.52	-0.22	1680703.62	14224437.56	39°10'17.6449"N	80°51'28.2628"W	0.56	202.936	0.22	0.13	-56.33	
417.00	1.260	62.490	416.99	0.49	-0.16	1.03	1680704.87	14224437.92	39°10'17.6484"N	80°51'28.2469"W	1.04	98.871	1.10	0.79	-90.05	APS EM (Short Spacing) <9-7/8"> (291')(417'-1336')
507.00	4.340	59.590	506.87	-0.34	2.02	4.85	1680708.68	14224440.10	39°10'17.6699"N	80°51'28.1984"W	5.25	67.368	3.42	3.42	-3.22	
597.00	8.840	53.680	596.25	-3.09	7.84	13.36	1680717.19	14224445.92	39°10'17.7273"N	80°51'28.0902"W	15.49	59.583	5.05	5.00	-6.57	
687.00	11.670	56.430	684.81	-7.47	16.97	26.52	1680730.35	14224455.05	39°10'17.8174"N	80°51'27.9229"W	31.49	57.377	3.19	3.14	3.06	
777.00	15.660	63.530	772.25	-11.38	27.43	44.98	1680748.81	14224465.50	39°10'17.9204"N	80°51'27.6883"W	52.69	58.630	4.80	4.43	7.89	
868.00	19.170	70.190	859.07	-13.23	37.97	70.05	1680773.86	14224476.03	39°10'18.0242"N	80°51'27.3698"W	79.67	61.540	4.43	3.86	7.32	
958.00	20.530	77.210	943.74	-11.79	46.47	99.34	1680803.14	14224484.53	39°10'18.1078"N	80°51'26.9977"W	109.68	64.930	3.05	1.51	7.80	
1052.00	22.480	83.420	1031.20	-6.20	52.18	133.28	1680837.06	14224490.24	39°10'18.1637"N	80°51'26.5667"W	143.13	68.618	3.19	2.07	6.61	
1147.00	25.280	81.200	1118.06	1.24	57.37	171.37	1680875.15	14224495.42	39°10'18.2144"N	80°51'26.0829"W	180.72	71.492	3.09	2.95	-2.34	
1241.00	23.850	76.040	1203.56	6.39	65.02	209.66	1680913.41	14224503.08	39°10'18.2895"N	80°51'25.5966"W	219.51	72.769	2.74	-1.52	-5.49	
1336.00	25.110	71.410	1290.03	8.16	76.08	247.41	1680951.15	14224514.13	39°10'18.3982"N	80°51'25.1171"W	258.84	72.906	2.42	1.33	-4.87	
1430.00	28.870	69.460	1373.77	7.62	90.41	287.58	1680991.30	14224528.45	39°10'18.5392"N	80°51'24.6067"W	301.45	72.548	4.11	4.00	-2.07	APS EM (Axial) <9-7/8"> (1336')(1430'-2757')
1525.00	27.410	71.560	1457.55	7.13	105.37	329.80	1681033.51	14224543.41	39°10'18.6864"N	80°51'24.0703"W	346.23	72.281	1.86	-1.54	2.21	
1620.00	28.980	73.340	1541.27	8.21	118.89	372.60	1681076.29	14224556.92	39°10'18.8193"N	80°51'23.5267"W	391.10	72.303	1.87	1.65	1.87	
1715.00	29.840	67.720	1624.04	7.72	134.45	416.52	1681120.20	14224572.48	39°10'18.9725"N	80°51'22.9686"W	437.69	72.110	3.04	0.91	-5.92	
1810.00	28.720	65.310	1706.91	4.02	152.95	459.14	1681162.79	14224590.97	39°10'19.1546"N	80°51'22.4272"W	483.94	71.576	1.71	-1.18	-2.54	
1905.00	29.620	64.380	1789.86	-1.03	172.63	501.04	1681204.68	14224610.65	39°10'19.3485"N	80°51'21.8946"W	529.95	70.989	1.06	0.95	-0.98	
1999.00	32.540	71.550	1870.39	-3.55	190.69	546.00	1681249.62	14224628.69	39°10'19.5263"N	80°51'21.3235"W	578.34	70.748	5.01	3.11	7.63	
2094.00	40.800	81.870	1946.59	2.47	203.20	601.11	1681304.71	14224641.20	39°10'19.6491"N	80°51'20.6235"W	634.52	71.323	10.82	8.69	10.86	
2189.00	40.930	83.590	2018.44	15.00	211.06	662.76	1681366.33	14224649.06	39°10'19.7258"N	80°51'19.8405"W	695.55	72.335	1.19	0.14	1.81	
2284.00	34.760	82.400	2093.42	27.04	218.13	720.58	1681424.13	14224656.12	39°10'19.7947"N	80°51'19.1062"W	752.87	73.159	6.54	-6.49	-1.25	
2379.00	27.330	79.070	2174.76	35.39	225.85	768.91	1681472.44	14224663.84	39°10'19.8703"N	80°51'18.4924"W	801.39	73.631	8.02	-7.82	-3.51	
2473.00	26.510	71.250	2258.60	38.43	236.69	809.98	1681513.49	14224674.68	39°10'19.9768"N	80°51'17.9707"W	843.85	73.711	3.86	-0.87	-8.32	
2568.00	29.180	63.110	2342.63	35.27	253.99	850.73	1681554.23	14224691.97	39°10'20.1471"N	80°51'17.4529"W	887.84	73.377	4.88	2.81	-8.57	
2662.00	29.190	60.080	2424.70	27.70	275.79	891.04	1681594.52	14224713.76	39°10'20.3620"N	80°51'16.9407"W	932.74	72.802	1.57	0.01	-3.22	



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Smelt Unit 2H
Field	Ritchie		API	47-085-10424-0000
Facility	Cashew Pad		Wellbore	Smelt Unit 2H AWB
Slot	Slot F			

WELLPATH DATA (198 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	
2757.00	30.210	55.550	2507.23	16.86	300.87	930.83	1681634.30	14224738.83	39°10'20.6092"N	80°51'16.4349"W	978.25	72.088	2.59	1.07	-4.77		
2855.00	28.630	48.210	2592.61	1.12	330.47	968.68	1681672.13	14224768.42	39°10'20.9012"N	80°51'15.9537"W	1023.50	71.163	4.01	-1.61	-7.49	APS EM <6-3/4"> (2757')(2855'-6547')	
2950.00	28.840	50.600	2675.92	-15.76	360.19	1003.36	1681706.80	14224798.12	39°10'21.1943"N	80°51'15.5128"W	1066.05	70.253	1.23	0.22	2.52		
3044.00	31.050	59.110	2757.40	-28.74	387.04	1041.70	1681745.13	14224824.96	39°10'21.4591"N	80°51'15.0254"W	1111.28	69.618	5.09	2.35	9.05		
3138.00	34.300	65.420	2836.54	-36.41	410.51	1086.62	1681790.02	14224848.43	39°10'21.6904"N	80°51'14.4546"W	1161.57	69.304	5.00	3.46	6.71		
3237.00	39.020	69.670	2915.95	-39.95	432.96	1141.25	1681844.63	14224870.87	39°10'21.9114"N	80°51'13.7605"W	1220.61	69.225	5.41	4.77	4.29		
3332.00	38.560	63.840	2990.02	-44.44	456.41	1195.88	1681899.24	14224894.31	39°10'22.1424"N	80°51'13.0663"W	1280.02	69.111	3.87	-0.48	-6.14		
3427.00	35.910	64.710	3065.65	-51.28	481.37	1247.66	1681951.00	14224919.26	39°10'22.3882"N	80°51'12.4084"W	1337.30	68.902	2.84	-2.79	0.92		
3521.00	35.780	76.160	3141.93	-51.92	499.74	1299.32	1682002.64	14224937.62	39°10'22.5690"N	80°51'11.7520"W	1392.11	68.962	7.13	-0.14	12.18		
3615.00	37.700	81.930	3217.28	-44.10	510.35	1354.48	1682057.78	14224948.23	39°10'22.6730"N	80°51'11.0513"W	1447.44	69.354	4.20	2.04	6.14		
3710.00	38.350	77.920	3292.12	-35.14	520.60	1412.07	1682115.35	14224958.47	39°10'22.7734"N	80°51'10.3199"W	1504.98	69.762	2.69	0.68	-4.22		
3805.00	34.930	80.520	3368.35	-27.18	531.25	1467.74	1682170.99	14224969.12	39°10'22.8777"N	80°51'9.6129"W	1560.92	70.102	3.95	-3.60	2.74		
3899.00	32.340	77.730	3446.61	-19.88	541.03	1518.86	1682222.09	14224978.89	39°10'22.9736"N	80°51'8.9635"W	1612.34	70.394	3.21	-2.76	-2.97		
3993.00	32.400	79.420	3526.00	-13.33	551.00	1568.19	1682271.40	14224988.86	39°10'23.0713"N	80°51'8.3370"W	1662.17	70.641	0.96	0.06	1.80		
4088.00	33.560	74.220	3605.71	-8.21	562.81	1618.49	1682321.68	14225000.67	39°10'23.1873"N	80°51'7.6981"W	1713.55	70.825	3.22	1.22	-5.47		
4182.00	31.340	68.190	3685.05	-8.04	578.97	1666.20	1682369.38	14225016.82	39°10'23.3462"N	80°51'7.0919"W	1763.93	70.839	4.17	-2.36	-6.41		
4277.00	31.910	67.330	3765.94	-10.95	597.82	1712.31	1682415.46	14225035.67	39°10'23.5318"N	80°51'6.5061"W	1813.67	70.754	0.77	0.60	-0.91		
4372.00	31.880	64.920	3846.60	-15.30	618.14	1758.20	1682461.34	14225055.97	39°10'23.7318"N	80°51'5.9229"W	1863.70	70.630	1.34	-0.03	-2.54		
4466.00	32.280	66.190	3926.25	-20.12	638.79	1803.65	1682506.77	14225076.62	39°10'23.9352"N	80°51'5.3455"W	1913.43	70.498	0.83	0.43	1.35		
4561.00	34.790	70.880	4005.44	-22.40	657.92	1852.48	1682555.58	14225095.73	39°10'24.1235"N	80°51'4.7250"W	1965.84	70.447	3.80	2.64	4.94		
4655.00	34.530	68.500	4082.78	-23.71	676.47	1902.61	1682605.69	14225114.27	39°10'24.3060"N	80°51'4.0881"W	2019.29	70.427	1.47	-0.28	-2.53		
4749.00	34.400	70.440	4160.27	-25.22	695.12	1952.42	1682655.48	14225132.92	39°10'24.4896"N	80°51'3.4553"W	2072.47	70.403	1.18	-0.14	2.06		
4844.00	34.830	68.970	4238.45	-26.54	713.84	2003.03	1682706.07	14225151.64	39°10'24.6738"N	80°51'2.8123"W	2126.43	70.385	0.99	0.45	-1.55		
4938.00	35.220	70.200	4315.43	-27.96	732.66	2053.59	1682756.61	14225170.44	39°10'24.8589"N	80°51'2.1699"W	2180.37	70.365	0.86	0.41	1.31		
5033.00	35.900	69.940	4392.71	-28.96	751.49	2105.53	1682808.52	14225189.27	39°10'25.0442"N	80°51'1.5100"W	2235.61	70.358	0.73	0.72	-0.27		
5127.00	35.480	71.950	4469.06	-29.11	769.40	2157.35	1682860.33	14225207.17	39°10'25.2204"N	80°51'0.8515"W	2290.44	70.372	1.33	-0.45	2.14		
5222.00	34.330	74.760	4546.97	-26.99	784.98	2209.42	1682912.37	14225222.75	39°10'25.3736"N	80°51'0.1901"W	2344.72	70.440	2.08	-1.21	2.96		
5317.00	33.690	73.350	4625.72	-24.25	799.57	2260.51	1682963.44	14225237.33	39°10'25.5169"N	80°50'59.5411"W	2397.75	70.521	1.07	-0.67	-1.48		
5411.00	36.160	78.030	4702.80	-19.87	812.80	2312.63	1683015.55	14225250.55	39°10'25.6468"N	80°50'58.8790"W	2451.31	70.635	3.88	2.63	4.98		
5506.00	35.170	74.270	4779.99	-14.98	826.03	2366.39	1683069.29	14225263.78	39°10'25.7767"N	80°50'58.1960"W	2506.42	70.758	2.53	-1.04	-3.96		



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Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

WELLPATH DATA (198 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]	
5601.00	34.330	77.510	4858.06	-10.48	839.24	2418.89	1683121.76	14225276.99	39°10'25.9064"N	80°50'57.5292"W	2560.34	70.866	2.14	-0.88	3.41	
5695.00	37.320	78.630	4934.26	-3.78	850.60	2472.71	1683175.57	14225288.33	39°10'26.0178"N	80°50'56.8455"W	2614.92	71.017	3.26	3.18	1.19	
5790.00	37.480	78.150	5009.73	3.54	862.21	2529.23	1683232.06	14225299.94	39°10'26.1316"N	80°50'56.1276"W	2672.16	71.176	0.35	0.17	-0.51	
5885.00	35.750	73.850	5086.00	8.42	875.87	2584.19	1683287.00	14225313.60	39°10'26.2657"N	80°50'55.4295"W	2728.59	71.277	3.26	-1.82	-4.53	
5979.00	37.270	71.230	5161.55	9.80	892.66	2637.52	1683340.31	14225330.39	39°10'26.4309"N	80°50'54.7519"W	2784.49	71.302	2.32	1.62	-2.79	
6074.00	35.180	68.750	5238.19	8.75	911.84	2690.27	1683393.04	14225349.56	39°10'26.6195"N	80°50'54.0817"W	2840.60	71.276	2.69	-2.20	-2.61	
6169.00	34.010	68.700	5316.39	6.51	931.41	2740.53	1683443.28	14225369.12	39°10'26.8121"N	80°50'53.4431"W	2894.49	71.229	1.23	-1.23	-0.05	
6263.00	31.540	66.140	5395.42	3.28	950.91	2787.52	1683490.25	14225388.61	39°10'27.0041"N	80°50'52.8461"W	2945.25	71.164	3.01	-2.63	-2.72	
6358.00	29.310	64.660	5477.34	-1.47	970.92	2831.27	1683533.97	14225408.61	39°10'27.2011"N	80°50'52.2902"W	2993.12	71.072	2.48	-2.35	-1.56	
6453.00	29.450	64.310	5560.12	-6.84	990.99	2873.33	1683576.02	14225428.68	39°10'27.3988"N	80°50'51.7557"W	3039.42	70.971	0.23	0.15	-0.37	
6547.00	25.710	66.390	5643.42	-11.25	1009.18	2912.85	1683615.52	14225446.86	39°10'27.5779"N	80°50'51.2535"W	3082.72	70.891	4.11	-3.98	2.21	
6608.00	28.000	72.270	5697.85	-12.04	1018.85	2938.62	1683641.28	14225456.52	39°10'27.6730"N	80°50'50.9260"W	3110.23	70.878	5.75	3.75	9.64	BH Lucida <6-3/4"> (6547')(6608'-18718')
6703.00	37.020	78.450	5777.90	-7.92	1031.39	2988.00	1683690.64	14225469.06	39°10'27.7962"N	80°50'50.2988"W	3160.99	70.956	10.11	9.49	6.51	
6797.00	37.200	86.530	5852.91	3.27	1038.78	3044.12	1683746.74	14225476.45	39°10'27.8683"N	80°50'49.5860"W	3216.48	71.158	5.19	0.19	8.60	
6892.00	38.460	95.740	5928.00	23.24	1037.56	3102.23	1683804.83	14225475.23	39°10'27.8553"N	80°50'48.8482"W	3271.14	71.507	6.09	1.33	9.69	
6986.00	40.360	105.160	6000.69	52.50	1026.67	3160.75	1683863.33	14225464.34	39°10'27.7467"N	80°50'48.1053"W	3323.31	72.005	6.67	2.02	10.02	
7047.00†	42.083	111.489	6046.59	76.82	1014.01	3198.86	1683901.42	14225451.68	39°10'27.6209"N	80°50'47.6217"W	3355.73	72.412	7.39	2.82	10.37	Sycamore: 7047' MD
7082.00	43.220	114.920	6072.34	92.72	1004.66	3220.64	1683923.19	14225442.34	39°10'27.5282"N	80°50'47.3453"W	3373.70	72.675	7.39	3.25	9.80	
7176.00	47.180	123.620	6138.63	142.43	971.97	3278.62	1683981.14	14225409.66	39°10'27.2040"N	80°50'46.6099"W	3419.66	73.487	7.80	4.21	9.26	
7271.00	51.140	131.100	6200.79	202.19	928.31	3335.57	1684038.08	14225366.02	39°10'26.7716"N	80°50'45.8876"W	3462.34	74.448	7.27	4.17	7.87	
7317.00†	53.505	135.011	6228.91	234.32	903.45	3362.15	1684064.64	14225341.17	39°10'26.5254"N	80°50'45.5507"W	3481.42	74.959	8.47	5.14	8.50	Middlesex: 7317' MD
7365.00	56.100	138.840	6256.58	270.10	874.80	3388.91	1684091.39	14225312.53	39°10'26.2417"N	80°50'45.2115"W	3500.00	75.526	8.47	5.41	7.98	
7459.00	60.350	146.380	6306.12	345.82	811.32	3437.27	1684139.74	14225249.07	39°10'25.6135"N	80°50'44.5988"W	3531.73	76.719	8.18	4.52	8.02	
7541.00†	65.367	151.724	6343.54	417.14	748.75	3474.70	1684177.15	14225186.53	39°10'24.9945"N	80°50'44.1249"W	3554.46	77.840	8.43	6.12	6.52	Burkett: 7541' MD
7554.00	66.180	152.530	6348.87	428.85	738.27	3480.25	1684182.69	14225176.05	39°10'24.8908"N	80°50'44.0547"W	3557.69	78.023	8.43	6.25	6.20	
7649.00	71.240	159.240	6383.39	516.91	657.53	3516.29	1684218.72	14225095.34	39°10'24.0921"N	80°50'43.5988"W	3577.24	79.408	8.46	5.33	7.06	
7678.00†	74.016	160.100	6392.05	544.58	631.57	3525.90	1684228.33	14225069.40	39°10'23.8355"N	80°50'43.4773"W	3582.02	79.845	9.98	9.57	2.97	Tully: 7678' MD
7689.00	75.070	160.420	6394.98	555.18	621.60	3529.48	1684231.91	14225059.43	39°10'23.7368"N	80°50'43.4320"W	3583.80	80.012	9.98	9.58	2.91	
7743.00	74.880	160.020	6408.98	607.33	572.52	3547.13	1684249.55	14225010.37	39°10'23.2514"N	80°50'43.2090"W	3593.04	80.831	0.80	-0.35	-0.74	
7779.00†	76.650	160.143	6417.83	642.21	539.71	3559.02	1684261.44	14224977.58	39°10'22.9269"N	80°50'43.0587"W	3599.71	81.377	4.93	4.92	0.34	Marcellus POE: 7779' MD



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

WELLPATH DATA (192 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
7838.00	79.550	160.340	6430.00	699.93	485.39	3578.54	1684280.94	14224923.27	39°10'22.3896"N	80°50'42.8121"W	3611.30	82.276	4.93	4.92	0.33	
7932.00	87.550	160.170	6440.55	793.25	397.54	3610.07	1684312.46	14224835.46	39°10'21.5209"N	80°50'42.4137"W	3631.89	83.716	8.51	8.51	-0.18	
8027.00	89.310	160.230	6443.15	888.20	308.20	3642.23	1684344.62	14224746.15	39°10'20.6373"N	80°50'42.0072"W	3655.25	85.163	1.85	1.85	0.06	
8121.00	89.430	160.380	6444.18	982.19	219.70	3673.91	1684376.28	14224657.69	39°10'19.7620"N	80°50'41.6069"W	3680.47	86.578	0.20	0.13	0.16	
8215.00	88.880	160.200	6445.57	1076.17	131.22	3705.61	1684407.97	14224569.25	39°10'18.9870"N	80°50'41.2083"W	3707.93	87.972	0.62	-0.59	-0.19	
8310.00	89.340	160.710	6447.04	1171.15	41.70	3737.39	1684439.73	14224479.77	39°10'18.0017"N	80°50'40.8048"W	3737.62	89.361	0.72	0.48	0.54	
8405.00	89.120	160.160	6448.32	1266.13	-47.80	3769.20	1684471.53	14224390.30	39°10'17.1164"N	80°50'40.4028"W	3769.50	90.727	0.62	-0.23	-0.58	
8499.00	89.740	160.630	6449.26	1360.12	-136.35	3800.74	1684503.06	14224301.79	39°10'16.2407"N	80°50'40.0043"W	3803.18	92.055	0.83	0.66	0.50	
8594.00	88.850	160.460	6450.42	1455.11	-225.92	3832.37	1684534.68	14224212.25	39°10'15.3549"N	80°50'39.6045"W	3839.03	93.374	0.95	-0.94	-0.18	
8688.00	89.150	162.060	6452.07	1549.09	-314.92	3862.57	1684564.86	14224123.29	39°10'14.4747"N	80°50'39.2231"W	3875.38	94.661	1.73	0.32	1.70	
8782.00	88.970	160.350	6453.61	1643.07	-403.89	3892.85	1684595.13	14224034.35	39°10'13.5948"N	80°50'38.8406"W	3913.74	95.923	1.83	-0.19	-1.82	
8877.00	88.810	159.980	6455.45	1738.04	-493.24	3925.08	1684627.35	14223945.04	39°10'12.7112"N	80°50'38.4333"W	3955.95	97.162	0.42	-0.17	-0.39	
8971.00	89.520	161.820	6456.82	1832.03	-582.05	3955.83	1684658.09	14223856.27	39°10'11.8329"N	80°50'38.0448"W	3998.42	98.370	2.10	0.76	1.96	
9160.00	90.110	161.140	6457.43	2021.02	-761.26	4015.86	1684718.10	14223677.13	39°10'10.0605"N	80°50'37.2865"W	4087.38	100.734	0.48	0.31	-0.36	
9255.00	90.050	161.630	6457.30	2116.02	-851.29	4046.19	1684748.41	14223587.13	39°10'9.1702"N	80°50'36.9034"W	4134.77	101.881	0.52	-0.06	0.52	
9444.00	90.110	160.870	6457.03	2305.02	-1030.25	4106.94	1684809.14	14223408.24	39°10'7.4002"N	80°50'36.1360"W	4234.19	104.082	0.40	0.03	-0.40	
9538.00	90.140	160.830	6456.83	2399.02	-1119.05	4137.78	1684839.96	14223319.48	39°10'6.5220"N	80°50'35.7464"W	4286.43	105.133	0.05	0.03	-0.04	
9633.00	90.080	161.210	6456.64	2494.02	-1208.89	4168.67	1684870.84	14223229.68	39°10'5.6336"N	80°50'35.3561"W	4340.42	106.172	0.40	-0.06	0.40	
9821.00	90.170	161.370	6456.23	2682.01	-1386.95	4228.98	1684931.13	14223051.88	39°10'3.8726"N	80°50'34.5944"W	4450.61	108.158	0.10	0.05	0.09	
9916.00	90.260	161.610	6455.88	2777.01	-1477.04	4259.14	1684961.27	14222961.63	39°10'2.9817"N	80°50'34.2134"W	4507.98	109.126	0.27	0.09	0.25	
10010.00	90.260	160.980	6455.45	2871.01	-1566.07	4289.28	1684991.41	14222872.64	39°10'2.1012"N	80°50'33.8326"W	4566.24	110.058	0.67	0.00	-0.67	
10105.00	91.180	161.840	6454.26	2966.00	-1656.10	4319.57	1685021.68	14222782.64	39°10'1.2108"N	80°50'33.4501"W	4626.16	110.977	1.33	0.97	0.91	
10199.00	90.290	161.230	6453.05	3059.99	-1745.26	4349.33	1685051.43	14222693.52	39°10'0.3291"N	80°50'33.0742"W	4686.43	111.864	1.15	-0.95	-0.65	
10293.00	90.110	160.610	6452.72	3153.99	-1834.09	4380.06	1685082.15	14222604.72	39°09'59.4505"N	80°50'32.6860"W	4748.56	112.721	0.69	-0.19	-0.66	
10388.00	90.510	160.750	6452.21	3248.98	-1923.74	4411.49	1685113.57	14222515.11	39°09'58.5639"N	80°50'32.2889"W	4812.70	113.561	0.45	0.42	0.15	
10483.00	90.540	161.310	6451.34	3343.98	-2013.58	4442.37	1685144.43	14222425.31	39°09'57.6754"N	80°50'31.8988"W	4877.41	114.383	0.59	0.03	0.59	
10577.00	90.720	161.050	6450.31	3437.97	-2102.55	4472.69	1685174.74	14222336.38	39°09'56.7955"N	80°50'31.5158"W	4942.24	115.178	0.34	0.19	-0.28	
10671.00	90.540	161.230	6449.27	3531.97	-2191.49	4503.08	1685205.12	14222247.46	39°09'55.9159"N	80°50'31.1320"W	5008.03	115.951	0.27	-0.19	0.19	
10766.00	90.570	161.040	6448.35	3626.96	-2281.39	4533.79	1685235.82	14222157.61	39°09'55.0268"N	80°50'30.7441"W	5075.43	116.711	0.20	0.03	-0.20	
10861.00	90.570	160.920	6447.41	3721.96	-2371.19	4564.75	1685266.77	14222067.83	39°09'54.1386"N	80°50'30.3530"W	5143.88	117.450	0.13	0.00	-0.13	



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

WELLPATH DATA (198 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
10955.00	90.600	161.230	6446.45	3815.95	-2460.11	4595.24	1685297.24	14221978.96	39°09'53.2593"N	80°50'29.9679"W	5212.33	118.163	0.33	0.03	0.33	
11050.00	90.420	160.930	6445.60	3910.95	-2549.97	4626.04	1685328.03	14221889.13	39°09'52.3706"N	80°50'29.5788"W	5282.29	118.864	0.37	-0.19	-0.32	
11144.00	90.510	161.570	6444.84	4004.94	-2638.98	4656.26	1685358.23	14221800.16	39°09'51.4903"N	80°50'29.1972"W	5352.10	119.543	0.69	0.10	0.68	
11239.00	89.650	161.170	6444.71	4099.94	-2729.00	4686.60	1685388.57	14221710.17	39°09'50.6000"N	80°50'28.8139"W	5423.26	120.212	1.00	-0.91	-0.42	
11333.00	90.110	161.390	6444.90	4193.94	-2818.03	4716.77	1685418.72	14221621.18	39°09'49.7196"N	80°50'28.4329"W	5494.47	120.856	0.54	0.49	0.23	
11427.00	88.750	159.490	6445.84	4287.92	-2906.59	4748.24	1685450.18	14221532.65	39°09'48.8436"N	80°50'28.0354"W	5567.23	121.473	2.49	-1.45	-2.02	
11522.00	90.050	161.330	6446.83	4382.90	-2996.08	4780.09	1685482.01	14221443.20	39°09'47.9586"N	80°50'27.6330"W	5641.43	122.079	2.37	1.37	1.94	
11617.00	90.140	161.140	6446.68	4477.90	-3086.03	4810.65	1685512.56	14221353.28	39°09'47.0690"N	80°50'27.2470"W	5715.41	122.680	0.22	0.09	-0.20	
11711.00	88.410	160.120	6447.86	4571.89	-3174.70	4841.82	1685543.72	14221264.65	39°09'46.1921"N	80°50'26.8533"W	5789.81	123.252	2.14	-1.84	-1.09	
11900.00	89.740	161.130	6450.92	4760.85	-3352.97	4904.51	1685606.39	14221086.45	39°09'44.4290"N	80°50'26.0614"W	5941.09	124.358	0.88	0.70	0.53	
11995.00	89.800	161.280	6451.30	4855.85	-3442.90	4935.12	1685636.98	14220996.56	39°09'43.6396"N	80°50'25.6748"W	6017.39	124.901	0.17	0.06	0.16	
12089.00	89.800	160.700	6451.63	4949.85	-3531.77	4965.73	1685667.59	14220907.72	39°09'42.6606"N	80°50'25.2881"W	6093.60	125.422	0.62	0.00	-0.62	
12184.00	89.770	161.020	6451.98	5044.85	-3621.52	4996.88	1685698.72	14220818.01	39°09'41.7730"N	80°50'24.8946"W	6171.24	125.933	0.34	-0.03	0.34	
12279.00	89.800	160.860	6452.34	5139.85	-3711.31	5027.91	1685729.73	14220728.25	39°09'40.8850"N	80°50'24.5028"W	6249.29	126.433	0.17	0.03	-0.17	
12373.00	89.830	161.420	6452.64	5233.84	-3800.27	5058.29	1685760.11	14220639.33	39°09'40.0053"N	80°50'24.1190"W	6326.79	126.917	0.60	0.03	0.60	
12468.00	89.980	161.250	6452.80	5328.84	-3890.27	5088.69	1685790.50	14220549.37	39°09'39.1151"N	80°50'23.7351"W	6405.39	127.398	0.24	0.16	-0.18	
12562.00	89.830	161.330	6452.95	5422.84	-3979.30	5118.85	1685820.64	14220460.37	39°09'38.2346"N	80°50'23.3543"W	6483.63	127.861	0.18	-0.16	0.09	
12657.00	90.080	161.260	6453.03	5517.84	-4069.28	5149.31	1685851.09	14220370.42	39°09'37.3447"N	80°50'22.9695"W	6563.12	128.318	0.27	0.26	-0.07	
12752.00	90.080	161.120	6452.90	5612.84	-4159.21	5179.94	1685881.71	14220280.53	39°09'36.4554"N	80°50'22.5827"W	6643.11	128.763	0.15	0.00	-0.15	
12846.00	90.080	161.090	6452.77	5706.84	-4248.14	5210.39	1685912.14	14220191.64	39°09'35.5758"N	80°50'22.1982"W	6722.71	129.191	0.03	0.00	-0.03	
12940.00	89.890	161.220	6452.79	5800.84	-4337.11	5240.75	1685942.49	14220102.71	39°09'34.6960"N	80°50'21.8147"W	6802.64	129.610	0.24	-0.20	0.14	
13035.00	90.450	161.000	6452.51	5895.84	-4426.99	5271.50	1685973.24	14220012.86	39°09'33.8071"N	80°50'21.4263"W	6883.82	130.023	0.63	0.59	-0.23	
13130.00	90.260	161.240	6451.92	5990.84	-4516.88	5302.24	1686003.96	14219923.01	39°09'32.9181"N	80°50'21.0381"W	6965.34	130.427	0.32	-0.20	0.25	
13224.00	90.260	160.750	6451.49	6084.84	-4605.75	5332.86	1686034.56	14219834.17	39°09'32.0391"N	80°50'20.6515"W	7046.44	130.816	0.52	0.00	-0.52	
13318.00	90.230	161.510	6451.09	6178.84	-4694.70	5363.26	1686064.95	14219745.26	39°09'31.1594"N	80°50'20.2676"W	7127.74	131.197	0.81	-0.03	0.81	
13413.00	90.140	161.480	6450.78	6273.83	-4784.78	5393.41	1686095.09	14219655.21	39°09'30.2685"N	80°50'19.8868"W	7209.92	131.578	0.10	-0.09	-0.03	
13508.00	90.260	161.540	6450.45	6368.83	-4874.88	5423.54	1686125.21	14219565.15	39°09'29.3775"N	80°50'19.5064"W	7292.41	131.950	0.14	0.13	0.06	
13602.00	90.200	160.820	6450.08	6462.83	-4963.85	5453.86	1686155.52	14219476.21	39°09'28.4975"N	80°50'19.1234"W	7374.58	132.307	0.77	-0.06	-0.77	
13791.00	90.170	161.210	6449.47	6551.83	-5142.57	5515.34	1686216.98	14219297.57	39°09'26.7300"N	80°50'18.3469"W	7540.89	132.997	0.21	-0.02	0.21	
13886.00	90.170	160.990	6449.18	6746.83	-5232.45	5546.12	1686247.74	14219207.73	39°09'25.8411"N	80°50'17.9583"W	7624.82	133.333	0.23	0.00	-0.23	



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

WELLPATH DATA (198 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
13981.00	90.230	161.370	6448.85	6841.83	-5322.37	5576.76	1686278.37	14219117.84	39°09'24.9518"N	80°50'17.5713"W	7708.95	133.663	0.40	0.06	0.40	
14075.00	90.230	160.770	6448.47	6935.82	-5411.28	5607.26	1686308.85	14219028.96	39°09'24.0725"N	80°50'17.1862"W	7792.52	133.981	0.64	0.00	-0.64	
14170.00	90.200	161.290	6448.12	7030.82	-5501.12	5638.14	1686339.72	14218939.16	39°09'23.1839"N	80°50'16.7962"W	7877.24	134.295	0.55	-0.03	0.55	
14264.00	90.170	161.160	6447.81	7124.82	-5590.12	5668.39	1686369.97	14218850.20	39°09'22.3038"N	80°50'16.4142"W	7961.16	134.602	0.14	-0.03	-0.14	
14358.00	90.200	161.240	6447.51	7218.82	-5679.11	5698.69	1686400.25	14218761.25	39°09'21.4237"N	80°50'16.0317"W	8045.33	134.901	0.09	0.03	0.09	
14453.00	90.260	161.180	6447.13	7313.82	-5769.04	5729.29	1686430.83	14218671.35	39°09'20.5342"N	80°50'15.6453"W	8130.59	135.198	0.09	0.06	-0.06	
14547.00	90.350	161.310	6446.63	7407.82	-5858.05	5759.51	1686461.04	14218582.37	39°09'19.6540"N	80°50'15.2636"W	8215.15	135.486	0.17	0.10	0.14	
14736.00	90.320	161.090	6445.52	7596.82	-6036.96	5820.42	1686521.93	14218403.53	39°09'17.8845"N	80°50'14.4945"W	8385.83	136.046	0.12	-0.02	-0.12	
14830.00	90.110	161.080	6445.17	7690.82	-6125.89	5850.89	1686552.39	14218314.65	39°09'17.0051"N	80°50'14.1097"W	8471.09	136.315	0.22	-0.22	-0.01	
14925.00	90.200	160.970	6444.91	7785.81	-6215.72	5881.78	1686583.26	14218224.84	39°09'16.1166"N	80°50'13.7197"W	8557.48	136.581	0.15	0.09	-0.12	
15019.00	90.290	161.040	6444.51	7879.81	-6304.60	5912.37	1686613.85	14218136.00	39°09'15.2375"N	80°50'13.3333"W	8643.16	136.839	0.12	0.10	0.07	
15114.00	90.290	160.570	6444.03	7974.81	-6394.32	5943.61	1686645.07	14218046.32	39°09'14.3502"N	80°50'12.9389"W	8730.05	137.092	0.49	0.00	-0.49	
15208.00	90.230	161.150	6443.61	8068.81	-6483.12	5974.43	1686675.87	14217957.55	39°09'13.4720"N	80°50'12.5497"W	8816.16	137.338	0.62	-0.06	0.62	
15303.00	90.260	161.120	6443.20	8163.81	-6573.02	6005.14	1686706.58	14217867.69	39°09'12.5829"N	80°50'12.1618"W	8903.16	137.585	0.04	0.03	-0.03	
15398.00	90.230	161.270	6442.79	8258.81	-6662.95	6035.77	1686737.19	14217777.80	39°09'11.6935"N	80°50'11.7751"W	8990.29	137.828	0.16	-0.03	0.16	
15492.00	90.320	161.210	6442.34	8352.81	-6751.95	6066.00	1686767.41	14217688.83	39°09'10.8132"N	80°50'11.3934"W	9076.63	138.063	0.12	0.10	-0.06	
15587.00	90.140	161.080	6441.96	8447.80	-6841.85	6096.70	1686798.10	14217598.96	39°09'9.9241"N	80°50'11.0058"W	9164.10	138.296	0.23	-0.19	-0.14	
15681.00	90.320	161.290	6441.58	8541.80	-6930.83	6127.01	1686828.40	14217510.02	39°09'9.0441"N	80°50'10.6230"W	9250.77	138.523	0.29	0.19	0.22	
15775.00	90.260	160.980	6441.11	8635.80	-7019.78	6157.41	1686858.78	14217421.11	39°09'8.1644"N	80°50'10.2392"W	9337.61	138.744	0.34	-0.06	-0.33	
15870.00	90.200	160.900	6440.73	8730.80	-7109.57	6188.43	1686889.79	14217331.35	39°09'7.2764"N	80°50'9.8475"W	9425.64	138.963	0.11	-0.06	-0.08	
15965.00	90.290	160.650	6440.32	8825.80	-7199.27	6219.71	1686921.06	14217241.69	39°09'6.3892"N	80°50'9.4525"W	9513.90	139.175	0.28	0.09	-0.26	
16059.00	90.260	160.800	6439.87	8919.80	-7288.00	6250.74	1686952.08	14217152.99	39°09'5.5117"N	80°50'9.0606"W	9601.39	139.381	0.16	-0.03	0.16	
16154.00	90.450	161.580	6439.28	9014.79	-7377.93	6281.37	1686982.70	14217063.11	39°09'4.6223"N	80°50'8.6739"W	9689.65	139.590	0.85	0.20	0.82	
16249.00	90.480	161.080	6438.51	9109.79	-7467.92	6311.78	1687013.09	14216973.14	39°09'3.7322"N	80°50'8.2900"W	9777.96	139.796	0.53	0.03	-0.53	
16343.00	90.260	161.620	6437.90	9203.79	-7556.99	6341.84	1687043.14	14216884.12	39°09'2.8514"N	80°50'7.9105"W	9865.44	139.997	0.62	-0.23	0.57	
16438.00	90.320	161.460	6437.42	9298.78	-7647.10	6371.92	1687073.21	14216794.04	39°09'1.9602"N	80°50'7.5307"W	9953.87	140.197	0.18	0.06	-0.17	
16627.00	90.380	161.650	6436.27	9487.77	-7826.38	6431.72	1687132.98	14216614.83	39°09'0.1871"N	80°50'6.7758"W	10130.12	140.587	0.11	0.03	0.10	
16722.00	90.320	161.460	6435.69	9582.77	-7916.50	6461.77	1687163.03	14216524.75	39°08'59.2958"N	80°50'6.3964"W	10218.88	140.777	0.21	-0.06	-0.20	
16816.00	90.690	161.640	6434.86	9676.76	-8005.67	6491.52	1687192.76	14216435.62	39°08'58.4140"N	80°50'6.0208"W	10306.82	140.963	0.44	0.39	0.19	
16910.00	90.750	161.260	6433.68	9770.75	-8094.78	6521.42	1687222.65	14216346.54	39°08'57.5327"N	80°50'5.6433"W	10394.92	141.144	0.41	0.06	-0.40	



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

WELLPATH DATA (198 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
17005.00	90.720	161.290	6432.46	9865.74	-8184.74	6551.92	1687253.14	14216256.62	39°08'56.6430"N	80°50'5.2583"W	10484.16	141.323	0.04	-0.03	0.03	
17194.00	90.660	161.120	6430.18	10054.73	-8363.65	6612.81	1687314.00	14216077.78	39°08'54.8735"N	80°50'4.4896"W	10662.07	141.668	0.10	-0.03	-0.09	
17289.00	90.780	161.050	6428.99	10149.72	-8453.51	6643.60	1687344.78	14215987.95	39°08'53.9848"N	80°50'4.1008"W	10751.71	141.836	0.15	0.13	-0.07	
17383.00	90.720	161.580	6427.76	10243.71	-8542.55	6673.71	1687374.88	14215898.95	39°08'53.1042"N	80°50'3.7207"W	10840.37	142.002	0.57	-0.06	0.56	
17478.00	90.540	161.300	6426.71	10338.70	-8632.60	6703.95	1687405.11	14215808.93	39°08'52.2136"N	80°50'3.3390"W	10929.99	142.168	0.35	-0.19	-0.29	
17573.00	90.600	161.010	6425.77	10433.70	-8722.51	6734.63	1687435.78	14215719.06	39°08'51.3244"N	80°50'2.9516"W	11019.86	142.328	0.31	0.06	-0.31	
17667.00	90.720	161.060	6424.69	10527.69	-8811.40	6765.18	1687466.31	14215630.21	39°08'50.4453"N	80°50'2.5659"W	11108.93	142.484	0.14	0.13	0.05	
17762.00	90.720	161.000	6423.49	10622.69	-8901.23	6796.06	1687497.18	14215540.41	39°08'49.5568"N	80°50'2.1761"W	11199.03	142.638	0.06	0.00	-0.06	
17866.00	90.720	161.530	6422.18	10726.68	-8999.71	6829.46	1687530.57	14215441.97	39°08'48.5828"N	80°50'1.7544"W	11297.63	142.807	0.51	0.00	0.51	
17951.00	90.540	161.570	6421.25	10811.67	-9080.34	6856.36	1687557.46	14215361.38	39°08'47.7854"N	80°50'1.4149"W	11378.15	142.944	0.22	-0.21	0.05	
18045.00	90.600	160.790	6420.31	10905.66	-9169.31	6886.68	1687587.77	14215272.44	39°08'46.9055"N	80°50'1.0321"W	11467.46	143.091	0.83	0.06	-0.83	
18140.00	90.780	161.550	6419.17	11000.66	-9259.22	6917.34	1687618.41	14215182.57	39°08'46.0163"N	80°50'0.6450"W	11557.80	143.237	0.82	0.19	0.80	
18249.00	90.630	160.920	6417.83	11109.65	-9362.41	6952.40	1687653.46	14215079.41	39°08'44.9957"N	80°50'0.2024"W	11661.50	143.403	0.59	-0.14	-0.58	
18339.00	90.660	160.850	6416.82	11199.64	-9447.45	6981.87	1687682.92	14214994.41	39°08'44.1547"N	80°49'59.8303"W	11747.37	143.535	0.08	0.03	-0.08	
18518.00	90.630	161.290	6414.80	11378.63	-9616.75	7039.94	1687740.96	14214825.17	39°08'42.4802"N	80°49'59.0973"W	11918.17	143.794	0.25	-0.02	0.25	
18612.00	90.600	161.210	6413.79	11472.62	-9705.76	7070.15	1687771.16	14214736.20	39°08'41.5999"N	80°49'58.7159"W	12007.86	143.929	0.09	-0.03	-0.09	
18718.00	90.780	160.760	6412.52	11578.61	-9805.97	7104.69	1687805.68	14214636.04	39°08'40.6088"N	80°49'58.2799"W	12109.23	144.076	0.46	0.17	-0.42	
18742.00†	90.780	160.760	6412.19	11602.61	-9828.63	7112.59	1687813.59	14214613.39	39°08'40.3847"N	80°49'58.1800"W	12132.22	144.108	0.00	0.00	0.00	Projected MD at TD: 18742'



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

HOLE & CASING SECTIONS - Ref Wellbore: Smelt Unit 2H AWB Ref Wellpath: Smelt Unit 2H AWP Proj: 18742'

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]
16in Conductor	30.00	130.00	100.00	30.00	130.00	0.00	0.00	-0.12	-0.05
13.5in Open Hole	130.00	352.00	222.00	130.00	352.00	-0.12	-0.05	-0.57	0.08
10.75in Casing Surface	30.00	332.00	302.00	30.00	332.00	0.00	0.00	-0.60	-0.08
9.875in Open Hole	352.00	2820.00	2468.00	352.00	2561.97	-0.57	0.08	319.51	955.81
7.625in Casing Intermediate	30.00	2800.00	2770.00	30.00	2544.53	0.00	0.00	313.44	948.13
6.75in Open Hole	2820.00	18742.00	15922.00	2561.97	6412.19	319.51	955.81	-9828.63	7112.59
5in Casing Production	30.00	18722.00	18692.00	30.00	6412.46	0.00	0.00	-9809.74	7106.00

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Smelt Unit 2H POE Rev-2	6398.00	632.93	3528.80	1684231.23	14225070.76	39°10'23.8488"N	80°50'43.4404"W	point
Smelt Unit 2H BHL Rev-2	6423.00	-9794.94	7098.19	1687799.19	14214647.06	39°08'40.7180"N	80°49'58.3621"W	point
Smelt Unit 2H LP Rev-2	6423.00	455.47	3589.55	1684291.95	14224893.36	39°10'22.0937"N	80°50'42.6730"W	point
Smelt Unit 2H 50' L/R Hard Line	7000.00	-4581.00	5313.50	1686015.21	14219858.91	39°09'32.2841"N	80°50'20.8967"W	rectangle

2D Rectangle 11021.9 x 100.



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

WELLPATH COMPOSITION - Ref Wellbore: Smelt Unit 2H AWB Ref Wellpath: Smelt Unit 2H AWP Proj: 18742'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	291.00	Gyrodatta 2015 - GC+WIR+DPIPE	01_Gyrodatta MS Gyro <13-1/2"> (100'-291')	Smelt Unit 2H AWB	7/12/2022
291.00	1336.00	BH NaviTrak (2019) (HRGM, Short spacing)	02_APS EM (Short Spacing) <9-7/8"> (291')(417'-1336')	Smelt Unit 2H AWB	7/12/2022
1336.00	2757.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03_APS EM (Axial) <9-7/8"> (1336')(1430'-2757')	Smelt Unit 2H AWB	7/17/2022
2757.00	6547.00	BH NaviTrak (2019) (Axial Corr+HRGM)	04_APS EM <6-3/4"> (2757')(2855'-6547')	Smelt Unit 2H AWB	9/21/2022
6547.00	18742.00	BH OnTrak (2019) (HRGM, Short spacing)	05_BH Lucida <6-3/4"> (6547')(6608'-18718')	Smelt Unit 2H AWB	9/21/2022



Actual Wellpath Report

Smelt Unit 2H AWP Proj: 18742'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Smelt Unit 2H
Field	Ritchie	API	47-085-10424-0000
Facility	Cashew Pad	Wellbore	Smelt Unit 2H AWB
Slot	Slot F		

COMMENTS

Wellpath general comments

API: 47-085-10424-0000
 BH Job #: 111434567
 Rig: H&P 531
 Duration: 9/26/2022-10/1/2022
 Gyrodata MS Gyro <13-1/2"> (100'-291')
 APS EM (Short Spacing) <9-7/8"> (291')(417'-1336')
 APS EM (Axial) <9-7/8"> (1336')(1430'-2757')
 APS EM <6-3/4"> (2757')(2855'-6547')
 BH Lucida <6-3/4"> (6547')(6608'-18718')
 Sycamore: 7047' MD
 Middlesex: 7317' MD
 Burkett: 7541' MD
 Tully: 7678' MD
 Marcellus POE: 7779' MD
 Projected MD at TD: 18742'

WV Department of
 Environmental Protection

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