



ANTERO RESOURCES CORPORATION



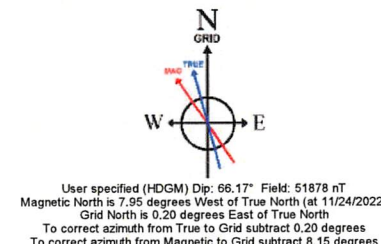
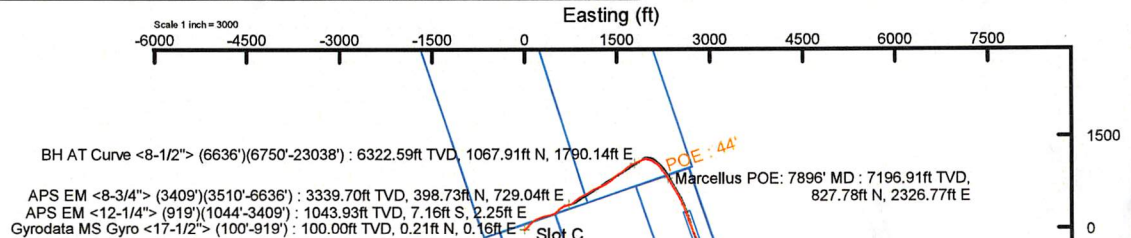
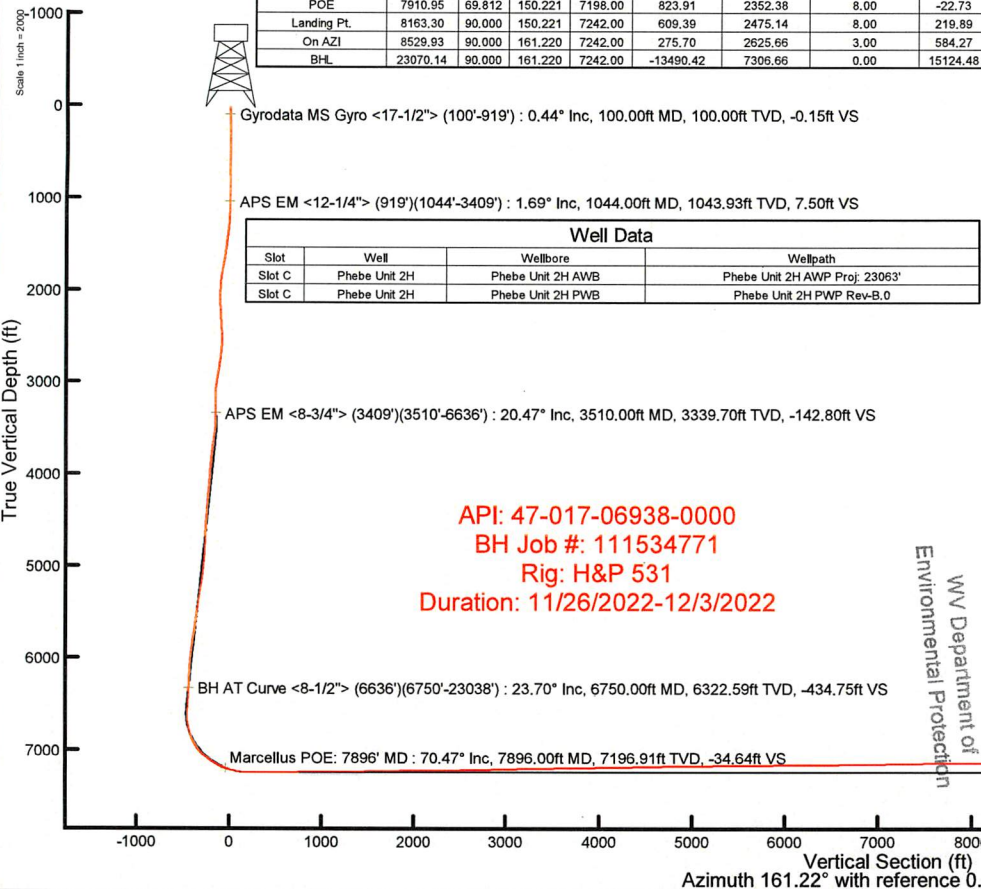
Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Lemley Pad

Slot: Slot C
 Well: Phebe Unit 2H
 Wellbore: Phebe Unit 2H PWB

Plot reference wellpath is Phebe Unit 2H 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: 1334 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot C): -1304 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edsaryar on 2022-12-11; Database: WA MPL_EASTERNUS_Defn

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Lemley Pad	1730799.540	14280893.670	39°19'34.6023"N	80°40'49.4048"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot C	-0.03	-0.01	1730799.530	14280893.640
			39°19'34.6020"N	80°40'49.4049"W
Comment: Phebe Unit 2H				
H&P 531 (RKB) to Ground level (At Slot: Slot C)				30ft
Mean Sea Level to Ground level (At Slot: Slot C)				-1304ft
H&P 531 (RKB) to Mean Sea Level				1334ft

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS ("/100ft)	VS (ft)
Tie On	3409.00	21.830	76.260	3245.50	389.25	693.87	4.18	-145.15
Proj. to Bottom	3491.00	21.830	76.260	3321.62	396.50	723.49	0.00	-142.47
Drill Out	3571.00	21.830	76.260	3395.89	403.56	752.38	0.00	-139.86
Turn	3825.07	23.930	57.322	3630.28	442.66	841.78	3.00	-148.10
Curve KOP	7001.30	23.930	57.322	6533.49	1138.25	1926.19	0.00	-457.55
POE	7910.95	69.812	150.221	7198.00	823.91	2352.38	8.00	-22.73
Landing Pt.	8163.30	90.000	150.221	7242.00	609.39	2475.14	8.00	219.89
On AZI	8529.93	90.000	161.220	7242.00	275.70	2625.66	3.00	584.27
BHL	23070.14	90.000	161.220	7242.00	-13490.42	7306.66	0.00	15124.48



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Actual Wellpath Report

Phebe Unit 2H AWP Proj: 23063'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWB
Slot	Slot C		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999609	Report Generated	12/11/2022 at 7:03:06 PM
Convergence at slot	0.20° 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	-0.03	-0.01	1730799.53	14280893.64	39°19'34.6020"N	80°40'49.4049"W
Facility Reference Pt			1730799.54	14280893.67	39°19'34.6023"N	80°40'49.4048"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	1334.00ft
Horizontal Reference Pt	Slot	H&P 531 (RKB) to Mean Sea Level	1334.00ft
Vertical Reference Pt	H&P 531 (RKB)	H&P 531 (RKB) to Ground Level at Slot (Slot C)	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	161.22°

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Slot	Slot C		

WELLPATH DATA (249 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	36.940	0.00	0.00	0.00	0.00	1730799.53	14280893.64	39°19'34.6020"N	80°40'49.4049"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	36.940	30.00	0.00	0.00	0.00	1730799.53	14280893.64	39°19'34.6020"N	80°40'49.4049"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.440	36.940	100.00	-0.15	0.21	0.16	1730799.69	14280893.85	39°19'34.6041"N	80°40'49.4029"W	0.27	36.940	0.63	0.63	0.00	Gyrodata MS Gyro <17-1/2"> (100'-919')
200.00	0.410	79.470	200.00	-0.32	0.59	0.74	1730800.27	14280894.23	39°19'34.6078"N	80°40'49.3954"W	0.95	51.724	0.31	-0.03	42.53	
300.00	0.800	154.760	299.99	0.43	0.02	1.39	1730800.92	14280893.66	39°19'34.6021"N	80°40'49.3872"W	1.39	89.136	0.80	0.39	75.29	
400.00	0.790	183.180	399.98	1.76	-1.30	1.65	1730801.18	14280892.34	39°19'34.5891"N	80°40'49.3840"W	2.10	128.158	0.39	-0.01	28.42	
500.00	0.740	198.660	499.97	2.91	-2.60	1.41	1730800.94	14280891.04	39°19'34.5763"N	80°40'49.3871"W	2.96	151.551	0.21	-0.05	15.48	
600.00	0.740	193.390	599.97	3.97	-3.84	1.05	1730800.58	14280889.80	39°19'34.5640"N	80°40'49.3917"W	3.98	164.676	0.07	0.00	-5.27	
700.00	0.650	208.780	699.96	4.90	-4.96	0.63	1730800.16	14280888.68	39°19'34.5529"N	80°40'49.3972"W	5.00	172.775	0.21	-0.09	15.39	
800.00	0.500	186.120	799.95	5.68	-5.90	0.31	1730799.84	14280887.75	39°19'34.5437"N	80°40'49.4013"W	5.90	176.993	0.27	-0.15	-22.66	
900.00	0.450	169.870	899.95	6.47	-6.72	0.33	1730799.86	14280886.93	39°19'34.5356"N	80°40'49.4010"W	6.72	177.168	0.14	-0.05	-16.25	
919.00	0.510	173.190	918.95	6.62	-6.87	0.36	1730799.89	14280886.77	39°19'34.5340"N	80°40'49.4007"W	6.88	177.040	0.35	0.32	17.47	
1044.00	1.690	81.630	1043.93	7.50	-7.16	2.25	1730801.77	14280886.49	39°19'34.5312"N	80°40'49.3767"W	7.50	162.584	1.42	0.94	-73.25	APS EM <12-1/4"> (919')(1044'-3409')
1139.00	5.300	57.160	1138.74	6.69	-4.57	7.32	1730806.85	14280889.07	39°19'34.5565"N	80°40'49.3120"W	8.63	121.996	4.03	3.80	-25.76	
1233.00	8.850	48.000	1232.01	2.78	2.62	16.34	1730815.87	14280896.26	39°19'34.6273"N	80°40'49.1968"W	16.55	80.885	3.95	3.78	-9.74	
1328.00	11.490	44.510	1325.51	-4.36	14.26	28.41	1730827.93	14280907.90	39°19'34.7420"N	80°40'49.0428"W	31.79	63.343	2.85	2.78	-3.67	
1422.00	13.580	42.860	1417.27	-13.81	29.03	42.48	1730841.99	14280922.66	39°19'34.8874"N	80°40'48.8631"W	51.45	55.653	2.26	2.22	-1.76	
1517.00	15.510	42.840	1509.22	-25.14	46.52	58.71	1730858.21	14280940.14	39°19'35.0597"N	80°40'48.6558"W	74.90	51.606	2.03	2.03	-0.02	
1612.00	18.660	42.700	1600.02	-38.44	67.01	77.65	1730877.15	14280960.62	39°19'35.2616"N	80°40'48.4138"W	102.57	49.209	3.32	3.32	-0.15	
1706.00	21.970	44.070	1688.16	-53.65	90.70	100.09	1730899.58	14280984.30	39°19'35.4949"N	80°40'48.1272"W	135.07	47.817	3.56	3.52	1.46	
1800.00	24.800	48.060	1774.43	-69.43	116.52	126.99	1730926.47	14281010.11	39°19'35.7491"N	80°40'47.7837"W	172.34	47.463	3.45	3.01	4.24	
1895.00	28.710	57.070	1859.28	-82.86	142.26	160.99	1730960.46	14281035.84	39°19'36.0024"N	80°40'47.3499"W	214.84	48.535	5.92	4.12	9.48	
1990.00	28.180	64.340	1942.84	-91.12	164.38	200.37	1730999.82	14281057.96	39°19'36.2197"N	80°40'46.8478"W	259.17	50.635	3.69	-0.56	7.65	
2084.00	28.640	68.170	2025.52	-94.98	182.37	241.29	1731040.73	14281075.94	39°19'36.3960"N	80°40'46.3262"W	302.46	52.918	2.00	0.49	4.07	
2179.00	28.230	71.600	2109.07	-96.04	197.93	283.75	1731083.17	14281091.49	39°19'36.5483"N	80°40'45.7852"W	345.96	55.102	1.77	-0.43	3.61	
2273.00	27.360	75.080	2192.23	-94.44	210.51	325.72	1731125.12	14281104.07	39°19'36.6712"N	80°40'45.2506"W	387.83	57.126	1.96	-0.93	3.70	
2368.00	26.080	77.640	2277.08	-90.64	220.60	367.22	1731166.60	14281114.16	39°19'36.7695"N	80°40'44.7221"W	428.39	59.005	1.81	-1.35	2.69	
2462.00	23.740	80.490	2362.33	-85.28	228.15	406.07	1731205.44	14281121.70	39°19'36.8427"N	80°40'44.2274"W	465.77	60.670	2.80	-2.49	3.03	
2557.00	21.950	77.660	2449.88	-80.21	235.11	442.28	1731241.64	14281128.66	39°19'36.9102"N	80°40'43.7663"W	500.89	62.006	2.21	-1.88	-2.98	
2652.00	18.290	69.480	2539.09	-78.67	244.13	473.60	1731272.95	14281137.68	39°19'36.9983"N	80°40'43.3673"W	532.82	62.730	4.85	-3.85	-8.61	

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Phebe Unit 2H AWP Proj: 23063'
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Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWP
Slot	Slot C		

WELLPATH DATA (249 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
2746.00	16.010	58.240	2628.93	-82.03	256.13	498.45	1731297.78	14281149.67	39°19'37.1160"N	80°40'43.0506"W	560.40	62.803	4.27	-2.43	-11.96	
2841.00	15.940	46.750	2720.28	-90.37	271.97	519.09	1731318.42	14281165.50	39°19'37.2718"N	80°40'42.7871"W	586.02	62.349	3.32	-0.07	-12.09	
2935.00	18.230	43.580	2810.13	-102.54	291.47	538.63	1731337.95	14281184.99	39°19'37.4638"N	80°40'42.5376"W	612.44	61.581	2.63	2.44	-3.37	
3030.00	20.850	45.970	2899.65	-116.65	313.99	561.04	1731360.35	14281207.50	39°19'37.6856"N	80°40'42.2515"W	642.92	60.766	2.88	2.76	2.52	
3125.00	24.740	50.930	2987.22	-130.76	338.28	588.64	1731387.94	14281231.78	39°19'37.9247"N	80°40'41.8992"W	678.92	60.115	4.56	4.09	5.22	
3220.00	25.490	59.270	3073.27	-141.89	361.26	621.65	1731420.94	14281254.76	39°19'38.1507"N	80°40'41.4780"W	719.00	59.838	3.81	0.79	8.78	
3315.00	25.000	70.420	3159.24	-146.41	378.44	658.16	1731457.43	14281271.93	39°19'38.3193"N	80°40'41.0127"W	759.21	60.101	5.03	-0.52	11.74	
3409.00	21.830	76.260	3245.50	-145.15	389.25	693.87	1731493.12	14281282.74	39°19'38.4249"N	80°40'40.5578"W	795.59	60.708	4.18	-3.37	6.21	
3510.00	20.470	73.490	3339.70	-142.80	398.73	729.04	1731528.29	14281292.22	39°19'38.5173"N	80°40'40.1097"W	830.96	61.325	1.67	-1.35	-2.74	APS EM <8-3/4"> (3409')(3510'-6636')
3605.00	20.750	66.460	3428.63	-143.54	410.18	760.40	1731559.63	14281303.66	39°19'38.6293"N	80°40'39.7102"W	863.98	61.657	2.62	0.29	-7.40	
3700.00	22.470	54.960	3516.99	-150.02	427.33	790.71	1731589.93	14281320.80	39°19'38.7978"N	80°40'39.3237"W	898.80	61.611	4.80	1.81	-12.11	
3794.00	23.140	49.780	3603.65	-161.81	449.57	819.53	1731618.73	14281343.04	39°19'39.0166"N	80°40'38.9560"W	934.74	61.252	2.25	0.71	-5.51	
3888.00	22.650	52.120	3690.25	-174.48	472.61	847.92	1731647.11	14281366.07	39°19'39.2434"N	80°40'38.5937"W	970.73	60.865	1.10	-0.52	2.49	
3983.00	23.110	56.170	3777.78	-185.31	494.23	877.84	1731677.03	14281387.67	39°19'39.4559"N	80°40'38.2119"W	1007.41	60.620	1.73	0.48	4.26	
4077.00	24.080	59.330	3863.92	-194.05	514.28	909.66	1731708.84	14281407.72	39°19'39.6530"N	80°40'37.8061"W	1044.97	60.518	1.70	1.03	3.36	
4172.00	23.180	60.880	3950.96	-201.40	533.27	942.67	1731741.83	14281426.70	39°19'39.8395"N	80°40'37.3852"W	1083.05	60.503	1.15	-0.95	1.63	
4266.00	22.740	62.530	4037.51	-207.46	550.65	974.95	1731774.10	14281444.07	39°19'40.0101"N	80°40'36.9736"W	1119.71	60.542	0.83	-0.47	1.76	
4361.00	23.360	60.700	4124.93	-213.68	568.34	1007.67	1731806.80	14281461.75	39°19'40.1838"N	80°40'36.5565"W	1156.89	60.576	1.00	0.65	-1.93	
4456.00	24.440	58.370	4211.78	-221.49	587.86	1040.82	1731839.95	14281481.27	39°19'40.3756"N	80°40'36.1336"W	1195.36	60.542	1.51	1.14	-2.45	
4550.00	23.620	59.680	4297.64	-229.58	607.57	1073.64	1731872.75	14281500.97	39°19'40.5692"N	80°40'35.7152"W	1233.63	60.495	1.04	-0.87	1.39	
4644.00	23.750	60.000	4383.72	-237.03	626.54	1106.29	1731905.38	14281519.93	39°19'40.7555"N	80°40'35.2988"W	1271.39	60.475	0.19	0.14	0.34	
4739.00	24.580	59.980	4470.39	-244.60	645.99	1139.96	1731939.05	14281539.37	39°19'40.9466"N	80°40'34.8694"W	1310.27	60.461	0.87	0.87	-0.02	
4834.00	25.140	63.220	4556.59	-251.26	664.97	1175.09	1731974.16	14281558.35	39°19'41.1329"N	80°40'34.4216"W	1350.19	60.495	1.55	0.59	3.41	
4929.00	24.910	65.420	4642.68	-256.09	682.38	1211.30	1732010.35	14281575.75	39°19'41.3038"N	80°40'33.9600"W	1390.28	60.605	1.01	-0.24	2.32	
5023.00	23.540	65.870	4728.40	-259.84	698.29	1246.43	1732045.47	14281591.66	39°19'41.4598"N	80°40'33.5122"W	1428.71	60.741	1.47	-1.46	0.48	
5117.00	23.520	65.390	4814.58	-263.50	713.77	1280.62	1732079.64	14281607.13	39°19'41.6116"N	80°40'33.0765"W	1466.10	60.866	0.20	-0.02	-0.51	
5212.00	25.160	62.130	4901.14	-268.62	731.11	1315.71	1732114.72	14281624.46	39°19'41.7817"N	80°40'32.6291"W	1505.19	60.940	2.23	1.73	-3.43	
5307.00	22.840	58.260	4987.93	-275.94	750.25	1349.25	1732148.25	14281643.60	39°19'41.9697"N	80°40'32.2015"W	1543.81	60.924	2.95	-2.44	-4.07	
5402.00	21.160	53.760	5076.01	-285.22	770.09	1378.76	1732177.75	14281663.43	39°19'42.1647"N	80°40'31.8250"W	1579.25	60.815	2.50	-1.77	-4.74	
5496.00	22.150	46.710	5163.39	-297.67	792.28	1405.35	1732204.32	14281685.61	39°19'42.3831"N	80°40'31.4856"W	1613.29	60.587	2.96	1.05	-7.50	

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5591.00	19.930	46.590	5252.05	-311.85	815.69	1430.15	1732229.12	14281709.01	39°19'42.6135"N	80°40'31.1690"W	1646.41	60.302	2.34	-2.34	-0.13	
5689.00	24.170	52.350	5342.87	-325.30	839.44	1458.18	1732257.14	14281732.75	39°19'42.8473"N	80°40'30.8111"W	1682.54	60.072	4.85	4.33	5.88	
5783.00	26.490	55.110	5427.83	-337.35	863.19	1490.62	1732289.56	14281756.49	39°19'43.0808"N	80°40'30.3973"W	1722.51	59.926	2.77	2.47	2.94	
5878.00	25.260	55.230	5513.31	-348.81	886.86	1524.65	1732323.58	14281780.16	39°19'43.3137"N	80°40'29.9631"W	1763.83	59.814	1.30	-1.29	0.13	
5973.00	25.940	56.030	5598.98	-359.84	910.03	1558.53	1732357.45	14281803.32	39°19'43.5415"N	80°40'29.5309"W	1804.77	59.719	0.80	0.72	0.84	
6067.00	23.380	52.700	5684.41	-371.15	932.83	1590.43	1732389.33	14281826.10	39°19'43.7656"N	80°40'29.1240"W	1843.81	59.607	3.10	-2.72	-3.54	
6162.00	21.810	49.120	5772.12	-383.78	955.80	1618.77	1732417.66	14281849.07	39°19'43.9917"N	80°40'28.7623"W	1879.89	59.440	2.20	-1.65	-3.77	
6257.00	23.880	50.210	5859.66	-397.32	979.66	1646.89	1732445.77	14281872.92	39°19'44.2265"N	80°40'28.4033"W	1916.24	59.253	2.22	2.18	1.15	
6351.00	19.580	51.130	5946.96	-409.55	1001.73	1673.78	1732472.66	14281894.98	39°19'44.4437"N	80°40'28.0601"W	1950.65	59.100	4.59	-4.57	0.98	
6446.00	20.320	60.670	6036.28	-418.04	1019.81	1700.57	1732499.43	14281913.05	39°19'44.6214"N	80°40'27.7184"W	1982.91	59.049	3.51	0.78	10.04	
6541.00	17.120	57.910	6126.25	-424.28	1035.32	1726.80	1732525.65	14281928.56	39°19'44.7738"N	80°40'27.3839"W	2013.39	59.055	3.49	-3.37	-2.91	
6636.00	19.210	63.110	6216.51	-429.71	1049.82	1752.59	1732551.43	14281943.05	39°19'44.9162"N	80°40'27.0550"W	2042.96	59.078	2.78	2.20	5.47	
6750.00	23.700	65.240	6322.59	-434.75	1067.91	1790.14	1732588.97	14281961.13	39°19'45.0936"N	80°40'26.5763"W	2084.48	59.182	4.00	3.94	1.87	BH AT Curve <8-1/2"> (6636')(6750'-23038')
6845.00	26.200	65.000	6408.71	-439.01	1084.77	1826.49	1732625.30	14281977.98	39°19'45.2590"N	80°40'26.1130"W	2124.34	59.294	2.63	2.63	-0.25	
6939.00	26.210	63.700	6493.05	-443.97	1102.74	1863.91	1732662.71	14281995.94	39°19'45.4352"N	80°40'25.6360"W	2165.68	59.390	0.61	0.01	-1.38	
7034.00	26.110	64.790	6578.32	-449.06	1120.94	1901.63	1732700.41	14282014.14	39°19'45.6137"N	80°40'25.1551"W	2207.42	59.482	0.52	-0.11	1.15	
7128.00	25.380	78.350	6663.07	-448.87	1133.83	1940.11	1732738.88	14282027.02	39°19'45.7397"N	80°40'24.6649"W	2247.13	59.697	6.30	-0.78	14.43	
7223.00	26.890	95.870	6748.48	-437.37	1135.74	1981.48	1732780.24	14282028.94	39°19'45.7572"N	80°40'24.1383"W	2283.90	60.180	8.25	1.59	18.44	
7265.00†	28.767	101.542	6785.63	-428.30	1132.75	2000.84	1732799.58	14282025.94	39°19'45.7269"N	80°40'23.8921"W	2299.23	60.484	7.72	4.47	13.50	Sycamore: 7265' MD
7318.00	31.430	107.750	6831.49	-413.63	1125.98	2026.51	1732825.24	14282019.18	39°19'45.6591"N	80°40'23.5658"W	2318.31	60.942	7.72	5.02	11.71	
7412.00	35.790	114.890	6909.79	-380.04	1106.93	2074.82	1732873.54	14282000.13	39°19'45.4691"N	80°40'22.9518"W	2351.63	61.920	6.25	4.64	7.60	
7433.00†	37.221	117.325	6926.67	-371.22	1101.42	2086.04	1732884.75	14281994.63	39°19'45.4143"N	80°40'22.8093"W	2358.96	62.166	9.69	6.81	11.60	Middlesex: 7433' MD
7507.00	42.600	124.740	6983.44	-334.91	1076.85	2126.55	1732925.25	14281970.06	39°19'45.1699"N	80°40'22.2949"W	2383.66	63.143	9.69	7.27	10.02	
7601.00	50.950	136.620	7047.88	-275.92	1032.03	2177.95	1732976.63	14281925.26	39°19'44.7251"N	80°40'21.6428"W	2410.09	64.646	12.77	8.88	12.64	
7655.00†	53.753	140.505	7080.87	-236.47	999.97	2206.22	1733004.88	14281893.22	39°19'44.4072"N	80°40'21.2847"W	2422.26	65.618	7.71	5.19	7.20	Burkett: 7655' MD
7696.00	55.960	143.270	7104.47	-204.84	973.59	2226.90	1733025.55	14281866.85	39°19'44.1458"N	80°40'21.0227"W	2430.42	66.385	7.71	5.38	6.74	
7709.00†	56.695	143.659	7111.68	-194.54	964.90	2233.34	1733031.99	14281858.16	39°19'44.0596"N	80°40'20.9412"W	2432.86	66.634	6.18	5.66	2.99	Tully: 7709' MD
7791.00	61.360	145.970	7153.87	-127.11	907.44	2273.81	1733072.44	14281800.72	39°19'43.4903"N	80°40'20.4288"W	2448.19	68.244	6.18	5.69	2.82	
7885.00	69.240	146.700	7193.12	-44.63	836.41	2321.09	1733119.71	14281729.72	39°19'42.7865"N	80°40'19.8303"W	2467.20	70.183	8.41	8.38	0.78	
7896.00†	70.471	146.616	7196.91	-34.64	827.78	2326.77	1733125.39	14281721.09	39°19'42.7011"N	80°40'19.7585"W	2469.63	70.416	11.21	11.19	-0.76	Marcellus POE: 7896' MD

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Actual Wellpath Report

Phebe Unit 2H AWP Proj: 23063'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWP
Slot	Slot C		

WELLPATH DATA (249 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
7917.00	72.820	146.460	7203.52	-15.36	811.15	2337.76	1733136.37	14281704.47	39°19'42.5363"N	80°40'19.6194"W	2474.49	70.864	11.21	11.19	-0.74	
7980.00	77.710	146.110	7219.54	43.49	760.49	2371.57	1733170.17	14281653.83	39°19'42.0344"N	80°40'19.1915"W	2490.52	72.221	7.78	7.76	-0.56	
8074.00	82.590	148.670	7235.62	133.39	682.50	2421.45	1733220.03	14281575.87	39°19'41.2618"N	80°40'18.5604"W	2515.79	74.259	5.84	5.19	2.72	
8169.00	90.680	150.250	7241.19	226.16	600.88	2469.59	1733268.15	14281494.29	39°19'40.4534"N	80°40'17.9515"W	2541.64	76.325	8.68	8.52	1.66	
8263.00	90.370	153.280	7240.33	318.86	518.08	2514.06	1733312.60	14281411.52	39°19'39.6334"N	80°40'17.3895"W	2566.88	78.356	3.24	-0.33	3.22	
8358.00	90.800	155.250	7239.36	413.16	432.51	2555.30	1733353.83	14281325.98	39°19'38.7862"N	80°40'16.8686"W	2591.65	80.393	2.12	0.45	2.07	
8453.00	91.170	158.060	7237.73	507.83	345.31	2592.94	1733391.45	14281238.82	39°19'37.9230"N	80°40'16.3937"W	2615.83	82.414	2.98	0.39	2.96	
8547.00	90.430	161.940	7236.41	601.78	257.01	2625.08	1733423.58	14281150.55	39°19'37.0491"N	80°40'15.9888"W	2637.63	84.408	4.20	-0.79	4.13	
8642.00	90.250	160.660	7235.85	696.78	167.03	2655.53	1733454.02	14281060.60	39°19'36.1586"N	80°40'15.6054"W	2660.78	86.401	1.36	-0.19	-1.35	
8737.00	91.200	158.500	7234.65	791.72	78.01	2688.68	1733487.15	14280971.62	39°19'35.2776"N	80°40'15.1878"W	2689.81	88.338	2.48	1.00	-2.27	
8832.00	90.710	160.060	7233.06	886.65	-10.83	2722.28	1733520.74	14280882.81	39°19'34.3984"N	80°40'14.7643"W	2722.30	90.228	1.72	-0.52	1.64	
8926.00	91.200	156.810	7231.50	980.52	-98.23	2756.82	1733555.27	14280795.45	39°19'33.5334"N	80°40'14.3288"W	2758.57	92.041	3.50	0.52	-3.46	
9021.00	88.120	157.300	7232.06	1075.25	-185.70	2793.85	1733592.28	14280708.01	39°19'32.6675"N	80°40'13.8617"W	2800.02	93.803	3.28	-3.24	0.52	
9116.00	90.580	159.970	7233.14	1170.13	-274.15	2828.45	1733626.87	14280619.60	39°19'31.7920"N	80°40'13.4255"W	2841.71	95.536	3.82	2.59	2.81	
9210.00	91.260	158.980	7231.63	1264.08	-362.17	2861.40	1733659.81	14280531.61	39°19'30.9209"N	80°40'13.0102"W	2884.23	97.214	1.28	0.72	-1.05	
9304.00	90.490	160.390	7230.19	1358.03	-450.31	2894.03	1733692.43	14280443.51	39°19'30.0486"N	80°40'12.5991"W	2928.86	98.844	1.71	-0.82	1.50	
9399.00	90.920	160.530	7229.02	1453.01	-539.83	2925.81	1733724.19	14280354.02	39°19'29.1626"N	80°40'12.1990"W	2975.19	100.454	0.48	0.45	0.15	
9493.00	91.720	160.720	7226.86	1546.98	-628.48	2956.98	1733755.35	14280265.40	39°19'28.2853"N	80°40'11.8064"W	3023.03	101.999	0.87	0.85	0.20	
9588.00	91.050	162.510	7224.56	1641.95	-718.60	2986.94	1733785.29	14280175.32	39°19'27.3935"N	80°40'11.4295"W	3072.16	103.527	2.01	-0.71	1.88	
9683.00	89.910	159.390	7223.77	1736.93	-808.39	3017.94	1733816.28	14280085.57	39°19'26.5050"N	80°40'11.0391"W	3124.33	104.995	3.50	-1.20	-3.28	
9777.00	91.660	161.680	7222.48	1830.90	-897.00	3049.26	1733847.59	14279997.00	39°19'25.6281"N	80°40'10.6447"W	3178.45	106.392	3.07	1.86	2.44	
9871.00	91.200	162.300	7220.13	1924.87	-986.36	3078.31	1733876.63	14279907.67	39°19'24.7438"N	80°40'10.2792"W	3232.48	107.767	0.82	-0.49	0.66	
9966.00	90.310	162.330	7218.88	2019.84	-1076.86	3107.17	1733905.48	14279817.20	39°19'23.8483"N	80°40'9.9162"W	3288.48	109.115	0.94	-0.94	0.03	
10060.00	90.280	162.170	7218.40	2113.82	-1166.39	3135.82	1733934.12	14279727.71	39°19'22.9624"N	80°40'9.5557"W	3345.72	110.403	0.17	-0.03	-0.17	
10155.00	89.940	161.590	7218.21	2208.82	-1256.68	3165.37	1733963.66	14279637.46	39°19'22.0690"N	80°40'9.1840"W	3405.70	111.653	0.71	-0.36	-0.61	
10250.00	90.830	159.900	7217.58	2303.81	-1346.35	3196.69	1733994.97	14279547.81	39°19'21.1815"N	80°40'8.7896"W	3468.65	112.839	2.01	0.94	-1.78	
10345.00	89.050	161.150	7217.68	2398.79	-1435.91	3228.37	1734026.63	14279458.28	39°19'20.2952"N	80°40'8.3908"W	3533.30	113.979	2.29	-1.87	1.32	
10439.00	92.400	163.040	7216.49	2492.76	-1525.34	3257.26	1734055.51	14279368.90	39°19'19.4103"N	80°40'8.0273"W	3596.72	115.093	4.09	3.56	2.01	
10534.00	90.650	161.240	7213.96	2587.70	-1615.72	3286.38	1734084.62	14279278.55	39°19'18.5160"N	80°40'7.6609"W	3662.08	116.181	2.64	-1.84	-1.89	
10628.00	91.230	161.700	7212.42	2681.69	-1704.83	3316.25	1734114.48	14279189.48	39°19'17.6341"N	80°40'7.2850"W	3728.80	117.207	0.79	0.62	0.49	

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Actual Wellpath Report

Phebe Unit 2H AWP Proj: 23063'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWP
Slot	Slot C		

WELLPATH DATA (249 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
10723.00	91.140	161.930	7210.45	2776.66	-1795.07	3345.89	1734144.11	14279099.28	39°19'16.7412"N	80°40'6.9121"W	3797.01	118.214	0.26	-0.09	0.24	
10818.00	91.290	161.540	7208.44	2871.64	-1885.26	3375.66	1734173.86	14279009.12	39°19'15.8487"N	80°40'6.5375"W	3866.43	119.183	0.44	0.16	-0.41	
10912.00	90.740	162.750	7206.77	2965.61	-1974.72	3404.48	1734202.67	14278919.70	39°19'14.9635"N	80°40'6.1750"W	3935.73	120.115	1.41	-0.59	1.29	
11007.00	92.400	161.510	7204.17	3060.56	-2065.10	3433.61	1734231.80	14278829.35	39°19'14.0692"N	80°40'5.8085"W	4006.79	121.024	2.18	1.75	-1.31	
11102.00	90.520	162.030	7201.75	3155.52	-2155.30	3463.32	1734261.49	14278739.19	39°19'13.1766"N	80°40'5.4347"W	4079.20	121.895	2.05	-1.98	0.55	
11196.00	90.770	161.670	7200.69	3249.50	-2244.61	3492.60	1734290.76	14278649.91	39°19'12.2928"N	80°40'5.0663"W	4151.69	122.728	0.47	0.27	-0.38	
11291.00	91.020	161.720	7199.21	3344.49	-2334.79	3522.43	1734320.58	14278559.76	39°19'11.4004"N	80°40'4.6909"W	4225.97	123.538	0.27	0.26	0.05	
11386.00	90.830	162.840	7197.67	3439.46	-2425.27	3551.35	1734349.48	14278469.32	39°19'10.5051"N	80°40'4.3273"W	4300.47	124.330	1.20	-0.20	1.18	
11480.00	92.090	161.340	7195.28	3533.41	-2514.69	3580.24	1734378.37	14278379.94	39°19'9.6203"N	80°40'3.9638"W	4375.13	125.083	2.08	1.34	-1.60	
11575.00	90.920	162.220	7192.78	3628.37	-2604.89	3609.93	1734408.05	14278289.77	39°19'8.7277"N	80°40'3.5902"W	4451.64	125.814	1.54	-1.23	0.93	
11670.00	89.570	160.200	7192.38	3723.37	-2694.82	3640.53	1734438.63	14278199.88	39°19'7.8377"N	80°40'3.2051"W	4529.40	126.510	2.56	-1.42	-2.13	
11764.00	91.630	161.510	7191.39	3817.35	-2783.61	3671.35	1734469.44	14278111.13	39°19'6.9591"N	80°40'2.8171"W	4607.31	127.169	2.60	2.19	1.39	
11859.00	90.150	161.400	7189.92	3912.34	-2873.66	3701.57	1734499.64	14278021.11	39°19'6.0679"N	80°40'2.4369"W	4686.10	127.824	1.56	-1.56	-0.12	
11953.00	92.530	161.760	7187.72	4006.30	-2962.81	3731.26	1734529.32	14277931.99	39°19'5.1857"N	80°40'2.0633"W	4764.51	128.451	2.56	2.53	0.38	
12048.00	89.570	160.690	7185.98	4101.27	-3052.73	3761.82	1734559.88	14277842.11	39°19'4.2958"N	80°40'1.6786"W	4844.64	129.059	3.31	-3.12	-1.13	
12142.00	91.720	161.420	7184.92	4195.26	-3141.63	3792.34	1734590.38	14277753.24	39°19'3.4161"N	80°40'1.2945"W	4924.60	129.639	2.42	2.29	0.78	
12237.00	90.220	160.740	7183.31	4290.24	-3231.48	3823.14	1734621.17	14277663.43	39°19'2.5269"N	80°40'0.9069"W	5005.88	130.206	1.73	-1.58	-0.72	
12332.00	91.790	161.470	7181.64	4385.23	-3321.34	3853.90	1734651.91	14277573.60	39°19'1.6376"N	80°40'0.5197"W	5087.62	130.755	1.82	1.65	0.77	
12426.00	90.180	160.430	7180.03	4479.21	-3410.18	3884.57	1734682.58	14277484.80	39°19'0.7585"N	80°40'0.1336"W	5169.06	131.279	2.04	-1.71	-1.11	
12521.00	91.720	162.030	7178.45	4574.19	-3500.11	3915.13	1734713.13	14277394.91	39°18'59.8686"N	80°39'59.7489"W	5251.57	131.797	2.34	1.62	1.68	
12616.00	91.290	160.620	7175.96	4669.15	-3590.07	3945.54	1734743.52	14277304.98	39°18'58.9783"N	80°39'59.3663"W	5334.41	132.299	1.55	-0.45	-1.48	
12710.00	90.250	161.790	7174.69	4763.14	-3679.05	3975.82	1734773.79	14277216.03	39°18'58.0978"N	80°39'58.9852"W	5416.88	132.780	1.67	-1.11	1.24	
12804.00	92.120	161.140	7172.75	4857.12	-3768.15	4005.70	1734803.65	14277126.97	39°18'57.2161"N	80°39'58.6093"W	5499.50	133.250	2.11	1.99	-0.69	
12899.00	90.310	160.070	7170.74	4952.08	-3857.73	4037.23	1734835.18	14277037.42	39°18'56.3295"N	80°39'58.2122"W	5584.03	133.698	2.21	-1.91	-1.13	
12994.00	88.890	161.400	7171.40	5047.07	-3947.41	4068.58	1734866.51	14276947.78	39°18'55.4421"N	80°39'57.8177"W	5668.80	134.134	2.05	-1.49	1.40	
13088.00	90.860	163.040	7171.60	5141.05	-4036.91	4097.28	1734895.20	14276858.31	39°18'54.5564"N	80°39'57.4567"W	5751.90	134.575	2.73	2.10	1.74	
13183.00	92.430	161.410	7168.88	5235.99	-4127.33	4126.26	1734924.17	14276767.93	39°18'53.6616"N	80°39'57.0921"W	5836.17	135.007	2.38	1.65	-1.72	
13278.00	89.540	159.350	7167.24	5330.95	-4216.79	4158.15	1734956.05	14276678.51	39°18'52.7763"N	80°39'56.6906"W	5922.12	135.401	3.74	-3.04	-2.17	
13372.00	89.320	162.810	7168.18	5424.93	-4305.69	4188.63	1734986.51	14276589.64	39°18'51.8965"N	80°39'56.3071"W	6006.96	135.790	3.69	-0.23	3.68	
13467.00	93.480	162.690	7165.86	5519.85	-4396.37	4216.78	1735014.66	14276498.99	39°18'50.9993"N	80°39'55.9531"W	6091.75	136.194	4.38	4.38	-0.13	

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Actual Wellpath Report

Phebe Unit 2H AWP Proj: 23063'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWP
Slot	Slot C		

WELLPATH DATA (249 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
13561.00	90.090	158.860	7162.93	5613.77	-4485.06	4247.71	1735045.58	14276410.34	39°18'50.1216"N	80°39'55.5638"W	6177.28	136.557	5.44	-3.61	-4.07	
13656.00	88.460	161.590	7164.13	5708.73	-4574.44	4279.85	1735077.70	14276321.00	39°18'49.2370"N	80°39'55.1591"W	6264.39	136.906	3.35	-1.72	2.87	
13750.00	91.940	163.870	7163.80	5802.68	-4664.18	4307.75	1735105.59	14276231.29	39°18'48.3490"N	80°39'54.8084"W	6349.11	137.275	4.43	3.70	2.43	
13845.00	90.280	161.570	7161.96	5897.62	-4754.86	4335.96	1735133.79	14276140.64	39°18'47.4517"N	80°39'54.4538"W	6435.00	137.638	2.99	-1.75	-2.42	
13940.00	90.090	160.950	7161.66	5992.62	-4844.83	4366.48	1735164.30	14276050.72	39°18'46.5614"N	80°39'54.0697"W	6522.15	137.973	0.68	-0.20	-0.65	
14035.00	91.420	162.020	7160.41	6087.61	-4934.90	4396.65	1735194.45	14275960.68	39°18'45.6701"N	80°39'53.6902"W	6609.36	138.301	1.80	1.40	1.13	
14129.00	90.770	161.680	7158.61	6181.58	-5024.20	4425.92	1735223.71	14275871.41	39°18'44.7864"N	80°39'53.3219"W	6695.63	138.623	0.78	-0.69	-0.36	
14224.00	90.150	161.690	7157.85	6276.58	-5114.39	4455.77	1735253.55	14275781.26	39°18'43.8939"N	80°39'52.9464"W	6783.13	138.937	0.65	-0.65	0.01	
14319.00	90.520	161.850	7157.29	6371.57	-5204.62	4485.49	1735283.26	14275691.07	39°18'43.0010"N	80°39'52.5725"W	6870.78	139.244	0.42	0.39	0.17	
14414.00	89.660	160.480	7157.14	6466.57	-5294.53	4516.16	1735313.92	14275601.19	39°18'42.1113"N	80°39'52.1866"W	6959.00	139.536	1.70	-0.91	-1.44	
14508.00	91.630	160.730	7156.08	6560.55	-5383.18	4547.37	1735345.12	14275512.57	39°18'41.2339"N	80°39'51.7937"W	7046.79	139.811	2.11	2.10	0.27	
14603.00	90.990	163.000	7153.91	6655.51	-5473.43	4576.93	1735374.66	14275422.35	39°18'40.3408"N	80°39'51.4219"W	7134.90	140.097	2.48	-0.67	2.39	
14698.00	89.820	161.770	7153.24	6750.49	-5563.97	4605.68	1735403.40	14275331.85	39°18'39.4449"N	80°39'51.0604"W	7222.89	140.383	1.79	-1.23	-1.29	
14792.00	88.860	160.360	7154.32	6844.48	-5652.88	4636.18	1735433.89	14275242.98	39°18'38.5651"N	80°39'50.6766"W	7310.90	140.643	1.81	-1.02	-1.50	
14887.00	91.820	164.030	7153.76	6939.44	-5743.30	4665.22	1735462.92	14275152.59	39°18'37.6703"N	80°39'50.3114"W	7399.31	140.913	4.96	3.12	3.86	
14981.00	92.220	161.360	7150.45	7033.34	-5832.98	4693.16	1735490.85	14275062.95	39°18'36.7829"N	80°39'49.9602"W	7486.62	141.180	2.87	0.43	-2.84	
15076.00	91.420	161.880	7147.43	7128.29	-5923.09	4723.10	1735520.78	14274972.88	39°18'35.8912"N	80°39'49.5836"W	7575.66	141.431	1.00	-0.84	0.55	
15170.00	90.860	161.640	7145.56	7222.26	-6012.35	4752.52	1735550.18	14274883.65	39°18'35.0079"N	80°39'49.2136"W	7663.86	141.675	0.65	-0.60	-0.26	
15265.00	89.290	162.170	7145.43	7317.25	-6102.65	4782.02	1735579.67	14274793.39	39°18'34.1144"N	80°39'48.8425"W	7753.07	141.918	1.74	-1.65	0.56	
15359.00	92.090	163.000	7144.30	7411.21	-6192.32	4810.15	1735607.79	14274703.75	39°18'33.2270"N	80°39'48.4889"W	7841.07	142.160	3.11	2.98	0.88	
15454.00	91.350	162.210	7141.45	7506.14	-6282.93	4838.54	1735636.17	14274613.17	39°18'32.3304"N	80°39'48.1320"W	7930.11	142.400	1.14	-0.78	-0.83	
15548.00	91.140	161.660	7139.41	7600.11	-6372.28	4867.68	1735665.30	14274523.86	39°18'31.4463"N	80°39'47.7655"W	8018.74	142.624	0.63	-0.22	-0.59	
15643.00	89.880	160.780	7138.56	7695.10	-6462.22	4898.26	1735695.87	14274433.96	39°18'30.5563"N	80°39'47.3807"W	8108.83	142.838	1.62	-1.33	-0.93	
15738.00	89.720	161.450	7138.89	7790.10	-6552.10	4929.01	1735726.60	14274344.11	39°18'29.6668"N	80°39'46.9938"W	8199.09	143.047	0.73	-0.17	0.71	
15832.00	90.220	162.030	7138.94	7884.09	-6641.37	4958.46	1735756.04	14274254.88	39°18'28.7834"N	80°39'46.6233"W	8288.19	143.255	0.81	0.53	0.62	
15927.00	90.490	161.710	7138.35	7979.09	-6731.65	4988.02	1735785.59	14274164.64	39°18'27.8900"N	80°39'46.2516"W	8378.27	143.462	0.44	0.28	-0.34	
16021.00	90.060	161.420	7137.90	8073.08	-6820.82	5017.75	1735815.31	14274075.50	39°18'27.0075"N	80°39'45.8776"W	8467.67	143.660	0.55	-0.46	-0.31	
16116.00	90.650	160.860	7137.31	8168.08	-6910.72	5048.46	1735846.00	14273985.63	39°18'26.1179"N	80°39'45.4912"W	8558.33	143.851	0.86	0.62	-0.59	
16210.00	89.970	160.870	7136.81	8262.08	-6999.52	5079.27	1735876.80	14273896.86	39°18'25.2391"N	80°39'45.1035"W	8648.25	144.033	0.72	-0.72	0.01	
16305.00	90.120	159.750	7136.73	8357.06	-7088.97	5111.28	1735908.80	14273807.46	39°18'24.3538"N	80°39'44.7005"W	8739.49	144.208	1.19	0.16	-1.18	

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Phebe Unit 2H AWP Proj: 23063'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Phebe Unit 2H
Field	Doddridge		API	47-017-06938-0000
Facility	Lemley Pad		Wellbore	Phebe Unit 2H AWB
Slot	Slot C			

WELLPATH DATA (249 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
16399.00	90.220	160.510	7136.45	8451.05	-7177.37	5143.23	1735940.74	14273719.09	39°18'23.4789"N	80°39'44.2983"W	8829.92	144.375	0.82	0.11	0.81	
16494.00	90.460	161.690	7135.89	8546.04	-7267.25	5174.00	1735971.49	14273629.25	39°18'22.5895"N	80°39'43.9111"W	8920.94	144.551	1.27	0.25	1.24	
16588.00	89.140	160.780	7136.22	8640.04	-7356.25	5204.23	1736001.72	14273540.28	39°18'21.7087"N	80°39'43.5307"W	9011.02	144.722	1.71	-1.40	-0.97	
16683.00	88.890	159.990	7137.85	8735.01	-7445.72	5236.12	1736033.59	14273450.84	39°18'20.8232"N	80°39'43.1293"W	9102.51	144.884	0.87	-0.26	-0.83	
16777.00	89.850	160.520	7138.88	8828.99	-7534.19	5267.87	1736065.34	14273362.41	39°18'19.9477"N	80°39'42.7295"W	9193.17	145.039	1.17	1.02	0.56	
16872.00	89.940	161.190	7139.06	8923.99	-7623.93	5299.03	1736096.48	14273272.70	39°18'19.0595"N	80°39'42.3375"W	9284.61	145.199	0.71	0.09	0.71	
16967.00	89.230	160.630	7139.75	9018.99	-7713.70	5330.10	1736127.54	14273182.97	39°18'18.1711"N	80°39'41.9465"W	9376.10	145.356	0.95	-0.75	-0.59	
17061.00	89.910	160.710	7140.45	9112.98	-7802.40	5361.21	1736158.64	14273094.30	39°18'17.2933"N	80°39'41.5549"W	9466.79	145.506	0.73	0.72	0.09	
17156.00	89.970	161.020	7140.55	9207.98	-7892.15	5392.35	1736189.77	14273004.59	39°18'16.4051"N	80°39'41.1631"W	9558.43	145.657	0.33	0.06	0.33	
17251.00	89.690	161.120	7140.83	9302.97	-7982.01	5423.17	1736220.57	14272914.76	39°18'15.5158"N	80°39'40.7753"W	9650.04	145.807	0.31	-0.29	0.11	
17345.00	89.940	160.470	7141.14	9396.97	-8070.78	5454.09	1736251.48	14272826.03	39°18'14.6373"N	80°39'40.3862"W	9740.87	145.950	0.74	0.27	-0.69	
17440.00	89.880	161.540	7141.29	9491.97	-8160.61	5485.01	1736282.39	14272736.24	39°18'13.7484"N	80°39'39.9971"W	9832.64	146.094	1.13	-0.06	1.13	
17534.00	89.600	160.710	7141.71	9585.97	-8249.55	5515.42	1736312.79	14272647.33	39°18'12.8682"N	80°39'39.6145"W	9923.46	146.234	0.93	-0.30	-0.88	
17629.00	90.890	161.320	7141.31	9680.96	-8339.38	5546.33	1736343.68	14272557.53	39°18'11.9792"N	80°39'39.2257"W	10015.34	146.373	1.50	1.36	0.64	
17723.00	90.650	160.660	7140.04	9774.95	-8428.24	5576.94	1736374.28	14272468.70	39°18'11.0997"N	80°39'38.8404"W	10106.31	146.508	0.75	-0.26	-0.70	
17818.00	90.060	160.150	7139.45	9869.94	-8517.74	5608.80	1736406.13	14272379.24	39°18'10.2140"N	80°39'38.4394"W	10198.56	146.636	0.82	-0.62	-0.54	
17913.00	88.800	161.370	7140.40	9964.93	-8607.43	5640.10	1736437.42	14272289.59	39°18'9.3264"N	80°39'38.0455"W	10290.70	146.765	1.85	-1.33	1.28	
18007.00	89.140	159.720	7142.09	10058.90	-8696.04	5671.41	1736468.71	14272201.01	39°18'8.4494"N	80°39'37.6516"W	10382.00	146.888	1.79	0.36	-1.76	
18101.00	89.820	161.070	7142.94	10152.89	-8784.59	5702.94	1736500.24	14272112.50	39°18'7.5731"N	80°39'37.2546"W	10473.42	147.008	1.61	0.72	1.44	
18196.00	89.200	160.710	7143.75	10247.88	-8874.35	5734.04	1736531.32	14272022.78	39°18'6.6848"N	80°39'36.8633"W	10565.67	147.132	0.75	-0.65	-0.38	
18290.00	89.200	160.340	7145.07	10341.87	-8962.96	5765.38	1736562.65	14271934.20	39°18'5.8078"N	80°39'36.4689"W	10657.12	147.249	0.39	0.00	-0.39	
18385.00	90.340	160.780	7145.45	10436.86	-9052.54	5797.00	1736594.25	14271844.65	39°18'4.9212"N	80°39'36.0710"W	10749.59	147.366	1.29	1.20	0.46	
18480.00	88.550	160.030	7146.37	10531.84	-9142.03	5828.85	1736626.10	14271755.20	39°18'4.0356"N	80°39'35.6701"W	10842.15	147.479	2.04	-1.88	-0.79	
18574.00	89.380	160.400	7148.07	10625.81	-9230.47	5860.67	1736657.90	14271666.80	39°18'3.1603"N	80°39'35.2696"W	10933.84	147.587	0.97	0.88	0.39	
18669.00	89.140	160.410	7149.29	10720.79	-9319.96	5892.52	1736689.74	14271577.34	39°18'2.2747"N	80°39'34.8687"W	11026.49	147.697	0.25	-0.25	0.01	
18763.00	88.770	160.080	7151.01	10814.76	-9408.41	5924.29	1736721.49	14271488.92	39°18'1.3992"N	80°39'34.4688"W	11118.25	147.802	0.53	-0.39	-0.35	
18858.00	89.350	160.910	7152.57	10909.74	-9497.95	5956.01	1736753.20	14271399.42	39°18'0.5131"N	80°39'34.0697"W	11210.93	147.909	1.07	0.61	0.87	
18952.00	88.740	160.330	7154.13	11003.72	-9586.61	5987.19	1736784.37	14271310.80	39°17'59.6357"N	80°39'33.6772"W	11302.63	148.014	0.90	-0.65	-0.62	
19047.00	88.800	160.000	7156.17	11098.68	-9675.95	6019.42	1736816.59	14271221.49	39°17'58.7514"N	80°39'33.2716"W	11395.50	148.114	0.35	0.06	-0.35	
19141.00	88.580	159.760	7158.32	11192.63	-9764.19	6051.75	1736848.90	14271133.28	39°17'57.8781"N	80°39'32.8646"W	11487.52	148.210	0.35	-0.23	-0.26	

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Phebe Unit 2H AWP Proj: 23063'

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Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWP
Slot	Slot C		

WELLPATH DATA (249 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
19235.00	88.620	159.140	7160.62	11286.56	-9852.18	6084.73	1736881.87	14271045.33	39°17'57.0072"N	80°39'32.4492"W	11579.70	148.300	0.66	0.04	-0.66	
19330.00	89.230	160.750	7162.40	11381.51	-9941.40	6117.30	1736914.43	14270956.14	39°17'56.1242"N	80°39'32.0392"W	11672.74	148.395	1.81	0.64	1.69	
19425.00	88.520	160.010	7164.27	11476.48	-10030.87	6149.20	1736946.31	14270866.71	39°17'55.2387"N	80°39'31.6378"W	11765.67	148.491	1.08	-0.75	-0.78	
19519.00	88.460	160.000	7166.74	11570.43	-10119.17	6181.33	1736978.43	14270778.44	39°17'54.3648"N	80°39'31.2333"W	11857.76	148.581	0.06	-0.06	-0.01	
19613.00	88.800	160.400	7168.99	11664.39	-10207.59	6213.16	1737010.25	14270690.06	39°17'53.4897"N	80°39'30.8327"W	11949.82	148.672	0.56	0.36	0.43	
19802.00	88.000	162.320	7174.27	11853.30	-10386.60	6273.54	1737070.61	14270511.12	39°17'51.7182"N	80°39'30.0732"W	12134.19	148.868	1.10	-0.42	1.02	
19897.00	88.920	162.650	7176.82	11948.25	-10477.16	6302.12	1737099.18	14270420.60	39°17'50.8221"N	80°39'29.7140"W	12226.51	148.973	1.03	0.97	0.35	
19991.00	88.580	162.790	7178.87	12042.19	-10566.89	6330.04	1737127.08	14270330.90	39°17'49.9341"N	80°39'29.3633"W	12317.82	149.077	0.39	-0.36	0.15	
20086.00	88.550	162.490	7181.25	12137.13	-10657.54	6358.37	1737155.41	14270240.29	39°17'49.0372"N	80°39'29.0072"W	12410.16	149.179	0.32	-0.03	-0.32	
20181.00	88.430	161.470	7183.75	12232.09	-10747.84	6387.75	1737184.77	14270150.02	39°17'48.1435"N	80°39'28.6379"W	12502.78	149.276	1.08	-0.13	-1.07	
20275.00	88.430	162.400	7186.33	12326.05	-10837.18	6416.89	1737213.90	14270060.72	39°17'47.2595"N	80°39'28.2716"W	12594.48	149.369	0.99	0.00	0.99	
20370.00	88.920	162.920	7188.53	12420.99	-10927.83	6445.19	1737242.19	14269970.10	39°17'46.3624"N	80°39'27.9159"W	12686.93	149.468	0.75	0.52	0.55	
20465.00	88.460	162.430	7190.70	12515.93	-11018.50	6473.48	1737270.47	14269879.47	39°17'45.4652"N	80°39'27.5605"W	12779.41	149.565	0.71	-0.48	-0.52	
20560.00	88.090	162.350	7193.56	12610.87	-11109.01	6502.21	1737299.18	14269789.00	39°17'44.5696"N	80°39'27.1994"W	12872.01	149.659	0.40	-0.39	-0.08	
20654.00	88.370	162.040	7196.46	12704.81	-11198.46	6530.93	1737327.90	14269699.58	39°17'43.6844"N	80°39'26.8383"W	12963.74	149.749	0.44	0.30	-0.33	
20749.00	88.580	162.500	7198.99	12799.76	-11288.92	6559.85	1737356.81	14269609.16	39°17'42.7893"N	80°39'26.4748"W	13056.47	149.840	0.53	0.22	0.48	
20844.00	88.430	162.520	7201.47	12894.71	-11379.49	6588.40	1737385.34	14269518.61	39°17'41.8930"N	80°39'26.1162"W	13149.14	149.930	0.16	-0.16	0.02	
20938.00	88.460	162.640	7204.02	12988.64	-11469.15	6616.53	1737413.46	14269428.99	39°17'41.0058"N	80°39'25.7627"W	13240.84	150.019	0.13	0.03	0.13	
21033.00	88.520	162.190	7206.52	13083.59	-11559.68	6645.22	1737442.14	14269338.50	39°17'40.1100"N	80°39'25.4021"W	13333.61	150.107	0.48	0.06	-0.47	
21128.00	88.650	162.450	7208.87	13178.54	-11650.16	6674.06	1737470.97	14269248.05	39°17'39.2146"N	80°39'25.0396"W	13426.44	150.193	0.31	0.14	0.27	
21223.00	88.770	162.400	7211.01	13273.50	-11740.71	6702.74	1737499.64	14269157.54	39°17'38.3186"N	80°39'24.6792"W	13519.28	150.278	0.14	0.13	-0.05	
21317.00	88.520	162.070	7213.23	13367.46	-11830.20	6731.41	1737528.30	14269068.09	39°17'37.4331"N	80°39'24.3189"W	13611.23	150.360	0.44	-0.27	-0.35	
21412.00	88.830	162.580	7215.43	13462.41	-11920.69	6760.25	1737557.12	14268977.63	39°17'36.5376"N	80°39'23.9565"W	13704.15	150.442	0.63	0.33	0.54	
21506.00	88.580	162.410	7217.55	13556.37	-12010.31	6788.51	1737585.38	14268888.04	39°17'35.6507"N	80°39'23.6013"W	13796.07	150.524	0.32	-0.27	-0.18	
21601.00	88.430	162.370	7220.03	13651.31	-12100.83	6817.25	1737614.10	14268797.56	39°17'34.7550"N	80°39'23.2402"W	13889.02	150.604	0.16	-0.16	-0.04	
21695.00	88.000	162.100	7222.96	13745.25	-12190.30	6845.91	1737642.75	14268708.12	39°17'33.8696"N	80°39'22.8799"W	13981.06	150.682	0.54	-0.46	-0.29	
21884.00	88.370	162.280	7228.94	13934.13	-12370.16	6903.69	1737700.51	14268528.34	39°17'32.0898"N	80°39'22.1537"W	14166.22	150.834	0.22	0.20	0.10	
21979.00	88.430	161.560	7231.60	14029.09	-12460.43	6933.16	1737729.97	14268438.10	39°17'31.1965"N	80°39'21.7832"W	14259.42	150.908	0.76	0.06	-0.76	
22074.00	88.150	161.190	7234.43	14124.04	-12550.41	6963.49	1737760.28	14268348.15	39°17'30.3060"N	80°39'21.4019"W	14352.81	150.977	0.49	-0.29	-0.39	
22168.00	88.520	161.170	7237.16	14218.00	-12639.35	6993.80	1737790.58	14268259.25	39°17'29.4258"N	80°39'21.0207"W	14445.29	151.043	0.39	0.39	-0.02	

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Actual Wellpath Report

Phebe Unit 2H AWP Proj: 23063'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWB
Slot	Slot C		

WELLPATH DATA (249 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
22263.00	88.180	160.440	7239.90	14312.96	-12729.03	7025.02	1737821.79	14268169.61	39°17'28.5383"N	80°39'20.6279"W	14538.88	151.106	0.85	-0.36	-0.77	
22358.00	87.780	160.500	7243.25	14407.89	-12818.51	7056.76	1737853.52	14268080.16	39°17'27.6527"N	80°39'20.2286"W	14632.57	151.167	0.43	-0.42	0.06	
22452.00	88.190	160.300	7246.55	14501.83	-12907.01	7088.27	1737885.02	14267991.70	39°17'26.7769"N	80°39'19.8320"W	14725.30	151.225	0.49	0.44	-0.21	
22547.00	88.310	160.420	7249.45	14596.77	-12996.44	7120.19	1737916.92	14267902.30	39°17'25.8917"N	80°39'19.4305"W	14819.06	151.284	0.18	0.13	0.13	
22641.00	88.770	160.430	7251.85	14690.73	-13084.98	7151.67	1737948.39	14267813.80	39°17'25.0155"N	80°39'19.0343"W	14911.84	151.341	0.49	0.49	0.01	
22736.00	88.860	160.620	7253.81	14785.70	-13174.52	7183.34	1737980.05	14267724.29	39°17'24.1293"N	80°39'18.6359"W	15005.61	151.399	0.22	0.09	0.20	
22916.00	88.920	160.590	7257.30	14965.66	-13344.28	7243.10	1738039.79	14267554.60	39°17'22.4492"N	80°39'17.8841"W	15183.29	151.507	0.04	0.03	-0.02	
23038.00	89.910	160.980	7258.54	15087.65	-13459.47	7283.25	1738079.92	14267439.45	39°17'21.3092"N	80°39'17.3790"W	15303.70	151.581	0.87	0.81	0.32	
23063.00‡	89.910	160.980	7258.58	15112.65	-13483.11	7291.40	1738088.06	14267415.83	39°17'21.0752"N	80°39'17.2765"W	15328.36	151.596	0.00	0.00	0.00	Projected MD at TD: 23063'

HOLE & CASING SECTIONS - Ref Wellbore: Phebe Unit 2H AWB Ref Wellpath: Phebe Unit 2H AWP Proj: 23063'									
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	0.38	0.31
17.5in Open Hole	130.00	917.00	787.00	130.00	916.95	0.38	0.31	-6.86	0.35
13.375in Casing Surface	30.00	897.00	867.00	30.00	896.95	0.00	0.00	-6.69	0.33
12.25in Open Hole	917.00	3491.00	2574.00	916.95	3321.91	-6.86	0.35	396.87	722.63
9.625in Casing Intermediate	30.00	3471.00	3441.00	30.00	3303.22	0.00	0.00	394.94	715.77
8.75in Open Hole	3491.00	6711.00	3220.00	3321.91	6286.67	396.87	722.63	1061.47	1776.38
8.5in Open Hole	6711.00	23063.00	16352.00	6286.67	7258.58	1061.47	1776.38	-13483.11	7291.40
5.5in Casing Production	30.00	23043.00	23013.00	30.00	7258.55	0.00	0.00	-13464.20	7284.88

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Phebe Unit 2H AWP Proj: 23063'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWB
Slot	Slot C		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Phebe Unit 2H POE Rev-2	7198.00	823.91	2352.38	1733150.99	14281717.23	39°19'42.6619"N	80°40'19.4327"W	point
Phebe Unit 2H AZI Rev-2	7242.00	275.70	2625.66	1733424.16	14281169.23	39°19'37.2338"N	80°40'15.9805"W	point
Phebe Unit 2H BHL Rev-2	7242.00	-13490.42	7306.66	1738103.32	14267408.52	39°17'21.0024"N	80°39'17.0828"W	point
Phebe Unit 2H LP Rev-2	7242.00	609.39	2475.14	1733273.70	14281502.79	39°19'40.5373"N	80°40'17.8805"W	point
Phebe Unit 2H 50' L/R Hard Line	7500.00	-6605.09	4965.39	1735762.97	14274291.14	39°18'29.1417"N	80°39'46.5334"W	rectangle

2D Rectangle 14545 x 100.

WELLPATH COMPOSITION - Ref Wellbore: Phebe Unit 2H AWB Ref Wellpath: Phebe Unit 2H AWP Proj: 23063'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	919.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-919')	Phebe Unit 2H AWB	10/28/2022
919.00	3409.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (919')(1044'-3409')	Phebe Unit 2H AWB	10/28/2022
3409.00	6636.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (3409')(3510'-6636')	Phebe Unit 2H AWB	11/23/2022
6636.00	23063.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (6636')(6750'-23038')	Phebe Unit 2H AWB	11/23/2022

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Actual Wellpath Report
 Phebe Unit 2H AWP Proj: 23063'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Phebe Unit 2H
Field	Doddridge	API	47-017-06938-0000
Facility	Lemley Pad	Wellbore	Phebe Unit 2H AWB
Slot	Slot C		

COMMENTS
<p>Wellpath general comments API: 47-017-06938-0000 BH Job #: 111534771 Rig: H&P 531 Duration: 11/26/2022-12/3/2022 Gyrodata MS Gyro <17-1/2"> (100'-919') APS EM <12-1/4"> (919')(1044'-3409') APS EM <8-3/4"> (3409')(3510'-6636') BH AT Curve <8-1/2"> (6636')(6750'-23038') Sycamore: 7265' MD Middlesex: 7433' MD Burkett: 7655' MD Tully: 7709' MD Marcellus POE: 7896' MD Projected MD at TD: 23063'</p>

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