

ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: State Ridge Pad
 Slot: Slot #01
 Well: Keller Unit 1H
 Wellbore: Keller Unit 1H PWB

Grid System: NAD27 UTM Zone 17 North, US Feet
 North Reference: Grid north
 Scale: True distance
 Coordinates are in feet referenced to SLM
 Digits are in feet
 Created by: dslabak on 2020-01-10; Database: WA, MP, Embarras, Deth

Location Information

Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
State Ridge Pad	1675818.950	14347063.090	39°30'30.1867"N	80°52'28.1461"W
Slot	Local E (ft)	Local N (ft)	Latitude	Longitude
Slot #01	-9.54	-44.03	39°30'30.0630"N	80°52'28.7080"W
Comment:	Keller Unit 1H			
H&P 317 (RKB) to Ground level (At Slot Slot #01)	25.5ft			
Mean Sea Level to Ground level (At Slot Slot #01)	-106ft			
H&P 317 (RKB) to Mean Sea Level	1069.5ft			

Well Data

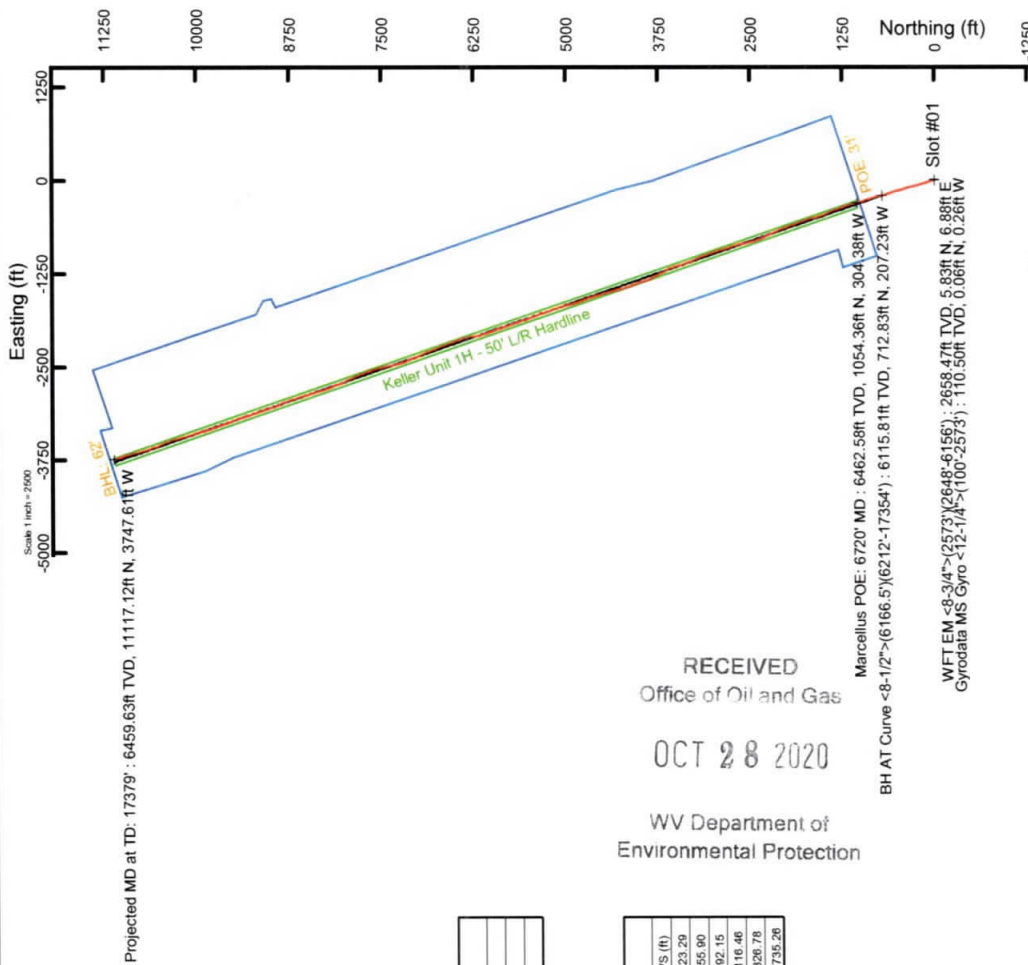
Slot	Well	Wellbore	Wellpath
Slot #01	Keller Unit 1H	Keller Unit 1H AWB	Keller Unit 1H AWP Proj. 17379
Slot #01	Keller Unit 1H	Keller Unit 1H PWB	Keller Unit 1H PWP Rev-A0

Gyrodatta MS Gyro <12-1/4">(100-2573) : 0.36° Inc, 110.50ft TVD, 0.14ft VS

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (1/100ft)	VS (ft)
Tile On	6186.50	21.980	343.060	6074.14	695.14	-202.72	6.78	723.29
Proj. To Bit	6239.50	31.200	343.060	6139.35	726.35	-212.23	12.66	755.90
End of 3D Arc	6590.07	54.269	340.617	6395.13	950.49	-288.92	6.60	992.15
POE	6732.07	68.464	341.040	6463.00	1067.92	-327.72	10.00	1116.46
Landing Pt.	6947.43	90.000	341.040	6503.00	1266.83	-396.06	10.00	1326.78
BHL	17355.91	90.000	341.040	6503.00	11110.62	-3777.82	0.00	11735.26

WFT EM <8-3/4">(2573)(2648-6156) : 0.48° Inc, 2658.50ft MD, 2658.47ft TVD, 3.28ft VS



Scale 1 inch = 200'

Projected MD at TD: 17379 : 6459.63ft TVD, 11117.12ft N, 3747.61ft W

Marcellus POE: 6720' MD : 6462.58ft TVD, 1054.36ft N, 304.38ft W

BH AT Curve <8-1/2">(6166.5)(6212-17354) : 6115.81ft TVD, 712.83ft N, 207.23ft W

Slot #01

WFT EM <8-3/4">(2573)(2648-6156) : 2658.47ft TVD, 5.83ft N, 6.88ft E

Gyrodatta MS Gyro <12-1/4">(100-2573) : 110.50ft TVD, 0.06ft N, 0.28ft W

User specified (HDGM) Dip: 66.52° Field: 51805 nT
 Magnetic North is 7.54 degrees West of True North (at 1/1/2020)
 Grid North is 0.08 degrees East of True North
 To correct azimuth from True to Grid subtract 0.08 degrees
 To correct azimuth from Magnetic to Grid subtract 1.62 degrees

N
 GRID
 W
 E

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OCT 28 2020

WV Department of
 Environmental Protection



API: 47-095-02576-0000
 BHI Job #: 110217370A
 Rig: H&P 317
 Duration: 01/05/2020-01/07/2020



BH AT Curve <8-1/2">(6166.5)(6212-17354) : 25.39° Inc, 6212.00ft MD, 6115.81ft TVD, 741.48ft VS

Marcellus POE: 6720' MD : 68.82° Inc, 6720.00ft MD, 6462.58ft TVD, 1096.05ft VS

Projected MD at TD: 17379 : 89.94° Inc, 17379.00ft MD, 6459.63ft TVD, 11731.60ft VS



Vertical Section (ft)

Scale 1 inch = 1500'

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Actual Wellpath Report

Keller Unit 1H AWP Proj: 17379'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Facility	State Ridge Pad
Slot	Slot #01
Well	Keller Unit 1H
API	47-095-02576-0000
Wellbore	Keller Unit 1H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999601
Convergence at slot	0.08° East
Software System	WellArchitect® 6.0
User	Delaset
Report Generated	1/16/2020 at 12:47:55 PM
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	-9.54	-44.03	1675774.94	14347053.56	39°30'30.0930"N	80°52'28.7080"W
Facility Reference Pt			1675818.95	14347063.09	39°30'30.1867"N	80°52'28.1461"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	H&P 317 (RKB)
MD Reference Pt	H&P 317 (RKB) to Ground Level at Slot (Slot #01)
Field Vertical Reference	Mean Sea Level
	H&P 317 (RKB) to Facility Vertical Datum
	H&P 317 (RKB) to Mean Sea Level
	H&P 317 (RKB) to Ground Level at Slot (Slot #01)
	Section Origin
	Section Azimuth
	25.50ft
	1089.50ft
	25.50ft
	N 0.00, E 0.00 ft
	341.04°

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Office of Oil and Gas
OCT 28 2020
WV Department of
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WELLPATH DATA (193 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00†	0.000	283.430	0.00	0.00	0.00	0.00	1675774.94	14347053.56	39°30'30.0930"N	80°52'28.7080"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	283.430	25.50	0.00	0.00	0.00	1675774.94	14347053.56	39°30'30.0930"N	80°52'28.7080"W	0.00	0.000	0.00	0.00	0.00	
110.50	0.360	283.430	110.50	0.14	0.06	-0.26	1675774.68	14347053.62	39°30'30.0936"N	80°52'28.7113"W	0.27	283.430	0.42	0.42	0.00	Syrodata MS Gyro <12-1/4">(100'-2573')
210.50	0.330	284.300	210.50	0.47	0.21	-0.84	1675774.10	14347053.76	39°30'30.0950"N	80°52'28.7188"W	0.87	283.718	0.03	-0.03	0.87	
310.50	0.070	283.120	310.50	0.66	0.29	-1.18	1675773.76	14347053.85	39°30'30.0959"N	80°52'28.7231"W	1.22	283.826	0.26	-0.26	-1.18	
410.50	0.070	58.250	410.50	0.71	0.34	-1.19	1675773.75	14347053.89	39°30'30.0963"N	80°52'28.7232"W	1.24	285.812	0.13	0.00	135.13	
510.50	0.100	106.480	510.50	0.67	0.34	-1.05	1675773.89	14347053.90	39°30'30.0964"N	80°52'28.7215"W	1.11	288.087	0.07	0.03	48.23	
610.50	0.170	105.030	610.50	0.54	0.28	-0.83	1675774.11	14347053.84	39°30'30.0958"N	80°52'28.7186"W	0.87	288.766	0.07	0.07	-1.45	
710.50	0.190	101.900	710.50	0.37	0.21	-0.52	1675774.42	14347053.77	39°30'30.0951"N	80°52'28.7147"W	0.56	291.772	0.02	0.02	-3.13	
810.50	0.190	112.110	810.50	0.17	0.11	-0.21	1675774.74	14347053.67	39°30'30.0941"N	80°52'28.7106"W	0.23	298.481	0.03	0.00	10.21	
910.50	0.190	109.950	910.49	-0.04	-0.01	0.10	1675775.04	14347053.55	39°30'30.0929"N	80°52'28.7067"W	0.10	93.863	0.01	0.00	-2.16	
1010.50	0.180	104.820	1010.49	-0.23	-0.10	0.41	1675775.35	14347053.45	39°30'30.0920"N	80°52'28.7028"W	0.42	104.172	0.02	-0.01	-5.13	
1110.50	0.190	90.700	1110.49	-0.37	-0.15	0.73	1675775.67	14347053.41	39°30'30.0915"N	80°52'28.6987"W	0.74	101.328	0.05	0.01	-14.12	
1210.50	0.230	62.200	1210.49	-0.40	-0.05	1.07	1675776.01	14347053.50	39°30'30.0924"N	80°52'28.6943"W	1.07	92.902	0.11	0.04	-28.50	
1310.50	0.290	53.940	1310.49	-0.29	0.19	1.45	1675776.39	14347053.74	39°30'30.0948"N	80°52'28.6894"W	1.47	82.622	0.07	0.06	-8.26	
1410.50	0.300	53.610	1410.49	-0.14	0.49	1.87	1675776.81	14347054.05	39°30'30.0978"N	80°52'28.6841"W	1.93	75.238	0.01	0.01	-0.33	
1510.50	0.340	51.380	1510.49	0.04	0.83	2.31	1675777.25	14347054.39	39°30'30.1012"N	80°52'28.6785"W	2.46	70.183	0.04	0.04	-2.23	
1610.50	0.320	49.000	1610.49	0.24	1.20	2.75	1675777.69	14347054.76	39°30'30.1048"N	80°52'28.6728"W	3.00	66.433	0.02	-0.02	-2.38	
1710.50	0.290	46.520	1710.49	0.45	1.56	3.15	1675778.09	14347055.11	39°30'30.1084"N	80°52'28.6678"W	3.51	63.662	0.03	-0.03	-2.48	
1810.50	0.320	50.300	1810.48	0.66	1.91	3.55	1675778.49	14347055.47	39°30'30.1118"N	80°52'28.6627"W	4.03	61.683	0.04	0.03	3.78	
1910.50	0.360	49.210	1910.48	0.87	2.29	4.00	1675778.94	14347055.85	39°30'30.1156"N	80°52'28.6569"W	4.61	60.155	0.04	0.04	-1.09	
2010.50	0.350	51.330	2010.48	1.09	2.69	4.48	1675779.42	14347056.25	39°30'30.1195"N	80°52'28.6508"W	5.22	58.987	0.02	-0.01	2.12	
2110.50	0.370	44.320	2110.48	1.34	3.11	4.94	1675779.88	14347056.67	39°30'30.1237"N	80°52'28.6449"W	5.84	57.785	0.05	0.02	-7.01	
2210.50	0.300	37.790	2210.48	1.63	3.55	5.33	1675780.27	14347057.11	39°30'30.1280"N	80°52'28.6400"W	6.40	56.311	0.08	-0.07	-6.53	
2310.50	0.270	42.000	2310.48	1.89	3.93	5.64	1675780.68	14347057.49	39°30'30.1318"N	80°52'28.6359"W	6.88	55.133	0.04	-0.03	4.21	
2410.50	0.320	30.990	2410.47	2.18	4.35	5.95	1675780.89	14347057.90	39°30'30.1359"N	80°52'28.6321"W	7.37	53.828	0.08	0.05	-11.01	
2510.50	0.450	36.200	2510.47	2.58	4.90	6.32	1675781.26	14347058.46	39°30'30.1414"N	80°52'28.6273"W	8.00	52.200	0.13	0.13	5.21	
2583.50	0.400	15.490	2583.47	2.96	5.38	6.56	1675781.50	14347058.93	39°30'30.1461"N	80°52'28.6242"W	8.48	50.637	0.22	-0.07	-28.37	
2658.50	0.480	51.850	2658.47	3.28	5.83	6.88	1675781.81	14347059.38	39°30'30.1505"N	80°52'28.6202"W	9.01	49.721	0.38	0.11	48.48	WFT EM <8-3/4">(2573')(2648'-6156')
2752.50	0.660	56.190	2752.46	3.54	6.37	7.64	1675782.57	14347059.93	39°30'30.1559"N	80°52'28.6105"W	9.94	50.157	0.20	0.19	4.62	

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Keller Unit 1H AWP Proj: 17379'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Facility	State Ridge Pad
Slot	Slot #01
Well	Keller Unit 1H
API	47-095-02576-0000
Wellbore	Keller Unit 1H AWB

WELLPATH DATA (193 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 (P/100ft)	Build Rate (P/100ft)	Turn Rate (P/100ft)	Comments
2847.50	0.690	247.290	2847.46	3.65	6.45	7.56	1675782.50	14347060.01	39°30'30.1567"N	80°52'28.6114"W	9.94	49.517	1.41	0.03	-177.79	
2942.50	1.030	248.430	2942.45	3.57	5.92	6.24	1675781.18	14347059.47	39°30'30.1514"N	80°52'28.6283"W	8.60	46.509	0.36	0.36	1.20	
3036.50	1.950	330.530	3036.43	5.11	7.00	4.67	1675779.61	14347060.56	39°30'30.1621"N	80°52'28.6483"W	8.42	33.689	2.21	0.98	87.34	
3135.50	3.450	340.840	3135.31	9.74	11.28	2.86	1675777.80	14347064.83	39°30'30.2045"N	80°52'28.6713"W	11.64	14.231	1.59	1.52	10.41	
3230.50	5.650	345.710	3230.01	17.26	18.52	0.77	1675775.12	14347072.06	39°30'30.2760"N	80°52'28.6979"W	18.53	2.377	2.35	2.32	5.13	
3325.50	5.640	345.840	3324.55	26.57	27.57	-1.53	1675773.41	14347081.12	39°30'30.3655"N	80°52'28.7270"W	27.62	356.829	0.02	-0.01	0.14	
3420.50	6.390	339.900	3419.03	36.51	37.06	-4.49	1675770.46	14347090.61	39°30'30.4594"N	80°52'28.7646"W	37.33	353.098	1.02	0.79	-6.25	
3514.50	7.090	335.980	3512.38	47.52	47.28	-8.65	1675766.30	14347100.81	39°30'30.5604"N	80°52'28.8175"W	48.06	349.637	0.89	0.74	-4.17	
3609.50	8.420	339.790	3606.51	60.31	59.16	-13.44	1675761.51	14347112.69	39°30'30.6779"N	80°52'28.8784"W	60.66	347.205	1.50	1.40	4.01	
3703.50	9.780	345.340	3699.32	75.16	73.34	-17.83	1675757.12	14347126.87	39°30'30.8181"N	80°52'28.9342"W	75.48	346.333	1.72	1.45	5.90	
3798.50	12.090	344.360	3792.59	93.14	90.73	-22.56	1675752.39	14347144.25	39°30'30.9900"N	80°52'28.9942"W	93.49	346.038	2.44	2.43	-1.03	
3892.50	14.870	342.250	3884.05	114.79	111.47	-28.82	1675746.14	14347164.99	39°30'31.1951"N	80°52'29.0737"W	115.14	345.506	2.69	2.64	-2.24	
3987.50	15.000	342.600	3975.91	139.03	134.59	-36.14	1675738.82	14347188.09	39°30'31.4237"N	80°52'29.1667"W	139.35	344.970	0.46	0.45	0.37	
4082.50	14.390	345.980	4067.80	163.08	157.77	-42.67	1675732.29	14347211.26	39°30'31.6529"N	80°52'29.2496"W	163.44	344.865	1.11	-0.64	3.56	
4176.50	14.900	343.090	4158.75	186.79	180.67	-49.02	1675725.94	14347234.15	39°30'31.8793"N	80°52'29.3302"W	187.20	344.820	0.95	0.54	-3.07	
4271.50	15.000	342.680	4250.53	211.29	204.09	-56.23	1675718.73	14347257.56	39°30'32.1109"N	80°52'29.4218"W	211.69	344.596	0.15	0.11	-0.43	
4365.50	15.080	345.640	4341.31	235.63	227.55	-62.89	1675712.08	14347281.01	39°30'32.3428"N	80°52'29.5063"W	236.08	344.551	0.82	0.09	3.15	
4460.50	14.890	344.140	4433.08	260.14	251.26	-69.29	1675705.68	14347304.72	39°30'32.5772"N	80°52'29.5875"W	260.64	344.584	0.45	-0.20	-1.58	
4557.50	16.340	344.870	4526.50	286.20	276.42	-76.25	1675698.72	14347329.87	39°30'32.8260"N	80°52'29.6760"W	286.75	344.578	1.51	1.49	0.75	
4652.50	16.630	344.650	4617.59	313.10	302.43	-83.34	1675691.63	14347355.87	39°30'33.0832"N	80°52'29.7659"W	313.70	344.594	0.31	0.31	-0.23	
4747.50	15.610	345.460	4708.86	339.41	327.91	-90.15	1675684.83	14347381.34	39°30'33.3351"N	80°52'29.8523"W	340.08	344.628	1.10	-1.07	0.85	
4842.50	14.340	346.420	4800.63	363.87	351.72	-96.12	1675678.86	14347405.14	39°30'33.5705"N	80°52'29.9281"W	364.62	344.715	1.36	-1.34	1.01	
4936.50	13.800	344.080	4891.81	386.66	373.82	-101.93	1675673.05	14347427.23	39°30'33.7890"N	80°52'30.0018"W	387.47	344.748	0.83	-0.57	-2.49	
5030.50	14.770	340.940	4982.90	409.83	395.93	-108.92	1675666.07	14347449.33	39°30'34.0076"N	80°52'30.0906"W	410.63	344.619	1.32	1.03	-3.34	
5125.50	16.120	340.590	5074.47	435.13	419.81	-117.25	1675665.73	14347473.20	39°30'34.2438"N	80°52'30.1965"W	435.88	344.395	1.42	1.42	-0.37	
5219.50	15.150	343.600	5164.99	460.45	443.91	-125.06	1675649.93	14347497.28	39°30'34.4820"N	80°52'30.2957"W	461.18	344.266	1.34	-1.03	3.20	
5314.50	15.060	345.000	5256.71	485.17	467.74	-131.76	1675643.24	14347521.10	39°30'34.7176"N	80°52'30.3807"W	485.94	344.268	0.40	-0.09	1.47	
5409.50	14.060	347.870	5348.66	508.94	490.94	-137.38	1675637.62	14347544.30	39°30'34.9470"N	80°52'30.4520"W	509.80	344.367	1.30	-1.05	3.02	
5503.50	13.900	349.170	5439.88	531.45	513.19	-141.90	1675633.10	14347566.54	39°30'35.1670"N	80°52'30.5093"W	532.45	344.544	0.37	-0.17	1.38	
5598.50	14.660	344.330	5531.94	554.75	535.98	-147.29	1675627.71	14347589.32	39°30'35.3923"N	80°52'30.5777"W	555.85	344.634	1.49	0.80	-5.09	

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Slot	Slot #01
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WELLPATH DATA (193 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
5693.50	16.190	341.470	5623.52	580.00	560.11	-154.75	1675620.26	14347613.44	39°30'35.6309"N	80°52'30.6724"W	581.09	344.556	1.80	1.61	-3.01	
5788.50	16.780	343.850	5714.62	606.94	585.84	-162.77	16755612.24	14347639.16	39°30'35.8853"N	80°52'30.7743"W	608.03	344.473	0.94	0.62	2.51	
5882.50	17.200	343.230	5804.51	634.38	612.18	-170.55	16756004.46	14347665.49	39°30'36.1457"N	80°52'30.8732"W	635.49	344.432	0.49	0.45	-0.66	
5977.50	17.810	337.290	5895.12	662.92	639.03	-180.22	16755594.80	14347692.33	39°30'36.4113"N	80°52'31.0950"W	663.96	344.251	1.99	0.64	-6.25	
6040.50	18.140	335.500	5955.05	682.29	656.85	-188.00	1675587.01	14347710.14	39°30'36.5874"N	80°52'31.3950"W	683.22	344.028	1.02	0.52	-2.84	
6103.50	18.010	338.260	6014.94	701.78	674.82	-195.68	1675579.34	14347728.10	39°30'36.7651"N	80°52'31.1926"W	702.61	343.829	1.37	-0.21	4.38	
6166.50	21.960	343.060	6074.14	723.29	695.14	-202.72	1675572.30	14347748.42	39°30'36.9661"N	80°52'31.2821"W	724.10	343.742	6.78	6.27	7.62	
6212.00	25.390	348.070	6115.81	741.48	712.83	-207.23	1675567.80	14347806.67	39°30'37.1420"N	80°52'31.4398"W	742.34	343.790	8.71	7.54	10.88	BH AT Curve <8-1/2">(6166.5)(6212-17354)
6298.00	32.130	349.680	6191.16	782.44	753.41	-215.16	1675559.86	14347806.67	39°30'37.5422"N	80°52'31.4398"W	783.53	344.061	7.89	7.84	1.94	
6393.00	38.890	344.570	6268.46	837.26	807.09	-227.64	1675547.39	14347860.32	39°30'38.0728"N	80°52'31.5981"W	838.57	344.249	7.77	7.12	-5.38	
6451.00†	44.126	342.724	6311.88	875.64	843.94	-238.49	1675536.55	14347897.16	39°30'38.4372"N	80°52'31.7358"W	876.99	344.220	9.27	9.03	-3.18	Middlesex: 6451' MD
6498.00	47.480	341.720	6337.67	902.16	869.20	-246.59	1675528.45	14347922.41	39°30'38.6870"N	80°52'31.8388"W	903.50	344.161	9.27	9.06	-2.71	
6533.00	51.440	342.800	6366.91	936.34	901.76	-257.00	1675518.04	14347954.96	39°30'39.0090"N	80°52'31.9710"W	937.67	344.092	8.99	8.80	2.40	
6583.00	54.170	342.850	6397.14	976.15	939.81	-268.76	1675506.29	14347992.99	39°30'39.3852"N	80°52'32.1204"W	977.49	344.041	5.46	5.46	0.10	Burkett: 6583' MD
6620.00†	58.257	342.434	6417.71	1006.88	969.16	-277.94	1675497.12	14348022.33	39°30'39.6753"N	80°52'32.2366"W	1008.22	343.988	11.09	11.05	-1.12	Tully: 6620' MD
6626.00	58.920	342.370	6420.84	1012.00	974.04	-279.49	1675495.57	14348027.21	39°30'39.7236"N	80°52'32.2566"W	1013.34	343.990	11.09	11.05	-1.07	
6677.00	63.750	342.600	6445.29	1056.72	1016.70	-292.95	1675482.11	14348069.85	39°30'40.1454"N	80°52'32.4276"W	1058.06	343.926	9.48	9.47	0.45	
6720.00†	68.820	343.599	6462.58	1096.05	1054.36	-304.38	1675470.68	14348107.49	39°30'40.5178"N	80°52'32.5728"W	1097.42	343.897	11.98	11.79	2.32	Marcellus POE: 6720' MD
6725.00	69.410	343.710	6464.36	1100.72	1058.84	-305.70	1675469.37	14348111.97	39°30'40.5621"N	80°52'32.5895"W	1102.09	343.896	11.98	11.80	2.23	
6772.00	73.890	343.660	6479.23	1145.24	1101.62	-318.22	1675456.85	14348154.74	39°30'40.9850"N	80°52'32.7485"W	1146.66	343.888	9.11	9.11	-0.11	
6867.00	83.370	343.090	6498.10	1238.16	1190.72	-344.83	1675430.25	14348243.80	39°30'41.8660"N	80°52'33.0865"W	1239.65	343.849	10.21	10.19	-0.60	
6962.00	90.580	339.640	6503.12	1332.95	1280.54	-375.13	1675399.96	14348333.58	39°30'42.7541"N	80°52'33.4715"W	1334.36	343.672	8.41	7.59	-3.63	
7056.00	90.650	339.580	6502.11	1426.91	1368.65	-407.88	1675367.23	14348421.65	39°30'43.6254"N	80°52'33.8878"W	1428.13	343.405	0.10	0.07	-0.06	
7151.00	90.620	336.330	6501.05	1521.76	1456.68	-443.53	1675331.59	14348509.66	39°30'44.4960"N	80°52'34.3411"W	1522.71	343.066	3.42	-0.03	-3.42	
7246.00	89.480	339.820	6500.97	1616.61	1544.80	-478.99	1675296.14	14348597.74	39°30'45.3673"N	80°52'34.7921"W	1617.35	342.773	3.86	-1.20	3.67	
7341.00	91.020	345.490	6500.56	1711.53	1635.44	-507.30	1675267.84	14348688.34	39°30'46.2635"N	80°52'35.1517"W	1712.31	342.766	6.18	1.62	5.97	
7436.00	90.220	343.380	6499.53	1806.36	1726.94	-532.79	1675242.36	14348779.81	39°30'47.1682"N	80°52'35.4753"W	1807.26	342.854	2.38	-0.84	-2.22	
7531.00	91.170	340.110	6498.37	1901.33	1817.14	-562.54	1675212.62	14348869.97	39°30'48.0601"N	80°52'35.8533"W	1902.22	342.799	3.58	1.00	-3.44	
7625.00	90.920	339.140	6496.66	1995.28	1905.24	-595.27	1675179.91	14348958.04	39°30'48.9313"N	80°52'36.2693"W	1996.07	342.649	1.07	-0.27	-1.03	
7720.00	90.920	339.310	6495.13	2099.22	1994.06	-628.96	1675146.24	14349046.81	39°30'49.8095"N	80°52'36.6976"W	2090.90	342.494	0.18	0.00	0.18	

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7815.00	90.920	338.900	6493.61	2185.16	2082.80	-662.84	1675112.37	14349135.52	39°30'50.6870"N	80°52'37.1283"W	2185.72	342.347	0.43	0.00	0.00	-0.43
7910.00	90.980	336.890	6492.03	2279.99	2170.80	-698.58	1675076.64	14349223.48	39°30'51.5572"N	80°52'37.5828"W	2280.43	342.161	2.12	0.06	0.06	-2.12
8005.00	90.430	334.360	6490.87	2374.56	2257.31	-737.78	1675037.46	14349309.97	39°30'52.4128"N	80°52'38.0815"W	2374.82	341.901	2.73	-0.58	-0.58	-2.66
8099.00	90.180	336.230	6490.36	2468.08	2342.71	-777.06	1674998.19	14349395.32	39°30'53.2573"N	80°52'38.5813"W	2468.22	341.650	2.01	-0.27	-0.27	1.99
8194.00	89.970	341.450	6490.24	2562.97	2431.27	-811.34	1674963.92	14349483.85	39°30'54.1331"N	80°52'39.0171"W	2563.07	341.546	5.50	-0.22	-0.22	5.49
8289.00	90.120	345.680	6490.17	2657.86	2522.37	-838.22	1674937.06	14349574.91	39°30'55.0338"N	80°52'39.3584"W	2658.00	341.618	4.46	0.16	0.16	4.45
8384.00	90.400	348.390	6489.73	2752.33	2614.94	-859.53	1674894.58	14349667.45	39°30'56.8643"N	80°52'39.8975"W	2752.58	341.804	2.87	0.29	0.29	2.85
8479.00	91.350	345.830	6488.28	2846.78	2707.52	-880.72	1674869.58	14349759.99	39°30'58.6464"N	80°52'40.6175"W	2847.16	341.981	2.87	1.00	1.00	-2.69
8573.00	89.940	341.200	6487.22	2940.66	2797.63	-907.38	1674837.93	14349850.06	39°30'57.7552"N	80°52'40.2362"W	2941.10	342.030	5.15	-1.50	-1.50	-4.93
8668.00	89.880	341.970	6487.37	3035.65	2887.76	-937.39	1674809.07	14349940.16	39°30'58.6464"N	80°52'40.6175"W	3036.09	342.016	0.81	0.06	0.06	0.81
8763.00	89.940	342.650	6487.52	3130.63	2978.27	-966.26	1674780.14	14350030.63	39°30'59.5413"N	80°52'40.9843"W	3131.09	342.025	0.72	0.06	0.06	0.72
8858.00	89.880	341.880	6487.67	3225.61	3068.75	-995.20	1674748.14	14350121.08	39°31'0.4360"N	80°52'41.3520"W	3226.09	342.032	0.81	-0.06	-0.06	-0.81
8953.00	89.880	338.720	6487.87	3320.59	3158.18	-1027.22	1674711.48	14350210.47	39°31'1.3203"N	80°52'41.7590"W	3321.03	341.983	3.33	0.00	0.00	-3.33
9047.00	89.880	335.350	6488.07	3414.34	3244.72	-1063.89	1674674.05	14350296.97	39°31'2.1760"N	80°52'42.2254"W	3414.68	341.847	3.59	0.00	0.00	-3.59
9142.00	90.150	338.210	6488.04	3509.07	3332.01	-1101.34	1674642.48	14350384.24	39°31'3.0393"N	80°52'42.7018"W	3509.31	341.710	3.02	0.28	0.28	3.01
9237.00	89.880	342.950	6488.02	3604.04	3421.58	-1132.91	1674614.88	14350473.77	39°31'3.9250"N	80°52'43.1032"W	3604.26	341.680	5.00	-0.28	-0.28	4.99
9332.00	90.490	343.250	6487.71	3698.98	3512.48	-1160.53	1674582.42	14350564.63	39°31'4.8237"N	80°52'43.4540"W	3699.23	341.716	0.72	0.64	0.64	0.32
9426.00	90.460	336.310	6486.93	3792.89	3600.63	-1193.00	1674549.81	14350652.74	39°31'5.6953"N	80°52'43.8668"W	3793.12	341.668	7.38	-0.03	-0.03	-7.38
9521.00	90.620	330.550	6486.04	3887.01	3685.56	-1235.47	1674519.48	14350737.64	39°31'6.5353"N	80°52'44.4073"W	3887.12	341.668	6.07	0.17	0.17	-6.06
9616.00	89.660	328.510	6485.80	3980.10	3767.43	-1283.64	1674491.81	14350819.48	39°31'7.3451"N	80°52'45.0205"W	3980.11	341.185	2.37	-1.01	-1.01	-2.15
9711.00	89.600	338.270	6486.42	4074.14	3852.26	-1326.14	1674464.33	14350904.28	39°31'8.1841"N	80°52'45.5614"W	4074.14	341.004	10.27	-0.06	-0.06	10.27
9805.00	90.180	343.660	6486.60	4168.10	3941.09	-1356.79	1674438.47	14350993.07	39°31'9.0624"N	80°52'46.3225"W	4168.10	341.003	5.77	0.62	0.62	5.73
9900.00	90.890	340.480	6485.71	4263.07	4031.46	-1386.03	1674399.47	14351083.40	39°31'9.9559"N	80°52'46.7465"W	4263.07	341.027	3.43	0.75	0.75	-3.35
9995.00	89.940	338.420	6485.02	4358.02	4120.41	-1419.37	1674356.14	14351172.31	39°31'10.8355"N	80°52'47.1405"W	4358.02	340.993	2.39	-1.00	-1.00	-2.17
10090.00	89.350	343.480	6485.61	4452.99	4210.17	-1450.37	1674325.15	14351262.04	39°31'11.7231"N	80°52'47.7306"W	4452.99	340.992	5.36	-0.62	-0.62	5.33
10184.00	89.720	347.100	6486.38	4546.71	4301.07	-1474.23	1674301.30	14351352.91	39°31'12.6218"N	80°52'47.4434"W	4546.71	341.080	3.87	0.39	0.39	3.85
10279.00	89.540	345.340	6486.99	4641.32	4393.33	-1496.86	1674278.68	14351445.13	39°31'13.5339"N	80°52'47.7306"W	4641.33	341.185	1.86	-0.19	-0.19	-1.85
10374.00	89.690	344.430	6487.63	4736.10	4485.04	-1521.63	1674253.92	14351536.80	39°31'14.4406"N	80°52'48.0451"W	4736.14	341.260	0.97	0.16	0.16	-0.96
10469.00	90.180	343.710	6487.74	4830.97	4576.39	-1547.71	1674227.86	14351628.12	39°31'15.3438"N	80°52'48.3763"W	4831.02	341.315	0.92	0.52	0.52	-0.76
10564.00	90.460	340.870	6487.20	4925.93	4666.88	-1576.60	1674198.97	14351718.57	39°31'16.2385"N	80°52'48.7435"W	4926.00	341.334	3.00	0.29	0.29	-2.99

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Facility	State Ridge Pad
Slot	Slot #01
Well	Keller Unit 1H
API	47-095-02576-0000
Wellbore	Keller Unit 1H AWB

WELLPATH DATA (193 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 (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
10659.00	90.060	339.220	6486.77	5020.91	4756.17	-1609.02	1674166.56	14351807.83	39°31'17.1215"N	80°52'49.1557"W	5020.97	341.309	1.79	-0.42	-1.74	
10754.00	89.820	341.000	6486.87	5115.90	4845.50	-1641.34	1674134.26	14351897.12	39°31'18.0048"N	80°52'49.5666"W	5115.95	341.287	1.89	-0.25	1.87	
10848.00	90.030	346.540	6487.00	5209.75	4935.72	-1667.80	1674108.01	14351987.30	39°31'18.8968"N	80°52'49.9002"W	5209.82	341.332	5.90	0.22	5.89	
10943.00	90.120	345.150	6486.87	5304.42	5027.84	-1690.83	1674084.79	14352079.38	39°31'19.8074"N	80°52'50.1951"W	5304.53	341.412	1.47	0.09	-1.46	
11038.00	90.060	340.870	6486.72	5399.34	5118.67	-1718.59	1674057.10	14352170.17	39°31'20.7055"N	80°52'50.5477"W	5399.47	341.441	4.51	-0.06	-4.51	
11132.00	90.060	340.680	6486.62	5493.34	5207.43	-1749.54	1674026.10	14352258.90	39°31'21.5832"N	80°52'50.9411"W	5493.47	341.429	0.20	0.00	-0.20	
11227.00	90.340	340.430	6486.29	5588.33	5297.01	-1781.16	1673994.49	14352348.44	39°31'22.4689"N	80°52'51.3432"W	5588.45	341.414	0.40	0.29	-0.26	
11322.00	90.000	340.200	6486.01	5683.33	5386.45	-1813.16	1673962.50	14352437.85	39°31'23.3534"N	80°52'51.7501"W	5683.44	341.396	0.43	-0.36	-0.24	
11417.00	90.060	339.840	6485.96	5778.31	5475.74	-1845.63	1673930.06	14352527.10	39°31'24.2362"N	80°52'52.1628"W	5778.41	341.373	0.38	0.06	-0.38	
11512.00	90.030	339.880	6485.89	5873.29	5564.93	-1878.34	1673897.36	14352616.25	39°31'25.1181"N	80°52'52.5787"W	5873.38	341.349	0.05	-0.03	0.04	
11607.00	90.030	340.750	6485.84	5968.28	5654.37	-1910.34	1673865.37	14352705.67	39°31'26.0026"N	80°52'52.9855"W	5968.36	341.332	0.92	0.00	0.92	
11701.00	89.970	342.530	6485.84	6062.27	5743.59	-1939.94	1673835.78	14352794.84	39°31'26.8847"N	80°52'53.3619"W	6062.36	341.337	1.89	-0.06	1.89	
11796.00	90.180	340.470	6485.71	6157.27	5833.67	-1970.09	1673805.65	14352884.89	39°31'27.7754"N	80°52'53.7450"W	6157.35	341.340	2.18	0.22	-2.17	
11891.00	90.090	340.540	6485.49	6252.26	5923.22	-2001.79	1673773.95	14352974.41	39°31'28.6609"N	80°52'54.1481"W	6252.34	341.327	0.12	-0.09	0.07	
11986.00	90.000	339.600	6485.41	6347.25	6012.53	-2034.17	1673741.58	14353063.68	39°31'29.5440"N	80°52'54.5598"W	6347.32	341.308	0.99	-0.09	-0.99	
12081.00	90.060	342.900	6485.36	6442.23	6102.48	-2064.70	1673711.06	14353153.59	39°31'30.4334"N	80°52'54.9480"W	6442.30	341.307	3.47	0.06	3.47	
12176.00	90.280	348.690	6485.08	6536.86	6194.54	-2088.01	1673687.77	14353245.61	39°31'31.3435"N	80°52'55.2438"W	6536.97	341.372	6.10	0.23	6.09	
12271.00	90.370	349.940	6484.54	6630.87	6287.88	-2105.62	1673670.17	14353338.92	39°31'32.2663"N	80°52'55.4670"W	6631.07	341.486	1.32	0.09	1.32	
12365.00	90.680	346.360	6483.68	6724.13	6379.86	-2124.92	1673650.87	14353430.86	39°31'33.1756"N	80°52'55.7117"W	6724.43	341.579	3.82	0.33	-3.81	
12460.00	90.550	340.420	6482.66	6819.00	6470.85	-2152.06	1673623.74	14353521.82	39°31'34.0752"N	80°52'56.0566"W	6819.33	341.604	6.25	-0.14	-6.25	
12555.00	90.580	337.860	6481.72	6913.94	6559.61	-2185.88	1673589.93	14353610.54	39°31'34.9529"N	80°52'56.4868"W	6914.23	341.570	2.69	0.03	-2.69	
12650.00	90.920	339.960	6480.48	7008.86	6648.24	-2220.06	1673555.77	14353699.13	39°31'35.8293"N	80°52'56.9215"W	7009.12	341.534	2.24	0.36	2.21	
12744.00	89.940	338.820	6479.77	7102.81	6736.22	-2253.15	1673522.69	14353787.07	39°31'36.6992"N	80°52'57.3422"W	7103.05	341.506	1.60	-1.04	-1.21	
12839.00	89.690	338.280	6480.08	7197.72	6824.64	-2287.89	1673487.79	14353875.46	39°31'37.5735"N	80°52'57.7841"W	7197.92	341.467	0.63	-0.26	-0.57	
12934.00	89.720	337.320	6480.57	7292.57	6912.59	-2323.79	1673452.09	14353963.38	39°31'38.4433"N	80°52'58.2407"W	7292.73	341.419	1.01	0.03	-1.01	
13029.00	90.250	336.810	6480.60	7387.34	7000.08	-2360.81	1673415.08	14354050.83	39°31'39.3085"N	80°52'58.7117"W	7387.46	341.363	0.77	0.56	-0.54	
13124.00	89.910	336.640	6480.46	7482.07	7087.35	-2398.34	1673377.56	14354138.07	39°31'40.1714"N	80°52'59.1893"W	7482.15	341.304	0.40	-0.36	-0.18	
13218.00	89.780	338.610	6480.72	7575.90	7174.27	-2434.12	1673341.79	14354224.95	39°31'41.0309"N	80°52'59.6445"W	7575.95	341.259	2.10	-0.14	2.10	
13313.00	89.910	345.290	6480.97	7670.83	7264.54	-2463.54	1673312.39	14354315.19	39°31'41.9235"N	80°53'00.0185"W	7670.89	341.267	7.03	0.14	7.03	
13408.00	90.520	348.070	6480.62	7765.36	7356.97	-2485.43	1673290.51	14354407.58	39°31'42.8373"N	80°53'00.2962"W	7765.46	341.333	3.00	0.64	2.93	

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Facility	State Ridge Pad
Slot	Slot #01
Well	Keller Unit 1H
API	47-095-02576-0000
Wellbore	Keller Unit 1H AWB

WELLPATH DATA (193 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
13503.00	90.800	348.680	6479.52	7859.58	7450.02	-2504.57	1673271.38	14354500.59	39°31'43.752"N	80°53'0.5390"W	7859.75	341.418	0.71	0.29	0.64	
13597.00	90.430	345.200	6478.51	7953.06	7541.57	-2525.81	1673250.15	14354592.10	39°31'44.6623"N	80°53'0.8085"W	7953.30	341.483	3.72	-0.39	-3.70	
13692.00	89.970	341.090	6478.18	8047.97	7632.47	-2553.35	1673222.62	14354682.97	39°31'45.5610"N	80°53'1.1584"W	8048.24	341.503	4.35	-0.48	-4.33	
13787.00	90.400	338.630	6477.88	8142.95	7721.65	-2586.05	1673189.92	14354772.11	39°31'46.4428"N	80°53'1.5744"W	8143.19	341.484	2.63	0.45	-2.59	
13882.00	90.430	337.590	6477.19	8237.82	7809.80	-2621.47	1673154.52	14354860.23	39°31'47.3145"N	80°53'2.0249"W	8238.02	341.445	1.10	0.03	-1.09	
13977.00	90.430	336.570	6476.47	8332.59	7897.29	-2658.47	1673117.54	14354947.69	39°31'48.1797"N	80°53'2.4966"W	8332.75	341.395	1.07	0.00	-1.07	
14071.00	90.220	335.870	6475.94	8426.25	7983.31	-2696.37	1673079.65	14355033.67	39°31'49.0303"N	80°53'2.9779"W	8426.37	341.338	0.78	-0.22	-0.74	
14166.00	90.490	337.510	6475.35	8520.97	8070.55	-2733.96	1673042.08	14355120.88	39°31'49.8930"N	80°53'3.4562"W	8521.05	341.286	1.75	0.28	1.73	
14261.00	90.400	339.110	6474.61	8615.86	8158.82	-2769.07	1673006.98	14355209.11	39°31'50.7658"N	80°53'3.9029"W	8615.92	341.253	1.69	-0.09	1.68	
14356.00	90.370	341.470	6473.98	8710.84	8248.25	-2801.10	1672974.96	14355298.50	39°31'51.6501"N	80°53'4.3103"W	8710.90	341.243	2.48	-0.03	2.48	
14451.00	90.250	341.570	6473.46	8805.84	8338.35	-2831.21	1672944.86	14355388.56	39°31'52.5409"N	80°53'4.6931"W	8805.90	341.246	0.16	-0.13	0.11	
14546.00	90.280	343.090	6473.02	8900.81	8428.86	-2860.05	1672916.04	14355479.04	39°31'53.4359"N	80°53'5.0596"W	8900.88	341.257	1.60	0.03	1.60	
14641.00	90.580	344.030	6472.31	8995.72	8519.97	-2886.93	1672889.16	14355570.12	39°31'54.3367"N	80°53'5.4012"W	8995.80	341.281	1.04	0.32	0.99	
14735.00	90.460	342.330	6471.46	9089.64	8609.94	-2914.13	1672861.98	14355660.05	39°31'55.2263"N	80°53'5.7469"W	9089.74	341.301	1.81	-0.13	-1.81	
14830.00	90.340	341.220	6470.79	9184.63	8700.18	-2943.84	1672832.28	14355750.25	39°31'56.1184"N	80°53'6.1246"W	9184.73	341.306	1.18	-0.13	-1.17	
14925.00	90.150	339.290	6470.39	9279.62	8789.58	-2975.94	1672800.20	14355839.62	39°31'57.0025"N	80°53'6.5327"W	9279.71	341.295	2.04	-0.20	-2.03	
15020.00	90.090	338.320	6470.19	9374.54	8878.16	-3010.28	1672765.87	14355928.16	39°31'57.8783"N	80°53'6.9696"W	9374.62	341.270	1.02	-0.06	-1.02	
15115.00	90.060	339.330	6470.06	9469.47	8966.74	-3044.60	1672731.56	14356016.71	39°31'58.7543"N	80°53'7.4062"W	9469.53	341.245	1.06	-0.03	1.06	
15209.00	90.370	341.080	6469.71	9563.46	9055.18	-3076.43	1672699.75	14356105.11	39°31'59.6287"N	80°53'7.8110"W	9563.51	341.235	1.89	0.33	1.86	
15304.00	90.580	342.730	6468.92	9658.44	9145.48	-3105.93	1672670.25	14356195.37	39°32'0.5215"N	80°53'8.1861"W	9658.50	341.242	1.75	0.22	1.74	
15399.00	90.580	341.210	6467.96	9753.42	9235.81	-3135.33	1672640.86	14356285.66	39°32'1.4146"N	80°53'8.5599"W	9753.48	341.249	1.60	0.00	-1.60	
15494.00	90.250	340.480	6467.27	9848.41	9325.54	-3166.51	1672609.70	14356375.36	39°32'2.3019"N	80°53'8.9562"W	9848.48	341.245	0.84	-0.35	-0.77	
15589.00	90.980	341.930	6466.25	9943.41	9415.47	-3197.11	1672579.11	14356465.25	39°32'3.1911"N	80°53'9.3454"W	9943.47	341.245	1.71	0.77	1.53	
15683.00	90.770	340.740	6464.82	10037.39	9504.51	-3227.19	1672549.05	14356554.26	39°32'4.0715"N	80°53'9.7279"W	10037.46	341.245	1.29	-0.22	-1.27	
15778.00	90.280	339.520	6463.95	10132.37	9593.85	-3259.48	1672516.77	14356643.57	39°32'4.9549"N	80°53'10.1385"W	10132.43	341.235	1.38	-0.52	-1.28	
15873.00	90.400	341.050	6463.38	10227.36	9683.28	-3291.52	1672484.74	14356732.96	39°32'5.8391"N	80°53'10.5461"W	10227.42	341.226	1.62	0.13	1.61	
15967.00	90.460	340.180	6462.68	10321.35	9771.95	-3322.72	1672453.55	14356821.59	39°32'6.7168"N	80°53'10.9428"W	10321.41	341.221	0.93	0.06	-0.93	
16062.00	90.220	343.240	6462.11	10416.34	9862.14	-3352.53	1672423.75	14356911.74	39°32'7.6076"N	80°53'11.3218"W	10416.39	341.225	3.23	-0.25	3.22	
16157.00	90.400	342.590	6461.60	10511.28	9952.94	-3380.44	1672395.86	14357002.51	39°32'8.5054"N	80°53'11.6766"W	10511.35	341.240	0.71	0.19	-0.68	
16252.00	90.250	342.960	6461.06	10606.24	10043.68	-3408.57	1672367.74	14357093.21	39°32'9.4025"N	80°53'12.0342"W	10606.31	341.254	0.42	-0.16	0.39	

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [ft]	Grid North [ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
16347.00	90.430	344.000	6460.50	10701.15	10134.75	-3435.58	1672340.73	14357184.25	39°32'10.3030"N	80°53'12.3775"W	10701.24	341.274	1.11	0.19	1.09	
16442.00	90.980	345.630	6459.33	10795.93	10226.43	-3460.47	1672315.86	14357275.89	39°32'11.2093"N	80°53'12.6936"W	10796.05	341.305	1.81	0.58	1.72	
16537.00	90.710	342.560	6457.93	10890.77	10317.77	-3486.49	1672289.84	14357367.19	39°32'12.1124"N	80°53'13.0243"W	10890.91	341.329	3.24	-0.28	-3.23	
16631.00	89.750	339.270	6457.55	10984.76	10406.59	-3517.22	1672259.13	14357455.98	39°32'12.9906"N	80°53'13.4151"W	10984.90	341.326	3.65	-1.02	-3.50	
16726.00	89.720	337.710	6457.99	11079.66	10494.97	-3552.06	1672224.31	14357544.32	39°32'13.8645"N	80°53'13.8583"W	11079.78	341.301	1.64	-0.03	-1.64	
16821.00	89.850	338.830	6458.35	11174.55	10583.22	-3587.23	1672189.15	14357632.53	39°32'14.7371"N	80°53'14.3058"W	11174.64	341.276	1.19	0.14	1.18	
16916.00	89.750	342.480	6458.68	11269.53	10672.84	-3618.69	1672157.70	14357722.12	39°32'15.6232"N	80°53'14.7060"W	11269.62	341.270	3.84	-0.11	3.84	
17011.00	89.750	345.160	6459.09	11364.41	10764.06	-3645.16	1672131.24	14357813.31	39°32'16.5252"N	80°53'15.0423"W	11364.52	341.292	2.82	0.00	2.82	
17106.00	89.970	347.090	6459.32	11459.03	10856.29	-3667.94	1672108.47	14357905.50	39°32'17.4370"N	80°53'15.3316"W	11459.18	341.332	2.04	0.23	2.03	
17200.00	89.940	344.740	6459.40	11552.68	10947.45	-3690.81	1672085.61	14357996.63	39°32'18.3383"N	80°53'15.6221"W	11552.87	341.369	2.50	-0.03	-2.50	
17295.00	89.910	341.010	6459.52	11647.62	11038.23	-3718.78	1672057.65	14358087.36	39°32'19.2357"N	80°53'15.9777"W	11647.82	341.381	3.93	-0.03	-3.93	
17354.00	89.940	339.340	6459.60	11706.61	11093.73	-3738.79	1672037.65	14358142.84	39°32'19.7845"N	80°53'16.2322"W	11706.81	341.375	2.83	0.05	-2.83	
17379.00‡	89.940	339.340	6459.63	11731.60	11117.12	-3747.61	1672028.83	14358166.22	39°32'20.0158"N	80°53'16.3444"W	11731.79	341.371	0.00	0.00	0.00	Projected MD at TD: 17379'

HOLE & CASING SECTIONS - Ref Wellbore: Keller Unit 1H AWB Ref Wellpath: Keller Unit 1H AWP Proj: 17379'									
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	25.50	131.00	105.50	25.50	131.00	0.00	0.00	0.09	-0.38
17.5in Open Hole	131.00	407.40	276.40	131.00	407.40	0.09	-0.38	0.34	-1.19
13.375in Casing Surface	25.50	407.40	381.90	25.50	407.40	0.00	0.00	0.34	-1.19
12.25in Open Hole	407.40	2601.70	2194.30	407.40	2601.67	0.34	-1.19	5.50	6.60
9.625in Casing Intermediate	25.50	2601.70	2576.20	25.50	2601.67	0.00	0.00	5.50	6.60
8.75in Open Hole	2601.70	6239.50	3637.80	2601.67	6140.42	5.50	6.60	724.83	-209.71
8.5in Open Hole	6239.50	17379.00	11139.50	6140.42	6459.63	724.83	-209.71	11117.12	-3747.61
5.5in Casing Production	25.50	17379.00	17353.50	25.50	6459.63	0.00	0.00	11117.12	-3747.61

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Actual Wellpath Report

Keller Unit 1H AWP Proj: 17379'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Facility	State Ridge Pad
Slot	Slot #01
Well	Keller Unit 1H
API	47-095-02576-0000
Wellbore	Keller Unit 1H AWB

TARGETS									
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
Keller Unit 1H - POE - Rev-2	6463.00	1067.92	-327.72	1675447.35	14348121.05	39°30'40.6521"N	80°52'32.8703"W	point	
Keller Unit 1H - BHL - Rev-2	6503.00	11110.62	-3777.82	1671998.63	14358159.73	39°32'19.9520"N	80°53'16.7301"W	point	
Keller Unit 1H - LP - Rev-2	6503.00	1266.83	-396.06	1675379.04	14348319.88	39°30'42.6190"N	80°52'33.7387"W	point	
Keller Unit 1H - 50' L/R Hardline	6550.00	6089.27	-2052.77	1673722.99	14353140.39	39°31'30.3027"N	80°52'54.7959"W	rectangle	
2D Rectangle 10623.8 x 100.									

WELLPATH COMPOSITION - Ref Wellbore: Keller Unit 1H AWB Ref Wellpath: Keller Unit 1H AWP Proj: 17379'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	2583.50	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <12-1/4">(100'-2573')	Keller Unit 1H AWB	1/2/2020
2583.50	6166.50	OWSG MWD rev2 + HRGM	02 WFT EM <8-3/4">(2648'-6156')	Keller Unit 1H AWB	1/2/2020
6166.50	17379.00	BH AutoTrak Curve (2019) (Short spacing)	03 BH AT Curve <8-1/2">(6166.5')(6212'-17354')	Keller Unit 1H AWB	1/2/2020

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Keller Unit 1H
Field	Tyler	API	47-095-02576-0000
Facility	State Ridge Pad	Wellbore	Keller Unit 1H AWB
Slot	Slot #01		

COMMENTS

Wellpath general comments
 API: 47-095-02576-0000
 BHI Job #: 110217370A
 Rig: H&P 317
 Duration: 01/05/2020-01/07/2020
 Gyrodatta MS Gyro <12-1/4">(100'-2573')
 WFT EM <8-3/4">(2573')(2648'-6156')
 BH AT Curve <8-1/2">(6166.5')(6212'-17354')
 Middlesex: 6451' MD
 Burkett: 6583' MD
 Tully: 6620' MD
 Marcellus POE: 6720' MD
 Projected MD at TD: 17379'

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/19/2020
Job End Date:	3/31/2020
State:	West Virginia
County:	Tyler
API Number:	47-095-02576-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Keller Unit 1H
Latitude:	39.50836000
Longitude:	-80.87464000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,480
Total Base Water Volume (gal):	16,404,051
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Supplied by Operator	Base Fluid	Water	7732-18-5	100.00000	86.26490	
SaniFrac 8123	CWS	Microbiocide					
			Listed Below				

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				9000-30-0	60.00000	0.00946	
				111-30-8	14.00000	0.00156	
				68953-58-2	5.00000	0.00079	
				7727-54-0	100.00000	0.00042	
				64-17-5	3.00000	0.00033	
				68424-85-1	3.00000	0.00033	
				7173-51-5	3.00000	0.00033	
				37251-67-5	1.50000	0.00024	
				25038-72-6	20.00000	0.00008	
				107-21-1	40.00000	0.00006	
				34590-94-8	20.00000	0.00003	
				104-55-2	10.00000	0.00002	
				68131-39-5	10.00000	0.00002	
				64-18-6	10.00000	0.00002	
				72480-70-7	10.00000	0.00002	
				67-63-0	5.00000	0.00001	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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