

ANTERO RESOURCES CORPORATION

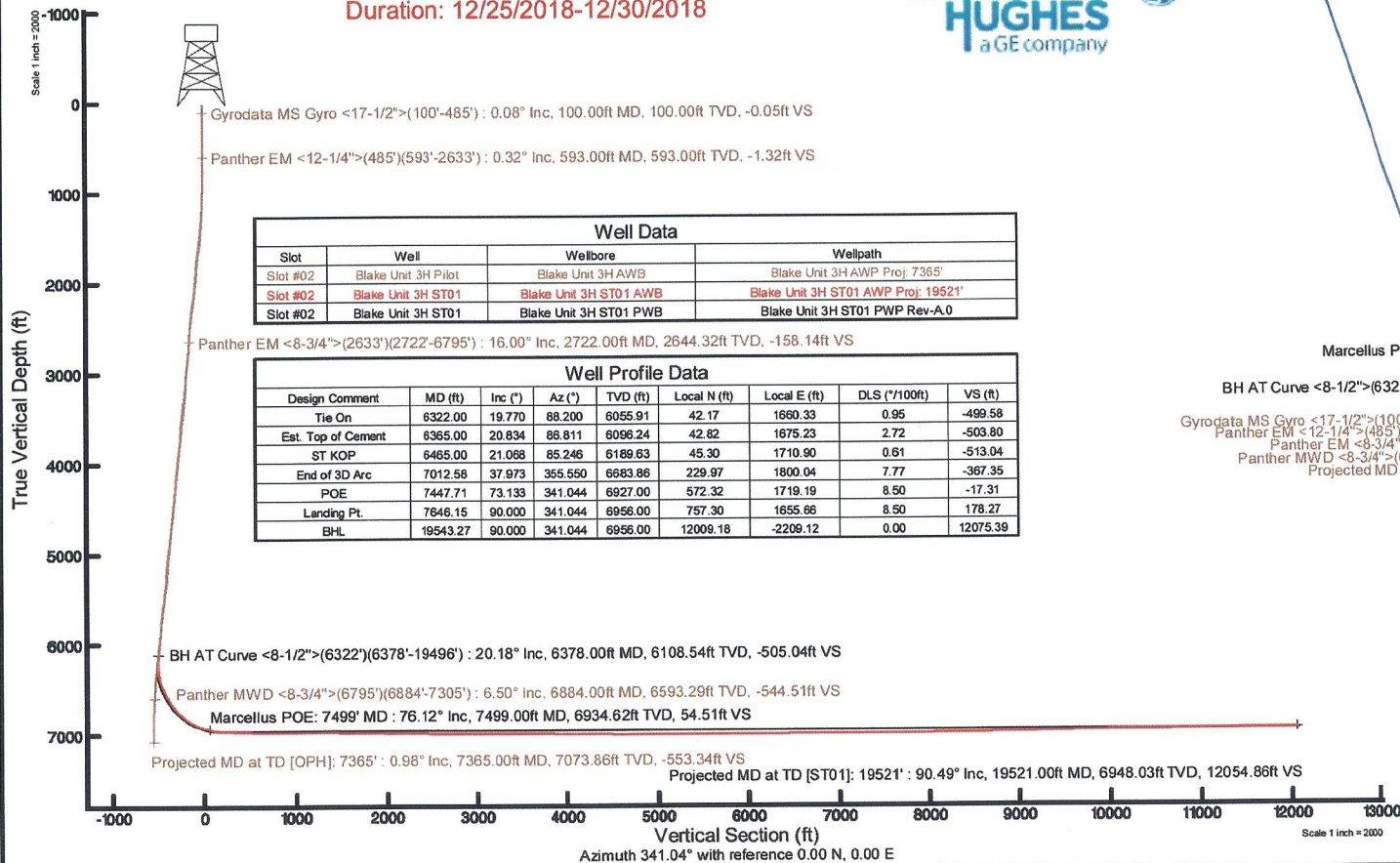
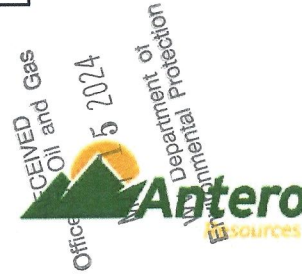
Location: Wetzel County, WV Slot: Slot #02
 Field: Wetzel Well: Blake Unit 3H ST01
 Facility: Gadd Pad Wellbore: Blake Unit 3H ST01 PWB

Plot reference wellpath is Blake Unit 3H ST01 PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 22 (RKB)	North Reference: Grid north
Measured depths are referenced to Frontier 22 (RKB)	Scale: True distance
Frontier 22 (RKB) to Mean Sea Level: 1246.5 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: Slot #02): -1222 feet	Created by: delaset on 2019-01-02
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

Location Information

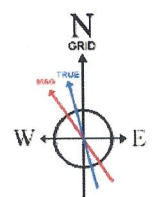
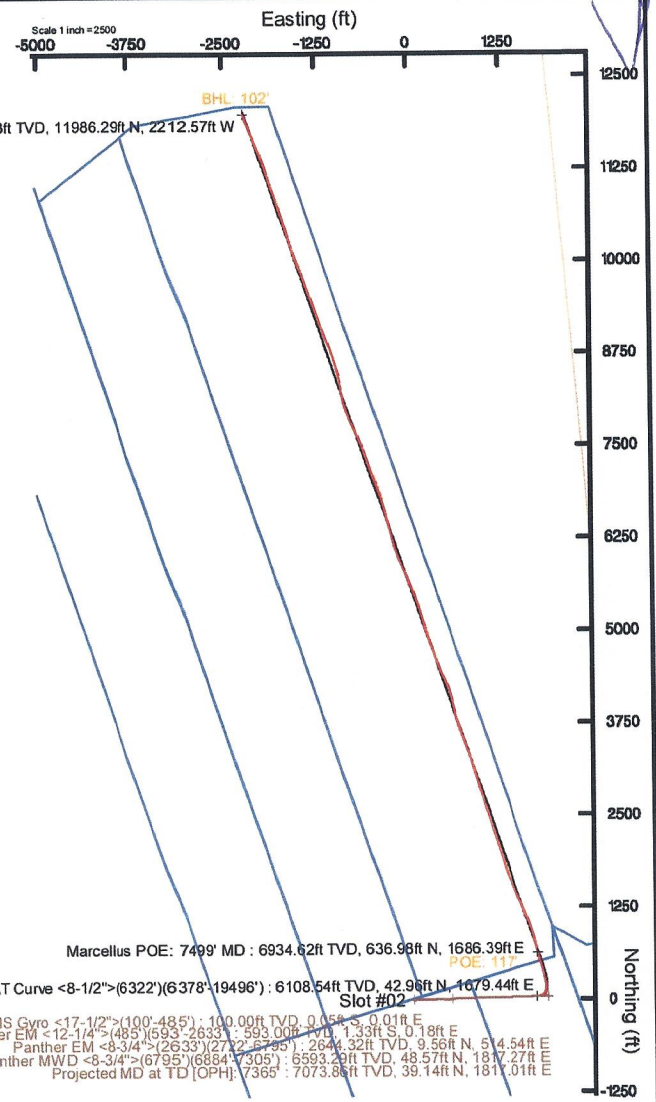
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
Gadd Pad	1709411.160	14362271.230	39°32'59.870"N	80°45'18.870"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #02	-2.05	-9.39	1709401.769	14362269.182	39°32'59.850"N	80°45'18.990"W
Frontier 22 (RKB) to Mud line (At Slot: Slot #02)			24.5ft			
Mean Sea Level to Mud line (At Slot: Slot #02)			-1222ft			
Frontier 22 (RKB) to Mean Sea Level			1246.5ft			

API: 47-103-03239-0000
 BHI Job #: 109556862
 Rig: Frontier 22
 Duration: 12/25/2018-12/30/2018



Slot	Well	Wellbore	Wellpath
Slot #02	Blake Unit 3H Pilot	Blake Unit 3H AWP	Blake Unit 3H AWP Proj: 7365'
Slot #02	Blake Unit 3H ST01	Blake Unit 3H ST01 AWP	Blake Unit 3H ST01 AWP Proj: 19521'
Slot #02	Blake Unit 3H ST01	Blake Unit 3H ST01 PWB	Blake Unit 3H ST01 PWP Rev-A.0

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	6322.00	19.770	88.200	6055.91	42.17	1660.33	0.95	-499.58
Est. Top of Cement	6365.00	20.834	88.811	6098.24	42.82	1675.23	2.72	-503.80
ST KOP	6465.00	21.088	85.246	6189.63	45.30	1710.90	0.61	-513.04
End of 3D Arc	7012.58	37.973	355.550	6683.86	229.97	1800.04	7.77	-367.35
POE	7447.71	73.133	341.044	6927.00	572.32	1719.19	8.50	-17.31
Landing Pt.	7846.15	90.000	341.044	6956.00	757.30	1655.66	8.50	178.27
BHL	19543.27	90.000	341.044	6956.00	12009.18	-2209.12	0.00	12075.39



User specified (HDCM) Dip: 66.71° Field: 52111 nT
 Magnetic North is 7.65 degrees West of True North (at 12/20/2018)
 Grid North is 0.16 degrees East of True North
 To correct azimuth from True to Grid subtract 0.16 degrees
 To correct azimuth from Magnetic to Grid subtract 7.81 degrees



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'
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 Office of Oil and Gas
 MAY 15 2024
 WV Department of
 Environmental Protection



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999605	Report Generated	1/2/2019 at 3:20:20 PM
Convergence at slot	0.16° East	Database/Source file	WA_MPL_EasternUS_Defn/Blake_Unit_3H_ST01_AWP_Proj_19521_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2.05	-9.39	1709401.77	14362269.18	39°32'59.850"N	80°45'18.990"W
Facility Reference Pt			1709411.16	14362271.23	39°32'59.870"N	80°45'18.870"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Frontier 22 (RKB) to Facility Vertical Datum	24.50ft
Horizontal Reference Pt	Slot	Frontier 22 (RKB) to Mean Sea Level	1246.50ft
Vertical Reference Pt	Frontier 22 (RKB)	Frontier 22 (RKB) to Mud Line at Slot (Slot #02)	24.50ft
MD Reference Pt	Frontier 22 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.04°



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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	171.650	0.00	0.00	0.00	0.00	1709401.77	14362269.18	39°32'59.850"N	80°45'18.990"W	0.00	0.000	0.00	0.00	0.00	
24.50	0.000	171.650	24.50	0.00	0.00	0.00	1709401.77	14362269.18	39°32'59.850"N	80°45'18.990"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.080	171.650	100.00	-0.05	-0.05	0.01	1709401.78	14362269.13	39°32'59.849"N	80°45'18.990"W	0.05	171.650	0.11	0.11	227.35	Cyrodatta MS Gyro <17-1/2">(100'-485')
125.00	0.070	145.400	125.00	-0.08	-0.08	0.02	1709401.79	14362269.10	39°32'59.849"N	80°45'18.990"W	0.08	167.045	0.14	-0.04	-105.00	
150.00	0.060	150.890	150.00	-0.11	-0.11	0.03	1709401.80	14362269.08	39°32'59.849"N	80°45'18.990"W	0.11	162.264	0.05	-0.04	21.96	
175.00	0.130	202.180	175.00	-0.15	-0.14	0.03	1709401.80	14362269.04	39°32'59.849"N	80°45'18.990"W	0.15	168.375	0.41	0.28	205.16	
200.00	0.180	160.650	200.00	-0.21	-0.21	0.03	1709401.80	14362268.97	39°32'59.848"N	80°45'18.990"W	0.21	171.249	0.48	0.20	-166.12	
225.00	0.070	121.770	225.00	-0.26	-0.25	0.06	1709401.83	14362268.93	39°32'59.848"N	80°45'18.989"W	0.26	167.074	0.53	-0.44	-155.52	
250.00	0.030	190.280	250.00	-0.27	-0.27	0.07	1709401.84	14362268.92	39°32'59.847"N	80°45'18.989"W	0.28	165.352	0.26	-0.16	274.04	
275.00	0.090	176.320	275.00	-0.30	-0.29	0.07	1709401.84	14362268.89	39°32'59.847"N	80°45'18.989"W	0.30	166.589	0.25	0.24	-55.84	
300.00	0.130	187.120	300.00	-0.34	-0.34	0.07	1709401.84	14362268.84	39°32'59.847"N	80°45'18.989"W	0.35	168.780	0.18	0.16	43.20	
325.00	0.110	185.940	325.00	-0.39	-0.39	0.06	1709401.83	14362268.79	39°32'59.846"N	80°45'18.989"W	0.40	171.090	0.08	-0.08	-4.72	
350.00	0.090	160.510	350.00	-0.43	-0.43	0.07	1709401.83	14362268.75	39°32'59.846"N	80°45'18.989"W	0.44	171.421	0.19	-0.08	-101.72	
375.00	0.140	146.400	375.00	-0.48	-0.48	0.09	1709401.86	14362268.70	39°32'59.845"N	80°45'18.989"W	0.49	169.464	0.23	0.20	-56.44	
400.00	0.100	192.130	400.00	-0.53	-0.53	0.10	1709401.87	14362268.66	39°32'59.845"N	80°45'18.989"W	0.54	169.083	0.40	-0.16	182.92	
425.00	0.120	154.640	425.00	-0.57	-0.57	0.11	1709401.88	14362268.61	39°32'59.844"N	80°45'18.989"W	0.58	169.281	0.29	0.08	-149.96	
450.00	0.200	180.950	450.00	-0.64	-0.64	0.12	1709401.89	14362268.54	39°32'59.844"N	80°45'18.989"W	0.65	169.476	0.43	0.32	105.24	
475.00	0.230	192.920	475.00	-0.73	-0.73	0.11	1709401.88	14362268.45	39°32'59.843"N	80°45'18.989"W	0.74	171.700	0.22	0.12	47.88	
485.00	0.280	173.890	485.00	-0.77	-0.77	0.10	1709401.87	14362268.41	39°32'59.842"N	80°45'18.989"W	0.78	172.302	0.98	0.50	-190.30	
593.00	0.320	170.670	593.00	-1.32	-1.33	0.18	1709401.95	14362267.85	39°32'59.837"N	80°45'18.988"W	1.35	172.248	0.04	0.04	-2.98	Panther EM <12-1/4">(485')(593'-2633')
684.00	0.420	230.310	684.00	-1.69	-1.80	-0.03	1709401.74	14362267.38	39°32'59.832"N	80°45'18.990"W	1.80	181.078	0.42	0.11	65.54	
775.00	1.160	112.200	774.99	-2.41	-2.36	0.56	1709402.33	14362266.82	39°32'59.827"N	80°45'18.983"W	2.43	166.591	1.55	0.81	-129.79	
869.00	3.540	86.500	868.91	-3.81	-2.54	4.34	1709406.11	14362266.64	39°32'59.825"N	80°45'18.935"W	5.03	120.348	2.71	2.53	-27.34	
964.00	6.300	84.290	963.55	-5.79	-1.84	12.46	1709414.22	14362267.34	39°32'59.831"N	80°45'18.831"W	12.59	98.419	2.91	2.91	-2.33	
1058.00	8.680	82.370	1056.74	-8.37	-0.39	24.62	1709426.38	14362268.79	39°32'59.845"N	80°45'18.676"W	24.62	90.904	2.55	2.53	-2.04	
1153.00	10.880	82.460	1150.35	-11.55	1.74	40.62	1709442.37	14362270.92	39°32'59.866"N	80°45'18.471"W	40.65	87.547	2.32	2.32	0.09	
1248.00	12.670	85.380	1243.35	-15.91	3.76	59.89	1709461.64	14362272.94	39°32'59.886"N	80°45'18.225"W	60.01	86.411	1.99	1.88	3.07	
1343.00	14.430	89.590	1335.70	-22.25	4.68	82.11	1709483.85	14362273.86	39°32'59.894"N	80°45'17.942"W	82.25	86.738	2.12	1.85	4.43	
1437.00	15.480	89.470	1426.52	-29.95	4.88	106.37	1709508.10	14362274.06	39°32'59.895"N	80°45'17.632"W	106.48	87.373	1.12	1.12	-0.13	
1532.00	16.430	93.940	1517.86	-39.18	4.07	132.45	1709534.17	14362273.25	39°32'59.887"N	80°45'17.299"W	132.51	88.238	1.63	1.00	4.71	



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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
1627.00	18.300	95.840	1608.53	-50.67	1.63	160.70	1709562.40	14362270.81	39°32'59.862"N	80°45'16.939"W	160.70	89.418	2.06	1.97	2.00	
1721.00	19.630	90.930	1697.43	-62.23	-0.13	191.17	1709592.86	14362269.06	39°32'59.844"N	80°45'16.550"W	191.17	90.038	2.21	1.41	-5.22	
1815.00	19.400	83.570	1786.04	-70.99	1.37	222.47	1709624.15	14362270.55	39°32'59.858"N	80°45'16.150"W	222.48	89.648	2.63	-0.24	-7.83	
1910.00	18.240	84.010	1875.96	-77.75	4.69	252.94	1709654.61	14362273.87	39°32'59.889"N	80°45'15.761"W	252.98	88.939	1.23	-1.22	0.46	
2005.00	19.870	88.410	1965.76	-85.91	6.69	283.87	1709685.52	14362275.86	39°32'59.908"N	80°45'15.366"W	283.95	88.651	2.29	1.72	4.63	
2100.00	19.790	87.590	2055.13	-95.31	7.81	316.07	1709717.72	14362276.99	39°32'59.919"N	80°45'14.955"W	316.17	88.585	0.30	-0.08	-0.86	
2195.00	19.540	88.150	2144.59	-104.56	9.00	348.02	1709749.65	14362278.18	39°32'59.930"N	80°45'14.547"W	348.14	88.519	0.33	-0.26	0.59	
2289.00	20.480	93.530	2232.92	-115.48	8.49	380.15	1709781.77	14362277.67	39°32'59.924"N	80°45'14.137"W	380.24	88.720	2.20	1.00	5.72	
2383.00	18.990	91.890	2321.39	-127.21	6.98	411.85	1709813.45	14362276.16	39°32'59.908"N	80°45'13.732"W	411.91	89.030	1.69	-1.59	-1.74	
2487.00	19.490	91.060	2419.59	-139.18	6.10	446.11	1709847.70	14362275.28	39°32'59.898"N	80°45'13.295"W	446.15	89.217	0.55	0.48	-0.80	
2572.00	16.990	87.690	2500.31	-147.59	6.34	472.70	1709874.28	14362275.52	39°32'59.900"N	80°45'12.955"W	472.74	89.232	3.19	-2.94	-3.96	
2633.00	16.100	85.430	2558.79	-152.25	7.37	490.04	1709891.61	14362276.55	39°32'59.910"N	80°45'12.734"W	490.09	89.138	1.80	-1.46	-3.70	
2722.00	16.000	84.350	2644.32	-158.14	9.56	514.54	1709916.11	14362278.74	39°32'59.931"N	80°45'12.421"W	514.63	88.936	0.35	-0.11	-1.21	Panther EM <8-3/4">(2633')(2722'-6795')
2817.00	17.070	81.640	2735.39	-163.72	12.88	541.37	1709942.92	14362282.05	39°32'59.963"N	80°45'12.079"W	541.52	88.637	1.39	1.13	-2.85	
2912.00	18.360	86.610	2825.89	-170.30	15.79	570.10	1709971.64	14362284.96	39°32'59.991"N	80°45'11.712"W	570.32	88.414	2.09	1.36	5.23	
3006.00	19.820	91.870	2914.72	-179.94	16.14	600.81	1710002.34	14362285.32	39°32'59.993"N	80°45'11.320"W	601.03	88.461	2.40	1.55	5.60	
3101.00	19.620	88.830	3004.15	-190.54	15.94	632.86	1710034.37	14362285.12	39°32'59.990"N	80°45'10.911"W	633.06	88.557	1.10	-0.21	-3.20	
3195.00	18.890	83.930	3092.90	-198.76	17.88	663.77	1710065.27	14362287.05	39°33'00.009"N	80°45'10.516"W	664.01	88.457	1.89	-0.78	-5.21	
3294.00	17.500	86.770	3186.95	-206.37	20.41	694.57	1710096.06	14362289.58	39°33'00.033"N	80°45'10.123"W	694.87	88.317	1.67	-1.40	2.87	
3389.00	18.410	91.030	3277.32	-215.37	20.94	723.83	1710125.31	14362290.12	39°33'00.037"N	80°45'09.749"W	724.13	88.343	1.68	0.96	4.48	
3483.00	18.230	87.300	3366.56	-224.56	21.37	753.36	1710154.83	14362290.54	39°33'00.041"N	80°45'09.372"W	753.66	88.375	1.26	-0.19	-3.97	
3578.00	18.860	91.600	3456.63	-234.11	21.64	783.55	1710185.01	14362290.81	39°33'00.043"N	80°45'08.987"W	783.85	88.418	1.58	0.66	4.53	
3672.00	18.660	89.080	3545.64	-244.11	21.46	813.77	1710215.22	14362290.63	39°33'00.040"N	80°45'08.601"W	814.06	88.490	0.89	-0.21	-2.68	
3767.00	17.880	82.130	3635.86	-251.62	23.70	843.42	1710244.86	14362292.87	39°33'00.061"N	80°45'08.222"W	843.75	88.390	2.43	-0.82	-7.32	
3862.00	18.870	85.450	3726.02	-258.25	26.92	873.18	1710274.61	14362296.09	39°33'00.092"N	80°45'07.842"W	873.60	88.234	1.52	1.04	3.49	
3956.00	19.330	93.170	3814.86	-267.89	27.26	903.87	1710305.28	14362296.43	39°33'00.095"N	80°45'07.450"W	904.29	88.272	2.73	0.49	8.21	
4051.00	19.200	90.850	3904.54	-279.11	26.16	935.19	1710336.59	14362295.33	39°33'00.083"N	80°45'07.051"W	935.56	88.398	0.82	-0.14	-2.44	
4145.00	18.630	86.490	3993.47	-288.35	26.85	965.64	1710367.02	14362296.02	39°33'00.089"N	80°45'06.662"W	966.01	88.407	1.62	-0.61	-4.64	
4240.00	17.880	90.430	4083.69	-297.23	27.67	995.37	1710396.74	14362296.84	39°33'00.097"N	80°45'06.282"W	995.75	88.408	1.52	-0.79	4.15	
4334.00	16.380	89.080	4173.52	-306.13	27.77	1023.05	1710424.41	14362296.94	39°33'00.097"N	80°45'05.929"W	1023.43	88.445	1.65	-1.60	-1.44	



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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
4428.00	16.570	87.090	4263.66	-313.94	28.67	1049.69	1710451.04	14362297.84	39°33'00.105"N	80°45'05.589"W	1050.08	88.436	0.63	0.20	-2.12	
4523.00	17.530	87.680	4354.48	-321.78	29.93	1077.51	1710478.86	14362299.10	39°33'00.117"N	80°45'05.234"W	1077.93	88.409	1.03	1.01	0.62	
4618.00	17.690	90.300	4445.03	-330.64	30.44	1106.24	1710507.57	14362299.61	39°33'00.121"N	80°45'04.867"W	1106.66	88.424	0.85	0.17	2.76	
4712.00	19.050	89.950	4534.24	-340.32	30.38	1135.87	1710537.19	14362299.55	39°33'00.119"N	80°45'04.489"W	1136.27	88.468	1.45	1.45	-0.37	
4807.00	19.470	88.520	4623.93	-350.10	30.80	1167.20	1710568.51	14362299.97	39°33'00.123"N	80°45'04.089"W	1167.61	88.488	0.66	0.44	-1.51	
4997.00	17.850	93.080	4803.94	-370.55	30.05	1227.94	1710629.22	14362299.22	39°33'00.114"N	80°45'03.313"W	1228.31	88.598	1.15	-0.85	2.40	
5092.00	20.270	89.920	4893.73	-381.34	29.29	1258.94	1710660.21	14362298.46	39°33'00.105"N	80°45'02.918"W	1259.28	88.667	2.77	2.55	-3.33	
5187.00	20.950	88.990	4982.65	-391.90	29.61	1292.38	1710693.63	14362298.78	39°33'00.108"N	80°45'02.491"W	1292.72	88.687	0.79	0.72	-0.98	
5282.00	20.700	85.110	5071.45	-401.21	31.35	1326.09	1710727.33	14362300.51	39°33'00.124"N	80°45'02.060"W	1326.46	88.646	1.48	-0.26	-4.08	
5376.00	17.450	83.110	5160.27	-408.20	34.45	1356.64	1710757.87	14362303.62	39°33'00.154"N	80°45'01.670"W	1357.08	88.545	3.53	-3.46	-2.13	
5470.00	17.660	85.530	5249.90	-414.71	37.26	1384.85	1710786.07	14362306.42	39°33'00.181"N	80°45'01.310"W	1385.35	88.459	0.81	0.22	2.57	
5565.00	20.010	87.450	5339.81	-422.91	39.10	1415.46	1710816.67	14362308.27	39°33'00.198"N	80°45'00.919"W	1416.00	88.418	2.56	2.47	2.02	
5660.00	19.060	93.270	5429.34	-433.37	38.94	1447.19	1710848.38	14362308.11	39°33'00.196"N	80°45'00.514"W	1447.71	88.459	2.28	-1.00	6.13	
5754.00	18.090	92.930	5518.45	-444.62	37.32	1477.08	1710878.27	14362306.49	39°33'00.179"N	80°45'00.132"W	1477.56	88.553	1.04	-1.03	-0.36	
5849.00	20.170	92.320	5608.20	-456.07	35.90	1508.18	1710909.35	14362305.07	39°33'00.164"N	80°44'59.736"W	1508.61	88.636	2.20	2.19	-0.64	
5944.00	19.760	89.350	5697.49	-467.06	35.42	1540.61	1710941.76	14362304.59	39°33'00.158"N	80°44'59.322"W	1541.01	88.683	1.15	-0.43	-3.13	
6038.00	17.060	84.940	5786.67	-475.36	36.82	1570.24	1710971.38	14362305.98	39°33'00.171"N	80°44'58.943"W	1570.67	88.657	3.23	-2.87	-4.69	
6133.00	18.300	83.910	5877.18	-482.03	39.63	1598.95	1711000.08	14362308.79	39°33'00.198"N	80°44'58.577"W	1599.44	88.580	1.35	1.31	-1.08	
6228.00	18.930	89.150	5967.22	-490.15	41.44	1629.19	1711030.31	14362310.61	39°33'00.215"N	80°44'58.191"W	1629.72	88.543	1.88	0.66	5.52	
6322.00	19.770	88.200	6055.91	-499.58	42.17	1660.33	1711061.44	14362311.33	39°33'00.222"N	80°44'57.793"W	1660.86	88.545	0.95	0.89	-1.01	
6378.00	20.180	87.080	6108.54	-505.04	42.96	1679.44	1711080.54	14362312.12	39°33'00.229"N	80°44'57.549"W	1679.99	88.535	1.00	0.73	-2.00	BH AT Curve <8-1/2">(6322')(6378'-19496')
6425.00	19.590	82.080	6152.74	-508.79	44.45	1695.34	1711096.44	14362313.62	39°33'00.243"N	80°44'57.346"W	1695.92	88.498	3.83	-1.26	-10.64	
6471.00	22.440	73.260	6195.69	-510.61	48.05	1711.39	1711112.48	14362317.21	39°33'00.278"N	80°44'57.141"W	1712.07	88.392	9.24	6.20	-19.17	
6518.00	23.690	65.310	6238.94	-510.01	54.58	1728.57	1711129.65	14362323.74	39°33'00.342"N	80°44'56.921"W	1729.43	88.192	7.13	2.66	-16.91	
6565.00	22.140	56.430	6282.24	-506.83	63.42	1744.53	1711145.61	14362332.58	39°33'00.429"N	80°44'56.717"W	1745.68	87.918	8.05	-3.30	-18.89	
6612.00	20.030	46.270	6326.11	-501.22	73.89	1757.73	1711158.81	14362343.04	39°33'00.532"N	80°44'56.548"W	1759.29	87.593	8.96	-4.49	-21.62	
6660.00	19.820	36.230	6371.25	-493.13	86.14	1768.49	1711169.55	14362355.28	39°33'00.653"N	80°44'56.411"W	1770.58	87.212	7.13	-0.44	-20.92	
6707.00	22.280	26.270	6415.12	-482.30	100.56	1777.14	1711178.21	14362369.70	39°33'00.795"N	80°44'56.300"W	1779.99	86.761	9.22	5.23	-21.19	
6755.00	24.730	16.430	6459.16	-467.70	118.36	1784.01	1711185.08	14362387.49	39°33'00.971"N	80°44'56.211"W	1787.94	86.204	9.62	5.10	-20.50	
6802.00	26.700	8.230	6501.51	-450.29	138.25	1788.31	1711189.37	14362407.38	39°33'01.168"N	80°44'56.156"W	1793.64	85.579	8.64	4.19	-17.45	



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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
6850.00	28.750	2.150	6544.01	-429.92	160.46	1790.29	1711191.34	14362429.58	39°33'01.387"N	80°44'56.130"W	1797.46	84.878	7.27	4.27	-12.67	
6897.00	30.750	357.300	6584.82	-407.84	183.77	1790.14	1711191.20	14362452.88	39°33'01.617"N	80°44'56.131"W	1799.55	84.139	6.65	4.26	-10.32	
6945.00	33.250	353.510	6625.52	-383.20	209.11	1788.08	1711189.14	14362478.20	39°33'01.868"N	80°44'56.156"W	1800.26	83.330	6.68	5.21	-7.90	
6992.00	35.010	350.330	6664.43	-357.31	235.20	1784.36	1711185.42	14362504.29	39°33'02.126"N	80°44'56.203"W	1799.79	82.491	5.33	3.74	-6.77	
7040.00	37.170	348.610	6703.22	-329.34	262.99	1779.18	1711180.24	14362532.07	39°33'02.401"N	80°44'56.268"W	1798.51	81.592	4.97	4.50	-3.58	
7076.00†	41.222	348.783	6731.11	-306.80	285.30	1774.72	1711175.79	14362554.37	39°33'02.621"N	80°44'56.324"W	1797.51	80.867	11.26	11.26	0.48	Middlesex: 7076' MD
7087.00	42.460	348.830	6739.31	-299.53	292.50	1773.30	1711174.36	14362561.56	39°33'02.693"N	80°44'56.342"W	1797.26	80.634	11.26	11.26	0.43	
7135.00	47.890	347.710	6773.13	-265.77	325.82	1766.36	1711167.43	14362594.87	39°33'03.022"N	80°44'56.429"W	1796.16	79.549	11.43	11.31	-2.33	
7182.00	51.980	346.810	6803.38	-230.02	360.89	1758.42	1711159.50	14362629.93	39°33'03.369"N	80°44'56.529"W	1795.08	78.402	8.82	8.70	-1.91	
7227.00†	55.474	345.601	6830.00	-193.89	396.11	1749.77	1711150.84	14362665.14	39°33'03.717"N	80°44'56.639"W	1794.04	77.244	8.06	7.77	-2.69	Burkett: 7227' MD
7229.00	55.630	345.550	6831.13	-192.25	397.71	1749.36	1711150.43	14362666.74	39°33'03.733"N	80°44'56.644"W	1794.00	77.192	8.06	7.78	-2.57	
7276.00	59.480	345.210	6856.34	-152.70	436.08	1739.34	1711140.42	14362705.09	39°33'04.113"N	80°44'56.770"W	1793.18	75.925	8.21	8.19	-0.72	
7283.00†	60.087	345.144	6859.86	-146.67	441.93	1737.80	1711138.88	14362710.94	39°33'04.170"N	80°44'56.790"W	1793.11	75.732	8.71	8.67	-0.94	Tully: 7283' MD
7322.00	63.470	344.790	6878.30	-112.39	475.11	1728.88	1711129.97	14362744.11	39°33'04.499"N	80°44'56.902"W	1792.98	74.634	8.71	8.67	-0.91	
7369.00	68.370	345.040	6897.47	-69.59	516.53	1717.72	1711118.81	14362785.51	39°33'04.908"N	80°44'57.043"W	1793.70	73.264	10.44	10.43	0.53	
7417.00	72.930	345.160	6913.37	-24.43	560.29	1706.08	1711107.17	14362829.25	39°33'05.341"N	80°44'57.191"W	1795.73	71.820	9.50	9.50	0.25	
7464.00	75.670	345.720	6926.09	20.68	604.08	1694.71	1711095.80	14362873.02	39°33'05.774"N	80°44'57.334"W	1799.15	70.381	5.94	5.83	1.19	
7499.00†	76.122	345.902	6934.62	54.51	636.98	1686.39	1711087.49	14362905.91	39°33'06.100"N	80°44'57.439"W	1802.68	69.307	1.39	1.29	0.52	Marcellus POE: 7499' MD
7512.00	76.290	345.970	6937.72	67.08	649.23	1683.32	1711084.42	14362918.16	39°33'06.221"N	80°44'57.478"W	1804.18	68.909	1.39	1.29	0.52	
7559.00	80.310	346.360	6947.25	112.91	693.91	1672.32	1711073.42	14362962.82	39°33'06.663"N	80°44'57.617"W	1810.57	67.464	8.59	8.55	0.83	
7607.00	84.570	346.510	6953.56	160.27	740.16	1661.16	1711062.27	14363009.04	39°33'07.120"N	80°44'57.758"W	1818.59	65.984	8.88	8.87	0.31	
7654.00	87.350	346.550	6956.87	206.94	785.74	1650.24	1711051.35	14363054.61	39°33'07.571"N	80°44'57.895"W	1827.75	64.539	5.92	5.91	0.09	
7702.00	88.270	345.330	6958.71	254.73	832.27	1638.59	1711039.71	14363101.12	39°33'08.031"N	80°44'58.042"W	1837.84	63.073	3.18	1.92	-2.54	
7797.00	88.460	342.850	6961.42	349.55	923.59	1612.56	1711013.69	14363192.40	39°33'08.934"N	80°44'58.372"W	1858.32	60.198	2.62	0.20	-2.61	
7892.00	87.970	340.360	6964.38	444.49	1013.68	1582.60	1710983.74	14363282.46	39°33'09.825"N	80°44'58.751"W	1879.41	57.360	2.67	-0.52	-2.62	
7986.00	88.030	337.380	6967.66	538.35	1101.30	1548.74	1710949.89	14363370.04	39°33'10.692"N	80°44'59.180"W	1900.38	54.584	3.17	0.06	-3.17	
8081.00	88.920	336.100	6970.19	633.05	1188.54	1511.23	1710912.40	14363457.25	39°33'11.556"N	80°44'59.656"W	1922.62	51.816	1.64	0.94	-1.35	
8175.00	90.220	337.220	6970.89	726.77	1274.85	1473.99	1710875.18	14363543.52	39°33'12.410"N	80°45'00.128"W	1948.82	49.144	1.83	1.38	1.19	
8270.00	90.090	334.360	6970.63	821.36	1361.48	1435.04	1710836.24	14363630.12	39°33'13.267"N	80°45'00.622"W	1978.12	46.507	3.01	-0.14	-3.01	
8365.00	89.850	335.170	6970.68	915.79	1447.41	1394.54	1710795.76	14363716.02	39°33'14.117"N	80°45'01.136"W	2009.91	43.934	0.89	-0.25	0.85	



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWP
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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
8459.00	89.910	335.060	6970.88	1009.29	1532.69	1354.99	1710756.22	14363801.26	39°33'14.961"N	80°45'01.638"W	2045.76	41.479	0.13	0.06	-0.12	
8553.00	89.910	336.600	6971.03	1102.90	1618.44	1316.50	1710717.75	14363886.98	39°33'15.810"N	80°45'02.127"W	2086.27	39.126	1.64	0.00	1.64	
8648.00	89.630	341.440	6971.41	1197.81	1707.12	1282.49	1710683.76	14363975.62	39°33'16.687"N	80°45'02.557"W	2135.19	36.916	5.10	-0.29	5.09	
8742.00	89.450	343.640	6972.17	1291.77	1796.78	1254.29	1710655.57	14364065.25	39°33'17.574"N	80°45'02.914"W	2191.27	34.918	2.35	-0.19	2.34	
8838.00	89.480	343.280	6973.06	1387.68	1888.80	1226.97	1710628.25	14364157.24	39°33'18.484"N	80°45'03.260"W	2252.34	33.008	0.38	0.03	-0.38	
8932.00	89.380	342.540	6974.00	1481.62	1978.65	1199.34	1710600.64	14364247.04	39°33'19.373"N	80°45'03.609"W	2313.76	31.222	0.79	-0.11	-0.79	
9028.00	89.480	341.270	6974.95	1577.60	2069.89	1169.53	1710570.83	14364338.25	39°33'20.276"N	80°45'03.987"W	2377.45	29.467	1.33	0.10	-1.32	
9122.00	89.080	341.540	6976.13	1671.59	2158.98	1139.56	1710540.87	14364427.30	39°33'21.157"N	80°45'04.366"W	2441.27	27.826	0.51	-0.43	0.29	
9217.00	89.140	341.120	6977.61	1766.58	2248.97	1109.15	1710510.48	14364517.26	39°33'22.047"N	80°45'04.751"W	2507.60	26.252	0.45	0.06	-0.44	
9312.00	89.080	341.460	6979.08	1861.57	2338.94	1078.68	1710480.02	14364607.19	39°33'22.937"N	80°45'05.137"W	2575.69	24.758	0.36	-0.06	0.36	
9406.00	89.140	342.330	6980.54	1955.55	2428.27	1049.47	1710450.82	14364696.49	39°33'23.821"N	80°45'05.507"W	2645.35	23.373	0.93	0.06	0.93	
9500.00	89.170	342.360	6981.93	2049.51	2517.83	1020.96	1710422.33	14364786.02	39°33'24.707"N	80°45'05.868"W	2716.96	22.072	0.05	0.03	0.03	
9594.00	89.140	342.450	6983.32	2143.47	2607.43	992.55	1710393.93	14364875.57	39°33'25.593"N	80°45'06.227"W	2789.95	20.840	0.10	-0.03	0.10	
9689.00	89.140	342.310	6984.74	2238.44	2697.96	963.80	1710365.19	14364966.07	39°33'26.488"N	80°45'06.591"W	2864.94	19.658	0.15	0.00	-0.15	
9783.00	89.170	343.790	6986.13	2332.37	2787.86	936.40	1710337.80	14365055.94	39°33'27.378"N	80°45'06.938"W	2940.92	18.566	1.57	0.03	1.57	
9879.00	89.720	344.560	6987.06	2428.22	2880.22	910.22	1710311.63	14365148.26	39°33'28.291"N	80°45'07.269"W	3020.62	17.538	0.99	0.57	0.80	
9974.00	89.690	343.110	6987.55	2523.10	2971.46	883.77	1710285.19	14365239.46	39°33'29.194"N	80°45'07.603"W	3100.10	16.564	1.53	-0.03	-1.53	
10068.00	89.750	342.630	6988.01	2617.05	3061.29	856.09	1710257.52	14365329.26	39°33'30.082"N	80°45'07.954"W	3178.74	15.624	0.51	0.06	-0.51	
10162.00	89.720	341.970	6988.44	2711.03	3150.84	827.51	1710228.95	14365418.77	39°33'30.968"N	80°45'08.315"W	3257.69	14.715	0.70	-0.03	-0.70	
10257.00	89.780	341.210	6988.86	2806.02	3240.97	797.51	1710198.96	14365508.87	39°33'31.860"N	80°45'08.695"W	3337.65	13.824	0.80	0.06	-0.80	
10352.00	89.690	341.010	6989.30	2901.02	3330.86	766.75	1710168.22	14365598.72	39°33'32.749"N	80°45'09.085"W	3417.97	12.963	0.23	-0.09	-0.21	
10447.00	89.720	340.500	6989.79	2996.02	3420.55	735.44	1710136.92	14365688.37	39°33'33.636"N	80°45'09.481"W	3498.72	12.134	0.54	0.03	-0.54	
10541.00	89.750	340.580	6990.22	3090.01	3509.18	704.12	1710105.61	14365776.97	39°33'34.513"N	80°45'09.878"W	3579.12	11.346	0.09	0.03	0.09	
10636.00	89.720	342.030	6990.66	3185.01	3599.16	673.67	1710075.18	14365866.91	39°33'35.403"N	80°45'10.264"W	3661.66	10.602	1.53	-0.03	1.53	
10731.00	89.880	342.960	6990.99	3279.98	3689.76	645.10	1710046.61	14365957.48	39°33'36.299"N	80°45'10.625"W	3745.73	9.917	0.99	0.17	0.98	
10826.00	89.780	344.370	6991.27	3374.87	3780.92	618.38	1710019.90	14366048.60	39°33'37.201"N	80°45'10.963"W	3831.16	9.289	1.49	-0.11	1.48	
10921.00	89.720	345.990	6991.69	3469.62	3872.76	594.08	1709995.62	14366140.40	39°33'38.109"N	80°45'11.270"W	3918.06	8.721	1.71	-0.06	1.71	
11015.00	89.690	347.000	6992.17	3563.19	3964.16	572.13	1709973.67	14366231.77	39°33'39.013"N	80°45'11.547"W	4005.23	8.213	1.07	-0.03	1.07	
11110.00	89.720	346.630	6992.66	3657.71	4056.65	550.46	1709952.01	14366324.22	39°33'39.928"N	80°45'11.821"W	4093.83	7.727	0.39	0.03	-0.39	
11205.00	89.630	342.350	6993.20	3752.51	4148.17	525.07	1709926.63	14366415.70	39°33'40.833"N	80°45'12.142"W	4181.27	7.214	4.51	-0.09	-4.51	



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWP
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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
11300.00	89.630	337.900	6993.81	3847.48	4237.48	492.78	1709894.35	14366504.99	39°33'41.717"N	80°45'12.551"W	4266.04	6.633	4.68	0.00	-4.68	
11394.00	89.630	336.370	6994.42	3941.25	4324.09	456.25	1709857.84	14366591.56	39°33'42.574"N	80°45'13.014"W	4348.10	6.023	1.63	0.00	-1.63	
11488.00	89.350	335.690	6995.26	4034.89	4409.98	418.07	1709819.67	14366677.42	39°33'43.424"N	80°45'13.499"W	4429.76	5.415	0.78	-0.30	-0.72	
11583.00	89.320	336.800	6996.36	4129.55	4496.93	379.80	1709781.42	14366764.33	39°33'44.284"N	80°45'13.984"W	4512.94	4.828	1.17	-0.03	1.17	
11677.00	89.350	337.590	6997.45	4223.33	4583.57	343.37	1709745.00	14366850.94	39°33'45.141"N	80°45'14.447"W	4596.42	4.284	0.84	0.03	0.84	
11771.00	89.410	339.490	6998.47	4317.23	4671.05	308.98	1709710.63	14366938.38	39°33'46.007"N	80°45'14.883"W	4681.26	3.785	2.02	0.06	2.02	
11865.00	89.290	341.800	6999.53	4411.22	4759.72	277.84	1709679.49	14367027.02	39°33'46.884"N	80°45'15.277"W	4767.82	3.341	2.46	-0.13	2.46	
11959.00	89.230	343.680	7000.75	4505.16	4849.48	249.95	1709651.62	14367116.74	39°33'47.772"N	80°45'15.630"W	4855.92	2.950	2.00	-0.06	2.00	
12054.00	89.350	342.730	7001.93	4600.09	4940.42	222.50	1709624.18	14367207.64	39°33'48.671"N	80°45'15.977"W	4945.43	2.579	1.01	0.13	-1.00	
12148.00	89.970	343.440	7002.48	4694.02	5030.35	195.15	1709596.84	14367297.54	39°33'49.561"N	80°45'16.324"W	5034.13	2.222	1.00	0.66	0.76	
12242.00	89.940	344.410	7002.56	4787.90	5120.67	169.12	1709570.83	14367387.82	39°33'50.454"N	80°45'16.653"W	5123.46	1.892	1.03	-0.03	1.03	
12335.00	89.880	343.900	7002.70	4880.77	5210.14	143.73	1709545.44	14367477.25	39°33'51.339"N	80°45'16.974"W	5212.12	1.580	0.55	-0.06	-0.55	
12430.00	89.970	341.470	7002.83	4975.72	5300.83	115.46	1709517.18	14367567.91	39°33'52.236"N	80°45'17.332"W	5302.08	1.248	2.56	0.09	-2.56	
12525.00	89.910	339.740	7002.93	5070.71	5390.43	83.91	1709485.65	14367657.48	39°33'53.123"N	80°45'17.731"W	5391.08	0.892	1.82	-0.06	-1.82	
12619.00	89.880	339.400	7003.10	5164.68	5478.52	51.10	1709452.85	14367745.53	39°33'53.994"N	80°45'18.147"W	5478.76	0.534	0.36	-0.03	-0.36	
12713.00	89.910	336.340	7003.27	5258.53	5565.58	15.69	1709417.46	14367832.56	39°33'54.855"N	80°45'18.596"W	5565.61	0.162	3.26	0.03	-3.26	
12807.00	89.940	336.110	7003.40	5352.19	5651.61	-22.20	1709379.58	14367918.55	39°33'55.707"N	80°45'19.077"W	5651.65	359.775	0.25	0.03	-0.24	
12902.00	89.940	336.930	7003.50	5446.90	5738.74	-60.05	1709341.74	14368005.65	39°33'56.569"N	80°45'19.557"W	5739.05	359.400	0.86	0.00	0.86	
12996.00	90.030	336.630	7003.52	5540.64	5825.12	-97.11	1709304.70	14368092.00	39°33'57.424"N	80°45'20.028"W	5825.93	359.045	0.33	0.10	-0.32	
13091.00	89.850	336.410	7003.62	5635.34	5912.26	-134.96	1709266.86	14368179.10	39°33'58.286"N	80°45'20.508"W	5913.80	358.692	0.30	-0.19	-0.23	
13185.00	89.940	337.910	7003.79	5729.12	5998.89	-171.45	1709230.39	14368265.69	39°33'59.143"N	80°45'20.971"W	6001.34	358.363	1.60	0.10	1.60	
13280.00	90.000	342.950	7003.84	5824.09	6088.37	-203.26	1709198.59	14368355.14	39°34'00.028"N	80°45'21.374"W	6091.76	358.088	5.31	0.06	5.31	
13375.00	90.740	345.800	7003.23	5918.92	6179.85	-228.84	1709173.02	14368446.58	39°34'00.933"N	80°45'21.697"W	6184.08	357.879	3.10	0.78	3.00	
13470.00	90.180	344.500	7002.46	6013.67	6271.67	-253.19	1709148.68	14368538.36	39°34'01.841"N	80°45'22.005"W	6276.78	357.688	1.49	-0.59	-1.37	
13564.00	90.280	344.840	7002.09	6107.48	6362.32	-278.04	1709123.84	14368628.98	39°34'02.738"N	80°45'22.319"W	6368.39	357.498	0.38	0.11	0.36	
13659.00	90.220	345.680	7001.67	6202.22	6454.19	-302.21	1709099.68	14368720.82	39°34'03.646"N	80°45'22.625"W	6461.27	357.319	0.89	-0.06	0.88	
13754.00	90.220	346.110	7001.31	6296.88	6546.33	-325.36	1709076.54	14368812.92	39°34'04.558"N	80°45'22.917"W	6554.41	357.155	0.45	0.00	0.45	
13848.00	90.370	344.760	7000.82	6390.60	6637.31	-349.00	1709052.91	14368903.85	39°34'05.457"N	80°45'23.216"W	6646.47	356.990	1.44	0.16	-1.44	
13943.00	90.150	343.820	7000.39	6485.44	6728.75	-374.72	1709027.19	14368995.27	39°34'06.362"N	80°45'23.541"W	6739.18	356.813	1.02	-0.23	-0.99	
14037.00	90.220	342.380	7000.09	6579.38	6818.69	-402.05	1708999.88	14369085.17	39°34'07.251"N	80°45'23.887"W	6830.53	356.626	1.53	0.07	-1.53	



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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
14132.00	90.280	342.140	6999.68	6674.35	6909.17	-430.99	1708970.95	14369175.62	39°34'08.146"N	80°45'24.254"W	6922.60	356.431	0.26	0.06	-0.25	
14227.00	90.180	341.810	6999.29	6769.34	6999.51	-460.39	1708941.56	14369265.92	39°34'09.040"N	80°45'24.626"W	7014.63	356.237	0.36	-0.11	-0.35	
14322.00	90.180	340.240	6999.00	6864.34	7089.34	-491.28	1708910.69	14369355.72	39°34'09.929"N	80°45'25.017"W	7106.35	356.036	1.65	0.00	-1.65	
14417.00	90.310	339.860	6998.59	6959.32	7178.64	-523.69	1708878.28	14369444.98	39°34'10.812"N	80°45'25.428"W	7197.72	355.828	0.42	0.14	-0.40	
14511.00	90.250	339.700	6998.13	7053.30	7266.85	-556.18	1708845.81	14369533.15	39°34'11.685"N	80°45'25.840"W	7288.10	355.623	0.18	-0.06	-0.17	
14606.00	90.120	340.620	6997.82	7148.29	7356.21	-588.42	1708813.58	14369622.47	39°34'12.569"N	80°45'26.248"W	7379.71	355.427	0.98	-0.14	0.97	
14701.00	90.150	339.970	6997.60	7243.28	7445.64	-620.45	1708781.56	14369711.87	39°34'13.454"N	80°45'26.654"W	7471.45	355.236	0.68	0.03	-0.68	
14795.00	90.150	336.180	6997.35	7337.13	7532.83	-655.55	1708746.48	14369799.02	39°34'14.316"N	80°45'27.099"W	7561.30	355.026	4.03	0.00	-4.03	
14889.00	90.370	335.480	6996.93	7430.74	7618.59	-694.03	1708708.01	14369884.75	39°34'15.165"N	80°45'27.588"W	7650.13	354.795	0.78	0.23	-0.74	
14983.00	90.280	335.690	6996.39	7524.32	7704.18	-732.89	1708669.17	14369970.31	39°34'16.012"N	80°45'28.081"W	7738.96	354.566	0.24	-0.10	0.22	
15078.00	90.120	336.740	6996.06	7618.98	7791.11	-771.20	1708630.87	14370057.20	39°34'16.872"N	80°45'28.567"W	7829.19	354.347	1.12	-0.17	1.11	
15173.00	90.150	338.990	6995.84	7713.83	7879.10	-806.99	1708595.10	14370145.16	39°34'17.742"N	80°45'29.021"W	7920.32	354.152	2.37	0.03	2.37	
15267.00	90.280	341.930	6995.48	7807.81	7967.68	-838.43	1708563.67	14370233.70	39°34'18.619"N	80°45'29.420"W	8011.67	353.993	3.13	0.14	3.13	
15362.00	90.250	345.600	6995.05	7902.68	8058.87	-864.98	1708537.13	14370324.86	39°34'19.521"N	80°45'29.756"W	8105.16	353.874	3.86	-0.03	3.86	
15456.00	90.650	348.400	6994.31	7996.16	8150.45	-886.13	1708515.99	14370416.40	39°34'20.426"N	80°45'30.023"W	8198.48	353.795	3.01	0.43	2.98	
15550.00	90.800	349.720	6993.12	8089.24	8242.73	-903.96	1708498.16	14370508.65	39°34'21.339"N	80°45'30.247"W	8292.15	353.741	1.41	0.16	1.40	
15645.00	90.430	349.970	6992.10	8183.11	8336.24	-920.71	1708481.42	14370602.12	39°34'22.263"N	80°45'30.458"W	8386.93	353.697	0.47	-0.39	0.26	
15739.00	90.430	348.300	6991.39	8276.17	8428.55	-938.43	1708463.71	14370694.39	39°34'23.176"N	80°45'30.681"W	8480.63	353.647	1.78	0.00	-1.78	
15834.00	90.340	343.590	6990.75	8370.79	8520.68	-961.49	1708440.66	14370786.48	39°34'24.087"N	80°45'30.972"W	8574.75	353.562	4.96	-0.09	-4.96	
15929.00	90.650	343.200	6989.93	8465.71	8611.71	-988.64	1708413.52	14370877.48	39°34'24.988"N	80°45'31.316"W	8668.28	353.451	0.52	0.33	-0.41	
16023.00	90.710	342.080	6988.82	8559.66	8701.42	-1016.69	1708385.49	14370967.15	39°34'25.875"N	80°45'31.671"W	8760.62	353.336	1.19	0.06	-1.19	
16118.00	90.770	339.530	6987.59	8654.65	8791.13	-1047.92	1708354.27	14371056.82	39°34'26.763"N	80°45'32.067"W	8853.36	353.202	2.68	0.06	-2.68	
16212.00	90.620	337.030	6986.45	8748.52	8878.44	-1082.70	1708319.50	14371144.10	39°34'27.626"N	80°45'32.508"W	8944.21	353.047	2.66	-0.16	-2.66	
16306.00	90.550	335.790	6985.49	8842.21	8964.58	-1120.31	1708281.90	14371230.20	39°34'28.479"N	80°45'32.985"W	9034.31	352.877	1.32	-0.07	-1.32	
16401.00	90.650	337.680	6984.49	8936.93	9051.84	-1157.83	1708244.40	14371317.44	39°34'29.342"N	80°45'33.462"W	9125.59	352.711	1.99	0.11	1.99	
16496.00	90.920	340.350	6983.19	9031.85	9140.53	-1191.85	1708210.39	14371406.08	39°34'30.220"N	80°45'33.893"W	9217.90	352.571	2.82	0.28	2.81	
16590.00	90.860	342.030	6981.73	9125.84	9229.49	-1222.15	1708180.10	14371495.01	39°34'31.100"N	80°45'34.277"W	9310.06	352.457	1.79	-0.06	1.79	
16685.00	90.950	340.910	6980.23	9220.82	9319.55	-1252.34	1708149.93	14371585.04	39°34'31.991"N	80°45'34.659"W	9403.32	352.347	1.18	0.09	-1.18	
16780.00	91.020	339.190	6978.60	9315.79	9408.84	-1284.75	1708117.53	14371674.29	39°34'32.874"N	80°45'35.070"W	9496.15	352.225	1.81	0.07	-1.81	
16874.00	90.890	337.640	6977.03	9409.68	9496.23	-1319.32	1708082.97	14371761.65	39°34'33.738"N	80°45'35.509"W	9587.44	352.090	1.65	-0.14	-1.65	



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH DATA (239 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
16969.00	91.020	338.890	6975.45	9504.55	9584.46	-1354.50	1708047.81	14371849.84	39°34'34.611"N	80°45'35.955"W	9679.70	351.956	1.32	0.14	1.32	
17063.00	90.990	340.380	6973.80	9598.50	9672.57	-1387.20	1708015.12	14371937.92	39°34'35.483"N	80°45'36.370"W	9771.54	351.839	1.59	-0.03	1.59	
17158.00	91.020	339.970	6972.13	9693.48	9761.93	-1419.42	1707982.92	14372027.24	39°34'36.367"N	80°45'36.778"W	9864.58	351.727	0.43	0.03	-0.43	
17253.00	90.950	338.860	6970.50	9788.43	9850.85	-1452.81	1707949.53	14372116.12	39°34'37.247"N	80°45'37.201"W	9957.40	351.610	1.17	-0.07	-1.17	
17347.00	90.890	339.330	6968.99	9882.36	9938.65	-1486.35	1707916.01	14372203.89	39°34'38.115"N	80°45'37.627"W	10049.18	351.494	0.50	-0.06	0.50	
17442.00	91.290	339.210	6967.18	9977.30	10027.48	-1519.97	1707882.40	14372292.69	39°34'38.994"N	80°45'38.053"W	10142.03	351.381	0.44	0.42	-0.13	
17536.00	90.680	340.210	6965.57	10071.26	10115.63	-1552.56	1707849.82	14372380.80	39°34'39.866"N	80°45'38.466"W	10234.08	351.274	1.25	-0.65	1.06	
17631.00	90.710	340.710	6964.42	10166.24	10205.16	-1584.33	1707818.07	14372470.29	39°34'40.752"N	80°45'38.869"W	10327.41	351.175	0.53	0.03	0.53	
17726.00	90.680	342.620	6963.26	10261.23	10295.32	-1614.21	1707788.20	14372560.42	39°34'41.644"N	80°45'39.247"W	10421.10	351.089	2.01	-0.03	2.01	
17821.00	90.250	343.460	6962.49	10356.16	10386.19	-1641.92	1707760.50	14372651.25	39°34'42.543"N	80°45'39.598"W	10515.17	351.017	0.99	-0.45	0.88	
17916.00	90.310	343.190	6962.03	10451.09	10477.19	-1669.18	1707733.25	14372742.22	39°34'43.443"N	80°45'39.943"W	10609.32	350.948	0.29	0.06	-0.28	
18010.00	90.430	342.790	6961.42	10545.03	10567.08	-1696.68	1707705.76	14372832.07	39°34'44.332"N	80°45'40.291"W	10702.42	350.878	0.44	0.13	-0.43	
18106.00	90.400	342.690	6960.73	10640.99	10658.75	-1725.16	1707677.29	14372923.71	39°34'45.239"N	80°45'40.652"W	10797.46	350.806	0.11	-0.03	-0.10	
18200.00	90.310	342.200	6960.14	10734.96	10748.37	-1753.52	1707648.95	14373013.29	39°34'46.125"N	80°45'41.011"W	10890.47	350.734	0.53	-0.10	-0.52	
18295.00	90.340	340.090	6959.60	10829.95	10838.27	-1784.21	1707618.26	14373103.15	39°34'47.014"N	80°45'41.400"W	10984.14	350.652	2.22	0.03	-2.22	
18389.00	90.090	338.000	6959.25	10923.89	10926.04	-1817.83	1707584.66	14373190.89	39°34'47.883"N	80°45'41.827"W	11076.23	350.554	2.24	-0.27	-2.22	
18484.00	90.650	339.600	6958.64	11018.81	11014.61	-1852.18	1707550.32	14373279.42	39°34'48.759"N	80°45'42.262"W	11169.25	350.455	1.78	0.59	1.68	
18578.00	90.770	342.120	6957.47	11112.79	11103.40	-1883.00	1707519.52	14373368.18	39°34'49.637"N	80°45'42.653"W	11261.93	350.375	2.68	0.13	2.68	
18672.00	90.650	343.350	6956.31	11206.74	11193.16	-1910.89	1707491.63	14373457.90	39°34'50.525"N	80°45'43.006"W	11355.10	350.312	1.31	-0.13	1.31	
18767.00	90.800	342.900	6955.11	11301.67	11284.06	-1938.47	1707464.07	14373548.76	39°34'51.424"N	80°45'43.355"W	11449.35	350.252	0.50	0.16	-0.47	
18863.00	90.770	338.810	6953.79	11397.64	11374.72	-1969.94	1707432.61	14373639.39	39°34'52.321"N	80°45'43.754"W	11544.04	350.175	4.26	-0.03	-4.26	
18958.00	90.680	337.560	6952.59	11492.51	11462.91	-2005.24	1707397.32	14373727.54	39°34'53.194"N	80°45'44.202"W	11636.98	350.077	1.32	-0.09	-1.32	
19052.00	90.400	337.550	6951.70	11586.34	11549.78	-2041.13	1707361.45	14373814.38	39°34'54.053"N	80°45'44.657"W	11728.76	349.978	0.30	-0.30	-0.01	
19148.00	90.460	338.200	6950.98	11682.19	11638.71	-2077.29	1707325.31	14373903.28	39°34'54.933"N	80°45'45.116"W	11822.64	349.880	0.68	0.06	0.68	
19242.00	90.520	338.860	6950.18	11776.09	11726.18	-2111.69	1707290.92	14373990.72	39°34'55.798"N	80°45'45.553"W	11914.81	349.791	0.70	0.06	0.70	
19337.00	90.430	338.270	6949.39	11871.00	11814.61	-2146.41	1707256.22	14374079.11	39°34'56.673"N	80°45'45.993"W	12008.00	349.703	0.63	-0.09	-0.62	
19432.00	90.370	338.810	6948.73	11965.91	11903.02	-2181.16	1707221.47	14374167.48	39°34'57.548"N	80°45'46.434"W	12101.21	349.616	0.57	-0.06	0.57	
19496.00	90.490	339.630	6948.25	12029.87	11962.86	-2203.87	1707198.78	14374227.29	39°34'58.140"N	80°45'46.722"W	12164.17	349.562	1.29	0.19	1.28	
19521.00	90.490	339.630	6948.03	12054.86	11986.29	-2212.57	1707190.08	14374250.72	39°34'58.372"N	80°45'46.832"W	12188.79	349.541	0.00	0.00	0.00	Projected MD at TD [ST01]: 19521'

HOLE & CASING SECTIONS - Ref Wellbore: Blake Unit 3H ST01 AWB Ref Wellpath: Blake Unit 3H ST01 AWP Proj: 19521'									
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	24.50	104.50	80.00	24.50	104.50	0.00	0.00	-0.06	0.01
17.5in Open Hole	104.50	507.40	402.90	104.50	507.40	-0.06	0.01	-0.88	0.12
13.375in Casing Surface	24.50	507.40	482.90	24.50	507.40	0.00	0.00	-0.88	0.12
12.25in Open Hole	507.40	2677.70	2170.30	507.40	2601.74	-0.88	0.12	8.41	502.37
9.625in Casing Intermediate	24.50	2677.70	2653.20	24.50	2601.74	0.00	0.00	8.41	502.37
8.75in Open Hole	2677.70	6322.00	3644.30	2601.74	6055.91	8.41	502.37	42.17	1660.33
8.5in Open Hole	6322.00	19521.00	13199.00	6055.91	6948.03	42.17	1660.33	11986.29	-2212.57
5.5in Casing Production	24.50	19521.00	19496.50	24.50	6948.03	0.00	0.00	11986.29	-2212.57

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Blake Unit 3H ST01 POE - Rev-4	6927.00	572.32	1719.19	1711120.28	14362841.28	39°33'05.460"N	80°44'57.023"W	point
Blake Unit 3H ST01 LP - Rev-4	6956.00	757.30	1655.66	1711056.77	14363026.18	39°33'07.290"N	80°44'57.827"W	point
Blake Unit 3H ST01 BHL - Rev-4	6956.00	12009.18	-2209.12	1707193.53	14374273.60	39°34'58.598"N	80°45'46.787"W	point



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

WELLPATH COMPOSITION - Ref Wellbore: Blake Unit 3H ST01 AWB Ref Wellpath: Blake Unit 3H ST01 AWP Proj: 19521'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.50	485.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-485')	Blake Unit 3H AWB
485.00	2633.00	ISCWSA MWD, Rev. 4 (Standard)	02 Panther EM <12-1/4">(485')(593'-2633')	Blake Unit 3H AWB
2633.00	6322.00	ISCWSA MWD, Rev. 4 (Standard)	03 Panther EM <8-3/4">(2633')(2722'-6795')	Blake Unit 3H AWB
6322.00	19496.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2">(6322')(6378'-19496')	Blake Unit 3H ST01 AWB
19496.00	19521.00	Blind Drilling (std)	Projection to bit	Blake Unit 3H ST01 AWB



Actual Wellpath Report

Blake Unit 3H ST01 AWP Proj: 19521'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Wetzel County, WV	Well	Blake Unit 3H ST01
Field	Wetzel	Wellbore	Blake Unit 3H ST01 AWB
Facility	Gadd Pad	Sidetrack from	Blake Unit 3H AWP Proj: 7365' at 6322.00 MD

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 Office of Oil and Gas
 MAY 15 2024
 WV Department of
 Environmental Protection

COMMENTS
<p>Wellpath general comments API: 47-103-03239-0000 BHI Job #: 109556862 Rig: Frontier 22 Duration: 12/25/2018-12/30/2018 Gyrodata MS Gyro <17-1/2">(100'-485') Panther EM <12-1/4">(485')(593'-2633') Panther EM <8-3/4">(2633')(2722'-6795') Panther MWD <8-3/4">(6795')(6884'-7305') Projected MD at TD [OPH]: 7365' BH AT Curve <8-1/2">(6322')(6378'-19496') Middlesex: 7076' MD Burkett: 7227' MD Tully: 7283' MD Marcellus POE: 7499' MD Projected MD at TD [ST01]: 19521'</p>