



ANTERO RESOURCES CORPORATION

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

Slot: Slot #06
 Well: Earnest Unit 1H
 Wellbore: Earnest Unit 1H PWB

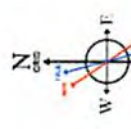


Photoreference wellpath is Earnest Unit 1H PWB Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Patterson 343 (RKB)	* - Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Patterson 343 (RKB)	North Reference: Grid north
Patterson 343 (RKB) to Mean Sea Level: 1144 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #06): -1119 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: hareluk on 2016-05-31
	Database: WA_MPL_EASTERUS_Dein

Well Data	
Slot	Well
Slot #06	Earnest Unit 1H AWP
Slot #06	Earnest Unit 1H PWB
	Earnest Unit 1H AWP Proj: 14825
	Earnest Unit 1H PWB Rev-A.0

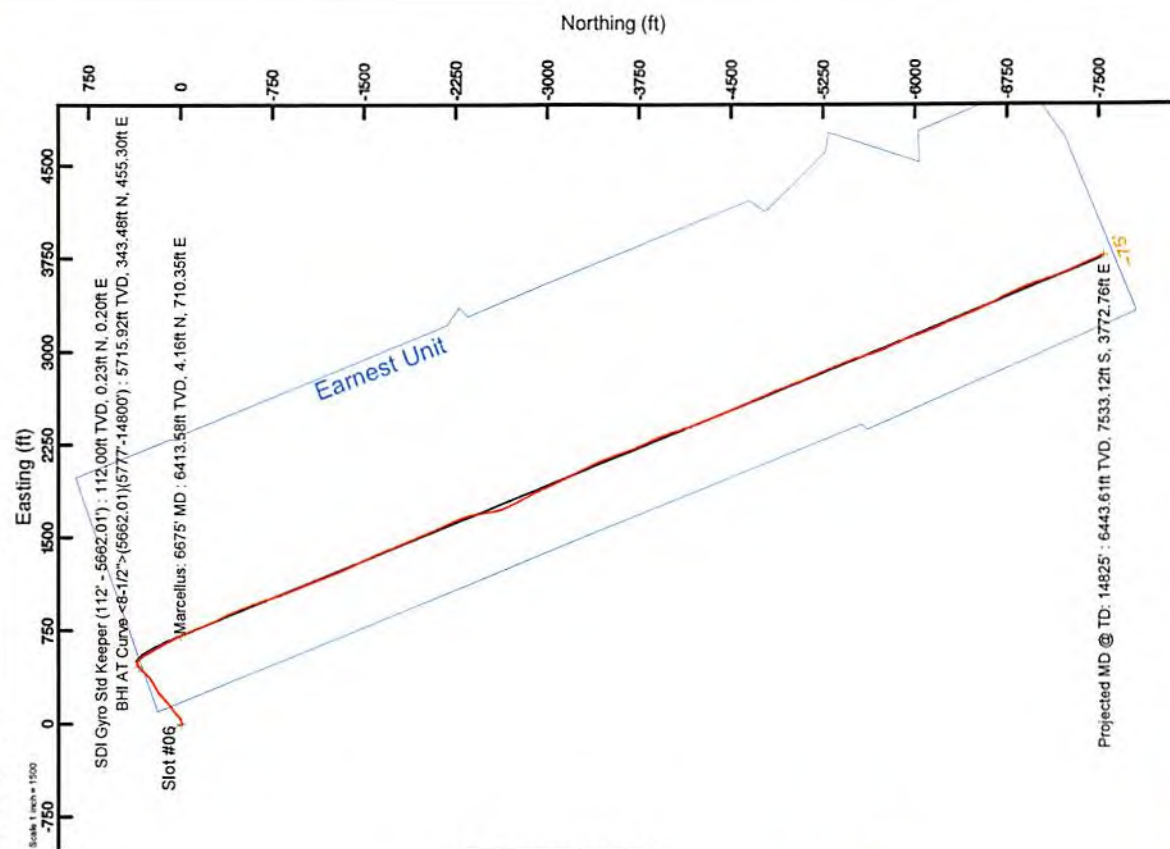


Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Zinn Pad	1657882.100	39°19'12.370"N	80°56'17.680"W
Slot #06	Local E (ft)	Grid East (US ft)	Longitude
	-8.10	1657887.600	80°56'17.610"W
	5.50	14278483.300	25ft
		14278483.300	-1119ft
			1144ft



NSDM (1948) is 2017.76, 60.71, Field 63278.8-2
 Magnetic North is 2.45 degrees West of True North (0.051002016)
 Grid North is 0.04 degrees East of True North
 To correct azimuth from True to Grid, subtract 0.04 degrees
 To correct azimuth from Magnetic to Grid, subtract 2.45 degrees

API: 47-085-10273-0000
 BHI Job #: 7957038
 Rig: Patterson 343
 Duration: 05.20.2016-05.23.2016



Projected MD @ TD: 14825 : 6443.61ft TVD, 7533.12ft S, 3772.76ft E
 Projected MD @ TD: 14825 : 89.78° Inc, 14825.00ft MD, 6443.61ft TVD, 8398.13ft VS
 Scale 1 inch = 1500

01/05/2018

Azimuth 157.98° with reference 0.00 N, 0.00 E



Actual Wellpath Report

Earnest Unit 1H AWP Proj: 14825'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWB
Facility	Zinn Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Hareluk
Scale	0.999600	Report Generated	5/31/2016 at 5:20:42 PM
Convergence at slot	0.04° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Earnest_Unit_1H_AWP_Proj_14825_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-8.10	5.50	1657887.60	14278483.30	39°19'12.290"N	80°56'17.610"W
Facility Reference Pt			1657882.10	14278491.40	39°19'12.370"N	80°56'17.680"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 343 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 343 (RKB) to Mean Sea Level	1144.00ft
Vertical Reference Pt	Patterson 343 (RKB)	Patterson 343 (RKB) to Mud Line at Slot (Slot #06)	25.00ft
MD Reference Pt	Patterson 343 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	157.98°



Actual Wellpath Report

Earnest Unit 1H AWP Proj: 14825'

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REFERENCE WELLPATH IDENTIFICATION				Slot	Slot #06
Operator	ANTERO RESOURCES CORPORATION				Earnest Unit 1H
Area	Ritchie County, WV				Earnest Unit 1H AWB
Field	Ritchie				
Facility	Zinn Pad				

WELLPATH DATA (339 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]	Comments
0.00†	0.000	41.300	0.00	0.00	0.00	0.00	1657887.60	14278483.30	39°19'12.280"N	80°56'17.610"W	0.00	0.000	0.00	
25.00	0.000	41.300	25.00	0.00	0.00	0.00	1657887.60	14278483.30	39°19'12.290"N	80°56'17.610"W	0.00	0.000	0.00	
112.00	0.400	41.300	112.00	-0.14	0.23	0.20	1657887.80	14278483.53	39°19'12.292"N	80°56'17.608"W	0.30	41.300	0.46	SDI Gyro Sid Keeper (112' - 5662.01')
137.00	0.280	44.030	137.00	-0.20	0.34	0.30	1657887.90	14278483.64	39°19'12.293"N	80°56'17.606"W	0.45	41.669	0.48	
162.00	0.170	70.780	162.00	-0.22	0.39	0.38	1657887.98	14278483.69	39°19'12.294"N	80°56'17.606"W	0.55	43.828	0.60	
187.00	0.200	147.830	187.00	-0.18	0.37	0.44	1657888.04	14278483.67	39°19'12.294"N	80°56'17.605"W	0.57	49.769	0.93	
212.00	0.210	122.510	212.00	-0.10	0.31	0.50	1657888.10	14278483.61	39°19'12.293"N	80°56'17.604"W	0.59	58.312	0.36	
237.00	0.210	134.340	237.00	-0.02	0.25	0.57	1657888.17	14278483.55	39°19'12.293"N	80°56'17.603"W	0.62	66.229	0.17	
262.00	0.250	127.640	262.00	0.07	0.19	0.65	1657888.25	14278483.49	39°19'12.292"N	80°56'17.602"W	0.67	73.965	0.19	
287.00	0.220	127.280	287.00	0.16	0.12	0.73	1657888.33	14278483.42	39°19'12.291"N	80°56'17.601"W	0.74	80.388	0.12	
312.00	0.210	142.630	312.00	0.24	0.06	0.79	1657888.39	14278483.36	39°19'12.291"N	80°56'17.600"W	0.79	85.842	0.23	
337.00	0.150	178.750	337.00	0.32	-0.01	0.82	1657888.42	14278483.29	39°19'12.290"N	80°56'17.600"W	0.82	90.801	0.50	
362.00	0.170	190.160	362.00	0.38	-0.08	0.82	1657888.42	14278483.22	39°19'12.289"N	80°56'17.600"W	0.82	95.652	0.15	
387.00	0.210	190.430	387.00	0.45	-0.16	0.80	1657888.40	14278483.14	39°19'12.288"N	80°56'17.600"W	0.82	101.457	0.16	
412.00	0.150	203.240	412.00	0.51	-0.24	0.78	1657888.38	14278483.06	39°19'12.288"N	80°56'17.600"W	0.81	106.939	0.29	
437.00	0.240	196.180	437.00	0.58	-0.32	0.75	1657888.35	14278482.98	39°19'12.287"N	80°56'17.601"W	0.82	112.908	0.37	
462.00	0.280	196.800	462.00	0.67	-0.43	0.72	1657888.32	14278482.87	39°19'12.286"N	80°56'17.601"W	0.84	120.652	0.16	
487.00	0.350	199.070	487.00	0.77	-0.56	0.68	1657888.28	14278482.74	39°19'12.285"N	80°56'17.602"W	0.88	129.449	0.28	
512.00	0.290	201.140	512.00	0.87	-0.69	0.63	1657888.23	14278482.61	39°19'12.283"N	80°56'17.602"W	0.93	137.564	0.24	
537.00	0.360	203.150	537.00	0.98	-0.82	0.58	1657888.18	14278482.48	39°19'12.282"N	80°56'17.603"W	1.00	144.916	0.28	
562.00	0.420	191.470	562.00	1.11	-0.98	0.53	1657888.13	14278482.32	39°19'12.280"N	80°56'17.604"W	1.11	151.789	0.40	
587.00	0.390	185.370	586.99	1.26	-1.16	0.50	1657888.10	14278482.14	39°19'12.279"N	80°56'17.604"W	1.26	156.596	0.21	
612.00	0.450	168.460	611.99	1.43	-1.34	0.51	1657888.11	14278481.96	39°19'12.277"N	80°56'17.604"W	1.43	159.044	0.55	
637.00	0.490	152.850	636.99	1.63	-1.53	0.58	1657888.18	14278481.77	39°19'12.275"N	80°56'17.603"W	1.63	159.202	0.53	
662.00	0.470	154.390	661.99	1.84	-1.72	0.67	1657888.27	14278481.58	39°19'12.273"N	80°56'17.602"W	1.84	158.567	0.10	
687.00	0.500	154.860	686.99	2.05	-1.91	0.76	1657888.36	14278481.39	39°19'12.271"N	80°56'17.601"W	2.05	158.162	0.12	
712.00	0.640	115.760	711.99	2.27	-2.07	0.94	1657888.54	14278481.23	39°19'12.270"N	80°56'17.598"W	2.27	155.625	1.61	
737.00	1.070	87.470	736.99	2.45	-2.12	1.30	1657888.89	14278481.18	39°19'12.269"N	80°56'17.594"W	2.48	148.539	2.36	
762.00	1.830	76.560	761.98	2.59	-2.01	1.92	1657889.52	14278481.29	39°19'12.270"N	80°56'17.596"W	2.78	136.415	3.22	
787.00	2.850	71.520	786.96	2.68	-1.72	2.99	1657890.49	14278481.58	39°19'12.273"N	80°56'17.574"W	3.37	120.779	4.16	



Actual Wellpath Report

Earnest Unit 1H AWP Proj: 14825
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Ritchie County, WV
Field	Ritchie
Facility	Zinn Pad
Slot	Earnest Unit 1H AWP
Slot #06	Earnest Unit 1H

WELLPATH DATA (339 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
812.00	3.520	71.420	811.92	2.77	-1.28	4.21	1657891.81	14278482.02	39°19'12.27"N	80°56'17.55"W	4.40	106.937	2.68	
837.00	4.450	72.740	836.86	2.89	-0.75	5.87	1657893.46	14278484.55	39°19'12.283"N	80°56'17.536"W	5.91	97.289	3.74	
862.00	4.730	73.360	861.78	3.07	-0.17	7.78	1657895.38	14278483.13	39°19'12.288"N	80°56'17.511"W	7.78	91.232	1.14	
887.00	4.880	73.250	886.69	3.27	0.43	9.78	1657897.38	14278483.73	39°19'12.294"N	80°56'17.486"W	9.79	87.458	0.60	
912.00	4.860	73.940	911.60	3.47	1.03	11.82	1657899.41	14278484.33	39°19'12.300"N	80°56'17.460"W	11.86	85.004	0.26	
937.00	4.840	73.610	936.51	3.69	1.62	13.85	1657901.44	14278484.92	39°19'12.306"N	80°56'17.434"W	13.94	83.314	0.12	
962.00	4.920	73.550	961.42	3.89	2.22	15.89	1657903.48	14278485.52	39°19'12.312"N	80°56'17.408"W	16.04	82.029	0.32	
987.00	4.880	73.230	986.33	4.10	2.83	17.93	1657905.53	14278486.13	39°19'12.318"N	80°56'17.382"W	18.15	81.017	0.19	
1012.00	4.810	72.960	1011.24	4.28	3.45	19.95	1657907.54	14278486.75	39°19'12.324"N	80°56'17.356"W	20.25	80.194	0.29	
1037.00	4.670	72.650	1036.16	4.46	4.06	21.93	1657909.62	14278487.36	39°19'12.330"N	80°56'17.331"W	22.30	79.511	0.57	
1062.00	4.630	73.510	1061.07	4.64	4.65	23.86	1657911.46	14278487.95	39°19'12.336"N	80°56'17.307"W	24.31	78.976	0.32	
1087.00	4.520	74.980	1085.99	4.85	5.19	25.78	1657913.37	14278488.49	39°19'12.341"N	80°56'17.282"W	26.30	78.617	0.64	
1112.00	4.630	74.830	1110.91	5.10	5.71	27.71	1657915.30	14278489.01	39°19'12.346"N	80°56'17.258"W	28.29	78.356	0.44	
1137.00	4.520	75.800	1135.83	5.35	6.22	29.64	1657917.23	14278489.51	39°19'12.351"N	80°56'17.233"W	30.28	78.155	0.54	
1162.00	4.500	77.390	1160.76	5.64	6.67	31.55	1657919.14	14278489.97	39°19'12.356"N	80°56'17.209"W	32.25	78.060	0.50	
1187.00	4.500	77.270	1185.68	5.96	7.10	33.47	1657921.06	14278490.40	39°19'12.360"N	80°56'17.184"W	34.22	78.018	0.09	
1212.00	3.820	81.630	1210.61	6.32	7.44	35.25	1657922.84	14278490.74	39°19'12.363"N	80°56'17.162"W	36.03	78.081	3.00	
1237.00	3.280	84.730	1235.56	6.70	7.65	36.79	1657924.37	14278490.95	39°19'12.365"N	80°56'17.142"W	37.57	78.248	2.18	
1262.00	2.750	84.050	1260.53	7.05	7.81	38.09	1657925.68	14278491.10	39°19'12.367"N	80°56'17.126"W	38.88	78.420	2.14	
1287.00	2.120	82.370	1285.51	7.33	7.93	39.15	1657926.73	14278491.23	39°19'12.368"N	80°56'17.112"W	39.94	78.550	2.54	
1312.00	1.570	76.860	1310.49	7.49	8.07	39.94	1657927.52	14278491.37	39°19'12.370"N	80°56'17.102"W	40.75	78.579	2.31	
1337.00	1.260	73.140	1335.49	7.57	8.23	40.54	1657928.12	14278491.52	39°19'12.371"N	80°56'17.094"W	41.36	78.529	1.29	
1362.00	1.050	69.970	1360.48	7.60	8.38	41.01	1657928.60	14278491.68	39°19'12.373"N	80°56'17.088"W	41.86	78.447	0.88	
1387.00	0.800	65.010	1385.48	7.60	8.54	41.39	1657928.97	14278491.83	39°19'12.374"N	80°56'17.084"W	42.26	78.346	1.05	
1412.00	0.640	57.880	1410.48	7.57	8.68	41.66	1657929.25	14278491.98	39°19'12.376"N	80°56'17.080"W	42.56	78.226	0.73	
1437.00	0.770	53.480	1435.47	7.50	8.86	41.92	1657929.50	14278492.15	39°19'12.377"N	80°56'17.077"W	42.84	78.067	0.56	
1462.00	0.770	54.930	1460.47	7.42	9.06	42.19	1657929.77	14278492.35	39°19'12.379"N	80°56'17.073"W	43.15	77.886	0.08	
1487.00	0.560	51.830	1485.47	7.35	9.23	42.42	1657930.00	14278492.52	39°19'12.381"N	80°56'17.070"W	43.41	77.730	0.89	
1512.00	0.570	48.920	1510.47	7.28	9.38	42.61	1657930.19	14278492.68	39°19'12.382"N	80°56'17.068"W	43.63	77.583	0.14	
1537.00	0.670	54.580	1535.47	7.21	9.54	42.80	1657930.39	14278492.83	39°19'12.384"N	80°56'17.066"W	43.85	77.441	0.23	



Actual Wellpath Report

Earnest Unit 1H AWP Proj.: 14825

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Richlie County, WV	Well	Earnest Unit 1H
Field	Richlie	Wellbore	Earnest Unit 1H AWB
Facility	Zinn Pad		

WELLPATH DATA (339 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Gnd East	Gnd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
3062.01	0.760	330.560	3060.34	4.83	10.41	38.63	1657926.21	14278493.70	39°19'12.393"N	80°56'17.119"W	40.01	74.921	0.15	
3087.01	0.660	19.370	3085.34	4.56	4.66	10.69	1657926.18	14278493.98	39°19'12.395"N	80°56'17.119"W	40.05	74.522	2.37	
3112.01	1.380	69.250	3110.34	4.46	10.93	38.93	1657926.51	14278494.23	39°19'12.398"N	80°56'17.115"W	40.43	74.315	4.32	
3137.01	1.900	74.060	3135.33	4.51	11.15	39.61	1657927.19	14278494.45	39°19'12.400"N	80°56'17.106"W	41.15	74.275	2.15	
3162.01	3.020	71.800	3160.31	4.60	11.47	40.63	1657928.21	14278494.77	39°19'12.403"N	80°56'17.093"W	42.22	74.235	4.50	
3187.01	3.610	70.570	3185.26	4.68	11.94	42.00	1657929.58	14278495.23	39°19'12.408"N	80°56'17.076"W	43.66	74.132	2.38	
3212.01	3.830	70.970	3210.21	4.76	12.47	43.53	1657931.11	14278495.77	39°19'12.413"N	80°56'17.056"W	45.28	74.012	0.89	
3237.01	3.850	70.930	3235.15	4.84	13.02	45.11	1657932.69	14278496.31	39°19'12.418"N	80°56'17.036"W	46.95	73.903	0.08	
3262.01	3.880	69.540	3260.10	4.91	13.59	46.70	1657934.28	14278496.88	39°19'12.424"N	80°56'17.016"W	48.64	73.775	0.41	
3287.01	4.240	62.740	3285.04	4.85	14.31	48.32	1657935.90	14278497.60	39°19'12.431"N	80°56'16.995"W	50.39	73.503	2.38	
3312.01	4.450	58.950	3309.96	4.61	15.23	49.97	1657937.55	14278498.53	39°19'12.440"N	80°56'16.974"W	52.24	73.046	1.42	
3337.01	4.950	52.850	3334.88	4.18	16.38	51.66	1657939.24	14278499.68	39°19'12.452"N	80°56'16.953"W	54.19	72.403	2.83	
3362.01	5.410	47.840	3359.78	3.49	17.83	53.39	1657940.97	14278501.12	39°19'12.466"N	80°56'16.931"W	56.29	71.537	2.58	
3387.01	5.620	46.790	3384.66	2.64	19.46	55.16	1657942.74	14278502.75	39°19'12.482"N	80°56'16.908"W	58.49	70.571	0.93	
3437.01	6.240	45.970	3434.41	0.79	22.93	58.81	1657946.38	14278506.22	39°19'12.516"N	80°56'16.862"W	63.12	68.698	2.41	
3462.01	6.920	45.800	3459.24	-0.29	24.93	60.86	1657948.44	14278508.22	39°19'12.536"N	80°56'16.836"W	65.77	67.730	2.72	
3487.01	7.460	45.840	3484.05	-1.47	27.11	63.11	1657950.68	14278510.39	39°19'12.558"N	80°56'16.807"W	68.68	66.756	2.16	
3512.01	8.450	44.520	3508.80	-2.81	29.55	65.56	1657953.13	14278512.83	39°19'12.582"N	80°56'16.776"W	71.91	65.740	4.03	
3537.01	8.790	44.270	3533.52	-4.31	32.22	68.18	1657955.75	14278515.51	39°19'12.608"N	80°56'16.743"W	75.41	64.704	1.37	
3562.01	8.830	44.120	3558.23	-5.85	34.97	70.85	1657958.42	14278518.25	39°19'12.635"N	80°56'16.709"W	79.01	63.731	0.18	
3587.01	9.000	45.180	3582.92	-7.39	37.72	73.57	1657961.14	14278521.01	39°19'12.662"N	80°56'16.674"W	82.68	62.854	0.95	
3612.01	9.310	47.910	3607.61	-8.84	40.46	76.46	1657964.03	14278523.74	39°19'12.689"N	80°56'16.637"W	86.51	62.115	2.13	
3637.01	9.470	48.560	3632.27	-10.22	43.18	79.50	1657967.07	14278526.46	39°19'12.716"N	80°56'16.598"W	90.47	61.495	0.77	
3662.01	9.670	50.420	3656.92	-11.53	45.87	82.66	1657970.23	14278529.16	39°19'12.743"N	80°56'16.558"W	94.54	60.972	1.47	
3687.01	9.830	51.280	3681.56	-12.78	48.55	85.95	1657973.51	14278531.83	39°19'12.769"N	80°56'16.518"W	98.71	60.540	0.87	
3712.01	9.870	51.150	3706.19	-14.02	51.23	89.28	1657976.84	14278534.51	39°19'12.796"N	80°56'16.474"W	102.93	60.154	0.18	
3737.01	9.930	51.130	3730.82	-15.26	53.92	92.63	1657980.19	14278537.20	39°19'12.822"N	80°56'16.431"W	107.18	59.794	0.24	
3762.01	9.950	51.090	3755.45	-16.51	56.63	96.99	1657983.55	14278539.91	39°19'12.849"N	80°56'16.388"W	111.45	59.459	0.08	
3787.01	10.360	50.930	3780.05	-17.80	59.41	99.41	1657986.97	14278542.68	39°19'12.877"N	80°56'16.345"W	115.81	59.139	1.64	



Actual Wellpath Report

Earnest Unit 1H AWP Proj: 14825

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWP
Facility	Zinn Pad		

WELLPATH DATA (339 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
3812.01	11.110	50.880	3804.62	-19.17	62.34	103.03	1657990.58	14278545.62	39°19'12.906"N	80°56'16.299"W	120.42	58.822	3.00	
3837.01	12.080	50.410	3829.11	-20.66	106.81	1657994.47	14278548.80	14278548.80	39°19'12.937"N	80°56'16.249"W	125.40	58.495	3.90	
3862.01	12.340	50.270	3853.54	-22.27	68.90	110.98	1657998.54	14278552.18	39°19'12.970"N	80°56'16.198"W	130.63	58.166	1.05	
3887.01	12.420	50.180	3877.96	-23.90	72.33	115.10	1658002.65	14278555.60	39°19'13.004"N	80°56'16.145"W	135.94	57.854	0.33	
3912.01	12.260	49.970	3902.38	-25.54	75.76	119.20	1658006.75	14278559.03	39°19'13.038"N	80°56'16.093"W	141.24	57.560	0.66	
3937.01	12.430	50.270	3926.80	-27.18	79.19	123.30	1658010.65	14278562.46	39°19'13.072"N	80°56'16.041"W	146.54	57.290	0.73	
3962.01	12.700	52.370	3951.21	-28.74	82.59	127.55	1658015.09	14278565.85	39°19'13.105"N	80°56'15.987"W	151.95	57.077	2.12	
3987.01	13.030	53.590	3975.58	-30.18	85.94	131.89	1658019.54	14278569.20	39°19'13.139"N	80°56'15.930"W	157.50	56.932	1.71	
4012.01	13.260	53.540	3999.92	-31.60	89.31	136.56	1658024.11	14278572.58	39°19'13.172"N	80°56'15.872"W	163.18	56.815	0.92	
4037.01	13.440	53.500	4024.25	-33.04	92.75	141.21	1658028.75	14278576.01	39°19'13.206"N	80°56'15.813"W	168.94	56.703	0.72	
4062.01	13.580	53.630	4048.56	-34.49	96.21	145.90	1658033.45	14278579.48	39°19'13.240"N	80°56'15.753"W	174.77	56.598	0.57	
4087.01	13.700	53.530	4072.85	-35.96	99.71	150.65	1658038.19	14278582.97	39°19'13.275"N	80°56'15.693"W	180.66	56.499	0.49	
4112.01	13.790	53.390	4097.13	-37.45	103.25	155.42	1658042.96	14278586.51	39°19'13.309"N	80°56'15.632"W	186.59	56.403	0.38	
4137.01	13.620	53.170	4121.42	-38.95	106.79	160.17	1658047.70	14278590.05	39°19'13.344"N	80°56'15.571"W	192.51	56.307	0.71	
4162.01	14.570	52.400	4145.74	-40.47	110.31	164.80	1658052.33	14278593.56	39°19'13.379"N	80°56'15.512"W	198.31	56.204	1.57	
4187.01	13.310	51.310	4170.07	-42.07	113.86	169.32	1658056.85	14278597.11	39°19'13.414"N	80°56'15.455"W	204.04	56.081	1.01	
4212.01	13.550	49.780	4194.38	-43.81	117.55	173.80	1658061.33	14278600.80	39°19'13.451"N	80°56'15.398"W	209.82	55.928	1.72	
4237.01	14.290	48.290	4218.67	-45.74	121.44	178.28	1658065.81	14278604.69	39°19'13.489"N	80°56'15.341"W	215.71	55.739	2.05	
4262.01	13.970	47.880	4242.93	-47.79	125.46	182.76	1658070.29	14278608.71	39°19'13.529"N	80°56'15.284"W	221.68	55.531	0.44	
4287.01	14.570	47.050	4267.16	-49.95	129.63	187.30	1658074.83	14278612.88	39°19'13.570"N	80°56'15.226"W	227.79	55.314	2.54	
4312.01	14.320	47.030	4291.37	-52.18	133.88	191.87	1658079.39	14278617.13	39°19'13.612"N	80°56'15.168"W	233.96	55.094	1.00	
4337.01	14.400	46.800	4315.59	-54.41	138.12	196.40	1658083.92	14278621.36	39°19'13.654"N	80°56'15.110"W	240.10	54.883	0.39	
4362.01	14.600	47.390	4339.79	-56.64	142.38	200.98	1658088.50	14278625.62	39°19'13.696"N	80°56'15.052"W	246.30	54.686	0.99	
4387.01	14.550	47.610	4363.99	-58.84	146.63	205.62	1658093.14	14278629.87	39°19'13.738"N	80°56'14.993"W	252.54	54.507	0.30	
4412.01	14.550	4388.19	-61.03	150.86	210.26	1658097.77	14278634.10	14278634.10	39°19'13.780"N	80°56'14.934"W	258.78	54.340	0.05	
4437.01	14.630	47.450	4412.38	-63.23	155.12	214.90	1658102.41	14278638.35	39°19'13.822"N	80°56'14.875"W	265.03	54.178	0.34	
4462.01	14.970	47.690	4436.55	-65.46	159.43	219.61	1658107.13	14278642.66	39°19'13.864"N	80°56'14.816"W	271.38	54.023	1.38	
4487.01	15.530	48.280	4460.67	-67.70	163.83	224.50	1658112.01	14278647.06	39°19'13.908"N	80°56'14.757"W	277.92	53.880	2.32	
4512.01	15.850	48.370	4484.74	-69.98	168.32	229.55	1658117.06	14278651.55	39°19'13.952"N	80°56'14.698"W	284.65	53.749	1.28	
4537.01	16.010	48.410	4508.78	-72.28	172.88	234.68	1658122.19	14278656.11	39°19'13.997"N	80°56'14.623"W	291.48	53.623	0.64	



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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Ritchie County, WV
Field	Ritchie
Facility	Zinn Pad
Slot	Earnest Unit 1H
Slot #06	Earnest Unit 1H AWP

WELLPATH DATA (339 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
4562.01	15.940	4532.81	-74.57	177.44	239.83	1658127.34	14278660.66	39°19'14.042"N	80°56'14.557"W	298.34	53.505	0.38		
4587.01	15.800	4556.86	-76.68	181.83	245.07	1658132.57	14278665.06	39°19'14.086"N	80°56'14.490"W	305.16	53.426	2.95		
4612.01	15.830	4580.92	-78.42	185.91	250.52	1658138.02	14278669.13	39°19'14.126"N	80°56'14.421"W	311.97	53.422	4.23		
4637.01	16.140	4604.95	-79.80	189.72	256.26	1658143.75	14278672.94	39°19'14.163"N	80°56'14.348"W	318.84	53.486	2.98		
4662.01	16.360	4628.95	-81.02	193.43	262.18	1658149.68	14278676.66	39°19'14.200"N	80°56'14.273"W	325.82	53.581	1.07		
4687.01	16.460	4652.93	-82.22	197.16	268.18	1658155.68	14278680.38	39°19'14.237"N	80°56'14.196"W	332.86	53.679	0.40		
4712.01	16.380	4676.91	-83.42	200.88	274.19	1658161.68	14278684.10	39°19'14.274"N	80°56'14.120"W	339.90	53.773	0.32		
4737.01	15.940	4700.92	-84.55	204.50	280.13	1658167.62	14278687.72	39°19'14.309"N	80°56'14.044"W	346.84	53.870	2.02		
4762.01	15.110	4725.01	-85.50	207.86	285.92	1658173.40	14278691.07	39°19'14.342"N	80°56'13.970"W	353.49	53.984	3.77		
4787.01	14.260	4749.20	-86.21	210.88	291.49	1658178.97	14278694.10	39°19'14.372"N	80°56'13.900"W	359.77	54.116	3.75		
4812.01	13.870	4773.45	-86.73	213.63	296.90	1658184.39	14278696.85	39°19'14.400"N	80°56'13.831"W	365.78	54.264	2.16		
4837.01	13.000	4797.76	-87.12	216.17	302.13	1658189.61	14278699.38	39°19'14.425"N	80°56'13.764"W	371.50	54.417	3.53		
4862.01	13.060	4822.12	-87.51	218.64	307.20	1658194.67	14278701.85	39°19'14.449"N	80°56'13.700"W	377.06	54.560	0.86		
4887.01	12.700	4846.49	-88.00	221.17	312.16	1658199.63	14278704.38	39°19'14.474"N	80°56'13.636"W	382.57	54.682	1.78		
4912.01	12.400	4870.89	-88.58	223.73	316.95	1658204.42	14278706.94	39°19'14.498"N	80°56'13.575"W	387.96	54.782	1.47		
4937.01	12.340	4895.31	-89.27	226.36	321.61	1658209.09	14278709.57	39°19'14.525"N	80°56'13.516"W	393.29	54.861	1.43		
4962.01	12.430	4919.73	-90.07	229.10	326.23	1658213.70	14278712.31	39°19'14.552"N	80°56'13.457"W	398.64	54.921	0.75		
4987.01	12.840	4944.13	-90.97	231.94	330.85	1658218.32	14278715.15	39°19'14.580"N	80°56'13.398"W	404.06	54.968	1.28		
5012.01	12.840	4968.52	-91.99	234.91	335.50	1658222.97	14278718.12	39°19'14.610"N	80°56'13.339"W	409.57	55.001	1.17		
5037.01	12.960	4992.89	-93.11	238.00	340.15	1658227.61	14278721.21	39°19'14.640"N	80°56'13.280"W	415.15	55.019	1.01		
5062.01	12.800	5017.26	-94.30	241.15	344.75	1658232.21	14278724.35	39°19'14.671"N	80°56'13.222"W	420.72	55.028	0.74		
5087.01	12.840	5041.63	-95.52	244.31	349.31	1658236.77	14278727.51	39°19'14.702"N	80°56'13.164"W	426.27	55.031	0.45		
5112.01	12.440	5066.03	-96.81	247.50	353.75	1658241.21	14278730.70	39°19'14.734"N	80°56'13.107"W	431.74	55.022	2.02		
5137.01	12.040	5090.46	-98.22	250.72	357.96	1658245.41	14278733.92	39°19'14.766"N	80°56'13.053"W	437.03	54.992	2.41		
5162.01	12.010	5114.91	-99.73	253.99	362.02	1658249.47	14278737.19	39°19'14.798"N	80°56'13.002"W	442.23	54.947	0.51		
5187.01	11.580	5139.38	-101.20	257.18	366.00	1658253.46	14278740.38	39°19'14.829"N	80°56'12.951"W	447.33	54.905	1.87		
5212.01	11.580	5163.87	-102.62	260.31	369.93	1658257.39	14278743.50	39°19'14.860"N	80°56'12.901"W	452.34	54.868	0.40		
5237.01	11.630	5188.36	-104.11	263.49	373.83	1658261.28	14278746.68	39°19'14.892"N	80°56'12.851"W	457.36	54.823	0.82		
5262.01	11.870	5212.84	-105.67	266.75	377.74	1658265.19	14278749.95	39°19'14.924"N	80°56'12.802"W	462.43	54.771	1.00		
5287.01	12.190	5237.29	-107.32	270.14	381.70	1658269.14	14278753.33	39°19'14.957"N	80°56'12.751"W	467.62	54.712	1.47		



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWB
Facility	Zinn Pad		

WELLPATH DATA (339 stations) † = interpolated/extrapolated station														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
5312.01	12.300	48.820	5261.72	-109.05	273.62	385.70	1658273.14	14278756.81	39°19'14.992"N	80°56'12.700"W	472.90	472.90	54.647	0.48
5337.01	12.190	48.240	5286.15	-110.82	277.13	389.67	1658277.11	14278760.32	39°19'15.026"N	80°56'12.650"W	478.17	478.17	54.579	0.66
5362.01	11.550	45.570	5310.62	-112.66	280.64	393.42	1658280.87	14278763.83	39°19'15.061"N	80°56'12.602"W	483.26	483.26	54.498	3.37
5387.01	11.140	44.340	5335.13	-114.59	284.12	396.90	1658284.34	14278767.31	39°19'15.096"N	80°56'12.558"W	488.11	488.11	54.403	1.90
5412.01	10.660	43.040	5359.68	-116.53	287.54	400.17	1658287.61	14278770.73	39°19'15.129"N	80°56'12.516"W	492.76	492.76	54.301	2.16
5437.01	10.140	43.130	5384.27	-118.43	290.64	403.25	1658290.69	14278774.02	39°19'15.162"N	80°56'12.477"W	497.19	497.19	54.200	2.08
5462.01	10.250	42.530	5408.87	-120.31	294.08	406.26	1658293.69	14278777.26	39°19'15.194"N	80°56'12.438"W	501.53	501.53	54.100	0.61
5487.01	10.480	40.930	5433.46	-122.30	297.44	409.25	1658296.69	14278780.62	39°19'15.227"N	80°56'12.400"W	505.92	505.92	53.991	1.47
5512.01	10.940	38.120	5458.03	-124.52	301.02	412.20	1658299.64	14278784.20	39°19'15.262"N	80°56'12.363"W	510.42	510.42	53.860	2.78
5537.01	11.640	37.990	5482.54	-126.96	304.88	415.22	1658302.65	14278788.05	39°19'15.301"N	80°56'12.324"W	515.13	515.13	53.712	2.80
5562.01	12.310	38.280	5507.00	-129.54	308.96	418.42	1658305.86	14278792.13	39°19'15.341"N	80°56'12.284"W	520.13	520.13	53.559	2.69
5587.01	12.730	41.260	5531.41	-132.10	313.12	421.89	1658309.32	14278796.29	39°19'15.382"N	80°56'12.239"W	525.39	525.39	53.418	3.08
5612.01	12.650	44.530	5555.80	-134.43	317.14	425.63	1658313.06	14278800.31	39°19'15.422"N	80°56'12.192"W	530.79	530.79	53.310	2.89
5637.01	13.250	49.980	5604.54	-138.33	324.67	433.81	1658321.24	14278807.84	39°19'15.496"N	80°56'12.088"W	541.85	541.85	53.189	2.98
5662.01	15.520	47.770	5715.92	-147.72	343.48	455.30	1658342.72	14278826.65	39°19'15.682"N	80°56'11.814"W	570.33	570.33	52.969	2.03
5687.00	12.200	63.640	5830.83	-156.04	360.65	475.55	1658362.96	14278843.80	39°19'15.851"N	80°56'11.556"W	596.84	596.84	52.824	8.49
5692.00	11.820	105.800	5926.07	-150.31	361.72	493.49	1658380.89	14278844.88	39°19'15.862"N	80°56'11.328"W	611.86	611.86	53.759	7.88
5922.00	11.080	87.030	5879.00	-154.83	362.82	484.15	1658371.55	14278845.98	39°19'15.873"N	80°56'11.447"W	605.01	605.01	53.152	8.93
5992.00	13.820	122.450	5971.91	-142.79	357.40	502.86	1658390.26	14278840.55	39°19'15.819"N	80°56'11.209"W	616.93	616.93	54.598	8.89
6039.00	16.180	133.730	6017.31	-132.25	349.86	512.33	1658399.73	14278833.01	39°19'15.744"N	80°56'11.088"W	620.39	620.39	55.672	7.97
6061.00	140.780	6061.95	-118.48	339.00	522.23	1658409.62	14278822.17	14278822.17	39°19'15.637"N	80°56'10.962"W	622.61	622.61	57.010	9.95
6133.00	25.010	144.320	6104.38	-101.39	324.91	532.95	1658420.34	14278808.08	39°19'15.498"N	80°56'10.826"W	624.18	624.18	58.632	10.63
6179.00	29.500	145.320	6147.93	-79.54	306.57	545.87	1658433.25	14278789.74	39°19'15.316"N	80°56'10.662"W	626.06	626.06	60.681	9.21
6228.00	34.280	149.600	6187.83	-55.14	285.62	559.16	1658446.53	14278768.80	39°19'15.109"N	80°56'10.493"W	627.88	627.88	62.942	11.25
6275.00	39.240	151.320	6225.48	-27.26	261.15	573.00	1658460.37	14278744.34	39°19'14.867"N	80°56'10.317"W	629.70	629.70	65.499	10.78
6322.00	42.949	150.624	6254.11	-2.48	239.31	585.12	1658472.49	14278722.52	39°19'14.651"N	80°56'10.163"W	632.17	632.17	67.756	9.83
6360.00	43.730	150.490	6259.93	2.97	234.53	587.82	1658475.18	14278717.74	39°19'14.604"N	80°56'10.129"W	632.88	632.88	68.249	9.83



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWB
Facility	Zinn Pad		

WELLPATH DATA (339 stations) † = interpolated/extrapolated station														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
(m)	(°)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(° N)	(° W)	(m)	(°)	(m)	
6416.00	48.300	6293.25	37.20	204.49	604.84	1658492.20	14278687.71	39°19'14.30"N	80°56'09.91"W	638.48	71.320	9.52		
6459.00	52.860	6320.55	70.13	175.55	621.14	1658508.49	14278658.78	39°19'14.02"N	80°56'09.70"W	645.47	74.218	10.63		
6511.00	57.950	6350.07	112.63	138.05	641.74	1658529.08	14278621.30	39°19'13.650"N	80°56'09.444"W	656.42	77.860	9.87		
6534.00†	60.536	6361.83	132.27	120.64	651.10	1658538.43	14278603.89	39°19'13.478"N	80°56'09.325"W	662.18	79.503	11.30	Burkett: 6534' MD	
6556.00	63.010	6372.23	151.55	103.52	660.19	1658547.52	14278586.78	39°19'13.309"N	80°56'09.209"W	668.25	81.088	11.30		
6599.00†	67.819	6390.12	190.47	68.83	678.20	1658565.53	14278552.10	39°19'12.966"N	80°56'08.980"W	681.68	84.205	11.30	Tully: 6599' MD	
6605.00	68.490	6392.35	196.02	63.87	680.73	1658568.06	14278547.15	39°19'12.917"N	80°56'08.948"W	683.72	84.640	11.30		
6652.00	73.690	6407.58	240.32	24.13	700.65	1658587.96	14278507.42	39°19'12.324"N	80°56'08.695"W	701.06	88.027	11.15		
6675.00†	76.042	6413.58	262.47	4.16	710.35	1658597.66	14278487.46	39°19'12.326"N	80°56'08.522"W	710.36	89.664	10.69	Marcellus: 6675' MD	
6700.00	78.600	6419.07	286.82	-17.91	720.71	1658608.02	14278465.99	39°19'12.108"N	80°56'08.440"W	720.93	91.424	10.69		
6745.00	81.350	6426.90	331.11	-58.48	738.53	1658625.83	14278424.85	39°19'11.707"N	80°56'08.214"W	740.84	94.527	7.59		
6794.00	85.840	6432.37	379.78	-103.75	756.42	1658643.71	14278379.59	39°19'11.259"N	80°56'07.987"W	763.50	97.810	10.24		
6840.00	87.850	6434.90	425.70	-146.73	772.61	1658659.89	14278336.63	39°19'10.834"N	80°56'07.781"W	786.41	100.753	4.45		
6888.00	88.710	6436.34	473.67	-191.42	790.06	1658677.34	14278291.96	39°19'10.393"N	80°56'07.559"W	812.92	103.620	2.72		
6982.00	89.780	6437.58	567.62	-277.64	827.45	1658714.72	14278205.77	39°19'09.541"N	80°56'07.084"W	872.78	108.549	3.64		
7077.00	90.090	6437.69	662.49	-363.68	867.73	1658754.98	14278191.77	39°19'08.690"N	80°56'06.573"W	940.86	112.739	0.33		
7171.00	89.880	6437.71	756.42	-449.48	906.11	1658793.35	14278034.00	39°19'07.841"N	80°56'06.085"W	1011.47	116.384	2.16		
7266.00	90.030	6437.79	851.41	-537.78	941.12	1658828.34	14277945.73	39°19'06.968"N	80°56'05.640"W	1083.93	119.745	3.09		
7360.00	90.060	6437.71	945.33	-626.25	972.89	1658860.10	14277857.30	39°19'06.094"N	80°56'05.237"W	1157.02	122.769	0.86		
7454.00	90.030	6437.64	1039.19	-715.17	1003.37	1658890.57	14277768.42	39°19'05.215"N	80°56'04.850"W	1232.16	125.480	0.92		
7548.00	90.030	6437.59	1133.02	-804.31	1033.19	1658920.37	14277679.31	39°19'04.333"N	80°56'04.471"W	1309.35	127.900	0.01		
7643.00	90.150	6437.44	1227.94	-893.60	1065.60	1658952.77	14277590.06	39°19'03.451"N	80°56'04.060"W	1390.69	129.983	3.06		
7737.00	89.380	6437.82	1321.94	-980.55	1101.30	1658988.46	14277503.14	39°19'02.591"N	80°56'03.606"W	1474.57	131.680	2.13		
7832.00	89.450	6438.79	1416.93	-1068.51	1137.17	1659024.31	14277415.22	39°19'01.721"N	80°56'03.151"W	1560.41	133.217	2.24		
7926.00	89.880	6439.34	1510.91	-1156.11	1171.25	1659058.38	14277327.65	39°19'00.855"N	80°56'02.718"W	1645.73	134.627	0.54		
8021.00	89.940	6439.49	1605.91	-1244.55	1205.95	1659093.07	14277239.25	39°18'59.981"N	80°56'02.277"W	1732.98	135.902	0.10		
8115.00	88.620	6440.68	1699.89	-1331.27	1242.17	1659129.27	14277152.56	39°18'59.124"N	80°56'01.817"W	1820.79	136.983	2.93		
8210.00	89.380	6442.33	1794.76	-1417.52	1281.95	1659169.04	14277066.35	39°18'58.271"N	80°56'01.312"W	1911.22	137.875	2.02		
8304.00	89.880	6442.94	1888.64	-1502.78	1321.52	1659208.59	14276981.12	39°18'57.428"N	80°56'00.809"W	2001.19	138.672	1.67		
8399.00	90.060	6442.99	1983.61	-1590.09	1358.95	1659246.01	14276893.85	39°18'56.565"N	80°56'00.334"W	2091.68	139.482	2.00		



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWP
Facility	Zinn Pad		

WELLPATH DATA (339 stations)												
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Comments
8493.00	90.520	6442.51	2077.61	-1677.36	1393.87	1659280.91	14276806.61	39°18'55.702"N	80°55'59.891"W	2180.92	140.274	1.08
8588.00	89.970	6442.11	2172.61	-1765.53	1429.25	1659316.27	14276718.48	39°18'54.830"N	80°55'59.441"W	2271.53	141.009	1.23
8682.00	90.030	6442.11	2266.60	-1852.27	1465.46	1659352.47	14276631.77	39°18'53.972"N	80°55'58.981"W	2361.88	141.650	0.60
8777.00	91.790	6440.60	2361.55	-1939.40	1503.29	1659390.28	14276544.68	39°18'53.111"N	80°55'58.501"W	2453.80	142.220	2.16
8872.00	90.520	6438.68	2456.51	-2026.89	1540.24	1659427.22	14276457.23	39°18'52.246"N	80°55'58.032"W	2545.70	142.769	2.88
8966.00	88.920	6439.14	2550.49	-2113.41	1576.95	1659453.92	14276370.74	39°18'51.391"N	80°55'57.565"W	2636.91	143.271	3.08
9061.00	88.090	6441.62	2645.30	-2199.29	1617.48	1659504.43	14276284.89	39°18'50.542"N	80°55'57.050"W	2730.04	143.667	2.40
9155.00	90.000	6443.19	2739.22	-2285.74	1654.20	1659541.13	14276198.47	39°18'49.684"N	80°55'56.584"W	2821.52	144.107	7.32
9249.00	90.160	6443.07	2832.56	-2376.18	1679.55	1659566.48	14276108.07	39°18'48.793"N	80°55'56.262"W	2909.83	144.746	8.62
9344.00	90.180	6442.79	2925.46	-2468.73	1696.02	1659582.94	14276014.56	39°18'47.868"N	80°55'56.054"W	2996.00	145.522	3.42
9438.00	90.090	6442.57	3017.59	-2562.09	1713.38	1659600.29	14275922.24	39°18'46.955"N	80°55'55.834"W	3082.20	146.228	4.86
9533.00	91.200	6441.50	3112.18	-2652.59	1741.89	1659628.79	14275831.77	39°18'46.060"N	80°55'55.472"W	3173.39	146.708	9.66
9627.00	90.000	6440.52	3206.03	-2737.89	1781.29	1659668.18	14275746.51	39°18'45.217"N	80°55'54.971"W	3266.35	146.952	6.00
9721.00	90.000	6440.52	3299.53	-2820.93	1825.34	1659712.21	14275663.51	39°18'44.396"N	80°55'54.412"W	3359.99	147.094	0.84
9816.00	90.030	6440.49	3394.18	-2905.68	1868.25	1659755.10	14275578.79	39°18'43.558"N	80°55'53.867"W	3454.46	147.260	3.14
9910.00	90.090	6440.39	3488.10	-2991.34	1906.93	1659793.76	14275493.16	39°18'42.711"N	80°55'53.375"W	3547.48	147.483	2.26
10005.00	90.370	6440.01	3583.03	-3078.09	1945.66	1659832.47	14275406.45	39°18'41.853"N	80°55'52.884"W	3641.45	147.703	1.75
10099.00	90.260	6439.50	3676.83	-3162.74	1986.50	1659873.30	14275321.83	39°18'41.016"N	80°55'52.365"W	3734.85	147.867	1.87
10194.00	90.340	6439.01	3771.51	-3247.62	2029.18	1659915.96	14275236.99	39°18'40.177"N	80°55'51.823"W	3829.43	148.002	0.17
10288.00	90.250	6438.53	3865.26	-3331.99	2070.60	1659957.37	14275152.65	39°18'39.343"N	80°55'51.296"W	3922.95	148.142	1.30
10382.00	90.310	6438.07	3959.15	-3417.32	2110.04	1659996.79	14275067.36	39°18'38.499"N	80°55'50.795"W	4016.25	148.307	1.57
10477.00	90.280	6437.58	4054.13	-3505.22	2146.02	1660032.76	14274979.49	39°18'37.630"N	80°55'50.339"W	4109.98	148.524	3.81
10571.00	90.280	6437.12	4148.05	-3593.72	2177.68	1660064.40	14274891.02	39°18'36.755"N	80°55'49.937"W	4202.04	148.785	1.63
10666.00	90.520	6436.46	4242.97	-3683.09	2209.90	1660096.61	14274801.69	39°18'35.872"N	80°55'49.528"W	4295.20	149.036	1.92
10760.00	90.550	6435.58	4336.93	-3769.52	2246.77	1660133.47	14274715.30	39°18'35.017"N	80°55'49.059"W	4388.31	149.204	5.05
10855.00	90.370	6434.82	4431.76	-3855.37	2287.44	1660174.12	14274629.48	39°18'34.166"N	80°55'48.543"W	4482.88	149.319	0.34
10949.00	90.430	6434.16	4525.72	-3942.12	2323.55	1660210.22	14274542.77	39°18'33.311"N	80°55'48.084"W	4575.94	149.484	5.54
11044.00	90.370	6433.50	4620.52	-4032.25	2353.52	1660240.18	14274452.67	39°18'32.420"N	80°55'47.704"W	4668.85	149.729	3.39
11138.00	90.430	6432.84	4714.26	-4121.72	2382.33	1660268.98	14274363.24	39°18'31.535"N	80°55'47.338"W	4760.88	149.972	2.28
11232.00	90.400	6432.16	4808.22	-4209.60	2416.64	1660302.27	14274275.39	39°18'30.666"N	80°55'46.915"W	4853.46	150.151	3.91



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Richlie County, WV	Well	Earnest Unit 1H
Field	Richlie	Wellbore	Earnest Unit 1H AWP
Facility	Zinn Pad		

WELLPATH DATA (339 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
11327.00	90.400	158.280	6431.50	-4297.58	2451.48	1660338.09	14274187.45	39°18'29.79"N	80°55'46.46"W	4947.62	150.298	171	0.93	
11421.00	90.430	157.970	6430.82	-4997.21	-4384.81	1660373.10	14274100.25	39°18'28.934"N	80°55'46.016"W	5040.76	150.444	171	0.33	
11516.00	90.400	157.640	6430.13	-5092.21	-4472.77	1660408.97	14274012.33	39°18'28.064"N	80°55'45.560"W	5134.98	150.579	171	0.35	
11610.00	90.340	157.320	6429.52	-5186.20	-4559.60	1660444.96	14273925.53	39°18'27.206"N	80°55'45.103"W	5228.31	150.703	171	0.35	
11705.00	90.490	156.310	6428.83	-6466.92	-2595.79	1660482.34	14273838.24	39°18'26.343"N	80°55'44.628"W	5322.78	150.812	171	1.07	
11799.00	90.460	157.090	6428.05	-4733.25	-2632.97	1660519.51	14273751.95	39°18'25.489"N	80°55'44.156"W	5416.29	150.914	171	0.83	
11893.00	90.370	157.630	6427.37	-6469.15	-4820.01	1660555.68	14273665.23	39°18'24.631"N	80°55'43.696"W	5509.70	151.024	171	0.58	
11988.00	90.310	158.670	6426.81	-4908.18	-2704.50	1660591.02	14273577.09	39°18'23.760"N	80°55'43.247"W	5603.98	151.144	171	1.10	
12082.00	90.490	158.660	6426.15	-5658.12	-4996.03	1660624.44	14273489.28	39°18'22.891"N	80°55'42.823"W	5697.07	151.276	171	1.07	
12176.00	90.370	157.390	6425.45	-5752.11	-5083.49	1660658.83	14273401.85	39°18'22.026"N	80°55'42.386"W	5790.32	151.394	171	2.42	
12271.00	90.460	156.520	6424.76	-5847.09	-5170.91	1660696.01	14273314.47	39°18'21.162"N	80°55'41.914"W	5884.88	151.483	171	0.92	
12366.00	90.120	156.750	6424.28	-5942.06	-5258.12	1660733.67	14273227.29	39°18'20.300"N	80°55'41.436"W	5979.50	151.665	171	0.43	
12460.00	90.520	157.970	6423.75	-6036.05	-5344.87	1660769.83	14273140.57	39°18'19.442"N	80°55'40.976"W	6073.02	151.655	171	1.37	
12555.00	90.060	159.600	6423.27	-6131.04	-5433.43	1660804.20	14273052.05	39°18'18.566"N	80°55'40.540"W	6167.29	151.764	171	1.78	
12649.00	89.600	161.840	6423.65	-6224.82	-5522.15	1660835.22	14272963.37	39°18'17.689"N	80°55'40.146"W	6260.16	151.898	171	2.43	
12743.00	89.660	163.930	6424.16	-6318.57	-5611.98	1660862.87	14272873.57	39°18'16.801"N	80°55'39.795"W	6352.45	152.060	171	2.22	
12838.00	88.490	158.070	6425.89	-6413.38	-5701.75	1660893.77	14272783.84	39°18'15.914"N	80°55'39.403"W	6446.26	152.191	171	6.29	
12932.00	89.020	156.190	6427.74	-6507.33	-5788.01	1660931.03	14272697.61	39°18'15.061"N	80°55'38.829"W	6539.95	152.254	171	3.11	
13027.00	89.420	156.060	6429.03	-6602.23	-5874.54	1660970.21	14272611.12	39°18'14.205"N	80°55'38.431"W	6634.78	152.303	171	1.01	
13121.00	89.570	160.580	6429.86	-6696.21	-5961.86	1661004.91	14272523.83	39°18'13.342"N	80°55'37.991"W	6728.24	152.387	171	4.81	
13216.00	89.380	160.920	6430.73	-6791.09	-6051.54	1661036.22	14272434.19	39°18'12.455"N	80°55'37.593"W	6822.24	152.503	171	0.41	
13310.00	89.350	157.690	6431.77	-6885.05	-6139.46	1661069.42	14272346.30	39°18'11.586"N	80°55'37.172"W	6915.57	152.595	171	3.44	
13404.00	89.450	156.960	6432.75	-6979.03	-6226.19	1661105.64	14272259.61	39°18'10.729"N	80°55'36.712"W	7009.25	152.658	171	0.78	
13499.00	89.420	158.040	6433.69	-7074.03	-6313.95	1661141.98	14272171.88	39°18'09.861"N	80°55'36.250"W	7103.91	152.723	171	1.14	
13593.00	89.390	157.720	6434.67	-7168.02	-6401.03	1661177.36	14272084.84	39°18'09.000"N	80°55'35.801"W	7197.53	152.790	171	0.34	
13688.00	89.450	156.930	6435.83	-7263.01	-6488.68	1661213.96	14271997.22	39°18'08.133"N	80°55'35.336"W	7292.23	152.849	171	0.83	
13782.00	89.420	155.290	6436.56	-7356.95	-6574.62	1661252.01	14271911.32	39°18'07.284"N	80°55'34.852"W	7386.07	152.891	171	1.74	
13877.00	89.290	151.240	6437.63	-7451.60	-6659.44	1661294.72	14271826.53	39°18'06.445"N	80°55'34.310"W	7481.04	152.895	171	4.27	
13971.00	89.600	153.380	6438.54	-7545.13	-6742.67	1661338.38	14271743.34	39°18'05.622"N	80°55'33.755"W	7575.03	152.888	171	2.30	
14066.00	89.660	155.270	6439.15	-7639.83	-6828.28	1661379.52	14271657.76	39°18'04.776"N	80°55'33.232"W	7669.99	152.906	171	1.99	



Actual Wellpath Report
 Earnest Unit 1H AWP Proj: 14825
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWB
Facility	Zinn Pad		

WELLPATH DATA (339 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
14161.00	89.540	159.230	6439.81	7734.90	-6915.87	3530.05	1661416.24	14271570.20	39°18'03.91"N	80°55'32.76"W	7764.70	152.959	4.17	
14255.00	89.780	162.820	6440.37	7828.76	-7004.75	3560.61	1661446.78	14271481.36	39°18'03.031"N	80°55'32.378"W	7857.77	153.055	3.83	
14350.00	89.690	162.510	6440.81	7923.44	-7095.43	3588.92	1661475.08	14271390.72	39°18'02.134"N	80°55'32.019"W	7951.45	153.169	0.34	
14444.00	89.660	158.750	6441.34	8017.32	-7184.09	3620.09	1661506.24	14271302.09	39°18'01.258"N	80°55'31.624"W	8044.64	153.256	4.00	
14539.00	89.720	156.170	6441.86	8112.30	-7271.83	3656.50	1661542.63	14271214.39	39°18'00.390"N	80°55'31.161"W	8139.38	153.305	2.72	
14633.00	89.570	155.500	6442.44	8206.24	-7357.59	3694.98	1661581.10	14271128.67	39°17'59.542"N	80°55'30.673"W	8233.29	153.334	0.73	
14728.00	89.600	156.150	6443.13	8301.17	-7444.26	3733.89	1661619.99	14271042.03	39°17'58.685"N	80°55'30.179"W	8328.20	153.363	0.68	
14800.00	89.780	156.500	6443.52	8373.13	-7510.19	3762.80	1661648.88	14270976.12	39°17'58.034"N	80°55'29.812"W	8400.10	153.388	0.55	
14825.00	89.780	156.500	6443.61	8398.13	-7533.12	3772.76	1661658.85	14270953.20	39°17'57.807"N	80°55'29.685"W	8425.06	153.397	0.00	Projected MD @ TD: 14825'

HOLE & CASING SECTIONS - Ref Wellbore: Earnest Unit 1H AWB Ref Wellpath: Earnest Unit 1H AWP Proj: 14825'									
String/Diameter	Start MD	End MD	Interval	Start TVD	End TVD	Start N/S	Start E/W	End N/S	End E/W
20in Conductor	25.00	65.00	40.00	25.00	65.00	(ft)	(ft)	0.00	0.04
13.375in Casing Surface	25.00	636.00	611.00	25.00	635.99	(ft)	(ft)	0.00	0.58
9.625in Casing Intermediate	25.00	2519.00	2494.00	25.00	2517.41	(ft)	(ft)	0.00	37.49



Actual Wellpath Report

Earnest Unit 1H AWP Proj: 14825'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWB
Facility	Zinn Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Earnest Unit 1H POE Rev-1	6409.00	46.88	691.90	1658579.22	14278530.16	39°19'12.749"N	80°56'08.806"W	point
Earnest Unit 1H BHL Rev-1	6433.00	-7516.62	3750.41	1661636.50	14270969.70	39°17'57.970"N	80°55'29.969"W	point
Earnest Unit 1H Landing Pt. Rev-1	6433.00	-91.69	747.94	1658635.24	14278391.65	39°19'11.379"N	80°56'08.094"W	point

WELLPATH COMPOSITION - Ref Wellbore: Earnest Unit 1H AWB Ref Wellpath: Earnest Unit 1H AWP Proj: 14825'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	5662.01	SDI Keeper v1.04	01_SDI Gyro Std Keeper (100' - 5650.01')	Earnest Unit 1H AWB
5662.01	14800.00	BHI AutoTrak Curve (Short)	02_BHI AT Curve <8-1/2">(5662.01)(5777'-14800')	Earnest Unit 1H AWB
14800.00	14825.00	Blind Drilling (std)	Projection to bit	Earnest Unit 1H AWB



Actual Wellpath Report

Earnest Unit 1H AWP Proj: 14825'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Ritchie County, WV	Well	Earnest Unit 1H
Field	Ritchie	Wellbore	Earnest Unit 1H AWB
Facility	Zinn Pad		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
112.00	0.400	41.300	112.00	SDI Gyro Std Keeper (112' - 5662.01')	
5777.00	15.520	47.770	5715.92	BHI AT Curve <8-1/2">(5662.01)(5777'-14800')	
6360.00	42.949	150.624	6254.11	Middlesex: 6360' MD	
6534.00	60.536	151.898	6361.83	Burkett: 6534' MD	
6599.00	67.819	152.929	6390.12	Tully: 6599' MD	
6675.00	76.042	154.461	6413.58	Marcellus: 6675' MD	
14825.00	89.780	156.500	6443.61	Projected MD @ TD: 14825'	

COMMENTS
<p>Wellpath general comments API: 47-085-10273-0000 BHI Job #: 7957038 Rig: Patterson 343 Duration: 05.20.2016-05.23.2016 SDI Gyro Std Keeper (112' - 5662.01') BHI AT Curve <8-1/2">(5662.01)(5777'-14800') Middlesex: 6360' MD Burkett: 6534' MD Tully: 6599' MD Marcellus: 6675' MD Projected MD @ TD: 14825'</p>