



ANTERO RESOURCES CORPORATION

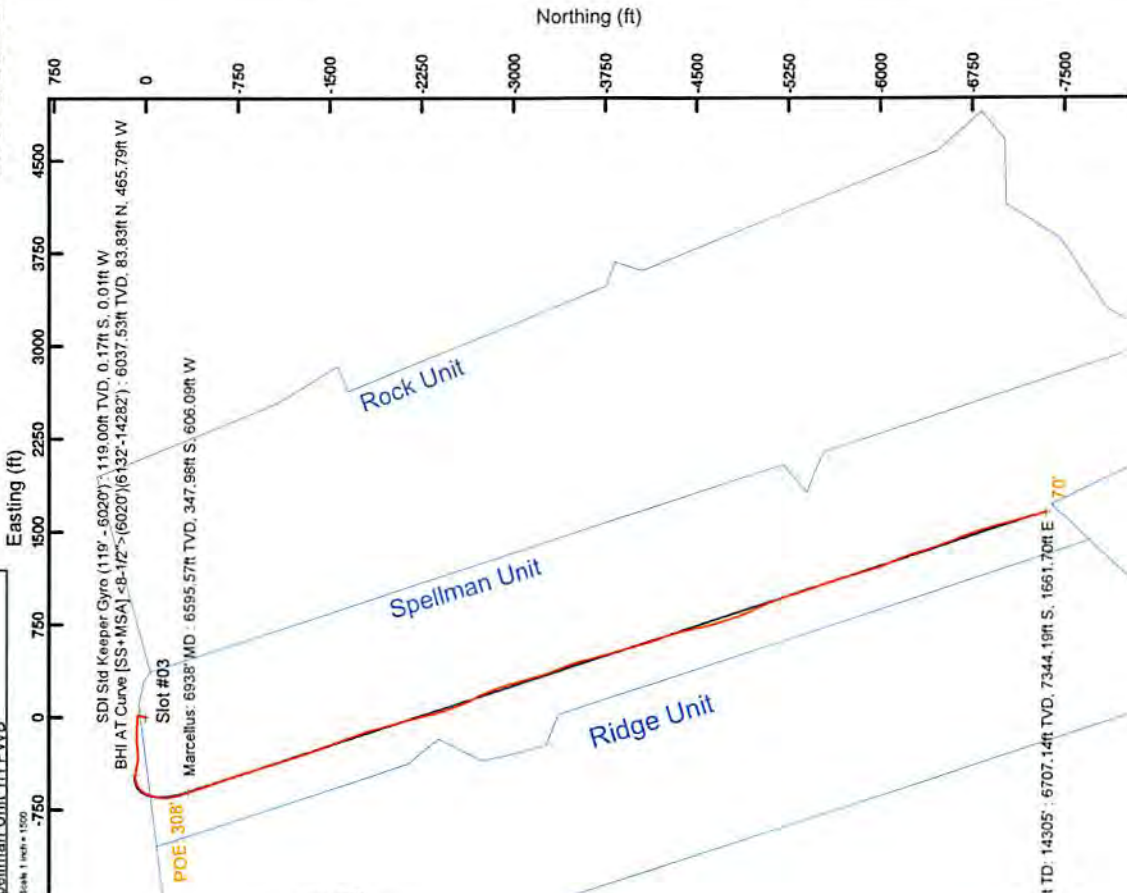
Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Balli Pad

Slot: Slot #03
 Well: Spellman Unit 1H
 Wellbore: Spellman Unit 1H PWB

Grid System: NAD83 UTM Zone 17 North, US feet
 True vertical depths in Spellman Unit 1H Rev-A-0
 * Wellbore was transformed from a different geoidic datum
 Measured depths are referenced to Frontier 32 (RKB)
 Frontiers 32 (RKB) to Mean Sea Level: 1167 feet
 Mean Sea Level to Mud line (At Slot #03): -1135 feet
 Coordinates are in feet referenced to Sd

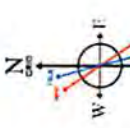
Location Information			
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Longitude
Balli Pad	1684490.110	14272033.240	80°50'29.126"W
Slot	Local N (Ft)	Grid East (US Ft)	Longitude
Slot #03	0.68	1684520.100	80°50'28.744"W
Comment	Spellman Unit 1H		
Frontier 32 (RKB) to Mud line (At Slot #03)	32R		
Mean Sea Level to Mud line (At Slot #03)	-1135R		
Frontier 32 (RKB) to Mean Sea Level	1167R		

SDI Sid Keeper Gyro (119° - 6020') : 0.23° Inc, 119.00ft MD, 119.00ft TVD, 0.16ft VS



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Slot	Well	Wellbore	Wellpath
Slot #03	Spellman Unit 1H	Spellman Unit 1H AWB	Spellman Unit 1H AWB Proj. 14305'
Slot #03	Spellman Unit 1H	Spellman Unit 1H PWB	Spellman Unit 1H Rev-A-0



SDI Sid Keeper Gyro (119° - 6020') : 0.23° Inc, 119.00ft MD, 119.00ft TVD, 0.16ft VS

API: 47-017-06713-0000
 BHI Job #: 7950673
 Rig: Frontier 32
 Duration: 05.12.2016-05.14.2016

Projected MD at TD: 14305' : 89.66° Inc, 14305.00ft MD, 6707.14ft TVD, 7498.83ft VS

BHI AT Curve [SS+MSA] <8-1/2" > (6020') (6132'-14282') : 25.69° Inc, 6132.00ft MD, 6037.53ft TVD, -223.30ft VS

Marcellus: 6938' MD : 75.09° Inc, 6938.00ft MD, 6595.57ft TVD, 144.25ft VS

12/21/2018





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Spellman Unit 1H AWP Proj: 14305

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWB
Facility	Balli Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect@ 5.0
North Reference	Grid	User	Hareluk
Scale	0.999602	Report Generated	5/26/2016 at 1:51:00 PM
Convergence at slot	0.10° East	Database/Source file	WA_MPL_EASTERNUSS_Defn/Spellman_Unit_1H_AWP_Proj_14305_.xml

WELLPATH LOCATION					
Local coordinates		Grid coordinates		Geographic coordinates	
North [ft]	East [ft]	Easting [US ft]	Northing [US ft]	Latitude	Longitude
0.68	30.00	1684520.10	14272033.92	39°18'08.204"N	80°50'38.744"W
Facility Reference Pt		1684490.11	14272033.24	39°18'08.198"N	80°50'39.126"W
Field Reference Pt				0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Frontier 32 (RKB) to Facility Vertical Datum	32.00ft
Horizontal Reference Pt	Slot	Frontier 32 (RKB) to Mean Sea Level	1167.00ft
Vertical Reference Pt	Frontier 32 (RKB)	Frontier 32 (RKB) to Mud Line at Slot (Slot #03)	32.00ft
MD Reference Pt	Frontier 32 (RKB)	Section Origin	N 0.00', E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	162.05°

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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWP
Facility	Balli Pad		

MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
0.001	0.000	182.010	182.010	0.00	0.00	0.00	1684520.10	14272033.92	39°18'08.204"N	80°50'38.744"W	0.00	0.00	0.00	
32.00	0.000	182.010	32.00	0.00	0.00	0.00	1684520.10	14272033.92	39°18'08.204"N	80°50'38.744"W	0.00	0.00	0.00	
119.00	0.230	182.010	119.00	0.16	-0.17	-0.01	1684520.09	14272033.75	39°18'08.202"N	80°50'38.744"W	0.17	182.010	0.26	SDI Sid Keeper Gyro (119° - 6020°)
144.00	0.250	200.050	144.00	0.25	-0.28	-0.03	1684520.07	14272033.64	39°18'08.201"N	80°50'38.745"W	0.28	185.504	0.31	
169.00	0.280	179.250	169.00	0.36	-0.39	-0.04	1684520.06	14272033.53	39°18'08.200"N	80°50'38.745"W	0.39	186.537	0.40	
194.00	0.260	171.240	194.00	0.47	-0.51	-0.04	1684520.06	14272033.41	39°18'08.199"N	80°50'38.745"W	0.51	183.967	0.17	
219.00	0.300	177.490	219.00	0.59	-0.63	-0.02	1684520.08	14272033.29	39°18'08.198"N	80°50'38.745"W	0.63	182.151	0.20	
244.00	0.300	193.910	244.00	0.71	-0.76	-0.04	1684520.06	14272033.16	39°18'08.196"N	80°50'38.745"W	0.76	182.758	0.34	
269.00	0.290	194.890	269.00	0.82	-0.88	-0.07	1684520.03	14272033.04	39°18'08.195"N	80°50'38.745"W	0.88	184.442	0.04	
294.00	0.330	189.120	294.00	0.93	-1.01	-0.10	1684520.00	14272032.91	39°18'08.194"N	80°50'38.746"W	1.02	185.419	0.20	
319.00	0.340	192.630	319.00	1.06	-1.16	-0.12	1684519.98	14272032.76	39°18'08.193"N	80°50'38.746"W	1.16	186.107	0.09	
344.00	0.110	54.660	344.00	1.12	-1.21	-0.12	1684519.98	14272032.71	39°18'08.192"N	80°50'38.746"W	1.22	185.658	1.71	
369.00	0.370	32.240	369.00	1.06	-1.13	-0.06	1684520.04	14272032.79	39°18'08.193"N	80°50'38.745"W	1.13	182.917	1.09	
394.00	0.620	27.500	394.00	0.91	-0.94	0.05	1684520.15	14272032.98	39°18'08.195"N	80°50'38.744"W	0.95	177.101	1.01	
419.00	1.880	418.89	419.00	0.60	-0.56	0.24	1684520.34	14272033.37	39°18'08.199"N	80°50'38.741"W	0.60	156.629	3.04	
444.00	2.110	23.200	443.98	0.04	0.14	0.55	1684520.65	14272034.06	39°18'08.205"N	80°50'38.737"W	0.57	75.573	2.93	
469.00	2.830	19.750	468.96	-0.80	1.14	0.95	1684521.05	14272035.06	39°18'08.215"N	80°50'38.732"W	1.48	39.568	2.96	
494.00	3.420	16.880	493.92	-1.90	2.44	1.37	1684521.47	14272036.36	39°18'08.228"N	80°50'38.727"W	2.80	29.337	2.44	
519.00	3.980	14.070	518.87	-3.25	3.99	1.80	1684521.90	14272037.91	39°18'08.243"N	80°50'38.721"W	4.38	24.237	2.35	
544.00	4.590	11.350	543.80	-4.85	5.82	2.21	1684522.30	14272039.73	39°18'08.261"N	80°50'38.716"W	6.22	20.769	2.57	
569.00	5.100	9.450	568.71	-6.71	7.89	2.59	1684522.68	14272041.81	39°18'08.282"N	80°50'38.711"W	8.31	18.135	2.14	
594.00	5.620	10.090	593.60	-8.78	10.19	2.98	1684523.08	14272044.11	39°18'08.305"N	80°50'38.706"W	10.62	16.305	2.09	
619.00	6.240	11.050	618.46	-11.05	12.73	3.46	1684523.56	14272046.65	39°18'08.330"N	80°50'38.700"W	13.19	15.189	2.51	
644.00	6.690	12.960	643.31	-13.49	15.49	4.04	1684524.14	14272049.40	39°18'08.357"N	80°50'38.692"W	16.00	14.635	1.99	
669.00	6.960	14.260	668.13	-16.02	18.37	4.74	1684524.64	14272052.29	39°18'08.385"N	80°50'38.684"W	18.98	14.477	1.24	
694.00	7.150	16.410	692.94	-18.58	21.33	5.56	1684525.65	14272055.24	39°18'08.415"N	80°50'38.673"W	22.04	14.598	1.30	
719.00	7.170	17.460	717.74	-21.14	24.31	6.46	1684526.56	14272058.22	39°18'08.444"N	80°50'38.662"W	25.16	14.888	0.53	
744.00	7.210	17.750	742.55	-23.68	27.30	7.41	1684527.51	14272061.21	39°18'08.474"N	80°50'38.649"W	28.28	15.188	0.22	
769.00	7.140	18.190	767.35	-26.21	30.27	8.37	1684528.47	14272064.17	39°18'08.503"N	80°50'38.637"W	31.40	15.465	0.36	
794.00	6.650	17.490	792.17	-28.65	33.12	9.29	1684529.39	14272067.03	39°18'08.531"N	80°50'38.625"W	34.40	15.673	1.99	

WELLPATH DATA (343 stations) † = Interpolated/extrapolated station



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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWP
Facility	Balli Pad		

WELLPATH DATA (343 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
819.00	5.860	16.750	817.02	-30.88	35.73	10.10	1684530.19	14272069.63	39°18'08.557"N	80°50'38.615"W	37.13	15.781	3.18	
844.00	5.560	15.340	841.90	-32.94	38.12	10.78	1684530.88	14272072.02	39°18'08.581"N	80°50'38.606"W	39.61	15.798	1.32	
869.00	5.280	14.590	866.79	-34.92	40.40	11.39	1684531.49	14272074.30	39°18'08.603"N	80°50'38.598"W	41.97	15.752	1.16	
894.00	4.900	15.840	891.69	-36.78	42.54	11.98	1684532.07	14272076.44	39°18'08.624"N	80°50'38.591"W	44.19	15.724	1.58	
919.00	4.660	16.640	916.60	-38.49	44.52	12.54	1684532.63	14272078.42	39°18'08.644"N	80°50'38.584"W	46.25	15.725	1.36	
944.00	4.080	15.700	941.53	-40.06	46.33	13.04	1684533.14	14272080.24	39°18'08.662"N	80°50'38.577"W	48.14	15.723	1.92	
969.00	3.790	16.500	966.47	-41.49	47.99	13.51	1684533.60	14272081.89	39°18'08.678"N	80°50'38.571"W	49.85	15.719	1.16	
994.00	3.500	16.520	991.42	-42.81	49.52	13.94	1684534.04	14272083.42	39°18'08.693"N	80°50'38.566"W	51.44	15.727	1.19	
1019.00	3.220	17.160	1016.38	-44.01	50.92	14.37	1684534.46	14272084.82	39°18'08.707"N	80°50'38.560"W	52.91	15.757	1.13	
1044.00	2.940	17.100	1041.34	-45.11	52.20	14.76	1684534.86	14272086.10	39°18'08.720"N	80°50'38.555"W	54.25	15.791	1.12	
1069.00	2.730	16.660	1066.31	-46.13	53.39	15.11	1684535.21	14272087.29	39°18'08.731"N	80°50'38.551"W	55.49	15.805	0.89	
1094.00	2.410	17.710	1091.29	-47.05	54.46	15.43	1684535.53	14272088.36	39°18'08.742"N	80°50'38.547"W	56.61	15.821	1.33	
1119.00	2.170	18.640	1116.27	-47.86	55.41	15.74	1684535.84	14272089.31	39°18'08.751"N	80°50'38.543"W	57.60	15.862	0.97	
1144.00	2.040	17.240	1141.25	-48.61	56.28	16.03	1684536.12	14272090.18	39°18'08.760"N	80°50'38.539"W	58.52	15.895	0.56	
1169.00	1.750	18.770	1166.24	-49.27	57.07	16.28	1684536.38	14272090.97	39°18'08.768"N	80°50'38.536"W	59.35	15.923	1.18	
1194.00	1.620	18.030	1191.23	-49.87	57.77	16.51	1684536.61	14272091.66	39°18'08.775"N	80°50'38.533"W	60.08	15.954	0.53	
1219.00	1.250	15.050	1216.22	-50.38	58.37	16.69	1684536.79	14272092.26	39°18'08.781"N	80°50'38.531"W	60.71	15.962	1.51	
1244.00	1.070	13.000	1241.21	-50.81	58.86	16.82	1684536.91	14272092.75	39°18'08.785"N	80°50'38.529"W	61.21	15.946	0.74	
1269.00	1.000	13.960	1266.21	-51.20	59.30	16.92	1684537.02	14272093.19	39°18'08.790"N	80°50'38.528"W	61.66	15.928	0.29	
1294.00	0.860	14.280	1291.21	-51.64	59.69	17.02	1684537.11	14272093.59	39°18'08.794"N	80°50'38.526"W	62.07	15.916	0.56	
1319.00	0.700	13.170	1316.20	-51.83	60.02	17.10	1684537.20	14272093.92	39°18'08.797"N	80°50'38.525"W	62.41	15.905	0.64	
1344.00	0.580	15.130	1341.20	-52.07	60.29	17.17	1684537.26	14272094.19	39°18'08.800"N	80°50'38.525"W	62.69	15.896	0.49	
1369.00	0.490	12.380	1366.20	-52.26	60.52	17.23	1684537.32	14272094.41	39°18'08.802"N	80°50'38.524"W	62.92	15.889	0.37	
1394.00	0.490	13.200	1391.20	-52.45	60.73	17.27	1684537.37	14272094.62	39°18'08.804"N	80°50'38.523"W	63.14	15.878	0.03	
1419.00	0.350	14.160	1416.20	-52.60	60.90	17.33	1684537.42	14272094.80	39°18'08.806"N	80°50'38.523"W	63.32	15.881	0.61	
1444.00	0.170	14.430	1441.20	-52.69	61.01	17.36	1684537.46	14272094.90	39°18'08.807"N	80°50'38.522"W	63.43	15.886	0.73	
1469.00	0.290	22.110	1466.20	-52.77	61.10	17.40	1684537.49	14272095.00	39°18'08.808"N	80°50'38.522"W	63.53	15.892	0.49	
1494.00	0.210	34.190	1491.20	-52.84	61.20	17.45	1684537.54	14272095.10	39°18'08.809"N	80°50'38.521"W	63.64	15.911	0.38	
1519.00	0.150	37.530	1516.20	-52.89	61.26	17.49	1684537.58	14272095.16	39°18'08.809"N	80°50'38.520"W	63.71	15.935	0.24	
1544.00	0.090	55.080	1541.20	-52.92	61.30	17.53	1684537.62	14272095.20	39°18'08.810"N	80°50'38.520"W	63.76	15.957	0.28	

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Balli Pad
Well	Spellman Unit 1H AWP
Slot	Slot #03

WELLPATH DATA (343 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Gnd East	Gnd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
1569.00	0.070	71.350	1566.20	-52.92	61.32	17.56	1684537.65	14272095.21	39°18'08.810"N	80°50'38.520"W	63.78	15.979	0.12	
1594.00	0.040	109.070	1591.20	-52.92	61.32	17.58	1684537.67	14272095.21	39°18'08.810"N	80°50'38.519"W	63.79	15.998	0.18	
1619.00	0.090	63.000	1616.20	-52.91	61.33	17.61	1684537.70	14272095.22	39°18'08.810"N	80°50'38.519"W	63.80	16.019	0.27	
1644.00	0.080	78.740	1641.20	-52.92	61.34	17.64	1684537.73	14272095.23	39°18'08.810"N	80°50'38.519"W	63.82	16.046	0.10	
1669.00	0.170	63.550	1666.20	-52.92	61.36	17.69	1684537.78	14272095.25	39°18'08.810"N	80°50'38.518"W	63.86	16.084	0.38	
1694.00	0.070	97.820	1691.20	-52.92	61.37	17.74	1684537.83	14272095.27	39°18'08.810"N	80°50'38.517"W	63.88	16.122	0.48	
1719.00	0.100	64.000	1716.20	-52.91	61.38	17.77	1684537.87	14272095.28	39°18'08.810"N	80°50'38.517"W	63.90	16.150	0.23	
1744.00	0.170	79.990	1741.20	-52.91	61.40	17.83	1684537.92	14272095.29	39°18'08.810"N	80°50'38.516"W	63.93	16.185	0.32	
1769.00	0.120	81.950	1766.20	-52.90	61.41	17.89	1684537.99	14272095.30	39°18'08.811"N	80°50'38.515"W	63.96	16.246	0.20	
1794.00	0.160	67.330	1791.20	-52.90	61.42	17.95	1684538.04	14272095.32	39°18'08.811"N	80°50'38.515"W	63.99	16.292	0.21	
1819.00	0.110	86.990	1816.20	-52.89	61.44	18.01	1684538.10	14272095.33	39°18'08.811"N	80°50'38.514"W	64.02	16.336	0.27	
1844.00	0.190	72.360	1841.20	-52.89	61.45	18.07	1684538.16	14272095.35	39°18'08.811"N	80°50'38.513"W	64.05	16.387	0.35	
1869.00	0.110	82.590	1866.20	-52.89	61.47	18.13	1684538.23	14272095.36	39°18'08.811"N	80°50'38.512"W	64.09	16.437	0.34	
1894.00	0.110	115.380	1891.20	-52.87	61.46	18.18	1684538.27	14272095.36	39°18'08.811"N	80°50'38.512"W	64.09	16.478	0.25	
1919.00	0.130	113.850	1916.20	-52.83	61.44	18.23	1684538.32	14272095.33	39°18'08.811"N	80°50'38.511"W	64.09	16.525	0.08	
1944.00	0.110	134.110	1941.20	-52.79	61.41	18.27	1684538.36	14272095.31	39°18'08.811"N	80°50'38.511"W	64.07	16.569	0.19	
1969.00	0.080	115.430	1966.20	-52.76	61.39	18.30	1684538.40	14272095.28	39°18'08.810"N	80°50'38.510"W	64.06	16.603	0.17	
1994.00	0.060	126.850	1991.20	-52.73	61.37	18.33	1684538.42	14272095.27	39°18'08.810"N	80°50'38.510"W	64.05	16.630	0.10	
2019.00	0.140	138.340	2016.20	-52.70	61.34	18.36	1684538.45	14272095.24	39°18'08.810"N	80°50'38.509"W	64.03	16.664	0.33	
2044.00	0.110	70.580	2041.20	-52.67	61.32	18.40	1684538.50	14272095.22	39°18'08.810"N	80°50'38.509"W	64.03	16.705	0.57	
2069.00	0.140	98.810	2066.20	-52.66	61.33	18.46	1684538.55	14272095.22	39°18'08.810"N	80°50'38.508"W	64.05	16.749	0.27	
2094.00	0.120	87.920	2091.20	-52.63	61.32	18.51	1684538.61	14272095.22	39°18'08.810"N	80°50'38.507"W	64.06	16.798	0.13	
2119.00	0.220	56.250	2116.20	-52.64	61.35	18.58	1684538.67	14272095.25	39°18'08.810"N	80°50'38.507"W	64.10	16.848	0.53	
2144.00	0.110	82.780	2141.20	-52.65	61.38	18.64	1684538.74	14272095.28	39°18'08.810"N	80°50'38.506"W	64.15	16.894	0.52	
2169.00	0.150	109.890	2166.20	-52.62	61.37	18.70	1684538.79	14272095.27	39°18'08.810"N	80°50'38.505"W	64.16	16.943	0.29	
2194.00	0.210	157.940	2191.20	-52.56	61.32	18.75	1684538.84	14272095.22	39°18'08.810"N	80°50'38.504"W	64.12	16.998	0.63	
2219.00	0.070	173.590	2216.20	-52.50	61.26	18.76	1684538.86	14272095.16	39°18'08.809"N	80°50'38.504"W	64.07	17.029	0.58	
2244.00	0.080	137.020	2241.20	-52.47	61.23	18.78	1684538.87	14272095.13	39°18'08.809"N	80°50'38.504"W	64.05	17.048	0.19	
2269.00	0.070	188.140	2266.20	-52.44	61.21	18.79	1684538.88	14272095.10	39°18'08.809"N	80°50'38.504"W	64.03	17.064	0.26	
2294.00	0.120	140.810	2291.20	-52.40	61.17	18.80	1684538.89	14272095.07	39°18'08.808"N	80°50'38.504"W	64.00	17.085	0.36	

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Actual Wellpath Report

Spellman Unit 1H AWP Proj: 14305
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Ball Pad
Slot	Spellman Unit 1H AWP
Slot #03	Well

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
2319.00	0.080	66.170	2316.20	-52.38	61.16	18.83	1684538.93	14272095.05	39°18'08.808"N	80°50'38.503"W	63.99	17.117	0.50	
2344.00	0.100	83.720	2341.20	-52.37	61.17	18.87	1684538.96	14272095.06	39°18'08.808"N	80°50'38.503"W	64.01	17.147	0.14	
2369.00	0.080	182.800	2366.20	-52.35	61.15	18.89	1684538.99	14272095.05	39°18'08.808"N	80°50'38.503"W	64.00	17.168	0.55	
2394.00	0.130	122.680	2391.20	-52.32	61.12	18.92	1684539.01	14272095.02	39°18'08.808"N	80°50'38.502"W	63.98	17.197	0.45	
2419.00	0.140	64.660	2416.20	-52.30	61.12	18.97	1684539.06	14272095.01	39°18'08.808"N	80°50'38.502"W	63.99	17.241	0.52	
2444.00	0.050	43.900	2441.20	-52.31	61.14	19.00	1684539.09	14272095.03	39°18'08.808"N	80°50'38.501"W	64.02	17.266	0.38	
2469.00	0.050	54.740	2466.20	-52.31	61.15	19.02	1684539.11	14272095.05	39°18'08.808"N	80°50'38.501"W	64.04	17.276	0.04	
2494.00	0.030	46.630	2491.20	-52.32	61.16	19.03	1684539.13	14272095.06	39°18'08.808"N	80°50'38.501"W	64.06	17.286	0.08	
2519.00	0.090	47.150	2516.20	-52.33	61.18	19.05	1684539.15	14272095.07	39°18'08.808"N	80°50'38.501"W	64.08	17.298	0.24	
2544.00	0.060	59.690	2541.20	-52.34	61.20	19.08	1684539.17	14272095.09	39°18'08.808"N	80°50'38.500"W	64.10	17.315	0.14	
2569.00	0.030	270.090	2566.20	-52.35	61.21	19.08	1684539.18	14272095.10	39°18'08.808"N	80°50'38.500"W	64.11	17.317	0.35	
2594.00	0.120	78.690	2591.20	-52.34	61.21	19.10	1684539.20	14272095.11	39°18'08.808"N	80°50'38.500"W	64.12	17.332	0.60	
2619.00	0.030	242.420	2616.20	-52.34	61.21	19.12	1684539.21	14272095.11	39°18'08.808"N	80°50'38.500"W	64.13	17.348	0.60	
2644.00	0.090	248.570	2641.20	-52.34	61.20	19.10	1684539.19	14272095.10	39°18'08.808"N	80°50'38.500"W	64.11	17.331	0.24	
2669.00	0.020	268.20	2686.20	-52.34	61.20	19.08	1684539.18	14272095.09	39°18'08.808"N	80°50'38.500"W	64.10	17.321	0.44	
2694.00	0.130	248.480	2691.20	-52.33	61.18	19.06	1684539.16	14272095.08	39°18'08.808"N	80°50'38.500"W	64.09	17.305	0.60	
2719.00	0.150	237.540	2716.20	-52.32	61.16	19.01	1684539.10	14272095.05	39°18'08.808"N	80°50'38.501"W	64.04	17.267	0.12	
2744.00	0.010	140.370	2741.20	-52.31	61.14	18.98	1684539.08	14272095.03	39°18'08.808"N	80°50'38.501"W	64.02	17.250	0.61	
2769.00	0.200	243.320	2766.20	-52.30	61.12	18.95	1684539.04	14272095.01	39°18'08.808"N	80°50'38.502"W	63.98	17.223	0.81	
2794.00	0.100	261.100	2791.20	-52.30	61.09	18.88	1684538.98	14272094.99	39°18'08.807"N	80°50'38.503"W	63.94	17.177	0.44	
2819.00	0.230	273.150	2816.20	-52.32	61.09	18.81	1684538.91	14272094.99	39°18'08.807"N	80°50'38.504"W	63.92	17.116	0.54	
2844.00	0.180	279.920	2841.20	-52.36	61.10	18.72	1684538.82	14272095.00	39°18'08.808"N	80°50'38.505"W	63.91	17.038	0.22	
2869.00	0.320	277.760	2866.19	-52.41	61.12	18.62	1684538.71	14272095.01	39°18'08.808"N	80°50'38.505"W	63.89	16.941	0.56	
2894.00	0.260	285.200	2891.19	-52.47	61.14	18.49	1684538.59	14272095.04	39°18'08.808"N	80°50'38.508"W	63.88	16.828	0.28	
2919.00	0.280	281.260	2916.19	-52.53	61.17	18.38	1684538.47	14272095.06	39°18'08.808"N	80°50'38.509"W	63.87	16.723	0.11	
2944.00	0.290	292.160	2941.19	-52.60	61.20	18.26	1684538.35	14272095.10	39°18'08.809"N	80°50'38.511"W	63.87	16.612	0.22	
2969.00	0.270	285.610	2966.19	-52.67	61.24	18.14	1684538.24	14272095.14	39°18'08.809"N	80°50'38.512"W	63.88	16.503	0.15	
2994.00	0.310	283.670	2991.19	-52.74	61.28	18.02	1684538.11	14272095.17	39°18'08.809"N	80°50'38.514"W	63.87	16.389	0.16	
3019.00	0.260	284.890	3016.19	-52.81	61.31	17.90	1684537.99	14272095.20	39°18'08.810"N	80°50'38.515"W	63.87	16.278	0.20	
3044.00	0.310	281.480	3041.19	-52.87	61.33	17.78	1684537.87	14272095.23	39°18'08.810"N	80°50'38.517"W	63.86	16.166	0.21	

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddrige Co., WV	Well	Spellman Unit 1H AWP
Field	Doddrige	Wellbore	Spellman Unit 1H AWP
Facility	Balli Pad		

WELLPATH DATA (343 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
3069.00	0.310	287.160	3066.19	-52.94	61.37	17.65	1684537.74	14272095.26	39°18'08.810"N	80°50'38.618"W	63.86	16.045	0.12	
3094.00	0.250	284.070	3091.19	-53.01	61.40	17.53	1684537.62	14272095.30	39°18'08.811"N	80°50'38.520"W	63.86	15.936	0.25	
3119.00	0.340	268.010	3116.19	-53.06	61.41	17.40	1684537.50	14272095.31	39°18'08.811"N	80°50'38.522"W	63.83	15.823	0.49	
3144.00	0.240	265.180	3141.19	-53.09	61.40	17.28	1684537.37	14272095.30	39°18'08.811"N	80°50'38.523"W	63.79	15.716	0.40	
3169.00	0.250	263.730	3166.19	-53.11	61.39	17.17	1684537.27	14272095.29	39°18'08.810"N	80°50'38.524"W	63.75	15.626	0.05	
3194.00	0.280	260.070	3191.19	-53.15	61.40	17.06	1684537.15	14272095.29	39°18'08.811"N	80°50'38.526"W	63.72	15.526	0.22	
3219.00	0.230	269.460	3216.19	-53.20	61.41	16.95	1684537.04	14272095.30	39°18'08.811"N	80°50'38.527"W	63.71	15.428	0.27	
3244.00	0.300	276.880	3241.19	-53.24	61.42	16.83	1684536.93	14272095.31	39°18'08.811"N	80°50'38.529"W	63.68	15.326	0.31	
3269.00	0.280	273.760	3266.19	-53.28	61.43	16.71	1684536.80	14272095.32	39°18'08.811"N	80°50'38.530"W	63.66	15.214	0.10	
3294.00	0.320	272.680	3291.19	-53.34	61.44	16.58	1684536.67	14272095.33	39°18'08.811"N	80°50'38.532"W	63.63	15.099	0.16	
3319.00	0.350	280.090	3316.19	-53.40	61.45	16.43	1684536.52	14272095.35	39°18'08.811"N	80°50'38.534"W	63.61	14.969	0.21	
3344.00	0.300	285.820	3341.19	-53.47	61.48	16.29	1684536.39	14272095.38	39°18'08.811"N	80°50'38.536"W	63.61	14.842	0.24	
3369.00	0.270	301.250	3366.19	-53.55	61.53	16.18	1684536.27	14272095.43	39°18'08.812"N	80°50'38.537"W	63.62	14.732	0.33	
3394.00	0.290	293.780	3391.19	-53.64	61.59	16.07	1684536.16	14272095.48	39°18'08.812"N	80°50'38.538"W	63.65	14.625	0.17	
3419.00	0.310	341.619	3416.19	-53.71	61.63	15.95	1684536.04	14272095.52	39°18'08.813"N	80°50'38.540"W	63.66	14.508	0.25	
3444.00	0.280	288.190	3441.19	-53.78	61.66	15.82	1684535.92	14272095.56	39°18'08.813"N	80°50'38.542"W	63.66	14.392	0.17	
3469.00	0.220	302.510	3466.19	-53.86	61.71	15.72	1684535.82	14272095.60	39°18'08.814"N	80°50'38.543"W	63.68	14.296	0.34	
3494.00	0.220	272.090	3491.19	-53.91	61.73	15.64	1684535.73	14272095.63	39°18'08.814"N	80°50'38.544"W	63.68	14.213	0.46	
3519.00	0.230	274.920	3516.19	-53.95	61.74	15.54	1684535.63	14272095.64	39°18'08.814"N	80°50'38.545"W	63.67	14.126	0.06	
3544.00	0.260	282.050	3541.19	-53.99	61.76	15.43	1684535.53	14272095.65	39°18'08.814"N	80°50'38.547"W	63.66	14.030	0.17	
3569.00	0.300	277.840	3566.19	-54.05	61.78	15.31	1684535.41	14272095.67	39°18'08.814"N	80°50'38.548"W	63.65	13.921	0.18	
3594.00	0.320	289.750	3591.19	-54.12	61.81	15.18	1684535.28	14272095.70	39°18'08.815"N	80°50'38.550"W	63.65	13.800	0.27	
3619.00	0.290	283.540	3616.19	-54.20	61.85	15.05	1684535.15	14272095.74	39°18'08.815"N	80°50'38.551"W	63.65	13.680	0.18	
3644.00	0.300	285.010	3641.19	-54.27	61.88	14.93	1684535.02	14272095.78	39°18'08.815"N	80°50'38.553"W	63.66	13.564	0.05	
3669.00	0.390	283.460	3666.19	-54.35	61.92	14.78	1684534.88	14272095.81	39°18'08.816"N	80°50'38.555"W	63.66	13.429	0.36	
3694.00	0.370	285.440	3691.19	-54.44	61.96	14.62	1684534.72	14272095.85	39°18'08.816"N	80°50'38.557"W	63.66	13.280	0.10	
3719.00	0.400	290.500	3716.19	-54.53	62.01	14.46	1684534.56	14272095.91	39°18'08.817"N	80°50'38.559"W	63.67	13.129	0.18	
3744.00	0.410	291.150	3741.19	-54.64	62.07	14.30	1684534.39	14272095.97	39°18'08.817"N	80°50'38.561"W	63.70	12.972	0.04	
3769.00	0.430	290.430	3766.19	-54.76	62.14	14.13	1684534.22	14272096.03	39°18'08.818"N	80°50'38.563"W	63.72	12.809	0.08	
3794.00	0.400	296.490	3791.19	-54.88	62.21	13.96	1684534.06	14272096.10	39°18'08.819"N	80°50'38.565"W	63.76	12.649	0.21	

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWP
Facility	Balli Pad		

WELLPATH DATA (343 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
3819.00	0.380	302.170	3818.18	-55.00	62.29	13.81	1684533.91	14272096.19	39°18'08.819"N	80°50'38.567"W	63.81		12.503	0.17
3844.00	0.380	301.020	3841.18	-55.13	62.38	13.67	1684533.77	14272096.27	39°18'08.820"N	80°50'38.569"W	63.86		12.362	0.03
3869.00	0.360	319.310	3866.18	-55.26	62.48	13.55	1684533.64	14272096.38	39°18'08.821"N	80°50'38.571"W	63.93		12.235	0.48
3894.00	0.350	307.740	3891.18	-55.40	62.59	13.44	1684533.53	14272096.48	39°18'08.822"N	80°50'38.572"W	64.01		12.118	0.29
3919.00	0.360	309.310	3916.18	-55.53	62.68	13.32	1684533.41	14272096.58	39°18'08.823"N	80°50'38.573"W	64.08		11.994	0.06
3944.00	0.410	307.180	3941.18	-55.67	62.79	13.18	1684533.28	14272096.68	39°18'08.824"N	80°50'38.575"W	64.16		11.859	0.21
3969.00	0.450	305.410	3966.18	-55.82	62.90	13.03	1684533.13	14272096.79	39°18'08.825"N	80°50'38.577"W	64.24		11.707	0.17
3994.00	0.450	309.18	3991.18	-55.99	63.03	12.89	1684532.98	14272096.92	39°18'08.827"N	80°50'38.579"W	64.33		11.555	0.35
4019.00	0.470	316.680	4016.18	-56.17	63.17	12.75	1684532.84	14272097.07	39°18'08.828"N	80°50'38.581"W	64.45		11.409	0.08
4044.00	0.550	314.170	4041.18	-56.37	63.33	12.59	1684532.69	14272097.23	39°18'08.830"N	80°50'38.583"W	64.57		11.245	0.33
4069.00	0.550	302.430	4066.17	-56.57	63.48	12.40	1684532.50	14272097.37	39°18'08.831"N	80°50'38.585"W	64.68		11.057	0.45
4094.00	0.580	332.460	4091.17	-56.78	63.66	12.24	1684532.34	14272097.55	39°18'08.833"N	80°50'38.587"W	64.82		10.888	1.18
4119.00	0.580	311.220	4116.17	-57.02	63.85	12.09	1684532.19	14272097.75	39°18'08.835"N	80°50'38.589"W	64.99		10.722	0.86
4144.00	0.490	329.910	4141.17	-57.23	64.03	11.94	1684532.04	14272097.92	39°18'08.837"N	80°50'38.591"W	65.13		10.565	0.78
4169.00	0.560	299.490	4166.17	-57.43	64.18	11.78	1684531.88	14272098.07	39°18'08.838"N	80°50'38.593"W	65.25		10.402	1.13
4194.00	0.560	307.170	4191.17	-57.62	64.31	11.58	1684531.67	14272098.21	39°18'08.839"N	80°50'38.596"W	65.35		10.206	0.30
4219.00	0.480	306.250	4216.17	-57.80	64.45	11.40	1684531.49	14272098.34	39°18'08.841"N	80°50'38.598"W	65.45		10.028	0.32
4244.00	0.530	308.290	4241.17	-57.98	64.58	11.22	1684531.32	14272098.48	39°18'08.842"N	80°50'38.600"W	65.55		9.857	0.21
4269.00	0.500	302.180	4266.17	-58.16	64.71	11.04	1684531.13	14272098.61	39°18'08.843"N	80°50'38.602"W	65.65		9.680	0.25
4294.00	0.560	305.420	4291.16	-58.34	64.84	10.85	1684530.94	14272098.74	39°18'08.845"N	80°50'38.605"W	65.74		9.496	0.27
4319.00	0.510	299.150	4316.16	-58.52	64.97	10.65	1684530.75	14272098.86	39°18'08.846"N	80°50'38.607"W	65.83		9.309	0.31
4344.00	0.480	298.690	4341.16	-58.68	65.07	10.46	1684530.56	14272098.97	39°18'08.847"N	80°50'38.610"W	65.91		9.133	0.12
4369.00	0.440	305.010	4366.16	-58.83	65.18	10.29	1684530.39	14272099.07	39°18'08.848"N	80°50'38.612"W	65.98		8.972	0.26
4394.00	0.360	309.450	4391.16	-58.98	65.28	10.15	1684530.25	14272099.18	39°18'08.849"N	80°50'38.614"W	66.07		8.838	0.34
4419.00	0.380	323.220	4416.16	-59.12	65.40	10.04	1684530.14	14272099.29	39°18'08.850"N	80°50'38.615"W	66.16		8.729	0.36
4444.00	0.410	307.880	4441.16	-59.27	65.52	9.92	1684530.02	14272099.41	39°18'08.851"N	80°50'38.617"W	66.27		8.610	0.44
4469.00	0.440	306.110	4466.16	-59.42	65.63	9.77	1684529.87	14272099.52	39°18'08.852"N	80°50'38.619"W	66.35		8.469	0.13
4494.00	0.490	314.810	4491.16	-59.60	65.76	9.62	1684529.72	14272099.66	39°18'08.854"N	80°50'38.620"W	66.46		8.321	0.35
4519.00	0.550	314.970	4516.16	-59.80	65.92	9.46	1684529.55	14272099.82	39°18'08.855"N	80°50'38.623"W	66.60		8.165	0.24
4544.00	0.520	309.100	4541.16	-60.00	66.08	9.29	1684529.38	14272099.97	39°18'08.857"N	80°50'38.625"W	66.73		7.999	0.25



Actual Wellpath Report

Spellman Unit 1H AWP Proj.: 14305



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWP
Facility	Balli Pad		

WELLPATH DATA (343 stations)												
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)			(ft)	(°/100ft)
4569.00	0.560	312.300	4566.16	-60.20	66.23	9.11	1684529.20	14272100.13	39°18'08.858"N	80°50'38.627"W	66.86	7.829
4594.00	0.660	304.200	4591.15	-60.42	66.40	8.90	1684528.99	14272100.29	39°18'08.860"N	80°50'38.630"W	66.99	7.632
4619.00	1.440	284.120	4616.15	-60.70	66.55	8.47	1684528.57	14272100.45	39°18'08.862"N	80°50'38.635"W	67.09	7.256
4644.00	2.190	281.490	4641.14	-61.10	66.73	7.70	1684527.80	14272100.62	39°18'08.863"N	80°50'38.645"W	67.17	6.583
4669.00	2.930	281.680	4666.11	-61.66	66.95	6.81	1684526.70	14272100.84	39°18'08.866"N	80°50'38.659"W	67.28	5.636
4694.00	3.780	279.740	4691.07	-62.35	67.22	5.17	1684525.27	14272101.11	39°18'08.868"N	80°50'38.677"W	67.42	4.397
4719.00	4.510	279.730	4716.00	-63.19	67.52	3.39	1684523.49	14272101.42	39°18'08.871"N	80°50'38.700"W	67.61	2.872
4744.00	5.260	278.890	4740.91	-64.17	67.87	1.29	1684521.39	14272101.76	39°18'08.875"N	80°50'38.726"W	67.88	1.087
4769.00	6.010	278.000	4765.79	-65.26	68.23	-1.14	1684518.96	14272102.12	39°18'08.878"N	80°50'38.757"W	68.24	3.994
4794.00	6.790	276.850	4790.64	-66.45	68.59	-3.90	1684516.20	14272102.48	39°18'08.882"N	80°50'38.792"W	68.70	3.567
4819.00	7.690	275.350	4815.44	-67.73	68.92	-7.04	1684513.07	14272102.81	39°18'08.885"N	80°50'38.832"W	69.28	3.541
4844.00	8.520	274.210	4840.19	-69.09	69.21	-10.55	1684509.55	14272103.10	39°18'08.888"N	80°50'38.877"W	70.01	3.513
4869.00	9.050	273.560	4864.89	-70.51	69.47	-14.36	1684505.75	14272103.36	39°18'08.891"N	80°50'38.925"W	70.94	3.483
4894.00	9.480	274.040	4889.57	-72.00	69.73	-18.38	1684501.73	14272103.63	39°18'08.894"N	80°50'38.976"W	72.11	3.452
4919.00	9.990	274.410	4914.21	-73.60	70.05	-22.59	1684497.52	14272103.94	39°18'08.897"N	80°50'39.030"W	73.60	3.421
4944.00	10.260	273.470	4938.82	-75.24	70.36	-26.97	1684493.14	14272104.24	39°18'08.900"N	80°50'39.086"W	75.34	3.390
4969.00	11.160	272.100	4963.38	-76.88	70.57	-31.61	1684488.50	14272104.46	39°18'08.902"N	80°50'39.145"W	77.33	3.358
4994.00	12.090	271.100	4987.87	-78.56	70.71	-36.65	1684483.47	14272104.60	39°18'08.903"N	80°50'39.209"W	79.64	3.326
5019.00	12.550	270.460	5012.29	-80.27	70.78	-41.98	1684478.14	14272104.67	39°18'08.904"N	80°50'39.277"W	82.29	3.293
5044.00	13.020	270.120	5036.67	-82.01	70.81	-47.51	1684472.61	14272104.70	39°18'08.905"N	80°50'39.347"W	85.27	3.260
5069.00	13.830	270.610	5060.99	-83.83	70.85	-53.32	1684466.80	14272104.74	39°18'08.905"N	80°50'39.421"W	88.67	3.227
5094.00	14.660	271.490	5085.22	-85.83	70.96	-59.47	1684460.66	14272104.85	39°18'08.906"N	80°50'39.499"W	92.58	3.194
5119.00	15.270	271.970	5109.37	-88.01	71.16	-65.92	1684454.21	14272105.05	39°18'08.908"N	80°50'39.581"W	97.00	3.161
5144.00	15.870	272.390	5133.46	-90.32	71.41	-72.63	1684447.50	14272105.30	39°18'08.911"N	80°50'39.667"W	101.85	3.128
5169.00	16.110	273.110	5157.49	-92.75	71.74	-79.50	1684440.63	14272105.63	39°18'08.914"N	80°50'39.754"W	107.09	3.095
5194.00	16.600	273.630	5181.48	-95.31	72.16	-86.53	1684433.60	14272106.05	39°18'08.919"N	80°50'39.843"W	112.67	3.062
5219.00	17.100	274.130	5205.40	-98.01	72.65	-93.76	1684426.38	14272106.54	39°18'08.929"N	80°50'40.031"W	118.61	3.029
5244.00	18.050	274.440	5229.24	-100.87	73.21	-101.29	1684418.85	14272107.10	39°18'08.929"N	80°50'40.031"W	124.98	2.996
5269.00	19.320	274.550	5252.92	-103.92	73.84	-109.27	1684410.87	14272107.73	39°18'08.936"N	80°50'40.133"W	131.88	2.963
5294.00	20.510	273.100	5276.42	-107.08	74.41	-117.77	1684402.38	14272108.30	39°18'08.941"N	80°50'40.241"W	139.30	2.930

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Actual Wellpath Report

Spellman Unit 1H AWP Proj: 14305'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (343 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]	Comments
5319.00	21.250	272.200	5299.78	-110.21	74.82	-126.67	1684393.48	14272108.71	39°18'08.946"N	80°50'40.354"W	147.11	300.568	3.23	
5344.00	22.360	271.640	5322.99	-113.37	75.13	-135.95	1684384.20	14272109.02	39°18'08.949"N	80°50'40.472"W	155.33	298.925	4.52	
5369.00	23.510	270.810	5346.01	-116.57	75.33	-145.69	1684374.47	14272109.22	39°18'08.951"N	80°50'40.596"W	164.01	297.343	4.78	
5394.00	24.290	270.060	5368.87	-119.76	75.41	-155.82	1684364.34	14272109.30	39°18'08.952"N	80°50'40.725"W	173.11	295.825	3.35	
5419.00	24.830	269.270	5391.61	-122.90	75.35	-165.21	1684353.98	14272109.24	39°18'08.952"N	80°50'40.857"W	182.49	294.386	2.53	
5444.00	24.810	267.980	5414.30	-125.90	75.10	-176.70	1684343.47	14272108.99	39°18'08.949"N	80°50'40.990"W	192.00	293.025	2.17	
5469.00	24.820	266.200	5436.99	-128.62	74.56	-187.18	1684333.00	14272108.45	39°18'08.944"N	80°50'41.124"W	201.48	291.720	2.99	
5494.00	24.930	265.420	5459.67	-131.12	73.79	-197.66	1684322.51	14272107.69	39°18'08.937"N	80°50'41.257"W	210.99	290.472	1.38	
5519.00	24.590	264.240	5482.37	-133.44	72.85	-208.09	1684312.09	14272106.74	39°18'08.928"N	80°50'41.390"W	220.48	289.295	2.40	
5544.00	24.830	263.980	5505.09	-135.62	71.78	-218.49	1684301.70	14272105.67	39°18'08.917"N	80°50'41.522"W	229.98	288.187	1.05	
5569.00	24.510	263.760	5527.80	-137.76	70.67	-228.86	1684291.33	14272104.56	39°18'08.906"N	80°50'41.654"W	239.52	287.159	1.33	
5594.00	24.490	263.630	5550.55	-139.85	69.53	-239.17	1684281.03	14272103.42	39°18'08.895"N	80°50'41.785"W	249.07	286.209	0.23	
5619.00	24.380	263.760	5573.31	-141.94	68.39	-249.45	1684270.75	14272102.28	39°18'08.884"N	80°50'41.916"W	258.65	285.332	0.49	
5644.00	23.910	263.650	5596.13	-144.00	67.27	-259.61	1684260.59	14272101.16	39°18'08.873"N	80°50'42.045"W	268.18	284.527	1.89	
5669.00	23.780	263.740	5618.99	-146.04	66.16	-269.66	1684250.55	14272100.05	39°18'08.862"N	80°50'42.173"W	277.65	283.785	0.54	
5694.00	23.970	264.700	5641.85	-148.18	65.14	-279.72	1684240.49	14272099.04	39°18'08.853"N	80°50'42.301"W	287.21	283.109	1.73	
5719.00	24.100	265.990	5664.69	-150.52	64.32	-289.87	1684230.34	14272098.21	39°18'08.845"N	80°50'42.430"W	296.92	282.510	2.16	
5744.00	24.230	267.690	5687.50	-153.13	63.75	-300.09	1684220.13	14272097.65	39°18'08.839"N	80°50'42.560"W	306.79	281.994	2.83	
5769.00	24.440	269.090	5710.27	-156.03	63.46	-310.39	1684209.84	14272097.36	39°18'08.836"N	80°50'42.691"W	316.81	281.556	2.46	
5794.00	24.240	270.970	5733.05	-159.21	63.47	-320.69	1684199.54	14272097.36	39°18'08.837"N	80°50'42.822"W	326.91	281.195	3.20	
5819.00	24.080	273.440	5755.86	-162.73	63.86	-330.91	1684189.32	14272097.75	39°18'08.841"N	80°50'42.952"W	337.02	280.923	4.09	
5844.00	24.290	275.650	5778.67	-166.65	64.67	-341.12	1684179.12	14272098.57	39°18'08.849"N	80°50'43.082"W	347.20	280.735	3.72	
5869.00	24.380	278.130	5801.45	-170.98	65.91	-351.34	1684168.90	14272099.80	39°18'08.861"N	80°50'43.212"W	357.47	280.625	4.10	
5894.00	24.960	279.550	5824.17	-175.68	67.51	-361.65	1684158.59	14272101.41	39°18'08.877"N	80°50'43.343"W	367.90	280.574	3.32	
5919.00	25.810	280.230	5846.75	-180.69	69.36	-372.21	1684148.04	14272103.25	39°18'08.896"N	80°50'43.478"W	378.62	280.555	3.59	
5944.00	26.800	280.340	5869.16	-185.93	71.33	-383.11	1684137.14	14272105.22	39°18'08.915"N	80°50'43.616"W	389.70	280.547	3.96	
5969.00	26.800	280.140	5891.50	-191.24	73.33	-394.17	1684126.09	14272107.22	39°18'08.935"N	80°50'43.757"W	400.93	280.539	0.88	
5994.00	26.400	279.670	5913.87	-196.45	75.25	-405.16	1684115.11	14272109.14	39°18'08.955"N	80°50'43.897"W	412.08	280.522	1.16	
6019.00	26.860	278.940	5936.22	-201.58	77.06	-416.21	1684104.05	14272110.95	39°18'08.973"N	80°50'44.037"W	423.29	280.489	2.26	
6020.00	26.880	278.910	5937.11	-201.79	77.13	-416.66	1684103.61	14272111.02	39°18'08.973"N	80°50'44.043"W	423.74	280.488	2.42	

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Actual Wellpath Report

Spellman Unit 1H AWP Proj: 14305'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #03
Area	Doddridge Co., WV		Well	Spellman Unit 1H
Field	Doddridge		Wellbore	Spellman Unit 1H AWB
Facility	Balli Pad			

WELLPATH DATA (343 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)	Comments
6132.00	25.690	276.570	6037.53	-223.30	83.83	-465.79	1684054.49	14272117.72	39°18'09.040"N	80°50'44.668"W	473.28	280.202	1.41	BHI AT Curve [SS+MSA] <8-1/2">(6020')(6132'-14282')
6182.00	25.370	269.860	6082.66	-231.08	85.04	-487.28	1684033.02	14272118.93	39°18'09.053"N	80°50'44.941"W	494.64	279.900	5.82	
6233.00	27.320	258.110	6128.39	-235.66	82.60	-509.67	1684010.63	14272116.49	39°18'09.029"N	80°50'45.226"W	516.32	279.206	10.90	
6277.00	28.910	250.490	6167.21	-236.43	76.97	-529.58	1683990.73	14272110.86	39°18'08.974"N	80°50'45.479"W	535.15	278.269	8.92	
6324.00	30.420	241.410	6208.07	-233.93	67.48	-550.75	1683969.57	14272101.37	39°18'08.880"N	80°50'45.749"W	554.87	276.985	10.08	
6372.00	32.120	231.620	6249.12	-227.22	53.73	-571.44	1683948.89	14272087.63	39°18'08.745"N	80°50'46.012"W	573.96	275.371	11.15	
6420.00	34.110	222.290	6289.35	-216.08	35.84	-590.52	1683929.82	14272069.74	39°18'08.568"N	80°50'46.255"W	591.60	273.473	11.39	
6467.00	36.050	213.020	6327.84	-200.82	14.47	-606.93	1683913.41	14272048.39	39°18'08.357"N	80°50'46.465"W	607.10	271.366	12.05	
6514.00	38.620	205.180	6365.23	-181.39	-10.41	-620.72	1683899.63	14272023.51	39°18'08.112"N	80°50'46.641"W	620.81	269.039	11.49	
6562.00	42.080	197.870	6401.82	-157.40	-39.30	-632.04	1683888.31	14271994.63	39°18'07.826"N	80°50'46.785"W	633.26	266.442	12.20	
6575.00†	43.054	196.173	6411.40	-150.19	-47.71	-634.61	1683885.74	14271986.23	39°18'07.743"N	80°50'46.818"W	636.40	265.700	11.58	Middlesex: 6575' MD
6607.00	45.550	192.250	6434.30	-131.27	-69.37	-640.08	1683880.28	14271964.58	39°18'07.529"N	80°50'46.888"W	643.83	263.814	11.58	
6656.00	49.850	186.490	6467.29	-99.07	-105.10	-645.91	1683874.45	14271928.86	39°18'07.176"N	80°50'46.963"W	654.41	260.758	12.35	
6702.00	54.380	181.660	6495.54	-65.43	-141.29	-648.44	1683871.92	14271892.68	39°18'06.818"N	80°50'46.996"W	663.66	257.708	12.87	
6752.00	59.160	175.950	6522.95	-25.40	-183.07	-647.51	1683872.84	14271850.93	39°18'06.406"N	80°50'46.985"W	672.89	254.213	13.51	
6773.00†	60.888	173.222	6533.44	-7.65	-201.17	-645.79	1683874.56	14271832.83	39°18'06.227"N	80°50'46.964"W	676.40	252.698	13.94	Burkett: 6773' MD
6799.00	63.100	169.970	6545.65	14.99	-223.87	-642.43	1683877.92	14271810.14	39°18'06.002"N	80°50'46.921"W	680.32	250.788	13.94	
6834.00†	65.980	165.690	6560.70	46.42	-254.75	-635.76	1683884.59	14271779.27	39°18'05.697"N	80°50'46.837"W	684.90	248.164	13.77	Tully: 6834' MD
6847.00	67.080	164.150	6565.88	58.32	-266.26	-632.66	1683887.70	14271767.76	39°18'05.583"N	80°50'46.798"W	686.40	247.176	13.77	
6893.00	70.840	161.330	6582.39	101.24	-307.24	-619.91	1683900.44	14271726.80	39°18'05.178"N	80°50'46.637"W	691.87	243.636	9.98	
6938.00†	75.087	161.189	6595.57	144.25	-347.98	-606.09	1683914.25	14271686.08	39°18'04.775"N	80°50'46.462"W	698.88	240.138	9.44	Marcellus: 6938' MD
6941.00	75.370	161.180	6596.34	147.15	-350.73	-605.15	1683915.19	14271683.33	39°18'04.748"N	80°50'46.450"W	699.44	239.905	9.44	
6991.00	80.130	161.570	6606.95	196.00	-397.02	-589.55	1683930.78	14271637.06	39°18'04.290"N	80°50'46.252"W	710.77	236.043	9.55	
7036.00	84.580	161.480	6612.93	240.58	-439.31	-575.42	1683944.91	14271594.79	39°18'03.872"N	80°50'46.074"W	723.95	232.640	9.89	
7082.00	89.570	161.890	6615.28	286.51	-482.91	-560.99	1683959.33	14271551.21	39°18'03.441"N	80°50'45.891"W	740.21	229.278	10.88	
7130.00	89.910	161.040	6615.49	334.51	-528.41	-545.74	1683974.58	14271505.72	39°18'02.991"N	80°50'45.698"W	759.64	225.924	1.91	
7225.00	89.480	159.280	6616.00	429.45	-617.77	-513.49	1684006.81	14271416.40	39°18'02.107"N	80°50'45.290"W	803.32	219.734	1.91	
7320.00	89.540	161.250	6616.81	524.39	-707.18	-481.42	1684038.87	14271327.02	39°18'01.223"N	80°50'44.884"W	855.49	214.245	2.07	
7416.00	89.600	163.490	6617.53	620.38	-798.67	-452.35	1684067.93	14271235.57	39°18'00.318"N	80°50'44.516"W	917.87	209.526	2.33	
7511.00	89.940	162.870	6617.91	715.36	-889.60	-424.86	1684095.41	14271144.68	39°17'59.419"N	80°50'44.168"W	985.85	205.528	0.74	

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Actual Wellpath Report
 Spellman Unit 1H AWP Proj: 14305
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddrige Co., WV	Well	Spellman Unit 1H
Field	Doddrige	Wellbore	Spellman Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (343 stations)														
MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
7606.00	89.970	162.540	6617.99	810.36	-880.30	-396.61	1684123.64	14271054.01	39°17'58.522"N	80°50'43.811"W	1057.50	202.027	0.35	
7701.00	89.760	163.060	6618.21	905.35	-1071.06	-368.52	1684151.73	14270963.29	39°17'57.624"N	80°50'43.455"W	1132.68	198.987	0.59	
7796.00	88.960	162.510	6619.27	1000.33	-1161.79	-340.41	1684179.83	14270872.59	39°17'56.727"N	80°50'43.100"W	1210.64	196.331	1.02	
7991.00	89.050	161.680	6620.92	1095.32	-1252.18	-311.21	1684209.02	14270782.24	39°17'55.833"N	80°50'42.730"W	1290.27	193.957	0.88	
7986.00	89.086	160.270	6622.47	1190.29	-1341.97	-280.24	1684239.97	14270692.48	39°17'54.945"N	80°50'42.338"W	1370.92	191.795	1.48	
8080.00	88.890	159.700	6624.14	1284.21	-1430.28	-248.07	1684272.12	14270604.21	39°17'54.072"N	80°50'41.931"W	1451.64	189.840	0.64	
8175.00	88.860	160.300	6626.00	1379.13	-1519.54	-215.59	1684304.60	14270514.99	39°17'53.189"N	80°50'41.520"W	1534.75	188.075	0.63	
8269.00	89.080	160.330	6627.59	1473.08	-1608.08	-184.09	1684336.09	14270426.48	39°17'52.313"N	80°50'41.121"W	1618.58	186.531	0.34	
8364.00	88.860	160.090	6629.40	1568.02	-1697.51	-152.08	1684368.08	14270337.09	39°17'51.429"N	80°50'40.716"W	1704.31	185.120	0.52	
8459.00	89.750	161.240	6630.55	1662.98	-1787.15	-120.63	1684399.52	14270247.49	39°17'50.542"N	80°50'40.318"W	1791.21	183.862	1.53	
8554.00	89.350	164.420	6631.30	1757.96	-1877.90	-92.59	1684427.55	14270156.77	39°17'49.645"N	80°50'39.963"W	1880.18	182.823	3.37	
8649.00	90.000	166.290	6631.84	1852.79	-1969.81	-68.57	1684451.55	14270064.90	39°17'48.736"N	80°50'39.660"W	1971.00	181.994	2.08	
8743.00	89.880	163.000	6631.94	1946.68	-2060.44	-43.69	1684476.43	14269974.31	39°17'47.840"N	80°50'39.345"W	2060.90	181.215	3.50	
8838.00	89.600	164.230	6632.37	2041.65	-2151.58	-16.89	1684503.22	14269883.20	39°17'46.939"N	80°50'39.008"W	2151.64	180.450	1.33	
8934.00	89.750	163.630	6632.91	2137.41	-2244.68	6.45	1684526.54	14269790.14	39°17'46.018"N	80°50'38.711"W	2244.69	179.835	3.55	
9028.00	90.280	167.180	6632.89	2231.00	-2336.42	26.94	1684547.03	14269698.44	39°17'45.111"N	80°50'38.453"W	2336.57	179.339	0.74	
9123.00	89.820	161.450	6632.81	2325.88	-2427.84	52.62	1684572.69	14269607.05	39°17'44.207"N	80°50'38.128"W	2428.41	178.758	6.05	
9217.00	89.780	160.230	6633.13	2419.86	-2516.63	83.47	1684603.53	14269518.29	39°17'43.329"N	80°50'37.738"W	2518.02	178.100	1.30	
9313.00	89.690	154.450	6633.58	2515.50	-2605.18	120.44	1684640.49	14269429.78	39°17'42.453"N	80°50'37.270"W	2607.97	177.353	6.02	
9407.00	89.200	152.210	6634.49	2608.40	-2689.17	162.62	1684682.66	14269345.82	39°17'41.622"N	80°50'36.735"W	2694.09	176.539	2.44	
9502.00	89.200	155.540	6635.82	2702.41	-2774.45	204.44	1684724.46	14269260.58	39°17'40.779"N	80°50'36.205"W	2781.97	175.786	3.50	
9597.00	89.140	161.440	6637.19	2797.18	-2862.78	239.26	1684759.26	14269172.28	39°17'39.905"N	80°50'35.764"W	2872.76	175.223	6.21	
9692.00	89.170	163.000	6638.59	2892.16	-2953.23	268.26	1684788.26	14269081.87	39°17'39.011"N	80°50'35.397"W	2965.39	174.810	1.64	
9787.00	89.050	164.860	6640.07	2987.10	-3044.51	294.56	1684814.54	14268990.63	39°17'38.108"N	80°50'35.064"W	3058.72	174.474	1.96	
9882.00	89.230	164.850	6641.50	3081.97	-3136.20	319.37	1684839.35	14268898.98	39°17'37.201"N	80°50'34.751"W	3152.42	174.185	0.19	
9978.00	89.320	164.950	6642.69	3175.85	-3226.94	343.86	1684863.82	14268808.27	39°17'36.304"N	80°50'34.441"W	3245.21	173.918	0.14	
10071.00	89.320	159.430	6643.81	3270.80	-3317.35	372.90	1684892.85	14268717.90	39°17'35.410"N	80°50'34.074"W	3338.24	173.586	5.81	
10164.00	88.770	156.660	6645.36	3363.55	-3403.58	407.66	1684927.60	14268631.70	39°17'34.557"N	80°50'33.634"W	3427.91	173.170	3.04	
10259.00	89.230	162.580	6647.02	3458.41	-3492.58	440.73	1684960.65	14268542.73	39°17'33.677"N	80°50'33.215"W	3520.28	172.808	6.25	
10354.00	89.040	166.500	6648.46	3553.29	-3584.12	466.04	1684985.96	14268451.24	39°17'32.772"N	80°50'32.895"W	3614.29	172.591	4.13	

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Balli Pad
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Balli Pad

WELLPATH DATA (343 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
1048.00	89.070	166.570	6650.01	-3646.99	-3675.52	487.93	1685007.83	14268359.87	39°17'31.86"N	80°50'32.61"W	3707.77	172.438	0.08	
10542.00	89.260	163.960	6651.38	-3740.83	-3766.41	511.83	1685031.73	14268269.01	39°17'30.86"N	80°50'32.31"W	3801.03	172.261	2.78	
10636.00	89.110	162.810	6652.72	-3834.79	-3856.48	538.71	1685058.59	14268178.98	39°17'30.07"N	80°50'31.97"W	3893.92	172.048	1.23	
10731.00	88.640	163.570	6654.58	-3929.75	-3947.40	566.18	1685068.05	14268088.10	39°17'29.17"N	80°50'31.63"W	3987.80	171.838	0.94	
10826.00	88.610	164.790	6656.86	-4024.66	-4038.77	592.07	1685111.93	14267996.76	39°17'28.27"N	80°50'31.30"W	4081.94	171.660	1.28	
10920.00	88.710	160.690	6659.06	-4118.60	-4128.50	619.84	1685139.80	14267907.07	39°17'27.38"N	80°50'30.95"W	4174.78	171.460	4.36	
11015.00	89.010	159.340	6660.95	-4213.52	-4217.76	652.41	1685172.24	14267817.85	39°17'26.50"N	80°50'30.53"W	4267.91	171.207	1.46	
11110.00	89.010	164.100	6662.59	-4308.48	-4307.97	682.02	1685201.85	14267727.67	39°17'25.61"N	80°50'30.16"W	4361.63	171.004	5.23	
11204.00	89.040	167.550	6664.19	-4402.24	-4399.13	704.87	1685224.69	14267636.55	39°17'24.71"N	80°50'29.87"W	4455.24	170.897	3.45	
11298.00	89.140	168.590	6665.69	-4495.70	-4491.09	724.30	1685244.11	14267544.63	39°17'23.80"N	80°50'29.63"W	4549.12	170.839	1.11	
11393.00	89.040	165.930	6667.19	-4590.29	-4583.73	745.24	1685265.05	14267452.03	39°17'22.88"N	80°50'29.36"W	4643.91	170.765	2.80	
11488.00	88.770	163.090	6669.01	-4685.18	-4675.25	770.61	1685290.40	14267360.54	39°17'21.98"N	80°50'29.04"W	4738.33	170.640	3.00	
11583.00	88.980	162.210	6670.88	-4780.15	-4765.91	798.93	1685318.71	14267269.92	39°17'21.08"N	80°50'28.68"W	4832.41	170.484	0.95	
11678.00	89.040	160.250	6672.52	-4875.12	-4855.84	829.49	1685349.26	14267180.02	39°17'20.19"N	80°50'28.30"W	4926.18	170.306	2.06	
11773.00	88.770	155.100	6674.33	-4969.81	-4943.74	865.40	1685385.16	14267092.16	39°17'19.32"N	80°50'27.84"W	5018.91	170.071	5.21	
11867.00	88.770	155.100	6676.35	-5063.12	-5029.06	904.81	1685424.55	14267006.88	39°17'18.48"N	80°50'27.34"W	5109.80	169.801	0.22	
11961.00	88.890	159.000	6678.27	-5156.73	-5151.58	941.45	1685461.18	14266920.88	39°17'17.62"N	80°50'26.88"W	5201.49	169.572	4.15	
12056.00	88.890	162.220	6680.11	-5251.67	-5205.16	972.98	1685492.69	14266830.84	39°17'16.74"N	80°50'26.48"W	5295.32	169.412	3.39	
12150.00	88.980	163.380	6681.86	-5345.64	-5294.94	1000.77	1685520.47	14266741.09	39°17'15.85"N	80°50'26.12"W	5388.69	169.297	1.24	
12245.00	89.200	162.680	6683.37	-5440.61	-5385.79	1028.50	1685548.19	14266650.28	39°17'14.95"N	80°50'25.76"W	5483.12	169.189	0.77	
12339.00	89.230	160.270	6684.66	-5534.59	-5474.91	1058.36	1685578.03	14266561.20	39°17'14.07"N	80°50'25.40"W	5576.27	169.059	2.56	
12433.00	89.170	162.240	6685.97	-5628.57	-5563.91	1088.56	1685608.23	14266472.24	39°17'13.19"N	80°50'25.02"W	5669.40	168.930	2.10	
12527.00	89.070	161.760	6687.41	-5722.56	-5653.30	1117.60	1685637.26	14266382.88	39°17'12.30"N	80°50'24.65"W	5762.71	168.817	0.52	
12622.00	89.040	161.940	6688.98	-5817.55	-5743.56	1147.19	1685666.84	14266292.66	39°17'11.41"N	80°50'24.28"W	5857.01	168.705	0.19	
12717.00	89.100	164.020	6690.52	-5912.52	-5834.38	1175.00	1685694.63	14266201.87	39°17'10.51"N	80°50'23.92"W	5951.52	168.613	2.19	
12811.00	89.230	164.160	6691.89	-6006.45	-5924.77	1200.76	1685720.38	14266111.52	39°17'09.62"N	80°50'23.60"W	6045.22	168.543	0.20	
12906.00	89.350	159.810	6693.07	-6101.42	-6015.08	1230.13	1685749.74	14266021.24	39°17'08.73"N	80°50'23.22"W	6139.58	168.442	4.58	
13001.00	89.130	155.800	6694.33	-6196.13	-6103.02	1266.01	1685785.60	14265933.34	39°17'07.86"N	80°50'22.77"W	6232.95	168.281	4.23	
13097.00	89.170	158.890	6695.75	-6291.78	-6191.59	1302.98	1685822.56	14265844.80	39°17'06.98"N	80°50'22.30"W	6327.21	168.116	3.22	
13193.00	89.170	163.900	6697.15	-6387.73	-6282.54	1333.59	1685853.16	14265753.90	39°17'06.08"N	80°50'21.92"W	6422.52	168.016	5.22	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (343 stations)												
MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(°)	(ft)	(°)
13287.00	89.130	6698.54	6481.69	-6372.69	1350.18	1685879.73	14265663.78	39°17'05.195"N	80°50'21.586"W	6516.23	167.952	0.70
13382.00	89.170	6699.95	6576.68	-6463.19	1389.02	1685908.56	14265573.31	39°17'04.300"N	80°50'21.221"W	6610.76	167.871	1.93
13477.00	89.200	159.950	6701.30	-6552.83	1420.44	1685939.97	14265483.71	39°17'03.413"N	80°50'20.823"W	6705.01	167.769	1.54
13571.00	89.410	158.300	6702.44	-6640.65	1453.93	1685973.45	14265395.93	39°17'02.545"N	80°50'20.399"W	6797.95	167.650	1.77
13664.00	89.600	160.510	6703.25	-6858.39	-6727.70	1486.64	1686006.15	39°17'01.684"N	80°50'19.985"W	6889.99	167.539	2.39
13760.00	89.660	163.930	6703.87	-6954.38	-6819.09	1515.95	1686035.45	39°17'00.780"N	80°50'19.615"W	6985.57	167.466	3.56
13855.00	89.560	163.890	6704.51	-7049.33	-6910.37	1542.28	1686061.77	39°16'59.877"N	80°50'19.282"W	7080.39	167.419	0.11
13950.00	89.660	165.450	6705.16	-7144.22	-7001.99	1567.40	1686086.87	39°16'58.971"N	80°50'18.965"W	7175.27	167.382	1.65
14046.00	89.690	164.510	6705.70	-7240.09	-7094.70	1592.27	1686111.74	39°16'58.054"N	80°50'18.650"W	7271.19	167.351	0.98
14140.00	89.660	165.780	6706.24	-7333.95	-7185.56	1616.37	1686135.83	39°16'57.156"N	80°50'18.346"W	7365.11	167.322	1.35
14235.00	89.720	163.670	6706.75	-7428.84	-7277.20	1641.40	1686160.84	39°16'56.250"N	80°50'18.030"W	7460.01	167.289	2.22
14282.00	89.660	162.870	6707.00	-7475.83	-7322.21	1654.93	1686174.37	39°16'55.805"N	80°50'17.859"W	7506.90	167.264	1.71
14305.00	89.660	162.870	6707.14	-7498.83	-7344.19	1661.70	1686181.14	39°16'55.587"N	80°50'17.773"W	7529.83	167.251	0.00
Projected MD at TD: 14305												

HOLE & CASING SECTIONS - Ref Wellbore: Spellman Unit 1H AWB Ref Wellpath: Spellman Unit 1H AWP Proj: 14305												
String/Diameter	Start MD	End MD	Interval	Start TVD	End TVD	Start N/S	Start E/W	End N/S	End E/W			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)			(ft)
20in Conductor	32.00	72.00	40.00	32.00	72.00							0.00
13.375in Casing Surface	32.00	387.00	355.00	32.00	387.00							0.01
9.625in Casing Intermediate	32.00	2518.00	2486.00	32.00	2515.20							19.05

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWB
Facility	Balli Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Spellman Unit 1H POE Rev-1	6589.00	-309.12	-612.07	1683908.27	14271724.93	39°18'05.159"N	80°50'46.537"W	point
Spellman Unit 1H BHL Rev-1	6610.00	-7234.70	1631.87	1686151.32	14264802.11	39°16'56.670"N	80°50'18.150"W	point
Spellman Unit 1H LP Rev-1	6610.00	-442.34	-568.91	1683951.42	14271591.75	39°18'03.842"N	80°50'45.991"W	point

WELLPATH COMPOSITION - Ref Wellbore: Spellman Unit 1H AWB Ref Wellpath: Spellman Unit 1H AWP Proj: 14305'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	6020.00	SDI Keeper v1.04	01 SDI Std Keeper Gyro (100' - 6001')	Spellman Unit 1H AWB
6020.00	14282.00	BHI AutoTrak Curve w/ Surcon (MagCAD, Short spacing)	02 BHI AT Curve [SS+MSA] <8-1/2">(6020')(6132'-14282')	Spellman Unit 1H AWB
14282.00	14305.00	Blind Drilling (std)	Projection to bit	Spellman Unit 1H AWB

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Doddridge Co., WV	Well	Spellman Unit 1H
Field	Doddridge	Wellbore	Spellman Unit 1H AWB
Facility	Balli Pad		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
119.00	0.230	182.010	119.00	SDI Std Keeper Gyro (119' - 6020')
6132.00	25.690	276.570	6037.53	BHI AT Curve [SS+MSA] <8-1/2">(6020')(6132-14282)
6575.00	43.054	196.173	6411.40	Middlesex: 6575' MD
6773.00	60.888	173.222	6533.44	Burkett: 6773' MD
6834.00	65.980	165.690	6560.70	Tully: 6834' MD
6938.00	75.087	161.189	6595.57	Marcellus: 6938' MD
14305.00	89.660	162.870	6707.14	Projected MD at TD: 14305'

COMMENTS
<p>Wellpath general comments API: 47-017-06713-0000 BHI Job #: 7950673 Rig: Frontier 32 Duration: 05.12.2016-05.14.2016 SDI Std Keeper Gyro (119' - 6020') BHI AT Curve [SS+MSA] <8-1/2">(6020')(6132-14282') Middlesex: 6575' MD Burkett: 6773' MD Tully: 6834' MD Marcellus: 6938' MD Projected MD at TD: 14305'</p>

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