



Actual Wellpath Report Owens Unit 2H AWP Proj: 15781'



REFERE	NCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #13	
Area	Tyler County, WV	Well	Owens Unit 2H	
Field	Tyler	Wellbore	Owens Unit 2H AWB	
Facility	Weigle East Pad			

REPORT SETU	PINFORMATION		
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Hareluk
Scale	0.999602	Report Generated	10/24/2016 at 2:07:38 PM
Convergence at slot	0.10° East	Database/Source fil	eWA_MPL_EASTERNUS_Defn/Owens_Unit_2H_AWP_Proj15781xm

	Local coo	rdinates	Grid co	ordinates	Geographic	coordinates
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-24.59	47.69	1682000.46	14331696.54	39°27'58.160"N	80°51'09.570"W
Facility Reference Pt			1681952.79	14331721.12	39°27'58.404"N	80°51'10.177"W
Field Reference Pt		1	0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	PD 525 (RKB) to Facility Vertical Datum	19.00ft
Horizontal Reference Pt	Slot	PD 525 (RKB) to Mean Sea Level	831.00ft
Vertical Reference Pt	PD 525 (RKB)	PD 525 (RKB) to Mud Line at Slot (Slot #13)	19.00ft
MD Reference Pt	PD 525 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	339.95°

WV Department of Environmental Protection MAR 2 9 2019

10/24/2016

file:///C:/WellArchitect/Owens_Unit_2H_AWP_Proj__15781_.xml

Wellpath Report

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REFER	2	WELL	ATH	DEN		O I	ż				1010					
Operator		AN IERO RESOURCES CORPORATION	SOURC	ES CC	RPOP	KATION				Siot	Slot #13					
Area	Tyle	Tyler County, WV	/, WV		6					Well	Owens Unit 2H	nit 2H				
Field	Tyler	r							1	Wellbore	Owens Unit 2H AWB	nit 2H AV	NB			
Facility	Weig	Weigle East Pad	Pad													
WELLP	WELLPATH DATA (192 stations)	ATA (1	92 sta	ations	1,000	t = interpolated		lextrapolated station	uo							
QW E	nclinationAzimuth	Azimuth [*]	配置	Sect	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist	Closure Dir I'l	DLS [*/100ft]	Build Rate	Turn Rate	Comments
00:00	00000	0,000122.830	00.0	0.00	0.00	0.00	1682000.46	14331696.54	39°27'58.160"N	80°51'09.570"W	00:00	0.000	0.00	0000	00.0	
19.00	0.000	0.000122.830	19.00	00.0	00.0	0.00 16820	682000.46	14331696.54		39°27'58.160"N 80°51'09.570"W	0.00	0.000	0.00	00.0	0.00	
100.00	0.100	0.100122.830	100.001	-0.06 -0.04	-0.04	0.06 16820	682000.52	14331696.50		39°27'58.160"N 80°51'09.569"W	20.0	122.830	0.12	0.12	151.64	Gyrodata MS Gyro <8-3/4">(100'-5584")
200.00	0.040		200.00	-0.15 -0.11	-0.11	0.16 16820	682000.62	14331696.43	39°27'58,159"N	80°51'09.568"W	0.19	123,286	90.0	-0.06	2.52	
300.00	0.070	0.070158.120	300.00	-0.24	-0.18	0.21 16820	1682000.67	14331696.36	39°27'58.158"N		0.28	130,699	0.04	0.03	32.77	
400:00	0.100		400.00	-0.39	-0.31	0.29 1	1682000.75	14331696.23	39"27"58.157"N	W.355'09.565'W	0.42	136.626	0.04	60.0	-17.19	
500.00	0.200	0.200151.680	900.00	-0.64 -0.53	-0.53	0.43 16820	682000.89	14331696.01	39°27'58.155"N	80°51'09.564"W	0,68	141,001	0.10	0.10	10.75	
600.00	0.360	0.360108.710	600.00	-1.01 -0.78	-0.78	0.81 16820		14331695.76	39°27'58.152"N	80°51'09.560'W	1,13	134.086	0.25	0.16	42.97	
700.00	2,420	74.280	96'669	-1.37	-0.31	3.14 1682(1682003.60	14331696.23	39°27'58.157"N	80°51'09.530"W	3,15	95,671	2.13	2.06	-34.43	
800.00	2.840	78.720	799.86	-1.91	0.74	7.60 1	1682008.06	14331697 28	39°27'58 167"N		7.64	84.402	0.47	0.42	4.44	
900.00	4.140	75.730	899.67	-2.65	2.12	13.53	1682013.98	14331698.66	39°27'58,181"N	80°51'09.397"W	13.69	81.097	1.31	1.30	-2.99	
1000.00	6.080	6.080 81.560	999.27	-4.08	3.79	22.27 16820	1682022.72	14331700.33	N27.58.197"N	80°51'09.285"W	22.59	80.349	2.01	1.94	5.83	
1100.00	7.380		89.860	-7.33	4.58	33.93	1682034.37	14331701.12	39°27'58,205"N	80°51'09.137"W	34.24	82.311	1.62	1.30	8.29	
1200.00	8.740	87.2101197.59	_	-11.77	4.97	47.94 1	1682048.38	14331701.51	39°27'58.208"N	80°51'08.959"W	48.20	84.084	1.41	1,36	-2.64	
1300.00				_		65.57 1	1682066.01	14331702.65	39°27'58.219"N	80°51'08.734"W	98'59	84.677	9	2,88	-1,61	
1400.00	13.920	83.1701393.53		-22.21	8.31	87.56 1	1682087.99	14331704.85	39°27'58,241"N		87.95	84.576	2.36	2.30	-2.43	
1500.00	14.250	14.250 81.3001490.52		-27.38 11.61	11.61	111.67 1682	_	12.08 14331708.14			112.27	84.067	0.56	0.33	-1.87	
1600.00	13.690	83.6201587.56		-32.60 14.78		135.60 1682					136.40	83.778	0.79	-0.56	2,32	
1700,00	14,280	84.8501684.60	_	-38.57	17.20	159.64	1682160.04	14331713.74		1	160.56	83.849	0.66	0.59	1.23	
1800.00	17 190	82.7801780.84	100	-45.02	20.17	186.59 1	1682186.97	14331716.70	39°27'58.356"N	-	187.68	83 831	2.96	2.91	-2.07	
1900.00	17,780	80,2701		-51,04	24.61	216.30 1	1682216.67	14331721,14	39°27'58,400"N	80°51'06.812"W	217.69	83.510	96.0	69'0	-2.51	
2000.00	17.860	17.860 81.5001971.43		-56.85 29.45	29.45	246.51 16822	1682246.87	14331725.98	39°27'58,447"N		248,27	83,186	0.38	0.08	1.23	
2100.00	18.270	86.9802067.03		-64.02 32.46	32.46	1 29.572	1682276.02	14331728.99	39"27'58.476"N	80°51'06.054"W	277.58	83.285	2.26	-1.59	5.48	
2200.00			_	-71.58 34.10	34.10		1682302.56	14331730.63	39°27'58.492"N	80°51'05.716"W	304.14	83,583	1.70	-1,68	-1,09	
2300.00	15,380		-	-77.45	12.78	-	1682328.19	14331733.74	39"27'58.522"N	W°51'05.389'W	329.97	83.524	1.62	62'0	-5.49	
2400.00	13.120	82,3002356.94		-82.28 40.95	40.95	352.19 1	1682352.51	14331737.47	39°27'58.559"N	80°51'05.078"W	354.56	83,368	2.31	-2.26	1.90	
2500,00	11,560		-	-87.18 43.47		373.41	1682373.72	14331740.00	39°27'58,584"N		ŭ,	83,359	1.61	-1.56	1.94	
2600.00	9.000	81.3602553.01	553.01	-91.20 45.65 391.11	45.65	391.11	1682391.42	14331742.18	39°27'58.605"N	80°51'04.582"W	393.77	83.342	2.61	-2.56	-2.88	
2700.00	10.1	9.110 84.3002651.77 -94.71 47.62 406.72 16824	651.77	-94.71	47.62	106.72	1682407.02	14331744.14	39°27'58.624"N		409.50	83.323	0.48	0.11	2.94	
2800.00A	103	92.3502	750.15	100.47	47,99	424.56	1682424.85	14331744.51	39°27'58.627"N	80°51'04.156"W	427.27	83,551	2.78	2,39	8.05	

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		Weigle East Pad	Facility
BWA HS JinU anowO	Wellbore	19/01	Field
HS JinU anewO	II9\V\	Tyler County, WV	691A
21#10 S	Iols	МИТЕКО RESOURCES CORPORATION	Operator
		VCE WELLPATH IDENTIFICATION	ветеве

121		[11001/"]		lo.	[11]			the second secon				111				
139		3.82	3.89	016 68	450.28	W"088 E0'12"08	N"828.82°Y2°95	PR ANTIECAL	CO 8449891	DT 700	77 74	£8.801-	14 TA85	081 68	15,320	00.0
		p1.0-					N"758.88.72°95						2943.89			00.0
		8Z.1-					N"078.82'72°98						99,0405		13,900	00.0
		112					N"S07.88'72°85						EB. YETE			00.0
69		18.0					N"817.88.72°98						3233.93			00.0
		91.1-					N"157.88'72°95						14.0555			00.0
97	-0.2	20.0-	70.0	191,164	604.65	W"668,10'12"08	N897.88'75'9E	14331758.00	1682601.73	16.108	84,18		3427.15			00.0
Lt	p. S-	0.23	99.0	84.093	630.12	W"772,1012°08	N"167,88'72"98	36.13716641	1682626.98	77.629	64.85	96.531-	3523.85	81,210	14,880	00
1.2	4.7	69'0	1.37	470.48	72.888	80°51'01,245"W	N"818.83"YS"85	14331764.27	1682652.96	92,269	92.78	11.091-	3620,37	82 920	16,470	001
67	11	pp 0-	69'0	84 173	682,55	W"116,00'12"08	N., VE8 89. LZ., 68	18331765.81	1682679.21	20.678	62 69		38 9175		12,030	00
6\$	p'9-	-3.03	3.38	84,185	88,207	W"+18,00'12"08	N.,998'89,22,68	14331768,03	1682702,42	702.24	71,52	173.57	3814.07	80.920	12,000	00"
		12.0					N"878,82°72°98						39.11.65			00.0
87		519					N"178.88'72°95				73.13		41'600t		14,400	00
		1.53					N"888.88"Y2"95						07.2014			00.
		0.72					N.,168 89,12,68						4201.68			00.0
		05.0					N"629,83'75°95			19,828			35.79SA		17,150	00.0
		-2.13					N"179.88.72°98						4393.45		15,020	00.
	_	871			72.788 FA 819		N"ASO 92'75"95				_		69 6877		005.51	00.
		76.0					N.890 69.22.66									00.
61		00.1-			19.879		N.,921,59,12,66				88.88 96.32		76 088A E1 1171A		076.31	00.
	$\overline{}$	90.1-					N. 121.88.12.68								14,320	00.
18		00.1-					N.,561-65,12.66								13.320	00.
	-	80.0-				M.116.95.05.08							50.88.23		13.240	00.
		68.0-					N.992 69.42.68	The second second second							12.350	00
55		67.0					N"462,88-75-96								13.080	00.
		pp.0-				W'874, 82'08°08									12.640	00
		1.90					N"S8E,9875°9E									00.
56BHI AT Curve <8-1/2">(5584")(5682"-15		1.21					N"424.68.72"98									00
		16.0-					N.,627,68,75,98									00





REFERE	NCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #13	
Area	Tyler County, WV	Well	Owens Unit 2H	
Field	Tyler	Wellbore	Owens Unit 2H AWB	
Facility	Weigle East Pad			

	Inclination	Azimuth	TVD	Vert Sect		East	Grid East	Grid North	Latitude	Longitude	Closure Dist			Build Rate		Comments
771.00	15.040	90 440	[ft] 5623.14	[ft]	[ft]	[ft]	rus m	IUS ft1	20002150 457111	DOMEDIE A COOMAI	1179.20		(°/100ft)	f°/100ft1 0.02	[°/100ft]	
816.00	15.760		5666.53		_					80°50'54.628"W	1179.20	83.513 83.491	0.19		-0.71	
861.00	15,760		5709.85				1683183.45 1683195.48	14331831.51		80°50'54.477"W 80°50'54.324"W	1203.32	83.465	1.34	1.60 -0.20	-4.89	
906.00	15.020		5753.25					14331836.49		80°50'54.324 W	1215.05	83.384	5.97	-1.44	-21.91	
950.00	14.780		5795.78				1683217 13			80°50'54.047"W	1225.74	83 215	6.18	-0.55	-23.98	
995.00	15.410		5839.24				1683226.31	14331848.42		80°50'53 930"W	1235.72	82.937	8.38	1.40	-31.80	
040.00	16.780		5882.48				1683234.21	14331858.00	39°27'59.736"N	80°50'53.829"W	1244.76	82.544	7.35	3.04	-24.18	
085.00	19.740		5925.23				1683240.90	14331870.34	39°27'59.858"N	80°50'53.744"W	1253.06	82.024	9.91	6.58	-23.76	
130.00	23.070		5967.12				1683246.41	14331885.77	39°28'00.011"N	80°50'53.673"W	1260.74	81.364	9.49	7.40	-16.36	
154.00†	25 544		5989.00				1683248.82		39°28'00.105"N	80"50'53 642"W	1264.60	80.952	12 29	10.31		Sycamore: 6154 MD
175.00	27.780		6007.76				1683250.59	14331904.59	The Contract of the Contract o	80°50'53.619"W	1267.83	80.551	12.29	10.65	-13.70	a de la composição de l
219.00	31.840		6045.94	-213.70				14331926.29		80°50'53.587"W	1273.99	79,606	11.19	9.23	-12.75	
264.00	36.180	357.880	6083.24	-190.19			1683253.34	14331951.41		80°50'53.583"W	1279.06	78.501	12.14	9.64	-13.20	
309.00	39.700	354.200	6118.73	-163.61	282.56	1251.44	1683251.40	14331978.99	39°28'00.932"N	80°50'53.607"W	1282.94	77.277	9.30	7.82	-8.18	
354.00	43.980	351,690	6152.25	-134.37	312.33	1247.73	1683247.69	14332008.75	39"28'01.226"N	80°50'53.654"W	1286.23	75,948	10.21	9.51	-5,58	
372.00†	45.515	350.746	6165.04	-121.94	324.86	1245.79	1683245.75	14332021.27	39°28'01.350"N	80°50'53.678"W	1287.45	75.385	9.29	8.53	-5.24	Middlesex: 6372' MD
399.00	47.830	349.420	6183.56	-102.61	344.20	1242.41	1683242.37	14332040.60	39°28'01.541"N	80°50'53.721"W	1289.20	74.515	9.29	8.58	-4.91	AND THE RESERVE AND
443.00	51.690	344.960	6211.99	-69.30	376.92	1234.93	1683234.89	14332073.31	39°28'01.865"N	80°50'53.816"W	1291.17	73.027	11.69	8.77	-10.14	
488.00	55,540	342.700	6238.68	-33.17	411.70	1224.82	1683224.79	14332108.08	39°28'02.209"N	80°50'53.944"W	1292.17	71,421	9,46	8.56	-5.02	The company
523.00†	58.970	342.834	6257.61	-3.77	439.81	1216.10	1683216.08	14332136.18	39"28'02,487"N	80°50'54.055"W	1293 19	70.117	9,81	9.80	0.38	Burkett: 6523' MD
533,00	59,950	342.870	6262.69	4.83	448.04	1213.57	1683213.54	14332144.40	39°28'02.568"N	80°50'54.087"W	1293.63	69.736	9.81	9.80	0.36	
578.00	64.250	342.130	6283.74	44.55	485.96	1201.60	1683201.58	14332182.31	39°28'02.943"N	80°50'54.238"W	1296.15	67.980	9.67	9.56	-1.64	
580,00†	64,421	342.105	6284.61	46.35	487.68	1201.05	1683201.03	14332184.02	39°28'02.960"N	80°50'54.245"W	1296.28	67.901	8.61	8.53	-1.26	Tully: 6580' MD
523.00			6301.92				1683188.77	14332221.40	39°28'03.330"N	80°50'54.401"W	1299.58	66.170	8.61	8,53	-1.22	
568.00	The second secon	Contract of the Contract of th	6317.62	127.84	565.00	1175.22	1683175.21	14332261.31	39°28'03.725"N	80°50'54.573"W	1303.98	64,324	6.77	6,62	-1.49	
596.00†	73.615	340.326	6326.11	154.52	590.16	1166.37	1683166.36	14332286.47	39°28'03.974"N	80°50'54.685"W	1307.18	63.161	9,30	9.09	-2.08	Marcellus POE: 6696' N
712.00		340,000		169.92	604.65	1161.14	1683161_14	14332300.95	39°28'04.117"N	80°50'54.752"W	1309.14	62.492	9.30	9.09	-2.04	
757.00	79.510	339,180	6340.33	213.81	645.78	1145.84	1683145.84	14332342.07	39°28'04.524"N	80°50'54.946"W	1315.29	60.595	10.03	9.87	-1.82	
302.00			6346.69	258.33	687.30	1129.72	1683129.73	14332383.57	39°28'04.934"N	80°50'55.151"W	1322.36	58.684	10.65	10.51	-1.76	
847.00	88,150	337,450	6349.67	303.20	728.90	1112.84	1683112.86	14332425.15	39°28'05.346"N	80°50'55.365"W	1330,31	56.776	8.94	8,69	-2.09	

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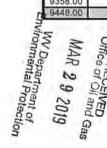


Actual Wellpath Report Owens Unit 2H AWP Proj: 15781' Page n of nn



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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #13
Area	Tyler County, WV	Well	Owens Unit 2H
Field	Tyler	Wellbore	Owens Unit 2H AWB
Facility	Weigle East Pad		

MD	Inclination	Azimuth [°]	TVD	Vert Sect	North [ft]	East (ft)	Grid East IUS ft1	Grid North (US ft)	Latitude	Longitude	Closure Dist	Closure Dir	DLS 1º/100ft1	Build Rate f°/100ft1	Turn Rate	Comments
6893.00	90.460	337.270	6350.23	349.14	771.35	1095.14	1683095.16	14332467.58	39°28'05.766"N	80°50'55.590"W	1339.52	54.841	5.04	5.02	-0.39	
6937.00	90.400	338.330	6349.90	393.11	812.09	1078.51	1683078.54	14332508.30	39°28'06.168"N	80°50'55.801"W	1350.06	53.021	2.41	-0.14	2.41	
7027.00	90.120	338.130	6349.49	483.07	895.67	1045.13	1683045.18	14332591.85	39°28'06.995"N	80°50'56.225"W	1376.42	49.404	0.38	-0.31	-0.22	
7117.00	90.340	338.510	6349.13	573.03	979.30	1011.89	1683011.94	14332675.45	39°28'07.822"N	80°50'56.647"W	1408.17	45.938	0.49	0.24	0.42	
7207.00	90.430	339.750	6348.53	663,02	1063.39	979.83	1682979.89	14332759.50	39°28'08.654"N	80°50'57.054"W	1445.98	42.658	1.38	0.10	1.38	
7296.00	90.400	340.550	6347.88	752.01	1147.10	949.61	1682949.69	14332843.18	39°28'09.482"N	80°50'57.437"W	1489.16	39.619	0.90	-0.03	0.90	
7386.00	90.460	341.220	6347.21	842.00	1232.13	920.13	1682920.23	14332928.18	39°28'10.323"N	80°50'57.811"W	1537.79	36.752	0.75	0.07	0.74	
7475.00	90.310	340.410	6346.61	930.99	1316.19	890.89	1682890.99	14333012.20	39°28'11.154"N	80°50'58.183"W	1589.35	34.093	0.93	-0.17	-0.91	
7565.00	90.550	340.160	6345.93	1020,98	1400.91	860.53	1682860.64	14333096.89	39°28'11,992"N	80°50'58.568"W	1644.10	31.581	0.39	0.27	-0.28	
7655.00	90.370	337.510	6345.21	1110.95	1484.83	828.04	1682828.17	14333180.77	39°28'12.822"N	80°50'58 980"W	1700.11	29.147	2.95	-0.20	-2.94	
7744.00	90.490	335.540	6344.54	1199.79	1566.46	792.59	1682792.73	14333262.37	39°28'13.629"N	80°50'59.431"W	1755.56	26.838	2.22	0.13	-2.21	
7834.00	90.310	338.130	6343.91	1289.65	1649.19	757.19	1682757.34	14333345.07	39°28'14.447"N	80°50'59.880"W	1814.71	24.661	2.88	-0.20	2.88	
7924.00	91.050	339.520	6342.84	1379.62	1733.11	724.68	1682724.85	14333428.95	39°28'15.277"N	80°51'00.293"W	1878.51	22.692	1.75	0.82	1.54	
8013.00	90.220	337.690	6341.86	1468.58	1815.96	692.22	1682692.40	14333511.78	39°28'16.097"N	80°51'00.705"W	1943.42	20.866	2.26	-0.93	-2.06	
8103.00	89.850	338,560	6341 80	1558,54	1899 48	658.69	1682658.88	14333595.26	39°28'16.923"N	80°51'01_131"W	2010.45	19.125	1,05	-0.41	0.97	
8193.00	89.290	341.180	6342.48	1648.53	1983.97	627.72	1682627.92	14333679.72	39°28'17.758"N	80°51'01.524"W	2080.91	17.557	2.98	-0.62	2.91	
8282.00	90.490	342.120	6342.65	1737.49	2068.45	599.70	1682599.92	14333764.16	39°28'18.593"N	80°51'01.880"W	2153.63	16.168	1.71	1.35	1.06	
8372.00	90.030	344.680	6342.24	1827.31	2154.69	573.99	1682574,22	14333850,36	39°28'19.446"N	80°51'02.206"W	2229.83	14.917	2.89	-0.51	2.84	
8462.00	90.770	345.740	6341.61	1916.93	2241.70	551.01	1682551.25	14333937.34	39°28'20.307"N	80°51'02.497"W	2308.43	13.810	1.44	0.82	1.18	
8551.00	90.580	341.830	6340.56	2005.71	2327 14	526.17	1682526.42	14334022.75	39°28'21.151"N	80°51'02.812"W	2385,88	12.740	4.40	-0.21	-4.39	VI
8641.00	90.000	341.000	6340.11	2095.68	2412.44	497.48	1682497.75	14334108.02	39°28'21.995"N	80°51'03.176"W	2463.20	11.652	1.13	-0.64	-0.92	
8730.00	89.910	343.500	6340.18	2184.60	2497.20	470,35	1682470.63	14334192.74	39°28'22,833"N	80°51'03.520"W	2541.11	10,667	2,81	-0.10	2.81	
8820.00	90.220	343.490	6340.08	2274.42	2583.49	444.78	1682445.07	14334279.00	39°28'23.686"N	80°51'03.844"W	2621.50	9.769	0.34	0.34	-0.01	
8910.00	90.090	341.670	6339.83	2364.33	2669.36	417.84	1682418.14	14334364.83	39°28'24.536"N	80°51'04.186"W	2701.86	8,896	2.03	-0.14	-2.02	
8999.00	90.340	339,440	6339.50	2453:31	2753.28	388.22	1682388.52	14334448.71	39°28'25.365"N	80°51'04.562"W	2780.51	8.026	2.52	0.28	-2.51	
9089.00	90.400	336.340	6338,92	2543.24	2836.65	354.35	1682354.66	14334532.05	39°28'26.190"N	80°51'04,992"W	2858.69	7.120	3,45	0.07	-3.44	
9179.00	89.820	335.270	6338.74	2633.01	2918.74	317.46	1682317.79	14334614.11	39°28'27.002"N	80°51'05.461"W	2935.95	6.207	1.35	-0.64	-1.19	
9268.00	89.450	335.760	6339.31	2721.74	2999.73	280.58	1682280.92	14334695.07	39°28'27.803"N	80°51'05.929"W	3012.83	5.344	0.69	-0.42	0.55	
9358:00	90.250	336.960	6339.55	2811.56	3082.18	244.49	1682244.85	14334777.48	39°28'28.618"N	80°51'06.388"W	3091.86	4.535	1.60	0.89	1.33	
9448.00	90,030	338 490	6339.33	2901.49	3165.46	210.37	1682210.75	14334860.73	39°28'29.442"N	80°51'06.821"W	3172.44	3.802	1.72	-0.24	1.70	1000



Page 6 of 10 Wellpath Report



Actual Wellpath Report Owens Unit 2H AWP Proj: 15781' Page n of nn



REFERE	NCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #13	
Area	Tyler County, WV	Well	Owens Unit 2H	
Field	Tyler	Wellbore	Owens Unit 2H AWB	
Field Facility	Weigle East Pad			

MD Ift1	Inclination [°]	Azimuth	TVD	Vert Sect	North [ft]	East (ft)	Grid East IUS ft1	Grid North IUS ftl	Latitude	Longitude	Closure Dist	Closure Dir		Build Rate		Comments
9537.00	89.910	338.440	6339.37	2990.46	3248.25	177.71	1682178.09	14334943.49	39°28'30.261"N	80°51'07.236"W	3253.10	3.131	0.15	-0.13	-0.06	
9627.00	90.120	337,870	6339.35	3080.41	3331.78	144.22	1682144.62	14335026.99	39°28'31.087"N	80°51'07.661"W	3334.90	2.479	0.67	0,23	-0.63	
9717,00	89.320	340.350	6339.79	3170.39	3415.86	112.13	1682112.54	14335111.03	39°28'31.918"N	80°51'08.069"W	3417.70	1.880	2,90	-0.89	2.76	
9806.00	90.180	341.830	6340.18	3259.37	3500.05	83.29	1682083.71	14335195.19	39°28'32.751"N	80°51'08.435"W	3501.04	1.363	1.92	0.97	1.66	
9896.00	92.120	342.410	6338.37	3349.29	3585.68	55.66	1682056 10	14335280.79	39°28'33.598"N	80°51'08.785"W	3586.11	0.889	2.25	2.16	0.64	
9986.00	91.170	337.200	6335.79	3439.22	3670.08	24.61	1682025.06	14335365.16	39°28'34,432"N	80°51'09.180"W	3670.17	0.384	5.88	-1.06	-5.79	3
0076.00	91.290	335,670	6333.85	3529.02	3752.56	-11.36	1681989.11	14335447.60	39°28'35.248"N	80°51'09.637"W	3752,57	359.827	1.70	0.13	-1.70	
0165.00	91,350	336,380	6331.80	3617.79	3833.86	-47.51	1681952.97	14335528.86	39°28'36.052"N	80°51'10.096"W	3834.15	359.290	0.80	0.07	0.80	
0255,00	91.690	334.560	6329.42	3707.48	3915.70	-84.86	1681915.63	14335610.68	39°28'36.862"N	80°51'10.571"W	3916.62	358.758	2.06	0.38	-2.02	
0345.00	92.310	336.130	6326.28	3797.13	3997.44	-122.38	1681878.13	14335692.38	39°28'37.670"N	80°51'11.047"W	3999.32	358.246	1.87	0,69	1.74	
0434.00	91.170	340.250	6323.57	3886.03	4080.02	-155.42	1681845.10	14335774.92	39°28'38.487"N	80°51'11.467"W	4082.98	357.818	4.80	-1.28	4.63	
0524.00	90.770	342.790	6322.05	3975.97	4165.36	-183.95	1681816.59	14335860.23	39°28'39.331"N	80°51'11.829'W	4169.42	357.471	2,86	-0.44	2,82	
0614.00	91.140	345.830	6320.55	4065.69	4251.98	-208.28	1681792.27	14335946.82	39°28'40.187"N	80°51'12.137"W	4257.08	357.196	3.40	0.41	3.38	
0703.00	91.510	346.060	6318.49	4154.18	4338.29	-229.89	1681770.67	14336033.10	39°28'41.041"N	80°51'12.411"W	4344.38	356.967	0,49	0.42	0.26	
0793 00	91,910	342.800	6315.80	4243.85	4424.94	-254.03	1681746.53	14336119.71	39°28'41.897"N	80°51'12.717"W	4432.23	356.714	3.65	0.44	-3.62	
0883.00	90.340	340.950	6314.04	4333.78	4510.45	-282.02	1681718.55	14336205.19	39°28'42,743"N	80°51'13.072"W	4519.26	356.422	2.70	-1.74	-2.06	
0973.00	90.310	344.770	6313.53	4423.64	4596.44	-308.54	1681692.04	14336291.14	39°28'43.593"N	80°51'13.409"W	4606.78	356,160	4.24	-0.03	4.24	
1062.00	90.030	345,500	6313,26	4512.28	4682.46	-331.37	1681669.22	14336377.12	39°28'44,444"N	80°51'13.698"W	4694.17	355.952	0.88	-0.31	0.82	
1152.00	89.050	343.590	6313.98	4601.98	4769.19	-355.35	1681645.25	14336463.83	39°28'45.302"N	80°51'14.002"W	4782.41	355.739	2.39	-1.09	-2.12	
1242.00	89.050	341,500	6315.48	4691.87	4855.03	-382.34	1681618.27	14336549.63	39°28'46.150"N	80°51'14,345"W	4870,07	355,497	2.32	0.00	+2,32	1000
1332.00	88,150	340.290	6317.68	4781.83	4940.05	-411.79	1681588.83	14336634.61	39°28'46.991"N	80°51'14.719"W	4957.18	355.235	1,68	-1.00	-1.34	
1421.00	88.400	341.980	6320.36	4870.77	5024.23	-440.55	1681560.08	14336718.76	39°28'47.823"N	80°51'15.084"W	5043.50	354.989	1.92	0.28	1.90	
1511.00	89.290	340,880	6322.17	4960.72	5109.52	-469.21	1681531.44	14336804.02	39°28'48.667"N	80°51'15.447"W	5131.02	354.753	1.57	0.99	-1.22	
1601.00	89,690	335,080	6322.97	5050.62	5192.92	-502.94	1681497.73	14336887,38	39°28'49.492"N	80°51'15.876"W	5217.21	354.468	6.46	0.44	+6.44	
1690.00	89.170	333,240	6323.86	5139.16	5273.01	-541.72	1681458.95	14336967.44	39°28'50 284"N	80°51'16.369"W	5300.76	354.134	215	-0.58	-2.07	
1780.00	89.780	336,790	6324.68	5228.81	5354.57	-579.73	1681420.96	14337048.97	39°28′51.091″N	80°51'16.852"W	5385.86	353.821	4.00	0.68	3.94	
1870,00	90,060	338.250	6324.81	5318.72	5437.73	-614.14	1681386.56	14337132.09	39°28'51.913"N	80°51'17.289"W	5472.30	353.556	1.65	0.31	1.62	
1960,00	89.450	341,020	6325.19	5408.71	5522.10	-645.46	1681355.26	14337216.43	39°28'52.747"N	80°51'17.687"W	5559.69	353,333	3.15	-0.68	3,08	
2049.00	90.950	340.430	6324.88	5497.70	5606.10	-674.84	1681325.89	14337300.40	39°28'53,578"N	80°51'18.059"W	5646.57	353,136	1.81	1.69	-0.66	
£139.00	90,650	335.700	6323.62	5587.62	5689.56	-708.44	1681292.30	14337383.82	39°28'54,403"N	80°51'18,486"W	5733.49	352.902	5,27	-0.33	-5.26	

WV Department of Environmental Protection





		Weigle East Pad	Facility
WA HS JinU ZnewO	Wellbore	Tyler	Field
HS JinU snewO	ll ₉ W	Tyler County, WV	691A
Slot #13	IOIS	ANTERO RESOURCES CORPORATION	Operator
		NCE WELLPATH IDENTIFICATION	энэнэн

[11001/7]	Build Rate [7/100ft]	L/100trl DFS		Closure Dist	rouditude	гартре	Grid North IJS RI	Grid East In Sun	1263	Morth	Vert Sect	GVT IIII	Lal	Inclination [9]	(III)
02.0-	-1.53	1.54	352,642	5818.53	W"E26,81'12°08	N.,902,35,82°98	14337464.84	1681255.56	91.347.	19.0778	86.8788	5323.67	335,520		00.8559
3.64	1.23	3.85	322 409	9809'30	W"78E,81'12°08	N.,920'99,82.66	47.74278841		Sr.087-	5853.54		19,65268			00.815
p.6.0	04.1	1,50	352,210	88,2662	W"808,81'18'808	39°28'56.856"N	14337631.74	84 8811881	-812.30			6322.30			00.805
0 t S-	1.37	2,76	322,005	6080,22	W"65,20,120,08	N"E89.72'85°95	14337715.25	1681155.09	17.248-	6021.12	21,8468	6320.65	337.130	90.430	00.864
1.13	20°1-	1,56	351 800	84,8818	80°51'20,660"W	39°28'58 497"N	14337797.52	1681121.24	78.678-	610343	70.8608	6320.72	338,140	084.68	00.788
56.0	20'0	0.92	119,135	6254,11	W"870,12'12'08	39°28'59'325'N	14337881,26	35,8801881	74.219-	61,7878	6125.04	6321.49	338.970	046.68	00.778
06.1	85.0	1.94	321'445	6342.24	W"STA, 12'12'08	39°29'00.160"N	14337965,70	1681057,33	13.549-	991129	6215.04	6321.95	340,680	088.68	00.787
49.0	ht.0-	99,0		94,0648	W"845,121,845"W	39°29'01.002"N	14338050,74	168,7201891	-972,86		50.305.02		_		00.788
4.30	62.0	4.31		98.8169	80°51'22,172"W	39°29'01 844"N			19,866-		98.6969				00.946
3,61		3.61		17. 14. 14. 17. 17. 17. 17. 17. 17. 17. 17. 17. 17	80°51'22.434"W		14338223 43	88,1860881			22,6858				00.980
94.0		89.0	260,138	67.8699	80°51'22,660"W	N.,289'20,62.62	14338311,60		91,7501-			6322.33			126.00
46.A-	70.0-	\$6.4		61,7878	W"52,922,128	N"754.43°99°39°98	14338398,10	1680943.02				6321,80			00.21
08.6-		98.E		22,8788	W.'53,263'W	39°29'05 287'N	36,88488841	61.8160881			84.0278				00.20
48.Y-		2.63		97,8969	W"ee51'23.699	N"e01.30'e2"e8	14338567,03	58.1880881			6840.34				00.368
69.0		26.0	350,546	A1.0807	W"49174,12°08	39°29'06,06	14338648,15	1680842.93				6320.44			00.88
26.3		96'9		7136,75	W"155,051°08		14338730.16				87.8107				00.47
pg'0-		29.0	350,249	7225.20	W"95125.029	N.,499'80,6Z.6E	14338814.51	1680777.26							00.48
0.26			350,118	48.6157	W"624.25.429"M	N,,162,08,282,08	87,868885541	77,8470881				6320.66			00.48
07.0-	25.0-	47.0	349,989	80.1047	W"51'25.828"W	39°29'10.214"N	14338982.01	1680714.36		7288.38		6319.92			00,548
10.8			478,94£		80°51'26 572"W			1680684 13				08,8168			00,550
96.0-		1.26	349,772	18.8727	W"856 82'12'08	N.,968,11,85°85	14339151,93	1680655.27	30.8781-	7458.37					00.53
84.1		1.50	778.8AE	68,8887 91,8877	W"856.55'12°08	39°29'12,730"N	14339236.30		39.8751-			10.7168			112.00
68.0		88.0		61.9877	W"853 75'13'08	39°29'13,679"N	14339302,11	1680600.06			7646.58				00.202
AP.S.		2.45	349,505	78.845.37	W"889 75112°08	39°29'14,424"N	78.70488841					6315.80	-		00.262
1:36	91.0	137	ELV 6VE	7933.47	W"866 72'12'08	39"29"16 258"N	14339491.84	1680543,48				6315.42			00 121
18.0-	21.0	274	349.325	8022,63	W"135 85'12°08	39°29'16,102"N	61,778888119				97.3167				00.174
61.1-	G# 0	1.27	349,103		W"171,82112°08	39°29'16,938'N		91,1840891			35.2008 15.5008				00.088
69:0-		09.0	348.977			39°29'18 57'8'					15 4818				00.047
	-				W"080.05178"08						16.4818 30.6568				00.058

MAR 2 9 2019
WV Department of





		Weigle East Pad	Facility
Wens Unit HS JinU anewO	Wellbore	Tyler	Field
HZ JinU anewO	II9W	Tyler County, WV	591A
SI#13	1018	иоптарочяство совроявати в при	Operator
		ICE WELLPATH IDENTIFICATION	REFEREN

												(suoit	ers Se	t) ATAG H	WELLPAT
Comments	Tum Rate		LHOOL/.J		Usign Dist	Foudifinde	Latitude	Grid North (I) SU)	Grid East In Sui	1253 [11]	North	Vert Sect IIII	GVT [J]]	ntumisA noitenil:	oni GM [#]
1	-	01.0	OWNERS OF THE PERSON NAMED IN		-	W"842,05°F8"W	39°29'20,190"N	Committee of the Commit	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	11.88311-	81,7958	87, 2858	68.6088	010.755 039.09	14919,00
	1,89	51.0-	98.f	348.585		W"TTE.05120.08									15009.00
	14.0	12.0	94.0	348,485	8638.35	W"88E_1E'12°08	39°29'21,845"N	14340157.63	1680276.72	-1724,43	84,4848	8542,68	48.8068	91,020,339,080	00.66081
	1,26	S8.0-	1.50	348.394	87.7278	W"887,16'18'08	39°29'22,679"N	14340241.97	1680245.43	EL'9911-	88488	8632.67	19,3058	90,280,340,210	00.68131
	2.12	78.0	2.29	348,321	78.815.57	80°51'32,151"W	39°29'23,53'8	14340326.16	1680216.70	74.4871-	40 8898	8721.64	84.4058	91,050 342,100	15278.00
Ä	82.1-	81.0-	1.29	348.253	8904.93	80°51'32,513"W	39°29'24,356"N	74.11404841	1680188.20	-1812.99	24,8178	66,1188	96 2009	90.890 340.950	15368.00
	96'0	2.74	2.91	348.184	8994,22	80°51'32,877"W	39°29'25,199"N	99.96404641	64,6210831	07.1481-	\$803.64	05,1068	29.6629	93.360 341.810	15458.00
	-2,16	87.5-	13.51	348.113	9082.43	W"845,EE'12°08	39°29'26,030"N	14340580.63	££.0£10891	88.0781-	29,7888	14.0998	26.39628	90.890 339.890	15547.00
	91.0	84.0-	0.50	348.033	9171.52	W"958,13°08	N.,998'9Z,6Z.6E	14340665.14	16.00991	17,1091-	8972,19	14.0806	92,2628	90.460340.030	15637.00
	1,73	00'0	1.73	596.748	18,0929	80°51'34,015"W	N.,907 72'92'98	01,03704841	Þ6'6900891	1931,30	61,7309	9170.39	PS 7629	90,460 341,590	16727.00
	1.32	01.0-	EE.1	347.942	69.1929	W"851,34,138"W	39°29'27,997"N	43.67704841	1680060.26	1940,98	£8.880e	9201,37	05.4628	90,430,342,000	15758.00
Projected MD at TD: 15781"	00.0	00.0	00.0	347,928	9314.50	80°51'34,228"W	39°29'28,214"N	14340801.40	1680053,15	90,8491-	16,8019	9224.36	51,4858	90,430342,000	15781.00

Shape	гоидіциде	Patitude	Grid North [US ft]	Grid East [US ft]	tasa [ff]	North [ft]	QVT [#]	эше
finioq	W"927.42'08°08	N"167,50'82°95	14332268.00	1683163.00	10.6911	69:178	6321.00	Owens Unit 2H POE - Plat
Inioq	W"486.46'18'08	N.,246.88,342N	EE.41804E41	1680043.25	00.8361-	9121.44	6348.00	Owens Unit 2H BHL Rev-1
Inioq	W"814.28'02°08	39°28'05,262"N	14332416.63	47,8016831	1108.73	85.027	00.848.00	Veens Unit 2H Landing Pt. Rev-1

Office of Oil and Gas
MAR 2 9 2019
WV Department of nvironmental Protection





REFERE	NCE WELLPATH IDENTIFICATION		
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #13
Area	Tyler County, WV	Well	Owens Unit 2H
Field	Tyler	Wellbore	Owens Unit 2H AWB
Facility	Weigle East Pad		

LLPAIN	COMPOSIT	TION - Ref Wellbore: Owens Unit 2H AWB	Ref Wellpath: Owens Unit 2H AWP Proj: 15781'	
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	5584.00	Gyrodata standard - Continuous gyro	03_Gyrodata Cont. Gyro <8-3/4">(100' - 5584")	Owens Unit 2H AWB
5584.00	15758.00	BHI AutoTrak Curve (Short)	04_BHI AT Curve <8-1/2">(5584')(5682'-15758')	Owens Unit 2H AWB
15758.00	15781.00	Blind Drilling (std)	Projection to bit	Owens Unit 2H AWB

Wellpath Report Page 10 of 10



Actual Wellpath Report

Owens Unit 2H AWP Proj: 15781'



REFERE	NCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #13	
Area	Tyler County, WV	Well	Owens Unit 2H	
Field	Tyler	Wellbore	Owens Unit 2H AWB	
Facility	Weigle East Pad			

MD [ft]	Inclination	Azimuth [°]	TVD [ft]	Comment
100.00	0.100	122.830	100.00	Gyrodata MS Gyro <8-3/4">(100'-5584')
5682.00	15.430	83.830	5537.23	BHI AT Curve <8-1/2">(5584')(5682'-15758')
6154.00	25,544	12.308	5989.00	Sycamore: 6154' MD
6372.00	45.515	350.746	6165.04	Middlesex: 6372' MD
6523,00	58,970	342,834	6257,61	Burkett: 6523' MD
6580.00	64.421	342,105	6284.61	Tully: 6580' MD
6696.00	73.615	340,326	6326.11	Marcellus POE: 6696' MD
15781.00	90.430	342.000	6294.12	Projected MD at TD: 15781'

COMMENTS

Wellpath general comments

API: 47-095-02367-00-00 BHI Job #: 8176264 Rig: Precision 525

Duration: 10.05.2016 - 10.06.2016 Gyrodata MS Gyro <8-3/4">(100'-5584') BHI AT Curve <8-1/2">(5584')(5682'-15758')

Sycamore: 6154' MD Middlesex: 6372' MD Burkett: 6523' MD Tully: 6580' MD

Marcellus POE: 6696' MD Projected MD at TD: 15781'

WV Department of Environmental Protection