



ANTERO RESOURCES CORPORATION

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

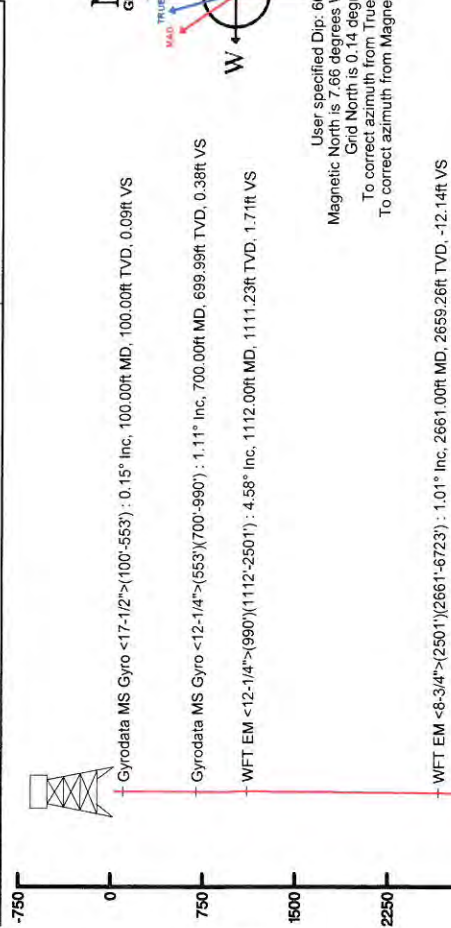
Slot: Slot #07
 Well: Convair Unit 2H
 Wellbore: Convair Unit 2H PWB



Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Alexander Pad	1703908.855	14284263.322	39°20'08.720"N	80°46'31.620"W
Slot #07	1703916.755	14284245.137	39°20'08.540"N	80°46'31.520"W
Comment	Convair Unit 2H			
Patterson 342 (RKB) to Ground level (At Slot: Slot #07)	25ft			
Mean Sea Level to Ground level (At Slot: Slot #07)	-1181ft			
Patterson 342 (RKB) to Mean Sea Level	1206ft			

Plot reference wellpath is Convair Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Patterson 342 (RKB)	North Reference: Grid north
Measured depths are referenced to Patterson 342 (RKB)	Scale: True distance
Patterson 342 (RKB) to Mean Sea Level: 1206 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #07): -1181 feet	Created by: mccrean on 2018-05-22
Coordinates are in feet referenced to Slot	Database: WA_MPL_EASTERNUS_Defn



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	6723.00	34.120	128.660	6593.64	676.31	622.11	8.62	-393.43
Proj. To Bottom	6799.00	40.330	132.140	6654.14	646.45	657.03	8.62	-352.66
End of 3D Arc	7010.60	62.256	147.000	6786.10	520.01	760.40	11.67	-196.67
POE	7202.77	70.519	147.000	6863.00	372.49	856.21	4.30	-23.97
Landing Pt.	7446.27	90.000	147.000	6904.00	172.18	986.30	8.00	210.52
On Azimuth	7811.56	90.000	157.959	6904.00	-151.29	1154.83	3.00	573.59
BHL	15669.56	90.000	157.959	6904.00	-7434.98	4103.73	0.00	8431.59

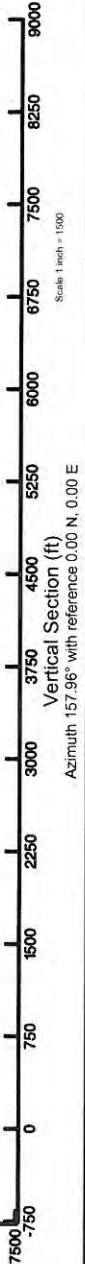
Well Data

Slot	Well	Wellbore	Wellpath
Slot #07	Convair Unit 2H	Convair Unit 2H AWB	Convair Unit 2H AWP Proj. 15661'
Slot #07	Convair Unit 2H	Convair Unit 2H PWB	Convair Unit 2H PWP Rev-A.0

Projected Md @ TD: 15661' : 6930.01ft TVD, 7402.84ft S, 4135.72ft E

BH AT Curve <8-1/2">(6723)(6791-15638) : 38.62° Inc. 6791.00ft MD, 6648.39ft TVD, -357.59ft VS
 POE Marcellus: 7189MD / 6859TVD : 69.87° Inc. 7189.00ft MD, 6859.04ft TVD, -36.28ft VS

Projected Md @ TD: 15661' : 90.28° Inc. 15661.00ft MD, 6930.01ft TVD, 8413.80ft VS



API: 47-017-06859-0000

BH Job #: 9145162

Rig: Patterson 342

Duration: 05/01/18 - 05/05/18

05/03/2019



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet		
North Reference	Grid	Software System	WellArchitect@ 5.1
Scale	0.999605	User	Mccrerib
Convergence at slot	0.14° East	Report Generated	5/22/2018 at 4:59:29 PM
		Database/Source file	WA_MPL_EASTERNUS_Defn/Convair_Unit_2H_AWP_Proj_15661_.xml

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-18.19	7.90	1703916.76	14284245.14	39°20'08.540"N	80°46'31.520"W
Facility Reference Pt			1703908.86	14284263.32	39°20'08.720"N	80°46'31.620"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM		
Calculation method	Minimum curvature	25.00ft
Horizontal Reference Pt	Slot	1206.00ft
Vertical Reference Pt	Patterson 342 (RKB)	25.00ft
MD Reference Pt	Patterson 342 (RKB)	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	157.96°
		Section Azimuth
		Section Origin
		Patterson 342 (RKB) to Ground Level at Slot (Slot #07)
		Patterson 342 (RKB) to Mean Sea Level
		Patterson 342 (RKB) to Facility Vertical Datum

05/03/2019



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #07
Operator	ANTERO RESOURCES CORPORATION	Well	Convair Unit 2H
Area	Doddridge Co., WV	Wellbore	Convair Unit 2H AWB
Field	Doddridge		
Facility	Alexander Pad		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00	0.00	186.680	0.00	0.00	0.00	0.00	1703916.75	14284245.14	39°20'08.540"N	80°46'31.520"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.00	186.680	25.00	0.00	0.00	0.00	1703916.75	14284245.14	39°20'08.540"W	80°46'31.520"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.150	186.680	100.00	0.09	-0.10	-0.01	1703916.74	14284245.04	39°20'08.539"N	80°46'31.520"W	0.10	186.680	0.20	0.20	-231.09	Gyrodatta MS Gyro <17.1/2>(100'-553')
125.00	0.180	190.660	125.00	0.15	-0.17	-0.02	1703916.73	14284244.97	39°20'08.538"N	80°46'31.520"W	0.17	187.598	0.13	0.12	15.92	
150.00	0.100	180.610	150.00	0.20	-0.23	-0.03	1703916.72	14284244.91	39°20'08.538"N	80°46'31.520"W	0.23	187.460	0.33	-0.32	-40.20	
175.00	0.070	198.160	175.00	0.23	-0.27	-0.03	1703916.72	14284244.87	39°20'08.537"N	80°46'31.520"W	0.27	187.510	0.16	-0.12	70.20	
200.00	0.180	194.830	200.00	0.28	-0.32	-0.05	1703916.71	14284244.82	39°20'08.536"N	80°46'31.521"W	0.32	188.904	0.44	0.44	-13.32	
225.00	0.140	203.740	225.00	0.33	-0.38	-0.07	1703916.68	14284244.75	39°20'08.536"N	80°46'31.521"W	0.39	190.647	0.19	-0.16	35.64	
250.00	0.180	209.210	250.00	0.37	-0.45	-0.10	1703916.65	14284244.69	39°20'08.534"N	80°46'31.521"W	0.46	193.078	0.17	0.16	21.88	
275.00	0.200	210.260	275.00	0.43	-0.52	-0.14	1703916.61	14284244.62	39°20'08.535"N	80°46'31.522"W	0.54	195.615	0.08	0.08	4.20	
300.00	0.240	245.310	300.00	0.45	-0.58	-0.21	1703916.54	14284244.56	39°20'08.534"N	80°46'31.523"W	0.62	200.360	0.55	0.16	140.20	
325.00	0.170	228.260	325.00	0.47	-0.62	-0.29	1703916.47	14284244.51	39°20'08.534"N	80°46'31.524"W	0.69	204.891	0.37	-0.28	-68.20	
350.00	0.150	237.160	350.00	0.49	-0.67	-0.34	1703916.41	14284244.47	39°20'08.533"N	80°46'31.524"W	0.75	207.349	0.13	-0.08	35.60	
375.00	0.240	252.540	375.00	0.49	-0.70	-0.42	1703916.33	14284244.44	39°20'08.533"N	80°46'31.525"W	0.82	211.096	0.41	0.36	61.52	
400.00	0.230	237.600	400.00	0.50	-0.74	-0.51	1703916.24	14284244.39	39°20'08.533"N	80°46'31.527"W	0.90	214.717	0.25	-0.04	-59.76	
425.00	0.180	242.140	425.00	0.51	-0.79	-0.59	1703916.16	14284244.35	39°20'08.532"N	80°46'31.528"W	0.99	216.904	0.21	-0.20	119.40	
450.00	0.180	271.990	450.00	0.50	-0.80	-0.67	1703916.09	14284244.33	39°20'08.532"N	80°46'31.528"W	1.04	219.590	0.37	0.00	18.16	
475.00	0.200	241.480	475.00	0.49	-0.82	-0.74	1703916.01	14284244.31	39°20'08.532"N	80°46'31.529"W	1.11	222.037	0.41	0.08	-122.04	
500.00	0.280	237.720	500.00	0.50	-0.88	-0.83	1703915.92	14284244.26	39°20'08.531"N	80°46'31.531"W	1.21	223.507	0.33	0.32	-15.04	
525.00	0.320	242.570	525.00	0.52	-0.94	-0.95	1703915.81	14284244.19	39°20'08.531"N	80°46'31.532"W	1.34	225.128	0.19	0.16	19.40	
550.00	0.340	246.580	550.00	0.53	-1.00	-1.08	1703915.68	14284244.13	39°20'08.530"N	80°46'31.534"W	1.47	226.999	0.12	0.08	16.04	
553.00	0.340	246.530	553.00	0.53	-1.01	-1.09	1703915.66	14284244.13	39°20'08.530"N	80°46'31.534"W	1.49	227.228	0.01	0.00	-1.67	
700.00	1.110	61.750	699.99	0.38	-0.51	-0.24	1703916.52	14284244.63	39°20'08.535"N	80°46'31.523"W	0.56	205.054	0.99	0.52	119.20	Gyrodatta MS Gyro <12.1/4>(700'-990')
802.00	2.820	65.680	801.93	0.18	0.92	2.76	1703919.51	14284246.05	39°20'08.549"N	80°46'31.485"W	2.90	71.599	1.48	1.48	3.85	
900.00	3.800	72.220	899.78	0.34	2.83	7.88	1703924.64	14284247.97	39°20'08.568"N	80°46'31.420"W	8.38	70.261	1.26	1.20	6.67	
990.00	3.960	74.950	989.57	0.94	4.55	13.73	1703930.48	14284249.68	39°20'08.585"N	80°46'31.345"W	14.46	71.671	0.27	0.18	3.03	
1112.00	4.980	71.040	1111.23	1.71	7.23	22.41	1703939.15	14284252.36	39°20'08.611"N	80°46'31.235"W	23.54	72.127	0.56	0.51	-3.20	WFT EM <12.1/4>(990')(1112'-2501')
1300.00	4.350	59.320	1298.67	1.04	13.30	35.64	1703952.38	14284258.43	39°20'08.671"N	80°46'31.066"W	38.04	69.531	0.50	-0.12	-6.23	
1394.00	3.040	57.360	1392.47	0.05	16.47	40.80	1703957.54	14284261.60	39°20'08.702"N	80°46'31.000"W	44.00	68.023	1.40	-1.39	-2.09	
1489.00	1.670	54.290	1487.39	-0.74	18.63	44.05	1703960.78	14284263.76	39°20'08.723"N	80°46'30.959"W	47.83	67.071	1.45	-1.44	-3.23	



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

WELLPATH DATA (198 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
1583.00	1.060	61.800	1581.36	-1.16	19.84	45.93	1703962.66	14284264.97	39°20'08.735"N	80°46'30.935"W	50.03	66.633	0.67	-0.65	7.99	
1678.00	1.050	46.910	1676.34	-1.57	20.85	47.34	1703964.07	14284265.98	39°20'08.745"N	80°46'30.917"W	51.72	66.225	0.29	-0.01	-15.67	
1772.00	0.310	44.360	1770.34	-1.98	21.62	48.14	1703964.88	14284266.75	39°20'08.753"N	80°46'30.907"W	52.78	65.813	0.79	-0.79	-2.71	
1867.00	0.470	6.060	1865.33	-2.42	22.19	48.36	1703965.10	14284267.32	39°20'08.758"N	80°46'30.904"W	53.21	65.350	0.31	0.17	-40.32	
1961.00	0.910	2.170	1959.33	-3.44	23.32	48.43	1703965.17	14284268.45	39°20'08.769"N	80°46'30.903"W	53.76	64.286	0.47	0.47	-4.14	
2055.00	0.630	345.960	2053.32	-4.64	24.57	48.33	1703965.07	14284269.70	39°20'08.782"N	80°46'30.904"W	54.22	63.054	0.37	-0.30	-17.24	
2149.00	0.520	339.790	2147.31	-5.58	25.47	48.06	1703964.80	14284270.60	39°20'08.791"N	80°46'30.908"W	54.39	62.077	0.13	-0.12	-6.56	
2244.00	0.610	336.500	2242.31	-6.51	26.34	47.71	1703964.45	14284271.47	39°20'08.799"N	80°46'30.912"W	54.50	61.098	0.10	0.09	-3.46	
2338.00	0.670	319.910	2336.30	-7.53	27.22	47.16	1703963.89	14284272.35	39°20'08.808"N	80°46'30.919"W	54.45	60.006	0.21	0.06	-17.65	
2433.00	0.910	313.450	2431.29	-8.75	28.16	46.25	1703962.99	14284273.29	39°20'08.817"N	80°46'30.930"W	54.15	58.663	0.27	0.25	-6.80	
2501.00	1.080	306.530	2499.28	-9.79	28.92	45.35	1703962.08	14284274.04	39°20'08.825"N	80°46'30.942"W	53.78	57.475	0.31	0.25	-10.18	
2661.00	1.010	296.840	2659.26	-12.14	30.45	42.88	1703959.61	14284275.58	39°20'08.840"N	80°46'30.973"W	52.59	54.618	0.12	-0.04	-6.08	MFT EM <8-3/4> (2501') (2661'-6723')
2756.00	2.530	54.190	2754.23	-13.27	32.06	43.83	1703960.57	14284277.18	39°20'08.856"N	80°46'30.961"W	54.30	53.819	3.29	1.60	123.53	
2850.00	5.360	43.370	2848.00	-15.59	36.46	48.53	1703965.26	14284281.58	39°20'08.899"N	80°46'30.901"W	60.70	53.080	3.10	3.01	-11.51	
2944.00	8.420	35.950	2941.31	-21.06	45.23	55.59	1703972.32	14284290.35	39°20'08.986"N	80°46'30.811"W	71.66	50.866	3.38	3.26	-7.89	
3039.00	11.300	39.380	3034.90	-29.20	58.05	65.58	1703982.30	14284303.17	39°20'09.112"N	80°46'30.684"W	87.58	48.481	3.09	3.03	3.61	
3133.00	13.360	39.430	3126.72	-38.80	73.56	78.32	1703995.04	14284318.67	39°20'09.265"N	80°46'30.521"W	107.45	46.793	2.19	2.19	0.05	
3233.00	13.560	36.040	3223.98	-50.52	91.97	92.55	1704009.27	14284337.07	39°20'09.447"N	80°46'30.339"W	130.48	45.182	0.81	0.20	-3.39	
3327.00	13.210	36.780	3315.42	-61.90	109.48	105.47	1704022.18	14284354.57	39°20'09.619"N	80°46'30.174"W	152.02	43.931	0.41	-0.37	0.79	
3422.00	14.020	33.690	3407.75	-74.00	127.75	118.35	1704035.06	14284372.84	39°20'09.800"N	80°46'30.010"W	174.15	42.812	1.15	0.85	-3.26	
3516.00	14.540	31.550	3498.85	-87.42	147.28	130.84	1704047.54	14284392.36	39°20'09.992"N	80°46'29.850"W	197.00	41.616	0.79	0.55	-2.27	
3610.00	14.510	34.570	3589.85	-100.91	167.03	143.69	1704060.39	14284412.10	39°20'10.187"N	80°46'29.686"W	220.34	40.704	0.81	-0.03	3.21	
3705.00	14.630	35.690	3681.79	-113.86	186.58	157.45	1704074.14	14284431.64	39°20'10.380"N	80°46'29.510"W	244.13	40.160	0.32	0.13	1.18	
3800.00	14.640	36.620	3773.71	-126.51	205.96	171.61	1704088.29	14284451.01	39°20'10.571"N	80°46'29.329"W	268.08	39.801	0.25	0.01	0.98	
3895.00	14.140	34.190	3885.73	-139.21	225.19	185.29	1704101.97	14284470.24	39°20'10.761"N	80°46'29.155"W	291.62	39.448	0.83	-0.53	-2.56	
3989.00	13.850	32.950	3956.94	-152.04	244.13	197.86	1704114.54	14284489.17	39°20'10.948"N	80°46'28.994"W	314.24	39.024	0.44	-0.31	-1.32	
4084.00	13.760	31.760	4049.20	-165.24	263.28	209.99	1704126.66	14284508.31	39°20'11.137"N	80°46'28.839"W	336.77	38.576	0.31	-0.09	-1.25	
4178.00	13.570	30.650	4140.54	-178.53	282.27	221.50	1704138.16	14284527.30	39°20'11.324"N	80°46'28.692"W	358.80	38.121	0.34	-0.20	-1.18	
4272.00	13.420	29.920	4231.94	-191.93	301.21	232.56	1704149.22	14284546.23	39°20'11.511"N	80°46'28.551"W	380.54	37.671	0.24	-0.16	-0.78	
4366.00	12.710	34.310	4323.51	-204.38	319.21	243.83	1704160.49	14284564.22	39°20'11.689"N	80°46'28.407"W	401.68	37.375	1.30	-0.76	4.67	



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

WELLPATH DATA (198 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
4460.00	13.220	33.850	4415.11	-216.14	336.68	255.65	1704172.30	14284581.68	39°20'11.861"N	80°46'28.256"W	422.74	37.210	0.55	0.54	-0.49	
4555.00	14.120	33.150	4507.42	-228.85	355.40	288.03	1704184.68	14284600.40	39°20'12.046"N	80°46'28.098"W	445.14	37.023	0.96	0.95	-0.74	
4649.00	14.060	31.260	4598.59	-242.22	374.76	280.23	1704196.87	14284619.75	39°20'12.237"N	80°46'27.942"W	467.95	36.787	0.49	-0.06	-2.01	
4743.00	13.830	28.870	4689.82	-256.13	394.36	291.58	1704208.22	14284639.34	39°20'12.431"N	80°46'27.797"W	490.45	36.478	0.66	-0.24	-2.54	
4837.00	14.540	31.620	4780.96	-270.20	414.25	303.19	1704219.82	14284659.22	39°20'12.627"N	80°46'27.648"W	513.35	36.201	1.04	0.76	2.93	
4931.00	14.790	30.440	4871.90	-284.50	434.64	315.45	1704232.08	14284679.60	39°20'12.828"N	80°46'27.491"W	537.05	35.972	0.41	0.27	-1.26	
5026.00	14.460	29.950	4963.82	-299.19	455.37	327.52	1704244.14	14284700.33	39°20'13.033"N	80°46'27.337"W	560.92	35.725	0.37	-0.35	-0.52	
5121.00	14.250	33.110	5055.85	-313.18	475.44	339.83	1704256.45	14284720.39	39°20'13.231"N	80°46'27.180"W	584.40	35.556	0.85	-0.22	3.33	
5215.00	14.930	31.630	5146.82	-326.85	495.37	352.61	1704269.22	14284748.33	39°20'13.427"N	80°46'27.017"W	608.05	35.443	0.72	0.72	-0.91	
5308.00	13.750	31.630	5236.92	-340.40	514.92	364.80	1704281.41	14284759.65	39°20'13.620"N	80°46'26.861"W	631.05	35.316	1.28	-1.27	-0.67	
5403.00	12.930	33.400	5329.36	-353.11	533.40	376.57	1704293.18	14284778.33	39°20'13.803"N	80°46'26.710"W	652.94	35.221	0.96	-0.86	1.86	
5497.00	13.850	31.880	5420.80	-365.71	551.74	388.30	1704304.90	14284796.66	39°20'14.084"N	80°46'26.561"W	674.68	35.137	1.05	0.98	-1.62	
5592.00	14.720	33.340	5512.86	-379.26	571.48	400.94	1704317.54	14284816.39	39°20'14.278"N	80°46'26.399"W	698.10	35.053	0.99	0.92	1.54	
5686.00	14.990	32.450	5603.72	-393.11	591.71	414.03	1704330.62	14284836.61	39°20'14.478"N	80°46'26.232"W	722.18	34.981	0.38	0.29	-0.95	
5781.00	15.100	33.480	5695.47	-407.25	612.40	427.45	1704344.03	14284857.29	39°20'14.682"N	80°46'26.060"W	746.82	34.914	0.30	0.12	1.08	
5875.00	14.810	32.480	5786.28	-421.15	632.75	440.65	1704357.23	14284877.63	39°20'14.883"N	80°46'25.892"W	771.07	34.854	0.41	-0.31	-1.06	
5969.00	14.400	31.890	5877.24	-435.01	652.81	453.28	1704369.85	14284897.68	39°20'15.081"N	80°46'25.730"W	794.74	34.774	0.46	-0.44	-0.63	
6063.00	14.640	34.630	5968.24	-448.42	672.51	466.20	1704382.77	14284917.38	39°20'15.275"N	80°46'25.565"W	818.30	34.731	0.77	0.26	2.91	
6158.00	15.500	33.030	6059.98	-462.28	693.03	479.95	1704396.51	14284937.89	39°20'15.478"N	80°46'25.390"W	842.99	34.704	1.01	0.91	-1.68	
6252.00	14.970	35.940	6105.32	-469.10	703.21	486.93	1704403.49	14284948.06	39°20'15.678"N	80°46'25.301"W	855.34	34.700	1.98	-1.13	6.19	
6252.00	13.160	38.600	6150.91	-474.94	712.30	493.83	1704410.39	14284957.16	39°20'15.868"N	80°46'25.212"W	866.75	34.733	4.09	-3.85	5.66	
6299.00	11.320	47.020	6196.85	-479.21	719.63	500.55	1704417.10	14284964.48	39°20'16.040"N	80°46'25.127"W	876.59	34.821	5.44	-3.91	17.91	
6346.00	10.180	61.400	6243.03	-481.33	724.77	507.57	1704424.12	14284969.61	39°20'16.211"N	80°46'25.037"W	884.82	35.004	6.18	-2.43	30.60	
6393.00	11.500	76.470	6289.20	-481.11	727.85	515.77	1704432.32	14284972.70	39°20'16.382"N	80°46'24.933"W	892.07	35.322	6.63	2.81	32.06	
6441.00	13.340	91.560	6336.09	-478.19	728.82	525.97	1704442.51	14284973.67	39°20'16.553"N	80°46'24.803"W	898.79	35.817	7.74	3.83	31.44	
6488.00	16.410	104.880	6381.52	-472.03	726.97	537.81	1704454.35	14284971.81	39°20'16.724"N	80°46'24.652"W	904.28	36.494	9.74	6.53	28.34	
6535.00	19.260	116.100	6426.27	-462.26	721.85	551.19	1704467.73	14284966.70	39°20'16.895"N	80°46'24.482"W	908.23	37.365	9.47	6.06	23.87	
6582.00	23.020	119.570	6470.10	-449.28	713.90	566.15	1704482.68	14284958.75	39°20'17.066"N	80°46'24.292"W	911.14	38.416	8.43	8.00	7.38	
6629.00	26.790	121.620	6512.72	-433.54	703.81	583.17	1704499.69	14284948.67	39°20'17.237"N	80°46'24.076"W	914.02	39.645	8.23	8.02	4.36	
6676.00	30.600	124.930	6563.95	-414.97	691.40	602.01	1704518.82	14284936.26	39°20'17.408"N	80°46'23.836"W	916.76	41.046	8.78	8.11	7.04	



Actual Wellpath Report

Convoir Unit 2H AWP Proj: 15661'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Area	Field	Facility	Slot #07
ANTERO RESOURCES CORPORATION	Doddridge Co., WV	Doddridge	Alexander Pad	Convoir Unit 2H
				Convoir Unit 2H AWB

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
6723.00	34.120	128.680	6593.64	-393.43	676.31	622.11	1704538.62	14284921.17	39°20'15.209"N	80°46'23.581"W	918.92	42.610	8.62	7.49	7.98	
6791.00	38.620	132.660	6648.39	-357.59	649.99	652.63	1704569.12	14284894.87	39°20'14.948"N	80°46'23.193"W	921.09	45.116	7.47	6.62	5.85	BH AT Curve <8-1/2"> (6723)-(6791)-15638)
6845.00	45.880	139.150	6688.36	-323.94	623.86	677.74	1704594.23	14284868.75	39°20'14.889"N	80°46'22.875"W	921.16	47.371	15.67	13.44	12.02	
6892.00	49.800	143.010	6719.90	-290.61	596.75	699.59	1704616.07	14284841.65	39°20'14.421"N	80°46'22.597"W	919.53	49.536	10.32	8.34	8.21	
6939.00	54.620	144.540	6748.70	-254.61	566.78	721.52	1704637.99	14284811.70	39°20'14.124"N	80°46'22.319"W	917.51	51.849	10.57	10.26	3.26	
6986.00	59.500	144.990	6774.25	-216.22	534.57	744.26	1704660.72	14284779.50	39°20'13.805"N	80°46'22.031"W	916.35	54.312	10.41	10.38	0.96	
6996.00†	60.231	145.189	6779.27	-207.79	527.48	749.21	1704665.67	14284772.41	39°20'13.735"N	80°46'21.968"W	916.27	54.853	7.50	7.31	1.95	Burket: 6996MD / 6779 TVD
7034.00	63.010	145.900	6797.33	-175.14	499.92	768.13	1704684.58	14284744.85	39°20'13.462"N	80°46'21.728"W	916.48	56.943	7.50	7.31	1.88	
7062.00†	64.458	146.158	6809.72	-150.58	479.09	782.16	1704698.60	14284724.04	39°20'13.256"N	80°46'21.550"W	917.22	58.511	5.24	5.17	0.92	Tully: 7062MD / 6810 TVD
7081.00	65.440	146.330	6817.76	-133.72	464.78	791.72	1704708.16	14284709.73	39°20'13.114"N	80°46'21.429"W	918.07	59.585	5.24	5.17	0.90	
7128.00	67.220	145.650	6836.63	-91.61	429.10	815.80	1704732.23	14284674.07	39°20'12.761"N	80°46'21.124"W	921.77	62.256	4.01	3.79	-1.45	
7164.00†	68.621	145.074	6850.16	-59.06	401.66	834.76	1704751.18	14284646.63	39°20'12.489"N	80°46'20.883"W	926.36	64.305	4.17	3.89	-1.60	Hamilton: 7164MD / 6850 TVD
7175.00	69.050	144.900	6854.13	-49.06	393.26	840.64	1704757.07	14284638.24	39°20'12.406"N	80°46'20.809"W	928.08	64.930	4.17	3.90	-1.58	
7189.00†	69.874	145.299	6859.04	-36.28	382.50	848.15	1704764.56	14284627.49	39°20'12.300"N	80°46'20.714"W	930.41	65.725	6.46	5.89	2.85	POE Marcellus: 7189MD / 6859 TVD
7223.00	71.880	146.250	6870.18	-4.88	355.94	866.21	1704782.62	14284600.94	39°20'12.037"N	80°46'20.484"W	936.49	67.661	6.46	5.90	2.80	
7270.00	76.140	147.670	6883.13	39.46	318.07	890.83	1704807.24	14284563.08	39°20'11.662"N	80°46'20.172"W	945.92	70.351	9.52	9.06	3.02	
7317.00	80.100	149.800	6892.80	84.85	278.77	914.69	1704831.08	14284523.79	39°20'11.273"N	80°46'19.870"W	956.23	73.051	9.52	8.43	4.53	
7364.00	83.250	150.440	6899.61	130.91	238.45	937.86	1704854.24	14284483.49	39°20'10.874"N	80°46'19.576"W	967.70	75.735	6.84	6.70	1.36	
7413.00	87.170	152.580	6903.70	179.42	195.54	961.14	1704877.51	14284440.60	39°20'10.449"N	80°46'19.281"W	980.83	78.500	9.11	8.00	4.37	
7507.00	89.230	153.910	6906.65	273.05	111.65	1003.43	1704919.79	14284356.75	39°20'09.619"N	80°46'18.746"W	1009.63	83.651	2.61	2.19	1.41	
7602.00	89.290	152.280	6907.88	367.69	26.95	1046.42	1704962.76	14284272.07	39°20'08.780"N	80°46'18.202"W	1046.76	88.525	1.72	0.06	-1.72	
7696.00	89.320	153.860	6909.02	461.35	-56.89	1088.90	1705005.22	14284188.26	39°20'07.951"N	80°46'17.664"W	1090.38	92.991	1.81	0.03	1.81	
7790.00	89.320	155.380	6910.13	555.19	-141.86	1129.09	1705045.40	14284103.34	39°20'07.110"N	80°46'17.155"W	1137.97	97.161	1.49	0.00	1.49	
7884.00	89.380	154.990	6911.20	649.07	-227.17	1168.54	1705084.83	14284018.06	39°20'06.266"N	80°46'16.656"W	1190.42	101.001	0.42	0.06	-0.41	
7979.00	89.170	154.360	6912.40	743.91	-313.03	1209.17	1705125.45	14283932.23	39°20'05.416"N	80°46'16.141"W	1249.04	104.514	0.70	-0.22	-0.66	
8074.00	89.290	153.480	6913.68	838.66	-398.35	1250.94	1705167.19	14283846.94	39°20'04.572"N	80°46'15.612"W	1312.83	107.664	0.93	0.13	-0.93	
8169.00	89.200	153.840	6914.93	933.38	-483.48	1293.08	1705209.32	14283761.85	39°20'03.729"N	80°46'15.079"W	1380.51	110.501	0.39	-0.09	0.38	
8264.00	89.600	157.770	6915.93	1028.29	-570.11	1332.01	1705248.23	14283667.25	39°20'02.872"N	80°46'14.586"W	1448.89	113.171	4.16	0.42	4.14	
8359.00	89.260	156.670	6916.87	1123.28	-567.70	1368.79	1705286.00	14283587.70	39°20'02.006"N	80°46'14.121"W	1518.60	115.664	1.21	-0.36	-1.16	
8454.00	89.140	155.390	6918.20	1218.21	-744.50	1407.38	1705323.57	14283500.94	39°20'01.147"N	80°46'13.633"W	1592.16	117.879	1.35	-0.13	-1.35	



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

WELLPATH DATA (198 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [IUS ft]	Grid North [IUS ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [ft/100ft]	Build Rate [ft/100ft]	Turn Rate [ft/100ft]	Comments
8549.00	89.290	158.160	6919.50	1313.18	-831.78	1444.83	17053361.01	142833413.69	39°20'00.283"N	80°46'13.159"W	1687.15	119.929	2.92	0.16	2.92	
8643.00	88.800	157.570	6921.07	1407.16	-918.84	1480.25	17053364.41	142833326.66	39°19'59.422"N	80°46'12.711"W	1742.24	121.829	0.82	-0.52	-0.63	
8738.00	89.350	156.100	6922.60	1502.13	-1006.17	1517.61	17054333.76	142832339.37	39°19'58.558"N	80°46'12.238"W	1820.86	123.544	1.65	0.58	-1.55	
8833.00	89.200	154.410	6923.80	1597.01	-1092.43	1557.37	17054734.51	142831533.14	39°19'57.704"N	80°46'11.735"W	1902.32	125.048	1.79	-0.16	-1.78	
8928.00	89.050	154.000	6925.25	1691.80	-1177.96	1598.71	17055141.83	142830673.65	39°19'56.858"N	80°46'11.212"W	1985.81	126.383	0.46	-0.16	-0.43	
9023.00	89.350	154.800	6926.58	1786.60	-1263.62	1639.75	17055555.85	14282982.02	39°19'56.010"N	80°46'10.692"W	2070.15	127.619	0.90	0.32	0.84	
9117.00	89.200	156.260	6927.77	1880.51	-1349.17	1678.68	17055947.77	14282896.50	39°19'55.164"N	80°46'10.200"W	2153.66	128.789	1.56	-0.16	1.55	
9212.00	89.140	158.410	6929.14	1975.49	-1438.82	1715.28	17056313.36	14282808.89	39°19'54.296"N	80°46'09.737"W	2237.55	129.951	2.26	-0.06	2.26	
9307.00	88.980	160.650	6930.70	2070.43	-1525.80	1748.50	17056684.56	14282719.94	39°19'53.416"N	80°46'09.317"W	2320.63	131.109	2.36	-0.17	2.36	
9401.00	89.170	161.040	6932.22	2164.30	-1614.59	1779.34	17056955.39	14282631.19	39°19'52.538"N	80°46'08.927"W	2402.70	132.221	0.46	0.20	0.41	
9496.00	89.260	161.520	6933.52	2259.13	-1704.55	1809.83	17057258.86	14282541.26	39°19'51.648"N	80°46'08.542"W	2486.16	133.284	0.51	0.03	0.51	
9591.00	89.320	160.510	6934.70	2353.99	-1794.38	1840.73	17057567.75	14282451.47	39°19'50.759"N	80°46'08.152"W	2570.62	134.269	1.06	0.06	-1.06	
9685.00	89.350	160.460	6935.79	2447.89	-1882.97	1872.13	17057881.14	14282362.91	39°19'49.883"N	80°46'07.755"W	2655.27	135.165	0.06	0.03	-0.05	
9780.00	88.980	160.770	6937.17	2542.78	-1972.57	1903.66	17058191.66	14282273.35	39°19'48.996"N	80°46'07.357"W	2741.34	136.019	0.51	-0.38	0.33	
9874.00	89.420	160.180	6938.49	2636.68	-2061.16	1935.07	17058511.06	14282184.80	39°19'48.120"N	80°46'06.960"W	2827.17	136.807	0.78	0.47	-0.63	
9968.00	89.290	158.560	6939.55	2730.64	-2149.12	1968.19	17058841.16	14282096.87	39°19'47.250"N	80°46'06.541"W	2914.19	137.616	1.73	-0.14	-1.72	
10063.00	89.260	158.120	6940.75	2825.63	-2237.41	2003.25	17059191.21	14282008.62	39°19'46.376"N	80°46'06.098"W	3003.17	138.161	0.46	-0.03	-0.46	
10157.00	89.350	157.410	6941.89	2919.62	-2324.41	2038.82	17059541.76	14281921.65	39°19'45.516"N	80°46'05.648"W	3091.87	138.745	0.76	0.10	-0.76	
10252.00	89.380	158.210	6942.94	3014.62	-2412.37	2074.69	17059901.62	14281833.73	39°19'44.645"N	80°46'05.195"W	3181.80	139.304	0.84	0.03	0.84	
10347.00	89.230	158.420	6944.09	3109.61	-2500.64	2109.79	17060251.71	14281745.49	39°19'43.772"N	80°46'04.751"W	3271.76	139.846	0.27	-0.16	0.22	
10441.00	89.350	158.630	6945.26	3203.59	-2588.11	2144.20	17060601.11	14281658.06	39°19'42.907"N	80°46'04.316"W	3360.94	140.359	0.26	0.13	0.22	
10535.00	89.350	158.040	6946.32	3297.59	-2675.46	2178.90	17060941.79	14281570.74	39°19'42.042"N	80°46'03.877"W	3450.47	140.841	0.63	0.00	-0.63	
10630.00	89.450	158.080	6947.32	3392.58	-2763.58	2214.40	17061301.27	14281482.66	39°19'41.171"N	80°46'03.428"W	3541.31	141.296	0.11	0.11	0.04	
10724.00	89.380	158.550	6948.28	3486.56	-2851.22	2248.36	17061641.23	14281395.05	39°19'40.303"N	80°46'02.999"W	3631.06	141.742	1.57	-0.07	1.56	
10820.00	89.420	161.640	6949.28	3582.45	-2941.75	2280.26	17061961.10	14281304.55	39°19'39.408"N	80°46'02.596"W	3722.03	142.219	2.18	0.04	2.18	
10915.00	89.380	163.610	6950.28	3677.13	-3032.41	2308.62	17062241.46	14281213.93	39°19'38.511"N	80°46'02.238"W	3811.20	142.717	2.07	-0.04	2.07	
11009.00	89.260	161.110	6951.39	3770.83	-3121.98	2337.10	17062521.93	14281124.40	39°19'37.625"N	80°46'01.878"W	3899.84	143.182	2.66	-0.13	-2.66	
11103.00	89.750	160.280	6952.21	3864.72	-3210.69	2368.18	17062831.99	14281035.73	39°19'36.748"N	80°46'01.486"W	3989.58	143.588	1.03	0.52	-0.88	
11198.00	89.750	158.050	6952.62	3959.70	-3298.85	2403.50	17063191.30	14280947.60	39°19'35.875"N	80°46'01.039"W	4081.57	143.923	4.45	0.00	-4.45	
11292.00	89.720	156.520	6953.06	4053.66	-3384.91	2441.31	17063571.09	14280861.57	39°19'35.024"N	80°46'00.561"W	4173.44	144.200	0.50	-0.03	0.50	



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

WELLPATH DATA (198 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (JUS ft)	Grid North (JUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
11386.00	89.720	157.810	6953.52	4147.65	-3471.54	2477.79	1706393.56	14280774.98	39°19'34.167"N	80°46'00.100"W	4255.09	144.483	1.37	0.00	1.37	
11480.00	89.690	156.770	6954.00	4241.64	-3558.25	2514.08	1706429.83	14280688.30	39°19'33.309"N	80°45'59.641"W	4356.80	144.757	1.11	-0.03	-1.11	
11574.00	89.910	155.380	6954.33	4335.58	-3644.17	2552.20	1706487.94	14280602.41	39°19'32.458"N	80°45'58.159"W	4449.01	144.995	1.50	0.23	-1.48	
11667.00	90.280	155.580	6954.17	4428.53	-3729.12	2590.05	1706505.78	14280517.50	39°19'31.618"N	80°45'58.680"W	4540.34	145.218	1.35	0.40	1.29	
11761.00	89.880	155.920	6954.04	4522.48	-3815.15	2627.91	1706543.62	14280431.50	39°19'30.767"N	80°45'58.201"W	4632.64	145.441	0.82	-0.43	-0.70	
11856.00	89.750	155.240	6954.35	4617.40	-3901.65	2667.18	1706582.88	14280345.03	39°19'29.911"N	80°45'57.704"W	4726.18	145.643	0.73	-0.14	-0.72	
11950.00	89.940	156.740	6954.60	4711.34	-3987.52	2705.43	1706621.11	14280259.20	39°19'29.051"N	80°45'57.220"W	4818.68	145.844	1.61	0.20	1.60	
12043.00	89.970	157.070	6954.68	4804.33	-4073.06	2741.91	1706657.58	14280173.69	39°19'28.215"N	80°45'56.759"W	4909.98	146.052	0.36	0.03	0.35	
12137.00	90.000	156.420	6954.70	4896.30	-4159.43	2779.02	1706694.67	14280087.36	39°19'27.360"N	80°45'56.289"W	5002.38	146.252	0.69	0.03	-0.69	
12231.00	89.940	156.710	6954.75	4982.28	-4245.67	2816.41	1706732.04	14280001.15	39°19'26.507"N	80°45'55.816"W	5094.89	146.441	0.32	-0.06	0.31	
12325.00	89.910	156.670	6954.87	5066.25	-4332.00	2853.60	1706769.23	14279914.86	39°19'25.653"N	80°45'55.346"W	5187.42	146.626	0.05	-0.03	-0.04	
12419.00	89.940	158.890	6955.00	5180.25	-4419.01	2889.15	1706804.76	14279827.88	39°19'24.792"N	80°45'54.896"W	5279.67	146.823	2.36	0.03	2.36	
12513.00	90.710	161.760	6954.46	5274.15	-4507.52	2920.79	1706836.39	14279739.41	39°19'23.916"N	80°45'54.497"W	5371.10	147.057	3.16	0.82	3.05	
12608.00	90.340	160.960	6953.59	5368.98	-4597.53	2951.16	1706866.74	14279649.44	39°19'23.026"N	80°45'54.113"W	5463.20	147.304	0.93	-0.38	-0.84	
12702.00	89.970	158.340	6953.34	5462.93	-4685.65	2983.84	1706899.41	14279561.35	39°19'22.154"N	80°45'53.700"W	5555.06	147.511	2.81	-0.39	-2.79	
12796.00	89.820	155.730	6953.51	5556.91	-4772.19	3020.51	1706936.07	14279474.84	39°19'21.298"N	80°45'53.237"W	5647.77	147.669	2.78	-0.16	-2.78	
12890.00	90.310	158.780	6953.40	5650.89	-4859.87	3056.85	1706972.39	14279388.19	39°19'20.440"N	80°45'52.777"W	5740.47	147.825	3.29	0.52	3.24	
12984.00	90.340	162.430	6952.87	5744.78	-4947.52	3088.06	1707003.59	14279299.58	39°19'19.563"N	80°45'52.383"W	5832.16	148.029	3.88	0.03	3.88	
13078.00	90.280	164.700	6952.36	5838.32	-5037.68	3114.66	1707034.17	14279209.46	39°19'18.671"N	80°45'52.047"W	5922.77	148.273	2.42	-0.06	2.41	
13172.00	90.280	165.390	6951.90	5931.60	-5128.49	3138.91	1707054.42	14279118.68	39°19'17.773"N	80°45'51.742"W	6012.84	148.531	0.73	0.00	0.73	
13266.00	90.920	164.550	6950.92	6024.89	-5219.27	3163.29	1707078.79	14279027.94	39°19'16.875"N	80°45'51.435"W	6103.04	148.781	1.12	0.68	-0.89	
13360.00	90.180	159.470	6950.02	6118.62	-5308.64	3192.31	1707107.80	14278938.61	39°19'15.991"N	80°45'51.068"W	6194.55	148.980	5.46	-0.79	-5.40	
13455.00	90.430	156.770	6949.51	6213.61	-5396.79	3227.71	1707143.18	14278850.50	39°19'15.119"N	80°45'50.621"W	6288.35	149.117	2.85	0.26	-2.84	
13551.00	90.250	156.700	6948.94	6309.59	-5484.98	3255.63	1707181.08	14278762.34	39°19'14.246"N	80°45'50.141"W	6383.52	149.231	0.20	-0.19	-0.07	
13644.00	90.150	156.120	6948.62	6402.55	-5570.21	3302.84	1707218.29	14278677.14	39°19'13.403"N	80°45'49.674"W	6475.80	149.334	0.63	-0.11	-0.62	
13738.00	90.220	155.200	6948.31	6496.47	-5655.85	3341.59	1707257.45	14278591.54	39°19'12.556"N	80°45'49.181"W	6569.23	149.425	0.98	0.07	-0.98	
13831.00	89.690	153.230	6948.38	6589.27	-5739.58	3382.04	1707297.01	14278507.83	39°19'11.727"N	80°45'48.669"W	6661.91	149.491	2.19	-0.57	-2.12	
13925.00	90.650	151.330	6948.11	6682.80	-5822.79	3425.76	1707341.15	14278424.66	39°19'10.903"N	80°45'48.115"W	6755.79	149.530	2.26	1.02	-2.02	
14019.00	91.170	152.980	6946.61	6776.31	-5905.89	3469.66	1707385.03	14278341.59	39°19'10.081"N	80°45'47.559"W	6849.68	149.566	1.84	0.58	1.76	
14113.00	90.460	153.330	6945.28	6869.97	-5989.75	3512.10	1707427.46	14278257.76	39°19'09.251"N	80°45'47.022"W	6943.49	149.615	0.84	-0.78	0.37	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

WELLPATH DATA (198 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (IUS ft)	Grid North (IUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
14207.00	90.620	160.010	6944.39	6963.88	-6076.02	3549.31	1707484.65	14278171.54	39°19'08.397"N	80°45'46.552"W	7036.73	149.709	7.11	0.17	7.11	
14300.00	91.010	165.880	6943.06	7056.48	-6164.88	3576.57	1707491.90	14278082.71	39°19'07.518"N	80°45'46.208"W	7127.24	149.880	6.33	0.42	6.31	
14395.00	91.820	164.280	6940.72	7150.72	-6256.64	3601.02	1707516.34	14277990.98	39°19'06.611"N	80°45'45.900"W	7218.93	150.077	1.89	0.85	-1.68	
14489.00	90.680	159.600	6938.67	7244.44	-6345.96	3630.14	1707545.46	14277901.69	39°19'05.727"N	80°45'45.532"W	7310.90	150.229	5.12	-1.21	-4.98	
14583.00	90.340	155.440	6937.83	7338.41	-6432.80	3666.08	1707581.37	14277814.89	39°19'04.888"N	80°45'45.078"W	7404.12	150.321	4.44	-0.36	-4.43	
14677.00	90.310	155.220	6937.30	7432.31	-6518.22	3705.31	1707620.59	14277729.51	39°19'04.023"N	80°45'44.581"W	7497.77	150.384	0.24	-0.03	-0.23	
14771.00	90.340	154.990	6936.76	7526.19	-6603.48	3744.88	1707660.15	14277644.28	39°19'03.179"N	80°45'44.081"W	7591.45	150.442	0.25	0.03	-0.24	
14865.00	90.370	155.920	6936.18	7620.10	-6688.99	3783.93	1707699.18	14277558.81	39°19'02.333"N	80°45'43.587"W	7685.09	150.503	0.99	0.03	0.99	
14960.00	90.340	152.640	6935.59	7714.89	-6774.56	3825.15	1707740.38	14277473.27	39°19'01.486"N	80°45'43.065"W	7779.87	150.549	3.45	-0.03	-3.45	
15055.00	91.320	153.890	6934.22	7809.56	-6869.39	3867.88	1707783.10	14277388.47	39°19'00.646"N	80°45'42.524"W	7874.75	150.582	1.67	1.03	1.32	
15149.00	90.400	152.140	6932.81	7903.19	-6943.14	3910.53	1707825.73	14277304.75	39°18'59.818"N	80°45'41.984"W	7968.66	150.611	2.10	-0.98	-1.86	
15243.00	90.120	152.960	6932.38	7996.77	-7026.56	3953.86	1707869.04	14277221.37	39°18'58.992"N	80°45'41.436"W	8062.60	150.633	0.92	-0.30	0.87	
15337.00	90.430	152.650	6931.93	8090.39	-7110.17	3996.82	1707911.98	14277137.79	39°18'58.165"N	80°45'40.892"W	8156.53	150.658	0.47	0.33	-0.33	
15431.00	90.370	154.560	6931.27	8184.11	-7194.36	4038.60	1707953.75	14277053.63	39°18'57.331"N	80°45'40.363"W	8250.40	150.692	2.03	-0.06	2.03	
15525.00	90.260	154.690	6930.74	8277.95	-7279.29	4078.88	1707994.02	14276968.74	39°18'56.491"N	80°45'39.854"W	8344.18	150.736	0.17	-0.10	0.14	
15618.00	90.340	155.200	6930.23	8370.82	-7363.54	4118.27	1708033.39	14276884.52	39°18'55.657"N	80°45'39.355"W	8436.93	150.783	0.55	0.08	0.55	
15638.00	90.280	156.320	6930.13	8390.81	-7381.78	4126.48	1708041.59	14276866.29	39°18'55.477"N	80°45'39.252"W	8456.86	150.794	5.61	-0.30	5.60	
15661.00	90.280	156.320	6930.01	8413.80	-7402.84	4135.72	1708050.83	14276845.24	39°18'55.268"N	80°45'39.135"W	8479.75	150.809	0.00	0.00	0.00	Projected Md @ TD: 15661'



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Convair Unit 2H AWB Ref Wellpath: Convair Unit 2H AWP Proj: 15661'									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	25.00	105.00	80.00	25.00	105.00	0.00	0.00	-0.11	-0.01
17.5in Open Hole	105.00	582.10	477.10	105.00	582.10	-0.11	-0.01	-1.05	-1.19
13.375in Casing Surface	25.00	582.10	557.10	25.00	582.10	0.00	0.00	-1.05	-1.19
12.25in Open Hole	582.10	2575.10	1993.00	582.10	2573.37	-1.05	-1.19	29.69	44.21
9.625in Casing Intermediate	25.00	2575.10	2550.10	25.00	2573.37	0.00	0.00	29.69	44.21
8.75in Open Hole	2575.10	6799.00	4223.90	2573.37	6654.60	29.69	44.21	646.53	656.31
8.5in Open Hole	6799.00	15661.00	8862.00	6654.60	6930.01	646.53	656.31	-7402.84	4135.72
5.5in Casing Production	25.00	15661.00	15636.00	25.00	6930.01	0.00	0.00	-7402.84	4135.72

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Convair Unit 2H POE - Rev-2	6863.00	372.49	856.21	1704772.63	14284617.48	39°20'12.200"N	80°46'20.611"W	point
Convair Unit 2H BHL - Rev-2	6904.00	-7434.98	4103.73	1708018.86	14276813.12	39°18'54.951"N	80°45'39.543"W	point
Convair Unit 2H LP - Rev-1	6904.00	172.18	986.30	1704902.66	14284417.24	39°20'10.217"N	80°46'18.962"W	point



Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

WELLPATH COMPOSITION - Ref Wellbore: Convair Unit 2H AWB Ref Wellpath: Convair Unit 2H AWP Proj: 15661'			
Start MID (ft)	End MID (ft)	Positional Uncertainty Model	Log Name/Comment
25.00	553.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-553')
553.00	990.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4">(553')(700'-990')
990.00	2501.00	ISCWSA MWD, Rev. 4 (Standard)	03 WFT EM <12-1/4">(990')(1112'-2501')
2501.00	6723.00	ISCWSA MWD, Rev. 4 (Standard)	04 WFT EM <8-3/4">(2501')(2661'-6723')
6723.00	15638.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2">(6723')(6791'-15638')
15638.00	15661.00	Blind Drilling (std)	Projection to bit
			Convair Unit 2H AWB

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Actual Wellpath Report

Convair Unit 2H AWP Proj: 15661'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Doddridge Co., WV	Well	Convair Unit 2H
Field	Doddridge	Wellbore	Convair Unit 2H AWB
Facility	Alexander Pad		

COMMENTS
<p>Wellpath general comments API: 47-017-06859-0000 BH Job #: 9145162 Rig: Patterson 342 Duration: 05/01/18 - 05/05/18 Gyrodatta MS Gyro <17'-1/2">(100'-553') Gyrodatta MS Gyro <12-1/4">(553')(700'-990') WFT EM <12-1/4">(990')(1112'-2501') WFT EM <8-3/4">(2501')(2661'-6723') BH AT Curve <8-1/2">(6723')(6791'-15638') Burket: 6996'MD / 6779'TVD Tully: 7062'MD / 6810'TVD Hamilton: 7164'MD / 6850'TVD POE Marcellus: 7189'MD / 6859'TVD Projected Imd @ TD: 15661'</p>

05/03/2019