



# ANTERO RESOURCES CORPORATION

Location: Tyler County, WV  
 Field: Tyler  
 Facility: Edna Monroe Pad

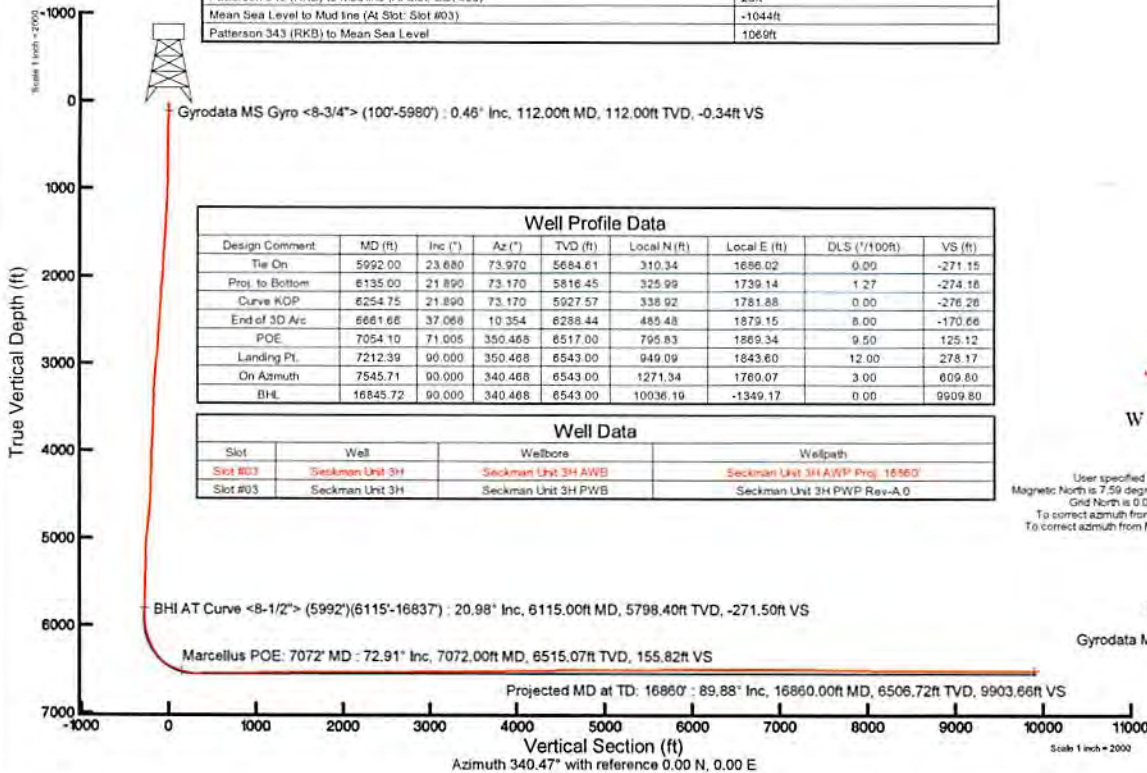
Slot: Slot #03  
 Well: Seckman Unit 3H  
 Wellbore: Seckman Unit 3H PWB



API: 47-095-02286-0000  
 BHI Job #: 8317342  
 Rig: Patterson 343  
 Duration: 12/22/2016-12/25/2016

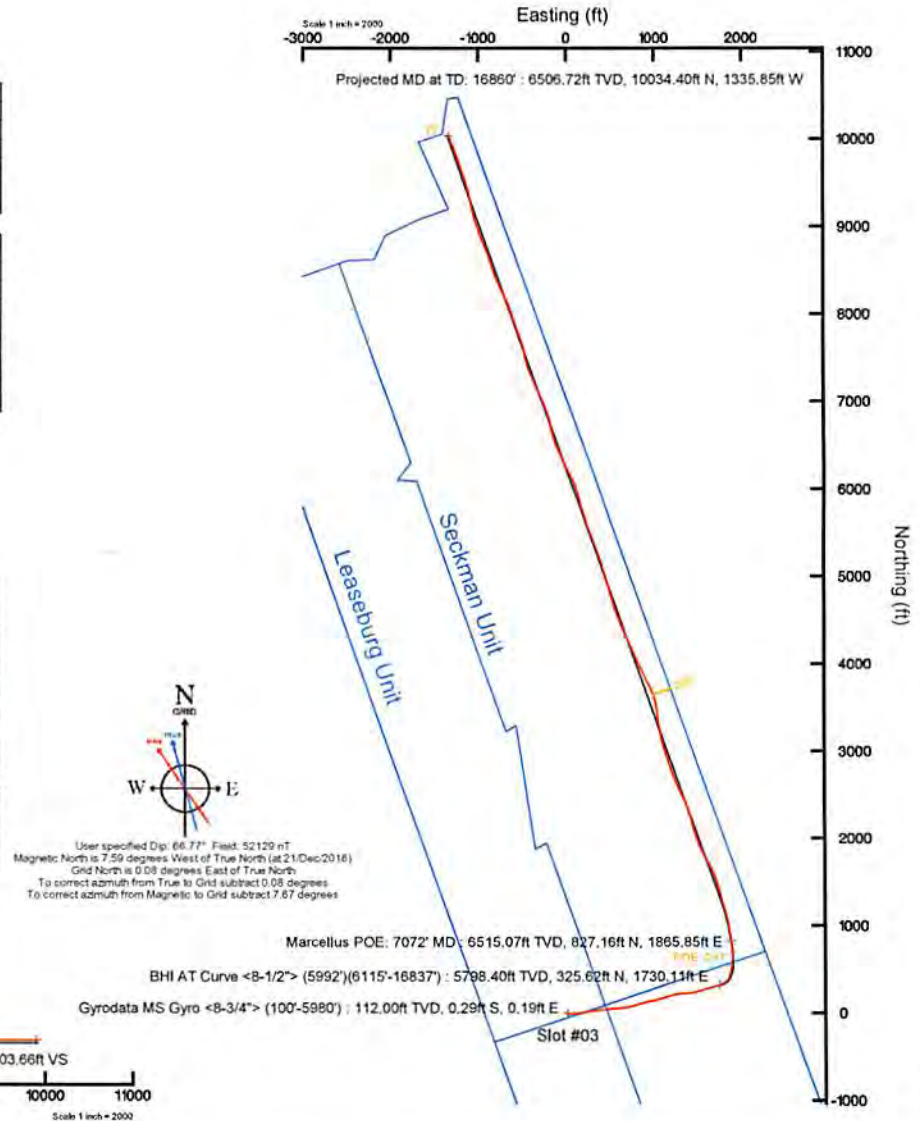
Plot reference wellpath is Seckman Unit 3H PWB Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Patterson 343 (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Patterson 343 (RKB)	North Reference: Grid north
Patterson 343 (RKB) to Mean Sea Level: 1069 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #03): -1044 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: delaset on 2017-01-05
	Database: WA_MPL_EasternUS_Defn

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Edna Monroe Pad	1676182.158	14315855.438	39°25'21.620"N	80°52'24.070"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #03	20.23	-2.38	1676179.780	14315875.660
			Latitude	Longitude
			39°25'21.820"N	80°52'24.100"W
Comment	Seckman Unit 3H			
Patterson 343 (RKB) to Mud line (At Slot: Slot #03)	25R			
Mean Sea Level to Mud line (At Slot: Slot #03)	-1044ft			
Patterson 343 (RKB) to Mean Sea Level	1069ft			



Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	5992.00	23.680	73.970	5684.61	310.34	1686.02	-271.15
Proj. to Bottom	6135.00	21.890	73.170	5816.45	325.99	1739.14	-274.16
Curve KOP	6254.75	21.890	73.170	5927.57	338.92	1781.88	-276.26
End of 3D Arc	6661.66	37.066	10.354	6288.44	485.48	1879.15	-170.66
POE	7054.10	71.005	350.465	6517.00	795.83	1869.34	125.12
Landing Pt.	7212.39	90.000	350.468	6543.00	949.09	1843.60	278.17
On Azimuth	7545.71	90.000	340.468	6543.00	1271.34	1760.07	609.80
BHI	16845.72	90.000	340.468	6543.00	10036.19	-1349.17	9909.80

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #03	Seckman Unit 3H	Seckman Unit 3H AWB	Seckman Unit 3H AWP Proj. 16560
Slot #03	Seckman Unit 3H	Seckman Unit 3H PWB	Seckman Unit 3H PWB Rev-A.0



Compass rose showing North, South, East, West.

User specified Dip: 66.77° Field: 52129 nT  
 Magnetic North is 7.59 degrees West of True North (at 21 Dec 2016)  
 Grid North is 0.08 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.08 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.67 degrees

Marcellus POE: 7072' MD : 6515.07ft TVD, 827.16ft N, 1885.85ft E  
 BHI AT Curve <B-1/2"> (5992')(6115-16837) : 5798.40ft TVD, 325.62ft N, 1730.11ft E  
 Gyrodatta MS Gyro <B-3/4"> (100'-5980') : 112.00ft TVD, 0.29ft S, 0.19ft E



# Actual Wellpath Report

Seckman Unit 3H AWP Proj: 16860'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Seckman Unit 3H
Field	Tyler	Wellbore	Seckman Unit 3H AWB
Facility	Edna Monroe Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Delaset
Scale	0.999601	Report Generated	05/Jan/2017 at 09:42
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EasternUS_Defn/Seckman_Unit_3H_AWP_Proj_16860_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	20.23	-2.38	1676179.78	14315875.66	39°25'21.820"N	80°52'24.100"W
Facility Reference Pt			1676182.16	14315855.44	39°25'21.620"N	80°52'24.070"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 343 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 343 (RKB) to Mean Sea Level	1069.00ft
Vertical Reference Pt	Patterson 343 (RKB)	Patterson 343 (RKB) to Mud Line at Slot (Slot #03)	25.00ft
MD Reference Pt	Patterson 343 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	340.47°





# Actual Wellpath Report

Seckman Unit 3H AWP Proj.: 16860'

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Operator	Area	Field	Facility
ANTERO RESOURCES CORPORATION	Tyler County, WV	Tyler	Edna Monroe Pad
Slot	Well	Wellbore	
Slot #03	Seckman Unit 3H	Seckman Unit 3H AWB	

WELLPATH DATA (192 stations)												
MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir
(m)	(°)	(°)	(m)	(m)	(m)	(m)	(US M)	(US M)	(N)	(W)	(m)	(°)
1265.00	90.680	335.910	3325.29	3845.60	897.41	1677076.83	14319720.72	39.2559.825 N	80.5212.594 W	3949.90	13.132	3.66
10359.00	90.800	335.320	3418.94	3932.21	858.60	1677038.04	14319806.29	39.2600.672 N	80.5213.087 W	4024.86	12.317	0.64
10454.00	90.710	333.170	4017.37	4017.76	817.33	1676996.78	14319891.81	39.2601.518 N	80.5213.611 W	4100.05	11.499	2.26
10548.00	90.680	335.230	4102.38	3608.80	776.42	1676955.89	14319976.39	39.2602.355 N	80.5214.131 W	4175.20	10.717	2.19
10642.00	90.800	335.090	3700.38	4187.67	736.94	1676916.42	14320061.66	39.2603.198 N	80.5214.633 W	4252.02	9.981	0.20
10736.00	90.830	336.160	3794.04	4273.29	698.15	1676877.65	14320147.23	39.2604.045 N	80.5215.126 W	4329.94	9.279	1.14
10831.00	90.710	336.340	3888.77	4360.23	659.89	1676839.41	14320234.15	39.2604.905 N	80.5215.612 W	4409.88	8.606	0.23
10925.00	90.710	336.470	3982.53	4446.37	622.27	1676801.80	14320320.25	39.2605.757 N	80.5216.090 W	4489.70	7.967	0.14
11019.00	90.650	338.010	4076.37	4533.04	585.91	1676765.45	14320406.88	39.2606.614 N	80.5216.562 W	4570.75	7.365	1.64
11113.00	90.370	342.680	4170.34	4621.53	554.30	1676733.88	14320495.34	39.2607.489 N	80.5216.953 W	4654.66	6.839	4.98
11208.00	90.580	344.820	4265.17	4712.73	527.72	1676707.29	14320586.50	39.2608.391 N	80.5217.290 W	4742.18	6.389	2.25
11302.00	91.050	343.240	4358.98	4803.09	501.86	1676681.44	14320676.83	39.2609.284 N	80.5217.618 W	4829.24	5.965	1.75
11397.00	90.650	342.520	4453.88	4893.87	473.90	1676653.49	14320767.57	39.2610.182 N	80.5217.973 W	4916.76	5.531	0.87
11491.00	90.340	343.350	4547.79	4983.73	446.31	1676625.91	14320857.39	39.2611.070 N	80.5218.322 W	5003.67	5.117	0.94
11585.00	90.370	343.620	4641.66	5073.85	419.60	1676599.21	14320947.48	39.2611.961 N	80.5218.661 W	5091.17	4.728	0.30
11680.00	91.200	342.250	4736.56	5164.66	391.73	1676571.38	14321038.25	39.2612.859 N	80.5219.015 W	5179.49	4.338	1.70
11774.00	90.660	340.670	4830.54	5253.77	361.85	1676541.48	14321127.33	39.2613.740 N	80.5219.394 W	5266.22	3.940	2.07
11868.00	90.180	340.070	4924.54	5342.31	330.27	1676509.92	14321215.83	39.2614.616 N	80.5219.795 W	5352.50	3.538	0.65
11962.00	90.000	338.740	5018.52	5430.30	297.20	1676476.66	14321303.78	39.2615.486 N	80.5220.215 W	5438.42	3.133	1.43
12056.00	90.000	340.240	5518.50	5518.34	264.27	1676443.94	14321391.78	39.2616.357 N	80.5220.633 W	5524.66	2.742	1.60
12151.00	89.850	341.090	5607.50	5607.98	232.82	1676412.50	14321481.39	39.2617.243 N	80.5221.032 W	5612.81	2.377	0.91
12245.00	90.220	341.710	5697.07	5697.07	202.83	1676382.53	14321570.44	39.2618.124 N	80.5221.413 W	5700.68	2.039	0.77
12339.00	90.060	342.880	5786.51	5786.51	174.25	1676353.96	14321659.95	39.2619.009 N	80.5221.776 W	5789.23	1.725	1.26
12434.00	90.740	345.220	5877.95	5877.95	148.15	1676327.87	14321751.25	39.2619.912 N	80.5222.107 W	5879.81	1.444	2.56
12529.00	90.550	344.140	5969.56	5969.56	123.05	1676302.78	14321842.83	39.2620.818 N	80.5222.425 W	5970.83	1.181	1.15
12622.00	90.950	338.010	6057.92	6057.49	92.90	1676272.64	14321930.72	39.2621.688 N	80.5222.807 W	6058.20	0.879	6.60
12717.00	89.970	331.060	6143.20	6143.20	52.08	1676231.84	14322016.40	39.2622.535 N	80.5223.326 W	6143.42	0.486	7.39
12811.00	89.910	333.130	6226.26	6226.26	8.09	1676187.87	14322099.43	39.2623.357 N	80.5223.885 W	6226.27	0.074	2.20
12905.00	89.850	336.340	6311.26	6311.26	-32.02	1676147.77	14322184.39	39.2624.198 N	80.5224.395 W	6311.34	359.709	3.42
12999.00	89.940	335.990	6397.24	6397.24	-70.01	1676109.80	14322270.34	39.2625.048 N	80.5224.878 W	6397.63	359.373	0.38

Turn Rate	Comments
[-1.41	
1.60	
0.00	
0.00	
-0.16	
0.89	
0.66	
1.24	
2.46	
-0.20	
-1.14	
-6.59	
-7.32	
-1.03	
2.20	
-0.06	
3.41	
-0.37	



# Actual Wellpath Report

Seckman Unit 3H AWP Proj: 16860'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #03
Area	Tyler County, WV		Well	Seckman Unit 3H
Field	Tyler		Wellbore	Seckman Unit 3H AWB
Facility	Edna Monroe Pad			

WELLPATH DATA (192 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
13094.00	89.850	336.740	6493.72	6147.35	6484.27	-108.09	1676071.73	14322357.34	39°26'25.909"N	80°52'25.362"W	6485.18	359.045	0.80	-0.09	0.79	
13188.00	89.940	341.600	6493.89	6241.30	6572.10	-141.51	1676038.33	14322445.13	39°26'26.777"N	80°52'25.786"W	6573.63	358.767	5.17	0.10	5.17	
13282.00	89.970	347.360	6493.96	6335.03	6662.64	-166.65	1676013.20	14322535.63	39°26'27.672"N	80°52'26.105"W	6664.72	358.567	6.13	0.03	6.13	
13377.00	90.030	348.160	6493.96	6429.26	6755.48	-186.79	1675993.06	14322628.43	39°26'28.590"N	80°52'26.360"W	6758.06	358.416	0.84	0.06	0.84	
13471.00	91.200	343.970	6492.95	6522.78	6846.69	-209.42	1675970.44	14322719.60	39°26'29.492"N	80°52'26.647"W	6849.89	358.248	4.63	1.24	-4.46	
13564.00	89.910	338.330	6492.05	6615.73	6934.66	-239.46	1675940.42	14322807.54	39°26'30.362"N	80°52'27.028"W	6938.79	358.022	6.22	-1.39	-6.06	
13659.00	89.970	336.460	6492.15	6710.59	7022.35	-275.97	1675903.92	14322895.20	39°26'31.229"N	80°52'27.492"W	7027.77	357.750	1.97	0.06	-1.97	
13753.00	89.910	336.470	6492.25	6804.36	7108.53	-313.51	1675866.40	14322981.35	39°26'32.081"N	80°52'27.969"W	7115.44	357.475	0.06	-0.06	0.01	
13847.00	89.910	336.860	6492.40	6898.15	7194.85	-350.74	1675829.18	14323067.62	39°26'32.935"N	80°52'28.442"W	7203.39	357.209	0.41	0.00	0.41	
13942.00	89.850	335.780	6492.60	6992.90	7281.84	-388.89	1675791.04	14323154.59	39°26'33.795"N	80°52'28.927"W	7292.22	356.943	1.14	-0.06	-1.14	
14036.00	89.940	337.890	6492.77	7086.71	7368.26	-425.87	1675754.08	14323240.97	39°26'34.650"N	80°52'29.396"W	7380.56	356.692	2.25	0.10	2.24	
14130.00	89.850	346.530	6492.94	7180.58	7457.68	-454.56	1675725.40	14323330.35	39°26'35.534"N	80°52'29.760"W	7471.52	356.512	9.19	-0.10	9.19	
14225.00	90.280	351.170	6492.83	7274.54	7550.86	-472.93	1675707.04	14323423.50	39°26'36.455"N	80°52'29.993"W	7565.66	356.416	4.91	0.45	4.88	
14319.00	89.290	343.380	6493.19	7367.80	7642.48	-493.62	1675686.36	14323515.08	39°26'37.361"N	80°52'30.255"W	7658.41	356.304	8.35	-1.05	-8.29	
14413.00	89.380	338.660	6494.28	7461.76	7731.34	-524.18	1675655.81	14323603.90	39°26'38.240"N	80°52'30.643"W	7749.09	356.121	5.02	0.10	-5.02	
14507.00	89.260	338.910	6495.39	7555.71	7818.96	-558.19	1675621.81	14323691.49	39°26'39.106"N	80°52'31.075"W	7838.86	355.917	0.29	-0.13	0.27	
14601.00	89.420	343.320	6496.48	7649.68	7907.87	-588.61	1675591.41	14323780.37	39°26'39.985"N	80°52'31.461"W	7929.75	355.743	4.69	0.17	4.69	
14696.00	89.200	343.160	6497.62	7744.56	7998.83	-616.00	1675564.03	14323871.29	39°26'40.885"N	80°52'31.809"W	8022.52	355.596	0.29	-0.23	-0.17	
14790.00	89.510	337.430	6498.68	7838.52	8087.29	-647.68	1675532.36	14323959.71	39°26'41.759"N	80°52'32.211"W	8113.18	355.421	6.10	0.33	-6.10	
14883.00	89.320	334.490	6499.63	7931.21	8172.21	-685.56	1675494.50	14324044.59	39°26'42.599"N	80°52'32.692"W	8200.91	355.205	3.17	-0.20	-3.16	
14978.00	89.290	332.370	6500.78	8025.48	8257.16	-728.05	1675452.03	14324129.51	39°26'43.439"N	80°52'33.232"W	8289.20	354.961	2.23	-0.03	-2.23	
15072.00	89.660	335.210	6501.64	8118.83	8341.48	-769.56	1675410.53	14324213.80	39°26'44.273"N	80°52'33.760"W	8376.91	354.729	3.05	0.39	3.02	
15166.00	89.880	340.460	6502.02	8212.70	8428.51	-805.01	1675375.10	14324300.79	39°26'45.134"N	80°52'34.210"W	8466.86	354.544	5.59	0.23	5.59	
15260.00	89.880	343.560	6502.22	8306.65	8517.90	-834.03	1675346.08	14324390.15	39°26'46.018"N	80°52'34.579"W	8558.63	354.408	3.30	0.00	3.30	
15355.00	89.910	341.880	6502.39	8401.58	8608.61	-862.25	1675317.87	14324480.82	39°26'46.915"N	80°52'34.937"W	8651.68	354.280	1.77	0.03	-1.77	
15449.00	89.750	338.710	6502.67	8495.56	8697.09	-893.94	1675286.19	14324569.27	39°26'47.790"N	80°52'35.339"W	8742.91	354.131	3.38	-0.17	-3.37	
15543.00	89.850	337.840	6503.00	8589.49	8784.41	-928.74	1675251.42	14324656.56	39°26'48.653"N	80°52'35.781"W	8833.37	353.965	0.93	0.11	-0.93	
15637.00	89.720	338.540	6503.35	8683.42	8871.68	-963.66	1675216.51	14324743.79	39°26'49.516"N	80°52'36.225"W	8923.87	353.801	0.76	-0.14	0.74	
15731.00	89.780	340.080	6503.76	8777.39	8959.62	-996.87	1675183.31	14324831.69	39°26'50.386"N	80°52'36.647"W	9014.90	353.651	1.64	0.06	1.64	
15826.00	89.720	342.200	6504.18	8872.38	9049.51	-1027.58	1675152.61	14324921.55	39°26'51.275"N	80°52'37.037"W	9107.67	353.522	2.23	-0.08	2.23	





# Actual Wellpath Report

Seckman Unit 3H AWP Proj: 16860'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Seckman Unit 3H
Field	Tyler	Wellbore	Seckman Unit 3H AWB
Facility	Edna Monroe Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Seckman Unit 3H POE Rev-3	6517.00	795.83	1869.34	1678048.37	14316671.17	39°25'29.659"N	80°52'00.265"W	point
Seckman Unit 3H BHL Rev-2	6543.00	10036.19	-1349.17	1674831.15	14325907.83	39°27'01.031"N	80°52'41.119"W	point
Seckman Unit 3H LP Rev-2	6543.00	949.09	1843.60	1678022.64	14316824.37	39°25'31.174"N	80°52'00.590"W	point

WELLPATH COMPOSITION - Ref Wellbore: Seckman Unit 3H AWB Ref Wellpath: Seckman Unit 3H AWP Proj: 16860'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
25.00	5992.00	Gyrodata standard - Drop gyro or Multi-shot	03 Gyrodata MS Gyro <8-3/4"> (100'-5980')	Seckman Unit 3H AWB	
5992.00	16837.00	BHI AutoTrak Curve (Short)	04 BHI AT Curve <8-1/2"> (5992')(6115'-16837')	Seckman Unit 3H AWB	
16837.00	16860.00	Blind Drilling (std)	Projection to bit	Seckman Unit 3H AWB	



# Actual Wellpath Report

Seckman Unit 3H AWP Proj: 16860'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Seckman Unit 3H
Field	Tyler	Wellbore	Seckman Unit 3H AWB
Facility	Edna Monroe Pad		

COMMENTS
<p>Wellpath general comments API: 47-095-02286-0000 BHI Job #: 8317342 Rig: Patterson 343 Duration: 12/22/2016-12/25/2016 Gyrodatta MS Gyro &lt;8-3/4"&gt;(100'-5980') BHI AT Curve &lt;8-1/2"&gt;(5992')(6115'-16837') Middlesex: 6740' MD Burket: 6907' MD Tully: 6979' MD Marcellus POE: 7072' MD Projected MD at TD: 16860'</p>