



ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: Stonely Pad

Slot: Slot #04
 Well: Pheasant Unit 1H ST01
 Wellbore: Pheasant Unit 1H ST01 PWB



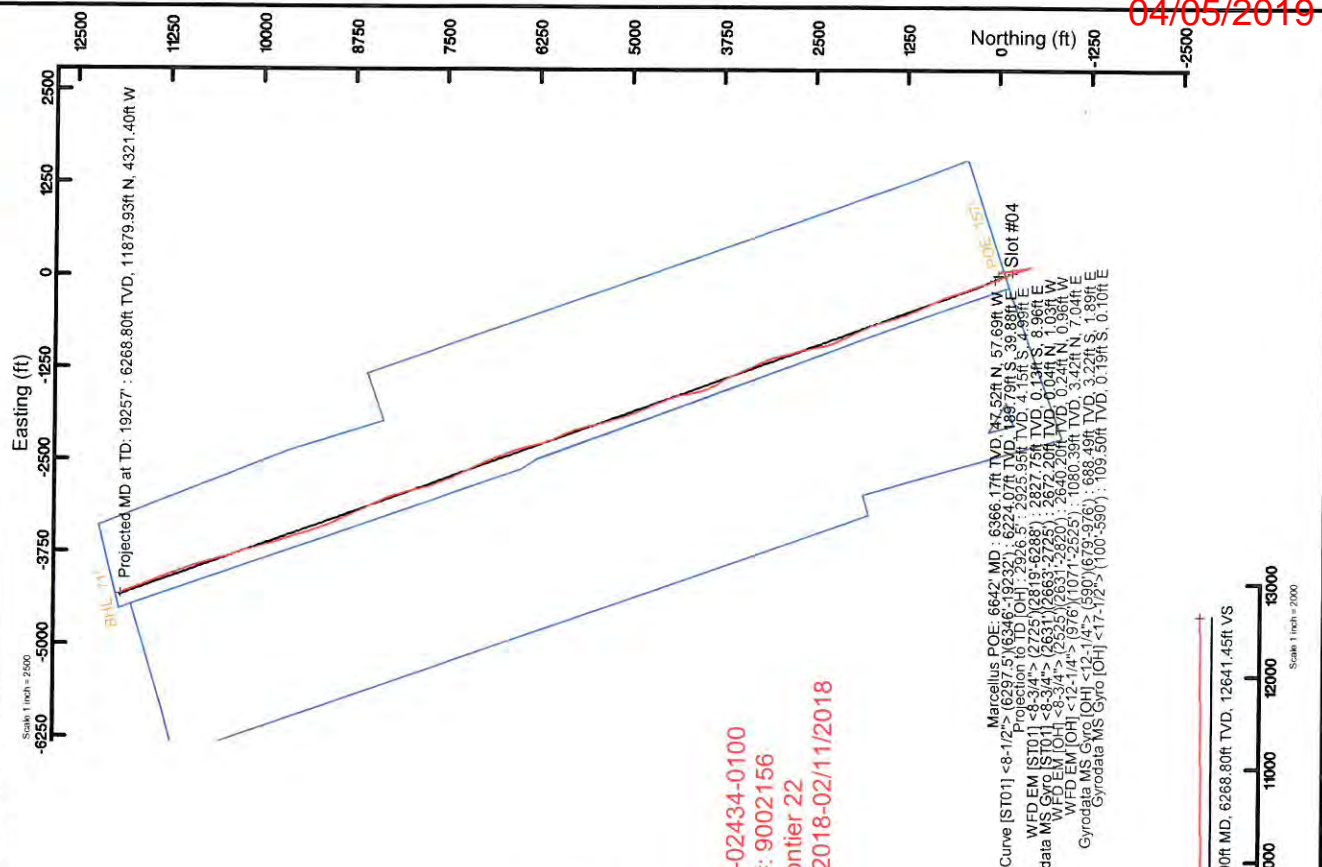
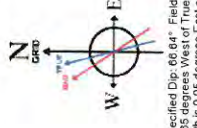
Plot reference wellpath is Pheasant Unit 1H ST01 PWB Rev-A.0	Grid System: NAD27 UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 22 (RKB)	North Reference: Grid north
Measured depths are referenced to Frontier 22 (RKB)	Scale: True distance
Frontier 22 (RKB) to Mean Sea Level: 1006.5 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot #04): -982 feet	Created by: delaban on 2018-09-14
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Stonely Pad	14314034.380	39°25'03.776"N	80°55'21.620"W
Slot	Local N (ft)	Local E (US ft)	Longitude
Slot #04	76.88	14314111.225	80°55'21.900"W
Comment: Pheasant Unit 1H			
Frontier 22 (RKB) to Ground level (At Slot, Slot #04)	24.5ft		
Mean Sea Level to Ground level (At Slot, Slot #04)	-982ft		
Frontier 22 (RKB) to Mean Sea Level	1006.5ft		

Well Profile Data					
Design Comment	MD (ft)	Inc (°)	AZ (°)	TVD (ft)	VS (ft)
Tie On	6297.50	43.680	340.950	6189.86	-222.16
Proj. To Bottom	6371.50	49.230	340.950	6240.82	-171.47
POE	6629.86	70.910	337.015	6369.00	-35.93
Landing Pt.	6811.62	90.000	337.015	6399.00	200.17
On Azimuth	6968.69	90.000	340.163	6399.00	346.39
BHL	19245.86	90.000	340.163	6399.00	11895.04
					-4339.87
					0.00
					12661.93

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #04	Pheasant Unit 1H	Pheasant Unit 1H AWP Proj. 2017	Pheasant Unit 1H AWP Proj. 2017
Slot #04	Pheasant Unit 1H ST01	Pheasant Unit 1H ST01 AWP	Pheasant Unit 1H ST01 AWP Proj. 10/25/17
Slot #04	Pheasant Unit 1H ST01	Pheasant Unit 1H ST01 PWB	Pheasant Unit 1H ST01 PWB Rev-A.0

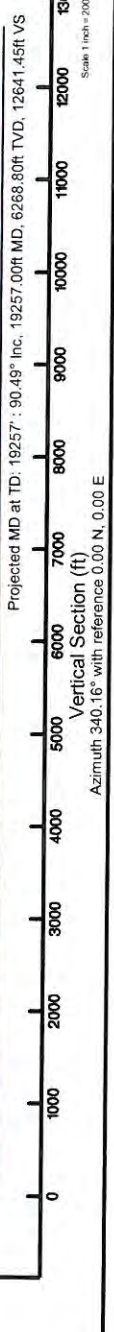
Gyrodata MS Gyro [OH] <17-112°> (100-590°) : 0.29° Inc, 109.50ft MD, 109.50ft TVD, -0.21ft VS
 Gyrodata MS Gyro [OH] <12-14°> (590°)(679-976°) : 0.28° Inc, 688.50ft MD, 688.49ft TVD, -3.67ft VS
 WFD EM [OH] <12-14°> (976°)(1071-2525°) : 0.97° Inc, 1080.50ft MD, 1080.39ft TVD, 0.83ft VS
 WFD EM [OH] <8-34°> (2525°)(2631-2820°) : 1.12° Inc, 2640.50ft MD, 2640.20ft TVD, 0.55ft VS
 WFD EM [OH] <8-34°> (2631-2725°) : 1.08° Inc, 2672.50ft MD, 2672.20ft TVD, 0.39ft VS
 WFD EM [OH] <8-34°> (2725-2820°) : 0.97° Inc, 2820.50ft MD, 2820.20ft TVD, 0.39ft VS
 Projection to TD [OH] : 2926.5° : 3.55° Inc, 2926.50ft MD, 2925.50ft TVD, -3.60ft VS



API: 47-095-02434-0100
 BHI Job #: 9002156
 Rig: Frontier 22
 Duration: 02/08/2018-02/11/2018

Marcellus POE: 6642 MD : 6366.17ft TVD, 87.52ft N, 57.69ft W, 39.88ft E
 BH AT Curve [ST01] <8-1/2°> (6287.5)(6346-19232°) : 46.61° Inc, 6346.00ft MD, 6224.07ft TVD, -192.06ft VS
 WFD EM [ST01] <8-3/4°> (2631-2725°) : 1.08° Inc, 2672.50ft MD, 2672.20ft TVD, 0.39ft VS
 Gyrodata MS Gyro [ST01] <8-3/4°> (2725-2820°) : 0.97° Inc, 2820.50ft MD, 2820.20ft TVD, 0.39ft VS
 WFD EM [OH] <8-3/4°> (2631-2725°) : 1.08° Inc, 2672.50ft MD, 2672.20ft TVD, 0.39ft VS
 WFD EM [OH] <12-14°> (976°)(1071-2525°) : 0.97° Inc, 1080.50ft MD, 1080.39ft TVD, 0.83ft VS
 Gyrodata MS Gyro [OH] <12-14°> (590°)(679-976°) : 0.28° Inc, 688.49ft TVD, -3.67ft VS
 Gyrodata MS Gyro [OH] <17-112°> (100-590°) : 0.29° Inc, 109.50ft TVD, -0.21ft VS

04/05/2019





Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'
Page 1 of 12



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #04	
Area	Tyler County, WV	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stoneyly Pad	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MID

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WeilArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999601	Report Generated	14/Sep/2018 at 13:50
Convergence at slot	0.05° East	Database/Source file	WA_MPL_EasternUS_Defn/Pheasant_Unit_1H_ST01_AWP_Proj_19257_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Northing[US ft]	Latitude	Longitude	
Slot Location	76.88	-22.04	14314111.23	39°25'04.530"N	80°55'21.900"W	
Facility Reference Pt			1662255.77	39°25'03.770"N	80°55'21.620"W	
Field Reference Pt			0.00	0°00'00.000"	85°29'19.301"W	

WELLPATH DATUM

Calculation method	Minimum curvature	Frontier 22 (RKB) to Facility Vertical Datum	1006.50ft
Horizontal Reference Pt	Slot	Frontier 22 (RKB) to Mean Sea Level	1006.50ft
Vertical Reference Pt	Frontier 22 (RKB)	Frontier 22 (RKB) to Ground Level at Slot (Slot #04)	24.50ft
MD Reference Pt	Frontier 22 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	340.16°



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'
Page 2 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stonerly Pad	Side-track from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

WELLPATH DATA (236 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00H	0.000	153.720	0.00	0.00	0.00	0.00	1662233.74	14314111.23	39°25'04.530"N	80°55'21.900"W	0.00	0.000	0.00	0.00	0.00	
24.50	0.000	153.720	24.50	0.00	0.00	0.00	1662233.74	14314111.23	39°25'04.530"N	80°55'21.900"W	0.00	0.000	0.00	0.00	0.00	
109.50	0.290	153.720	109.50	-0.21	-0.19	0.10	1662233.83	14314111.03	39°25'04.528"N	80°55'21.899"W	0.22	153.720	0.34	0.34	180.85	Syrodata MS Gyro [OH] <17-1/2"> (100'-590')
209.50	0.660	152.370	209.50	-1.04	-0.93	0.47	1662234.21	14314110.30	39°25'04.521"N	80°55'21.894"W	1.04	152.975	0.37	0.37	-1.35	
309.50	0.380	137.100	309.49	-1.91	-1.68	0.97	1662234.70	14314109.54	39°25'04.513"N	80°55'21.888"W	1.94	150.117	0.31	-0.28	-15.27	
409.50	0.270	138.270	409.49	-2.44	-2.10	1.35	1662235.09	14314109.12	39°25'04.509"N	80°55'21.883"W	2.50	147.294	0.11	-0.11	1.17	
509.50	0.260	193.290	509.49	-2.84	-2.50	1.45	1662235.19	14314108.73	39°25'04.505"N	80°55'21.881"W	2.89	149.796	0.24	-0.01	55.02	
599.50	0.390	154.350	599.49	-3.32	-2.97	1.54	1662235.28	14314108.25	39°25'04.501"N	80°55'21.880"W	3.35	152.610	0.28	0.14	-43.27	
688.50	0.280	83.510	688.49	-3.67	-3.22	1.89	1662235.62	14314108.00	39°25'04.498"N	80°55'21.876"W	3.73	149.640	0.45	-0.12	-79.60	Syrodata MS Gyro [OH] <12-1/4"> (590')(679'-976')
745.50	0.940	39.490	745.48	-3.46	-2.85	2.32	1662236.06	14314108.38	39°25'04.502"N	80°55'21.870"W	3.67	140.771	1.34	1.16	-77.23	
891.50	1.750	29.830	891.44	-1.41	0.01	4.19	1662237.93	14314111.24	39°25'04.530"N	80°55'21.847"W	4.19	89.825	0.57	0.55	-6.62	
1080.50	0.970	52.580	1080.39	0.83	3.42	7.04	1662240.77	14314114.65	39°25'04.551"N	80°55'21.828"W	6.02	69.673	0.53	-0.41	12.51	
1175.50	0.990	58.940	1175.37	1.24	4.34	8.38	1662242.11	14314115.56	39°25'04.573"N	80°55'21.793"W	7.82	64.047	0.47	-0.41	11.57	WFD EM [OH] <12-1/4"> (976')(1071'-2525')
1269.50	0.600	103.520	1269.37	1.12	4.64	9.55	1662243.28	14314115.86	39°25'04.576"N	80°55'21.778"W	9.43	62.632	0.12	0.02	6.89	
1364.50	0.660	185.600	1364.36	0.36	3.98	9.98	1662243.71	14314115.20	39°25'04.569"N	80°55'21.773"W	10.75	68.264	0.87	-0.41	47.43	
1458.50	0.730	174.000	1458.35	-0.71	2.84	9.99	1662243.72	14314114.07	39°25'04.568"N	80°55'21.773"W	10.39	74.106	0.17	0.07	86.40	
1553.50	0.770	175.710	1553.35	-1.92	1.61	10.10	1662243.83	14314112.83	39°25'04.546"N	80°55'21.771"W	10.23	80.964	0.05	0.04	-12.34	
1647.50	1.010	169.110	1647.34	-3.34	0.16	10.31	1662244.04	14314111.39	39°25'04.532"N	80°55'21.769"W	10.31	89.093	0.28	0.26	-7.02	
1742.50	1.060	164.390	1742.32	-5.05	-1.51	10.70	1662244.43	14314109.72	39°25'04.515"N	80°55'21.764"W	10.81	98.008	0.10	0.05	-4.97	
1836.50	0.470	232.530	1836.31	-6.03	-2.58	10.63	1662244.36	14314108.65	39°25'04.504"N	80°55'21.765"W	10.94	103.631	1.05	-0.63	72.49	
1931.50	1.380	301.380	1931.30	-5.26	-2.22	9.94	1662243.08	14314109.01	39°25'04.508"N	80°55'21.781"W	9.60	103.360	1.36	0.96	72.47	
2025.50	1.830	288.320	2025.26	-3.45	-1.16	6.95	1662240.69	14314110.07	39°25'04.519"N	80°55'21.811"W	7.05	99.455	0.61	0.48	-13.89	
2120.50	1.090	290.100	2120.23	-1.93	-0.37	4.66	1662238.40	14314110.86	39°25'04.526"N	80°55'21.841"W	4.88	94.540	0.78	-0.78	1.87	
2214.50	0.610	274.970	2214.22	-1.15	-0.02	3.32	1662237.06	14314111.21	39°25'04.530"N	80°55'21.858"W	3.32	90.339	0.56	-0.51	-16.10	
2309.50	0.450	266.210	2309.22	-0.83	0.00	2.45	1662236.18	14314111.22	39°25'04.530"N	80°55'21.869"W	2.45	90.012	0.19	-0.17	-9.22	
2403.50	0.480	266.840	2403.21	-0.62	-0.05	1.69	1662235.42	14314111.18	39°25'04.530"N	80°55'21.879"W	1.69	91.582	0.03	0.03	0.67	
2498.50	0.480	287.990	2498.21	-0.26	0.05	0.91	1662234.65	14314111.28	39°25'04.531"N	80°55'21.888"W	0.91	86.585	0.19	0.00	22.26	
2534.50	0.580	284.450	2534.21	-0.06	0.15	0.59	1662234.33	14314111.37	39°25'04.531"N	80°55'21.892"W	0.61	76.092	0.29	0.28	-9.93	
2640.50	1.120	267.520	2640.20	0.55	0.24	-0.96	1662232.77	14314111.46	39°25'04.532"N	80°55'21.912"W	0.99	283.736	0.56	0.51	-15.97	WFD EM [OH] <8-3/4"> (2525')(2631'-2820')



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'
Page 3 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stonefly Pad	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

WELLPATH DATA (236 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Dir (°)	DLS (ft/100ft)	Built Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
2672.50	1.080	126.350	2672.20	0.39	0.04	-1.03	1662232.70	14314111.27	39°25'04.530"N	80°55'21.913"W	1.03	272.393	6.48	-0.12	-441.16	Gyrodatta MS Gyro [ST01] <-8-3/4"> (2631')(2663'-2725')
2703.50	1.610	114.170	2703.19	-0.15	-0.31	-0.40	1662233.34	14314110.92	39°25'04.527"N	80°55'21.905"W	0.51	292.391	1.93	1.71	-39.29	
2734.50	2.220	99.600	2734.17	-0.75	-0.99	0.59	1662234.33	14314110.64	39°25'04.524"N	80°55'21.893"W	0.83	134.886	2.50	1.97	-47.00	
2828.50	8.090	83.380	2827.75	-3.16	-0.13	8.96	1662242.70	14314111.10	39°25'04.529"N	80°55'21.786"W	8.96	90.815	6.37	6.24	-17.26	WFD EM [ST01] <-8-3/4"> (2725')(2819'-6288')
2923.50	7.980	80.420	2921.82	-5.86	1.74	22.10	1662255.83	14314112.97	39°25'04.547"N	80°55'21.618"W	22.17	85.497	0.45	-0.12	-3.12	
3017.50	7.310	101.070	3015.00	-10.10	1.68	34.41	1662268.13	14314112.90	39°25'04.546"N	80°55'21.482"W	34.45	87.208	2.99	-0.71	21.97	
3112.50	8.060	126.670	3109.18	-18.76	-3.46	45.69	1662279.40	14314107.77	39°25'04.495"N	80°55'21.318"W	45.82	94.332	3.66	0.79	26.95	
3207.50	7.550	148.600	3203.32	-30.43	-12.77	54.28	1662296.78	14314046.54	39°25'04.403"N	80°55'21.208"W	55.76	103.236	3.16	-0.54	23.08	
3302.50	7.330	172.750	3297.94	-42.46	-24.11	58.30	1662292.01	14314087.13	39°25'04.291"N	80°55'21.157"W	63.09	112.467	3.28	-0.23	25.42	
3397.50	7.260	172.330	3391.77	-54.25	-36.07	59.87	1662293.58	14314075.17	39°25'04.173"N	80°55'21.138"W	69.89	121.070	0.09	-0.07	-0.44	
3491.50	8.400	173.460	3484.89	-66.74	-48.78	61.44	1662295.15	14314062.47	39°25'04.047"N	80°55'21.118"W	78.45	128.447	1.22	1.21	1.20	
3586.50	11.020	174.630	3578.52	-82.28	-64.71	63.08	1662296.78	14314046.54	39°25'03.890"N	80°55'21.097"W	90.37	135.733	2.77	2.76	1.23	
3681.50	12.590	173.690	3671.51	-101.14	-84.05	65.07	1662298.78	14314027.21	39°25'03.699"N	80°55'21.072"W	106.29	142.253	1.66	1.65	-0.99	
3775.50	12.840	172.510	3763.21	-121.31	-104.59	67.56	1662301.27	14314006.68	39°25'03.496"N	80°55'21.040"W	124.51	147.140	0.38	0.27	-1.26	
3869.50	13.080	172.050	3854.81	-141.92	-125.48	70.39	1662304.10	14313985.80	39°25'03.289"N	80°55'21.005"W	143.87	150.709	0.28	0.26	-0.49	
3963.50	13.160	170.250	3946.36	-162.86	-146.56	73.87	1662307.38	14313964.73	39°25'03.081"N	80°55'20.963"W	164.03	153.312	0.44	0.09	-1.91	
4058.50	12.960	167.690	4038.90	-184.07	-167.62	77.77	1662311.48	14313943.67	39°25'02.873"N	80°55'20.911"W	184.79	155.109	0.64	-0.21	-2.69	
4152.50	12.970	164.710	4130.51	-205.03	-188.10	82.80	1662316.51	14313923.20	39°25'02.670"N	80°55'20.847"W	205.52	156.240	0.71	0.01	-3.17	
4246.50	11.710	168.220	4222.33	-225.00	-207.61	87.53	1662321.23	14313903.70	39°25'02.477"N	80°55'20.787"W	225.31	157.139	1.56	-1.34	3.73	
4341.50	10.550	171.080	4408.79	-243.42	-226.07	90.66	1662324.36	14313885.25	39°25'02.295"N	80°55'20.747"W	243.57	158.149	1.17	-0.71	4.73	
4436.50	9.890	166.950	4501.30	-277.30	-260.05	96.32	1662332.66	14313867.64	39°25'02.121"N	80°55'20.716"W	260.88	159.079	0.61	-0.52	-1.72	
4530.50	10.190	174.490	4594.85	-293.55	-276.36	98.96	1662334.17	14313834.97	39°25'01.959"N	80°55'20.642"W	277.31	159.677	1.05	-0.70	-4.39	
4625.50	10.210	175.110	4687.36	-309.65	-292.94	100.47	1662336.23	14313802.00	39°25'01.798"N	80°55'20.623"W	293.55	160.298	1.42	0.32	7.94	
4719.50	9.850	170.480	4780.91	-325.78	-309.34	102.53	1662339.23	14313786.46	39°25'01.634"N	80°55'20.623"W	309.69	161.069	0.12	0.02	0.66	
4814.50	9.350	167.630	4874.58	-341.43	-324.90	105.53	1662341.42	14313770.87	39°25'01.472"N	80°55'20.597"W	325.89	161.662	0.93	-0.38	-4.87	
4909.50	9.790	176.150	4968.26	-356.85	-340.49	107.73	1662342.49	14313754.64	39°25'01.318"N	80°55'20.559"W	341.61	162.005	0.73	-0.53	-3.00	
5004.50	9.930	176.340	5061.86	-372.48	-356.73	108.79	1662343.79	14313738.43	39°25'01.164"N	80°55'20.531"W	357.13	162.443	1.56	0.46	8.97	
5099.50	10.010	174.490	5154.44	-388.18	-372.95	110.09	1662345.37	14313721.83	39°25'00.843"N	80°55'20.501"W	372.95	163.040	0.15	0.15	0.20	
5193.50	10.220	174.600	5247.96	-404.34	-389.56	111.68	1662346.37	14313706.37	39°25'00.679"N	80°55'20.481"W	388.86	163.553	0.35	0.09	-1.97	
5288.50	10.220	174.600	5247.96	-404.34	-389.56	111.68	1662346.37	14313706.37	39°25'00.679"N	80°55'20.481"W	405.25	164.003	0.22	0.22	0.12	



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stoneyly Pad	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

WELLPATH DATA (236 stations) † = interpolated/extrapolated station

MD	Inclination	Azimuth	TVD	Vert.Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
ft	°	°	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft/100ft	ft/100ft	°/100ft	
5382.50	10.360	171.010	5340.45	-420.71	406.21	113.79	1662347.48	14313705.18	39°25'00.514"N	80°55'20.455"W	421.84	164.351	0.70	0.15	-3.82	
5477.50	10.750	167.120	5433.85	-437.90	423.28	117.10	1662350.79	14313688.11	39°25'00.346"N	80°55'20.413"W	439.18	164.537	0.85	0.41	-4.09	
5571.50	7.960	156.590	5526.59	-453.10	437.80	121.64	1662355.32	14313673.60	39°25'00.202"N	80°55'20.355"W	454.39	164.473	3.47	-2.97	-11.20	
5603.50	5.760	143.760	5558.36	-456.85	441.13	123.47	1662357.15	14313670.27	39°25'00.169"N	80°55'20.332"W	458.09	164.364	8.34	-6.87	-40.09	
5634.50	4.150	113.870	5589.25	-459.12	442.84	125.41	1662359.10	14313668.56	39°25'00.152"N	80°55'20.307"W	460.26	164.188	9.64	-5.19	-96.42	
5666.50	3.150	80.300	5621.19	-460.08	443.16	127.34	1662361.02	14313668.24	39°25'00.149"N	80°55'20.282"W	461.09	163.968	7.23	-3.13	-104.91	
5698.50	3.230	33.270	5653.15	-459.69	442.26	128.70	1662362.39	14313667.99	39°25'00.158"N	80°55'20.265"W	460.61	163.775	7.95	0.25	-146.97	
5729.50	4.810	4.240	5684.07	-457.98	440.23	129.28	1662362.96	14313667.17	39°25'00.178"N	80°55'20.258"W	458.82	163.635	8.16	5.10	-93.65	
5761.50	6.900	344.130	5715.91	-454.84	437.05	128.85	1662362.53	14313674.35	39°25'00.209"N	80°55'20.263"W	455.64	163.574	9.06	6.53	-62.84	
5792.50	9.420	337.750	5746.59	-450.44	432.91	127.38	1662361.06	14313678.49	39°25'00.250"N	80°55'20.282"W	451.26	163.604	8.63	8.13	-20.58	
5824.50	11.460	340.250	5778.06	-444.65	427.49	125.31	1662359.00	14313683.91	39°25'00.304"N	80°55'20.308"W	445.48	163.662	6.53	6.38	7.81	
5856.50	13.290	345.490	5809.32	-437.80	420.94	123.32	1662357.00	14313690.46	39°25'00.369"N	80°55'20.333"W	438.63	163.672	6.70	5.72	16.38	
5887.50	15.480	347.260	5839.34	-430.15	413.45	121.51	1662355.20	14313697.94	39°25'00.443"N	80°55'20.356"W	430.94	163.622	7.20	7.06	5.71	
5919.50	17.560	342.630	5870.02	-421.09	404.68	119.13	1662352.82	14313706.71	39°25'00.529"N	80°55'20.387"W	421.85	163.597	7.69	6.50	-14.47	
5950.50	19.460	339.940	5899.42	-411.25	395.36	115.96	1662349.65	14313716.02	39°25'00.621"N	80°55'20.427"W	412.02	163.653	6.72	6.13	-8.68	
5982.50	21.420	339.780	5929.40	-400.08	384.87	112.11	1662345.80	14313726.51	39°25'00.725"N	80°55'20.476"W	400.87	163.759	6.13	6.12	-0.50	
6013.50	24.360	340.270	5957.96	-388.02	373.54	108.00	1662341.59	14313737.84	39°25'00.837"N	80°55'20.528"W	388.84	163.875	9.50	9.48	1.58	
6045.50	27.470	340.380	5986.73	-374.04	360.37	103.29	1662336.98	14313751.00	39°25'00.967"N	80°55'20.588"W	374.88	164.007	9.72	9.72	0.34	
6076.50	29.890	340.070	6013.93	-359.16	346.37	98.25	1662331.95	14313764.99	39°25'01.106"N	80°55'20.652"W	360.04	164.163	7.82	7.81	-1.00	
6108.50	31.680	338.880	6041.42	-342.79	331.04	92.51	1662326.21	14313780.32	39°25'01.257"N	80°55'20.725"W	343.72	164.387	5.91	5.59	-3.72	
6139.50	33.820	338.200	6067.49	-326.02	315.43	86.37	1662320.07	14313795.92	39°25'01.412"N	80°55'20.803"W	327.04	164.687	7.00	6.90	-2.19	
6142.00†	33.985	338.169	6069.57	-324.63	314.14	85.85	1662319.55	14313797.21	39°25'01.424"N	80°55'20.810"W	325.66	164.715	6.63	6.59	-1.25	Sycamore: 6142' MD
6171.50	35.930	337.820	6093.74	-307.74	298.47	79.52	1662313.22	14313812.88	39°25'01.579"N	80°55'20.890"W	308.88	165.082	6.63	6.59	-1.18	
6202.50	38.540	338.670	6118.42	-288.99	281.05	72.57	1662306.28	14313830.29	39°25'01.752"N	80°55'20.976"W	290.26	165.522	8.58	8.42	2.74	
6234.50	40.370	340.120	6143.13	-268.66	262.01	65.42	1662299.13	14313849.32	39°25'01.940"N	80°55'21.069"W	270.06	165.981	6.40	5.72	4.53	
6266.50	42.210	340.830	6167.17	-247.55	242.11	58.37	1662292.08	14313869.21	39°25'02.137"N	80°55'21.159"W	249.05	166.446	5.93	5.75	2.22	
6297.50	43.680	340.950	6189.86	-226.43	222.16	51.45	1662285.17	14313889.16	39°25'02.334"N	80°55'21.247"W	228.04	166.960	4.75	4.74	0.39	
6346.00	46.610	339.730	6224.07	-192.06	189.79	39.88	1662273.60	14313921.52	39°25'02.654"N	80°55'21.394"W	193.93	168.134	6.30	6.04	-2.52	BH AT Curve [ST01] <-8-1/2"> (6297.5')(6346'-19232')
6351.00†	47.113	339.561	6227.49	-188.41	186.37	38.61	1662272.33	14313924.93	39°25'02.888"N	80°55'21.410"W	190.32	168.296	10.35	10.05	-3.38	Middlesex: 6351' MD
6390.00	51.040	338.330	6253.03	-168.95	158.87	28.02	1662261.74	14313952.41	39°25'02.969"N	80°55'21.545"W	161.33	170.000	10.35	10.07	-3.16	



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'
Page 5 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot #04	
Area	Tyler County, WV	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stoneyfly Pad	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

WELLPATH DATA (236 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 F/100ft	Build Rate F/100ft	Turn Rate F/100ft	Comments	
6438.00	56.000	338.260	6281.56	-120.39	-123.03	13.75	1662247.48	14313988.25	39°25'03.314"N	80°55'21.726"W	123.79	173.625	10.33	10.33	-0.15		
6485.00	61.160	337.280	6306.05	-80.33	-85.92	-1.43	1662232.31	14314025.34	39°25'03.681"N	80°55'21.919"W	85.93	180.955	11.12	10.98	-2.09		
6513.00†	64.109	337.335	6318.92	-55.50	-62.98	-11.02	1662222.72	14314048.27	39°25'03.908"N	80°55'22.041"W	63.94	189.979	10.53	10.53	0.19	Burket: 6513' MD	
6532.00	66.110	337.370	6326.92	-38.28	-47.07	-17.66	1662216.08	14314064.17	39°25'04.085"N	80°55'22.126"W	50.28	200.565	10.53	10.53	0.19		
6576.00†	68.731	337.179	6343.81	2.29	-9.60	-33.35	1662200.40	14314101.63	39°25'04.435"N	80°55'22.325"W	34.71	253.939	5.97	5.96	-0.44	Jully: 6576' MD	
6578.00	68.850	337.170	6344.53	4.15	-7.88	-34.08	1662199.67	14314103.34	39°25'04.452"N	80°55'22.334"W	34.98	256.973	5.97	5.96	-0.43		
6625.00	70.820	336.890	6360.74	48.20	32.70	-51.37	1662182.39	14314143.92	39°25'04.854"N	80°55'22.554"W	60.89	302.484	4.30	4.19	-1.02		
6642.00†	71.865	337.081	6366.17	64.28	47.52	-57.69	1662176.07	14314158.72	39°25'05.000"N	80°55'22.635"W	74.74	309.478	6.52	6.14	2.30	Marcellus POE: 6642' MD	
6719.00	77.820	340.020	6386.61	138.43	73.98	-68.69	1662165.07	14314185.17	39°25'05.282"N	80°55'22.774"W	100.95	317.122	6.52	6.15	2.26		
6766.00	82.910	341.390	6394.47	184.75	160.19	-100.39	1662133.39	14314227.64	39°25'05.682"N	80°55'22.983"W	144.24	323.849	9.91	8.74	4.81		
6813.00	87.720	342.620	6398.31	231.55	204.72	-114.85	1662118.93	14314271.35	39°25'06.114"N	80°55'23.177"W	189.04	327.925	11.20	10.83	2.91		
6859.00	90.680	342.480	6398.95	277.50	248.60	-128.64	1662105.14	14314315.87	39°25'06.554"N	80°55'23.361"W	234.74	330.707	10.56	10.23	2.62		
6953.00	90.820	339.000	6397.89	371.48	337.32	-159.64	1662074.16	14314448.41	39°25'07.865"N	80°55'23.930"W	373.19	334.673	3.70	-0.06	-3.70		
7047.00	90.400	338.950	6397.05	465.45	425.06	-193.37	1662040.45	14314536.11	39°25'08.733"N	80°55'24.359"W	466.97	335.588	0.24	-0.23	-0.05		
7141.00	90.220	340.400	6396.54	559.45	513.20	-226.02	1662007.81	14314624.22	39°25'09.604"N	80°55'24.774"W	560.77	336.231	1.55	-0.19	1.54		
7237.00	90.680	343.090	6395.79	655.40	604.36	-256.08	1661977.75	14314715.34	39°25'10.505"N	80°55'25.156"W	656.37	337.036	2.84	0.48	2.80		
7332.00	90.060	340.410	6395.17	750.35	694.57	-285.83	1661948.02	14314805.51	39°25'11.397"N	80°55'25.535"W	751.08	337.632	2.90	-0.65	-2.82		
7427.00	90.490	336.240	6394.72	845.28	782.83	-320.91	1661912.95	14314893.74	39°25'12.270"N	80°55'25.981"W	846.05	337.709	4.41	0.45	-4.39		
7521.00	89.910	335.500	6394.39	939.02	868.62	-359.34	1661874.54	14314879.48	39°25'13.118"N	80°55'26.469"W	940.01	337.526	1.00	-0.62	-0.79		
7617.00	89.970	333.840	6394.49	1034.57	955.38	-400.41	1661833.49	14315066.22	39°25'13.976"N	80°55'26.992"W	1035.90	337.261	1.73	0.06	-1.73		
7712.00	90.250	337.480	6394.31	1129.26	1041.92	-439.56	1661794.36	14315152.73	39°25'14.832"N	80°55'27.490"W	1130.85	337.127	3.84	0.29	3.83		
7807.00	90.520	338.500	6393.67	1224.19	1130.00	-475.16	1661758.77	14315240.77	39°25'15.702"N	80°55'27.942"W	1225.83	337.193	1.11	0.28	1.07		
7903.00	90.770	337.850	6392.59	1320.13	1219.11	-510.85	1661723.10	14315329.85	39°25'16.583"N	80°55'28.396"W	1321.81	337.265	0.73	0.26	-0.68		
7998.00	90.710	340.820	6391.36	1415.10	1307.92	-544.52	1661689.43	14315418.62	39°25'17.461"N	80°55'28.824"W	1416.74	337.397	2.92	-0.06	2.92		
8092.00	90.860	343.180	6390.07	1509.04	1397.26	-573.72	1661660.25	14315507.92	39°25'18.345"N	80°55'29.195"W	1510.46	337.677	2.73	0.16	2.72		
8185.00	90.340	344.690	6389.10	1601.83	1486.62	-599.45	1661634.33	14315597.24	39°25'19.228"N	80°55'29.522"W	1602.93	338.039	1.72	-0.56	1.62		
8279.00	90.820	342.240	6388.31	1695.66	1576.72	-626.20	1661607.79	14315687.31	39°25'20.119"N	80°55'29.862"W	1696.52	338.339	2.62	0.30	-2.61		
8373.00	90.950	341.700	6387.02	1789.80	1666.09	-655.29	1661578.71	14315776.65	39°25'21.002"N	80°55'30.232"W	1790.33	338.530	0.67	0.35	-0.57		
8467.00	90.680	337.820	6385.68	1883.57	1754.26	-687.80	1661546.21	14315864.78	39°25'21.874"N	80°55'30.645"W	1884.28	338.591	4.14	-0.29	-4.13		



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'

Page 6 of 12



04/05/2019

REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Pheasant Unit 1H ST01
Area	Tyler County, WV	Wellbore	Pheasant Unit 1H ST01 AWB
Field	Tyler	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD
Facility	Stonefly Pad		

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 (°/100ft)	Comments
8561.00	90.830	335.240	6384.45	1977.37	1840.47	-725.23	1661508.79	14315950.96	39°25'22.726"N	80°55'31.121"W	1978.21	338.493	2.75	0.16	-2.74	
8655.00	90.620	334.170	6383.26	2070.93	1925.45	-765.39	1661488.65	14316035.90	39°25'23.567"N	80°55'31.632"W	2072.00	338.321	1.16	-0.22	-1.14	
8749.00	90.370	334.470	6382.44	2164.44	2010.16	-806.13	1661427.93	14316120.58	39°25'24.404"N	80°55'32.150"W	2165.78	338.148	0.42	-0.27	0.32	
8843.00	90.680	335.870	6381.58	2258.08	2095.47	-845.60	1661388.48	14316205.85	39°25'25.248"N	80°55'32.652"W	2259.65	338.024	1.53	0.33	1.49	
8936.00	90.180	335.520	6380.88	2350.80	2180.22	-883.87	1661350.22	14316290.57	39°25'26.086"N	80°55'33.139"W	2352.57	337.932	0.66	-0.54	-0.38	
9032.00	90.680	339.550	6380.16	2446.67	2268.92	-920.55	1661313.56	14316379.23	39°25'26.962"N	80°55'33.608"W	2448.55	337.917	4.23	0.52	4.20	
9127.00	90.800	347.130	6378.94	2541.45	2359.85	-947.76	1661286.35	14316470.13	39°25'27.851"N	80°55'34.050"W	2543.06	338.119	7.98	0.13	7.98	
9223.00	90.620	347.990	6377.75	2636.64	2453.59	-968.44	1661265.64	14316563.83	39°25'28.788"N	80°55'34.214"W	2637.80	338.461	0.92	-0.19	0.90	
9318.00	90.520	349.480	6376.80	2730.57	2546.75	-987.00	1661247.13	14316656.96	39°25'29.709"N	80°55'34.450"W	2731.32	338.816	1.57	-0.11	1.57	
9412.00	90.920	349.620	6375.62	2823.30	2639.19	-1004.05	1661230.09	14316749.35	39°25'30.623"N	80°55'34.666"W	2823.72	339.171	0.45	0.43	0.15	
9506.00	90.680	344.960	6374.31	2916.54	2730.85	-1024.72	1661209.43	14316840.98	39°25'31.529"N	80°55'34.928"W	2916.78	339.432	4.96	-0.26	-4.96	
9601.00	90.740	343.050	6373.13	3011.32	2822.16	-1050.89	1661183.26	14316932.25	39°25'32.431"N	80°55'35.261"W	3011.47	339.576	2.01	0.06	-2.01	
9695.00	90.860	345.270	6371.82	3105.07	2912.58	-1076.55	1661157.62	14317022.63	39°25'33.325"N	80°55'35.587"W	3105.17	339.715	2.36	0.13	2.36	
9790.00	90.920	345.840	6370.34	3199.64	3004.56	-1100.24	1661133.94	14317114.58	39°25'34.235"N	80°55'35.888"W	3199.68	339.888	0.60	0.06	0.60	
9884.00	90.890	342.350	6368.86	3293.39	3094.94	-1126.00	1661108.19	14317204.92	39°25'35.128"N	80°55'36.215"W	3293.40	340.008	3.71	-0.03	-3.71	
9978.00	90.680	337.250	6367.57	3387.35	3183.12	-1158.44	1661075.76	14317293.07	39°25'36.000"N	80°55'36.628"W	3387.36	340.002	5.43	-0.22	-5.43	
10072.00	90.460	336.610	6366.63	3481.20	3269.60	-1195.27	1661038.94	14317379.51	39°25'36.855"N	80°55'37.096"W	3481.23	339.919	0.72	-0.23	-0.68	
10166.00	90.580	334.990	6365.78	3574.92	3355.33	-1233.80	1661000.43	14317465.21	39°25'37.703"N	80°55'37.586"W	3574.98	339.811	1.73	0.13	-1.72	
10259.00	90.620	334.250	6364.80	3667.48	3439.35	-1273.66	1660960.59	14317549.19	39°25'38.533"N	80°55'38.093"W	3667.61	339.679	0.80	0.04	-0.80	
10353.00	90.460	336.680	6363.92	3761.15	3524.85	-1312.69	1660921.57	14317634.66	39°25'39.379"N	80°55'38.590"W	3761.35	339.574	2.59	-0.17	2.59	
10447.00	90.580	337.620	6363.07	3855.02	3611.47	-1349.19	1660885.09	14317721.25	39°25'40.235"N	80°55'39.054"W	3855.26	339.515	1.01	0.13	1.00	
10540.00	90.620	331.470	6362.09	3947.52	3695.40	-1389.14	1660845.15	14317805.14	39°25'41.065"N	80°55'39.562"W	3947.87	339.398	6.61	0.04	-6.61	
10634.00	90.370	326.460	6361.28	4039.70	3775.91	-1437.59	1660806.73	14317885.62	39°25'41.861"N	80°55'40.179"W	4040.32	339.157	5.34	-0.27	-5.33	
10728.00	89.910	332.720	6361.05	4132.06	3856.94	-1485.14	1660749.19	14317966.62	39°25'42.662"N	80°55'40.784"W	4132.99	338.940	6.68	-0.49	6.66	
10822.00	90.340	337.700	6360.84	4225.68	3942.25	-1524.54	1660709.80	14318051.89	39°25'43.506"N	80°55'41.285"W	4226.77	338.858	5.32	0.46	5.30	
10917.00	90.620	342.020	6360.05	4320.65	4031.42	-1567.25	1660677.12	14318141.02	39°25'44.387"N	80°55'41.701"W	4321.73	338.880	4.56	0.29	4.55	
11012.00	90.590	347.480	6359.04	4415.30	4123.03	-1582.22	1660652.15	14318232.60	39°25'45.293"N	80°55'42.019"W	4416.20	339.006	5.75	-0.03	5.75	
11105.00	90.650	350.620	6358.04	4507.17	4214.32	-1599.89	1660634.49	14318323.86	39°25'46.195"N	80°55'42.243"W	4507.79	339.212	3.38	0.06	3.38	
11200.00	90.960	349.460	6356.69	4600.75	4307.88	-1616.31	1660618.07	14318417.37	39°25'47.120"N	80°55'42.451"W	4601.12	339.434	1.27	0.35	-1.22	
11293.00	90.710	342.290	6355.31	4693.47	4398.00	-1638.99	1660595.20	14318507.46	39°25'48.011"N	80°55'42.739"W	4693.47	339.561	7.71	-0.29	-7.71	



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'

Page 7 of 12



REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Stoneyly Pad
Slot	Slot #04
Well	Pheasant Unit 1H ST01
Wellbore	Pheasant Unit 1H ST01 AWB
Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

WELLPATH DATA (236 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
11387.00	90.580	337.210	6354.25	4787.18	4486.15	-1671.52	1660562.89	14318595.58	39°25'48.882"N	80°55'43.153"W	4787.44	339.565	5.41	-0.14	-5.40	
11481.00	90.490	338.670	6353.38	4881.10	4573.27	-1706.82	1660527.61	14318682.66	39°25'49.744"N	80°55'43.602"W	4881.39	339.534	1.56	-0.10	-1.55	
11575.00	90.520	338.770	6352.55	4975.07	4660.85	-1740.93	1660493.51	14318770.21	39°25'50.610"N	80°55'44.036"W	4975.38	339.518	0.11	0.03	0.11	
11669.00	90.490	333.010	6351.72	5068.76	4746.61	-1779.31	1660455.14	14318855.93	39°25'51.458"N	80°55'44.524"W	5069.15	339.451	6.13	-0.03	-6.13	
11763.00	90.430	334.880	6350.96	5162.20	4831.05	-1820.60	1660413.87	14318940.34	39°25'52.292"N	80°55'45.049"W	5162.72	339.351	1.99	-0.06	-1.99	
11857.00	90.460	341.110	6350.23	5256.09	4918.16	-1855.80	1660378.68	14319027.41	39°25'53.154"N	80°55'45.497"W	5256.64	339.327	6.63	0.03	6.63	
11951.00	90.520	342.330	6349.43	5350.05	5007.41	-1895.28	1660349.21	14319116.63	39°25'54.930"N	80°55'46.241"W	5350.56	339.369	1.30	0.06	1.30	
12046.00	90.550	342.100	6348.54	5444.98	5097.87	-1914.30	1660320.21	14319207.05	39°25'55.817"N	80°55'46.872"W	5445.44	339.418	0.24	0.03	-0.24	
12140.00	90.550	343.210	6347.84	5538.89	5187.59	-1942.32	1660292.20	14319296.73	39°25'56.709"N	80°55'47.597"W	5539.28	339.473	1.18	0.00	1.18	
12234.00	90.550	343.960	6346.74	5632.71	5277.75	-1968.88	1660265.65	14319386.86	39°25'57.592"N	80°55'48.355"W	5633.04	339.542	0.80	0.00	0.80	
12327.00	90.460	343.990	6345.92	5725.50	5367.13	-1994.55	1660239.98	14319476.21	39°25'58.490"N	80°55'47.569"W	5725.76	339.614	0.10	-0.10	0.03	
12421.00	90.430	346.140	6345.19	5819.15	5457.95	-2018.78	1660215.77	14319566.99	39°25'59.392"N	80°55'47.857"W	5819.34	339.702	2.29	-0.03	2.29	
12515.00	90.650	345.880	6344.30	5912.66	5549.16	-2041.50	1660193.06	14319658.16	39°26'00.290"N	80°55'48.162"W	5912.77	339.802	0.36	0.23	-0.28	
12609.00	90.770	344.590	6343.14	6006.28	5640.05	-2065.45	1660169.11	14319749.01	39°26'01.185"N	80°55'48.481"W	6006.35	339.887	1.38	0.13	-1.37	
12703.00	90.550	344.460	6342.05	6100.00	5730.63	-2090.53	1660144.04	14319839.56	39°26'02.070"N	80°55'48.882"W	6100.04	339.958	0.27	-0.23	-0.14	
12798.00	90.620	336.670	6341.08	6194.92	5820.15	-2122.12	1660112.47	14319929.03	39°26'02.914"N	80°55'49.353"W	6194.96	339.967	8.20	0.07	-8.20	
12891.00	91.110	336.400	6339.68	6287.72	5905.44	-2159.14	1660075.46	14320014.30	39°26'03.767"N	80°55'49.857"W	6287.78	339.917	0.60	0.53	-0.29	
12986.00	89.970	334.290	6338.78	6382.38	5991.77	-2198.77	1660035.85	14320100.59	39°26'04.615"N	80°55'50.347"W	6382.47	339.849	2.52	-1.20	-2.22	
13080.00	90.800	337.360	6338.15	6476.09	6077.52	-2237.26	1659997.38	14320186.30	39°26'05.488"N	80°55'50.757"W	6476.23	339.790	3.38	0.88	3.27	
13174.00	90.800	342.560	6336.84	6570.05	6165.79	-2289.46	1659965.19	14320274.54	39°26'06.386"N	80°55'51.062"W	6570.19	339.793	5.53	0.00	5.53	
13268.00	90.860	347.800	6335.47	6663.65	6256.62	-2293.49	1659941.17	14320365.33	39°26'07.303"N	80°55'51.628"W	6663.74	339.869	5.57	0.06	5.57	
13363.00	91.290	347.410	6333.69	6757.83	6349.39	-2313.88	1659920.79	14320458.06	39°26'08.200"N	80°55'51.996"W	6757.87	339.977	0.61	0.45	-0.41	
13457.00	90.550	342.790	6332.18	6851.44	6440.19	-2338.04	1659896.64	14320548.83	39°26'09.084"N	80°55'52.811"W	6851.46	340.047	4.98	-0.79	-4.91	
13551.00	90.920	341.350	6330.98	6945.38	6529.61	-2366.97	1659867.71	14320638.22	39°26'10.842"N	80°55'53.718"W	6945.39	340.075	1.58	0.39	-1.53	
13645.00	90.830	340.700	6329.54	7039.36	6618.50	-2397.53	1659837.16	14320727.06	39°26'12.550"N	80°55'54.193"W	7039.36	340.087	0.70	-0.10	-0.69	
13740.00	90.800	338.000	6328.19	7134.33	6707.37	-2431.03	1659803.68	14320815.91	39°26'13.403"N	80°55'54.693"W	7134.34	340.077	2.84	-0.03	-2.84	
13834.00	90.650	337.530	6327.00	7228.24	6794.38	-2466.60	1659768.13	14320902.88	39°26'14.247"N	80°55'55.124"N	7228.26	340.047	0.52	-0.16	-0.50	
13927.00	90.830	337.210	6325.80	7321.12	6880.21	-2502.38	1659732.36	14320988.67	39°26'15.022"N	80°55'55.497"W	7321.15	340.013	0.39	0.19	-0.34	
14021.00	90.620	336.060	6324.61	7414.94	6966.49	-2539.66	1659695.10	14321074.92	39°26'15.843"N	80°55'55.949"W	7414.98	339.971	1.24	-0.22	-1.22	
14115.00	90.770	334.440	6323.47	7508.58	7051.85	-2579.00	1659658.77	14321160.24	39°26'16.693"N	80°55'56.493"W	7508.65	339.912	1.73	0.16	-1.72	



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'
Page 8 of 12



04/05/2019

REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #04
ANTERO RESOURCES CORPORATION	Well	Pheasant Unit 1H ST01
Tyler County, WV	Wellbore	Pheasant Unit 1H ST01 AWB
Tyler	Side-track from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MID
Stonerly Pad		

WELLPATH DATA (236 stations)

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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (°/100ft)	Comments
14210.00	90.460	335.690	6322.45	7603.20	1713.99	-2619.05	1659615.74	14321246.35	39°26'15.09"N	80°55'55.203"W	7603.31	339.851	1.36	-0.33	1.32	
14304.00	90.860	336.250	6321.37	7696.94	7223.83	-2657.33	1659577.48	14321332.16	39°26'15.948"N	80°55'55.690"W	7697.09	339.804	0.73	0.43	0.60	
14398.00	90.800	335.440	6320.00	7790.66	7309.59	-2695.79	1659539.03	14321417.89	39°26'16.796"N	80°55'56.179"W	7790.86	339.756	0.86	-0.06	-0.86	
14492.00	90.830	336.410	6318.67	7884.40	7395.41	-2734.13	1659500.70	14321503.66	39°26'17.644"N	80°55'56.667"W	7884.64	339.710	1.03	0.03	1.03	
14586.00	90.770	338.300	6317.35	7978.27	7482.15	-2770.32	1659464.53	14321590.37	39°26'18.502"N	80°55'57.127"W	7978.55	339.683	2.01	-0.06	2.01	
14680.00	90.770	338.330	6316.09	8072.22	7569.55	-2804.89	1659429.97	14321677.74	39°26'19.366"N	80°55'57.567"W	8072.52	339.668	0.24	0.00	0.24	
14774.00	90.860	341.810	6314.73	8168.20	7659.84	-2837.45	1659397.42	14321767.99	39°26'20.258"N	80°55'57.981"W	8168.49	339.674	3.42	0.09	3.42	
14871.00	90.950	344.650	6313.22	8263.04	7750.77	-2864.86	1659370.03	14321858.89	39°26'21.157"N	80°55'58.330"W	8263.29	339.715	2.99	0.09	2.99	
14966.00	90.770	345.790	6311.85	8357.66	7842.62	-2889.09	1659343.81	14321950.70	39°26'22.065"N	80°55'58.638"W	8357.84	339.777	1.23	-0.25	1.20	
15062.00	90.460	346.010	6310.87	8453.17	7935.72	-2912.48	1659322.43	14322043.76	39°26'22.986"N	80°55'58.935"W	8453.30	339.846	0.35	-0.26	0.23	
15157.00	90.770	344.940	6309.85	8547.75	8027.68	-2936.30	1659298.62	14322135.68	39°26'23.895"N	80°55'59.238"W	8547.84	339.909	1.17	0.33	-1.13	
15252.00	90.770	343.250	6308.57	8642.52	8119.03	-2962.33	1659272.59	14322227.00	39°26'24.798"N	80°55'59.569"W	8642.57	339.955	1.78	0.00	-1.78	
15347.00	90.740	340.640	6307.32	8737.46	8209.34	-2991.77	1659243.17	14322317.27	39°26'25.690"N	80°55'59.943"W	8737.50	339.976	2.75	-0.03	-2.75	
15443.00	90.920	338.400	6305.93	8833.43	8299.25	-3025.35	1659209.60	14322407.15	39°26'26.579"N	80°56'00.370"W	8833.48	339.972	2.34	0.19	-2.33	
15537.00	90.310	337.010	6304.92	8927.34	8386.22	-3061.01	1659173.96	14322494.08	39°26'27.439"N	80°56'00.824"W	8927.40	339.948	1.61	-0.65	-1.48	
15631.00	90.550	335.240	6304.21	9021.10	8472.17	-3099.05	1659135.93	14322579.99	39°26'28.289"N	80°56'01.308"W	9021.19	339.908	1.90	0.26	-1.88	
15724.00	90.800	334.470	6303.12	9113.69	8556.35	-3138.57	1659096.43	14322664.14	39°26'29.121"N	80°56'01.811"W	9113.82	339.856	0.87	0.27	-0.83	
15818.00	90.770	335.970	6301.83	9207.33	8641.69	-3177.96	1659057.05	14322749.44	39°26'30.809"N	80°56'02.312"W	9207.51	339.809	1.60	-0.03	1.60	
15912.00	90.650	334.590	6300.67	9300.98	8727.06	-3217.27	1659017.76	14322834.78	39°26'30.809"N	80°56'02.812"W	9301.21	339.763	1.47	-0.13	-1.47	
16007.00	90.710	335.230	6299.54	9395.58	8813.09	-3257.55	1658977.50	14322920.20	39°26'31.660"N	80°56'03.325"W	9395.86	339.714	0.68	0.06	0.67	
16101.00	90.150	335.020	6298.83	9489.21	8898.37	-3297.09	1658937.97	14323006.02	39°26'32.503"N	80°56'03.828"W	9489.56	339.669	0.64	-0.60	-0.22	
16195.00	90.710	335.100	6298.13	9582.84	8983.60	-3336.72	1658898.35	14323091.22	39°26'33.345"N	80°56'04.333"W	9583.26	339.624	0.60	0.60	0.09	
16289.00	90.710	338.380	6296.96	9676.65	9069.94	-3373.83	1658861.26	14323177.53	39°26'34.199"N	80°56'04.805"W	9677.12	339.596	3.49	0.00	3.49	
16382.00	90.550	339.350	6295.94	9769.62	9156.68	-3407.36	1658827.74	14323264.23	39°26'35.056"N	80°56'05.232"W	9770.10	339.589	1.06	-0.17	1.04	
16476.00	90.460	340.410	6295.11	9863.61	9244.84	-3439.70	1658795.42	14323352.45	39°26'35.929"N	80°56'05.643"W	9864.10	339.592	1.13	-0.10	1.13	
16569.00	90.890	341.600	6294.02	9956.59	9332.87	-3469.97	1658765.16	14323440.35	39°26'36.788"N	80°56'06.028"W	9957.06	339.605	1.36	0.46	1.28	
16663.00	90.650	342.480	6292.75	10050.53	9422.28	-3498.95	1658736.19	14323529.72	39°26'37.682"N	80°56'06.396"W	10050.97	339.628	0.97	-0.26	0.94	
16757.00	90.620	342.210	6291.71	10144.46	9511.84	-3527.45	1658707.70	14323619.25	39°26'38.588"N	80°56'06.759"W	10144.86	339.653	0.29	-0.03	-0.29	
16852.00	90.580	342.620	6290.72	10239.38	9602.40	-3556.15	1658679.01	14323709.77	39°26'39.463"N	80°56'07.124"W	10239.74	339.678	0.43	-0.04	0.43	
16947.00	90.620	342.170	6289.72	10334.30	9692.95	-3584.89	1658650.29	14323800.28	39°26'40.358"N	80°56'07.489"W	10334.63	339.703	0.48	0.04	-0.47	



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'

Page 9 of 12



04/05/2019

REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #04
Area	Tyler County, WV	Pheasant Unit 1H ST01
Field	Tyler	Pheasant Unit 1H ST01 AWB
Facility	Stoneyly Pad	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MID

WELLPATH DATA (236 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 (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
17041.00	90.550	342.770	6288.76	10428.22	9782.57	-3613.20	16586621.99	14323889.87	39°26'41.244"N	80°56'07.849"W	10428.52	339.728	0.64	-0.07	0.64	
17136.00	90.770	342.730	6287.67	10523.12	9873.30	-3641.37	1658593.83	14323980.56	39°26'42.141"N	80°56'08.208"W	10523.38	339.756	0.24	0.23	-0.04	
17231.00	90.680	345.310	6286.47	10617.89	9964.61	-3667.52	1658567.69	14324071.83	39°26'43.043"N	80°56'08.540"W	10618.10	339.794	2.72	-0.09	2.72	
17327.00	90.280	345.150	6285.66	10713.51	10057.43	-3691.99	1658543.23	14324164.62	39°26'43.961"N	80°56'08.851"W	10713.67	339.842	0.45	-0.42	-0.17	
17422.00	90.220	344.080	6285.25	10808.22	10149.03	-3717.19	1658518.04	14324256.18	39°26'44.866"N	80°56'09.172"W	10808.34	339.884	1.12	-0.06	-1.12	
17517.00	90.220	341.030	6284.88	10903.12	10239.65	-3745.65	1658489.59	14324346.77	39°26'45.762"N	80°56'09.534"W	10903.23	339.908	3.22	0.00	-3.22	
17612.00	90.680	342.420	6284.14	10998.08	10329.85	-3775.44	1658459.81	14324436.93	39°26'46.654"N	80°56'10.272"W	10998.17	339.923	1.54	0.48	1.46	
17707.00	90.680	342.960	6283.01	11092.98	10420.54	-3803.71	1658431.56	14324527.59	39°26'47.551"N	80°56'10.622"W	11098.06	339.947	0.57	0.00	0.57	
17802.00	90.710	343.380	6281.86	11187.84	10511.47	-3831.21	1658404.07	14324618.47	39°26'48.449"N	80°56'10.958"W	11187.90	339.974	0.44	0.03	0.44	
17898.00	90.650	344.610	6280.72	11283.62	10603.74	-3857.68	1658377.61	14324710.71	39°26'49.362"N	80°56'11.282"W	11283.66	340.008	1.28	-0.06	1.28	
17993.00	90.280	344.340	6279.95	11378.35	10695.27	-3883.10	1658352.19	14324802.20	39°26'50.266"N	80°56'11.614"W	11378.37	340.046	0.48	-0.39	-0.28	
18088.00	90.460	343.750	6279.33	11473.13	10786.61	-3909.22	1658326.09	14324893.50	39°26'51.169"N	80°56'11.966"W	11473.14	340.079	0.65	0.19	-0.62	
18184.00	90.370	342.660	6278.64	11568.99	10878.51	-3936.95	1658298.36	14324985.37	39°26'52.078"N	80°56'12.337"W	11568.99	340.105	1.14	-0.09	-1.14	
18279.00	90.620	341.670	6277.82	11663.92	10968.94	-3966.05	1658269.28	14325075.76	39°26'52.972"N	80°56'12.738"W	11663.93	340.121	1.07	0.26	-1.04	
18374.00	90.550	339.520	6276.74	11758.91	11058.53	-3997.61	1658237.73	14325165.32	39°26'53.857"N	80°56'13.165"W	11758.91	340.125	2.26	0.06	-2.26	
18469.00	90.520	338.070	6275.72	11853.89	11147.39	-4031.19	1658204.16	14325254.14	39°26'54.736"N	80°56'13.598"W	11853.90	340.119	0.49	-0.14	-0.47	
18563.00	90.520	338.530	6274.84	11947.86	11235.02	-4065.19	1658170.18	14325341.74	39°26'55.602"N	80°56'14.041"W	11947.87	340.108	0.58	-0.03	-0.57	
18657.00	90.650	337.950	6273.88	12041.80	11322.32	-4100.03	1658135.35	14325429.00	39°26'56.465"N	80°56'14.486"W	12041.81	340.094	0.63	0.14	-0.62	
18751.00	90.520	338.410	6272.92	12135.74	11409.58	-4134.97	1658100.43	14325516.23	39°26'57.328"N	80°56'14.928"W	12135.75	340.079	0.51	-0.14	0.49	
18846.00	90.550	338.710	6272.03	12230.70	11498.00	-4169.89	1658065.72	14325604.61	39°26'58.202"N	80°56'15.365"W	12230.72	340.067	0.32	0.03	0.32	
18941.00	90.370	338.880	6271.27	12325.67	11586.57	-4204.05	1658031.37	14325693.14	39°26'59.078"N	80°56'15.797"W	12325.69	340.057	0.26	-0.19	0.18	
19035.00	90.490	338.810	6270.57	12419.64	11674.23	-4237.98	1657997.46	14325780.77	39°26'59.944"N	80°56'16.237"W	12419.67	340.048	0.15	0.13	-0.07	
19130.00	90.460	338.480	6269.78	12514.61	11762.71	-4272.57	1657962.88	14325869.21	39°27'00.819"N	80°56'16.691"W	12514.64	340.037	0.35	-0.03	-0.35	
19224.00	90.400	336.890	6268.97	12608.51	11849.66	-4308.26	1657927.21	14325956.13	39°27'01.679"N	80°56'17.131"W	12608.55	340.020	1.69	-0.06	-1.69	
19232.00	90.490	336.490	6268.01	12616.50	11857.01	-4311.42	1657924.04	14325963.47	39°27'01.751"N	80°56'16.858"W	12616.54	340.018	5.12	1.13	-5.00	
19257.00	90.490	336.490	6268.01	12641.45	11879.93	-4321.40	1657914.08	14325986.39	39°27'01.978"N	80°56'16.858"W	12641.49	340.011	0.00	0.00	0.00	Projected MD at TD: 19257'



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257
Page 10 of 12



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WW	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stonefly Pad	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

HOLE & CASING SECTIONS - Ref Wellbore: Pheasant Unit 1H ST01 AWB Ref Wellpath: Pheasant Unit 1H ST01 AWP Proj: 19257

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	24.50	104.50	80.00	24.50	104.50	0.00	0.00	-0.17	0.08
17.5in Open Hole	104.50	627.50	523.00	104.50	627.49	-0.17	0.08	-3.12	1.63
13.375in Casing Surface	24.50	627.50	603.00	24.50	627.49	0.00	0.00	-3.12	1.63
12.25in Open Hole	627.50	2619.40	1991.90	627.49	2619.10	-3.12	1.63	0.25	-0.57
9.625in Casing Intermediate	24.50	2619.40	2594.90	24.50	2619.10	0.00	0.00	0.25	-0.57
8.75in Open Hole	2619.40	2640.50	21.10	2619.10	2640.20	0.25	-0.57	0.24	-0.96
8.75in Open Hole	2640.50	6371.50	3731.00	2640.20	6241.16	0.24	-0.96	-172.09	33.19
8.5in Open Hole	6371.50	19257.00	12885.50	6241.16	6268.80	-172.09	33.19	11879.93	-4321.40
5.5in Casing Production	24.50	19257.00	19232.50	24.50	6268.80	0.00	0.00	11879.93	-4321.40

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Pheasant Unit 1H POE Rev-3	6369.00	35.93	-46.64	1662187.12	14314147.14	39°25'04.885"N	80°55'22.494"W	point
Pheasant Unit 1H BHL Rev-3	6399.00	11895.04	-4339.87	1657895.61	14326001.49	39°27'02.127"N	80°56'17.094"W	point
Pheasant Unit 1H LP Rev-1	6399.00	200.17	-116.30	1662117.48	14314311.32	39°25'06.509"N	80°55'23.380"W	point



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'

Page 11 of 12



04/05/2019

REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot #04	
Area	Tyler County, WV	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stoneyly Pad	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

WELLPATH COMPOSITION - Ref Wellbore: Pheasant Unit 1H ST01 AWB Ref Wellpath: Pheasant Unit 1H ST01 AWP Proj: 19257'			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
24.50	599.50	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-590')
599.50	985.50	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4">(690')(679-976')
985.50	2534.50	ISCVSA MWD, Rev. 4 (Standard)	03 WFT EM <12-1/4">(976')(1071'-2525')
2534.50	2640.50	ISCVSA MWD, Rev. 4 (Standard)	04 WFT EM <8-3/4">(2525')(2631'-2820')
2640.50	2734.50	Gyrodata standard - Drop gyro or Multi-shot	05 Gyrodata MS Gyro ST01 <8-3/4">(2631')(2663'-2725')
2734.50	6297.50	ISCVSA MWD, Rev. 4 (Standard)	06 WFT EM ST01 <8-3/4">(2725')(2819'-6288')
6297.50	19232.00	BHI AutoTrak Curve (Short)	07 BH AT Curve <8-1/2">(6297.50')(6346'-19232')
19232.00	19257.00	Blind Drilling (std)	Projection to bit
			Wellbore



Actual Wellpath Report

Pheasant Unit 1H ST01 AWP Proj: 19257'
Page 12 of 12



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Tyler County, WV	Well	Pheasant Unit 1H ST01
Field	Tyler	Wellbore	Pheasant Unit 1H ST01 AWB
Facility	Stonerly Pad	Sidetrack from	Pheasant Unit 1H AWP Proj: 2917' at 2640.50 MD

COMMENTS

Wellpath general comments
 API: 47-095-02434-0100
 BH Job #: 9002156
 Rig: Frontier 22
 Duration: 2/7/2018-2/11/2018
 Gyrodatta MS Gyro [OH] <17-1/2"> (100'-590')
 Gyrodatta MS Gyro [OH] <12-1/4"> (590')(679'-976')
 WFD EM [OH] <12-1/4"> (976')(1071'-2525')
 WFD EM [OH] <8-3/4"> (2525')(2631'-2820')
 Gyrodatta MS Gyro [ST01] <8-3/4"> (2631')(2663'-2725')
 WFD EM [ST01] <8-3/4"> (2725')(2819'-6288')
 BH AT Curve [ST01] <8-1/2"> (6297.5')(6346'-19232')
 Sycamore: 6142' MD
 Middlesex: 6351' MD
 Burket: 6513' MD
 Tully: 6576' MD
 Marcellus POE: 6642' MD
 Projected MD at TD: 19257'