



# CHESAPEAKE APPALACHIA, LLC

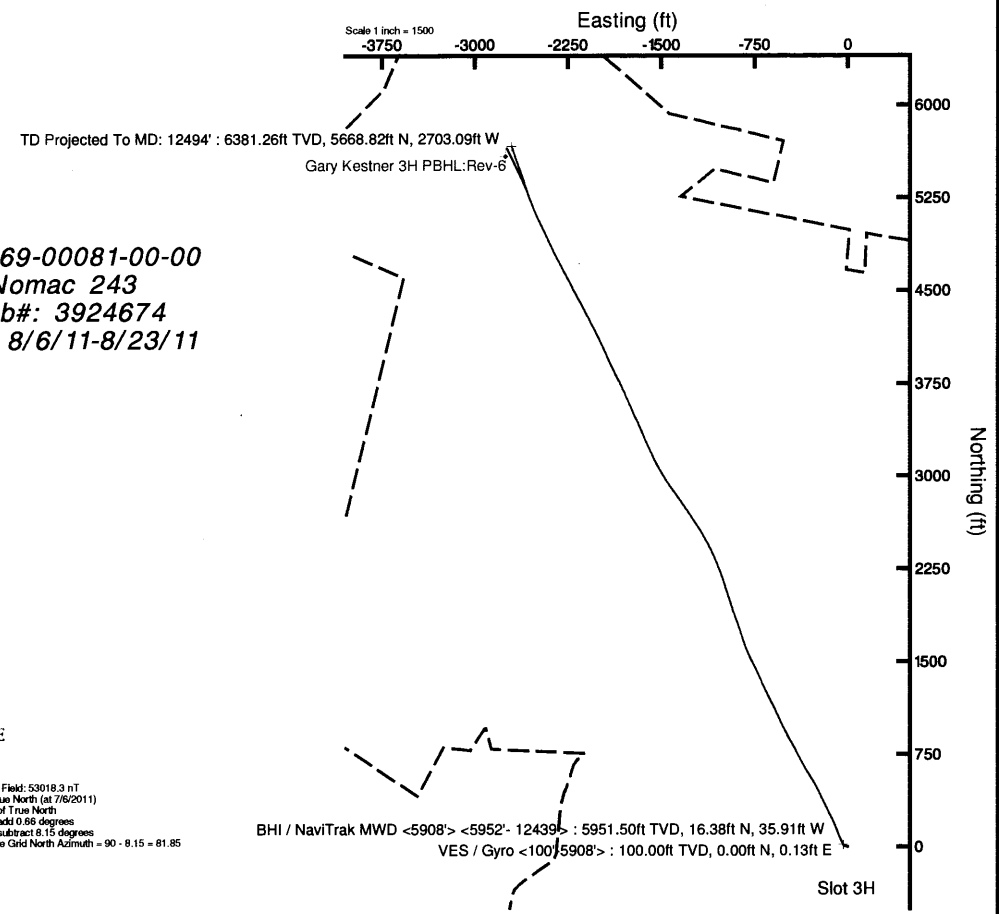
Location: Ohio County, WV  
Field: Ohio  
Facility: Gary Kestner

Slot: Slot 3H  
Well: Gary Kestner 3H  
Wellbore: Gary Kestner 3H (PWB)

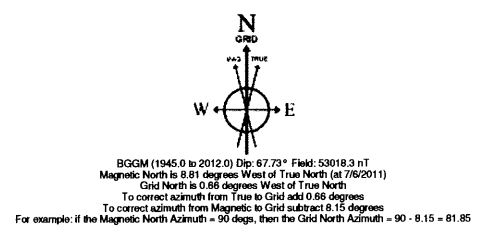
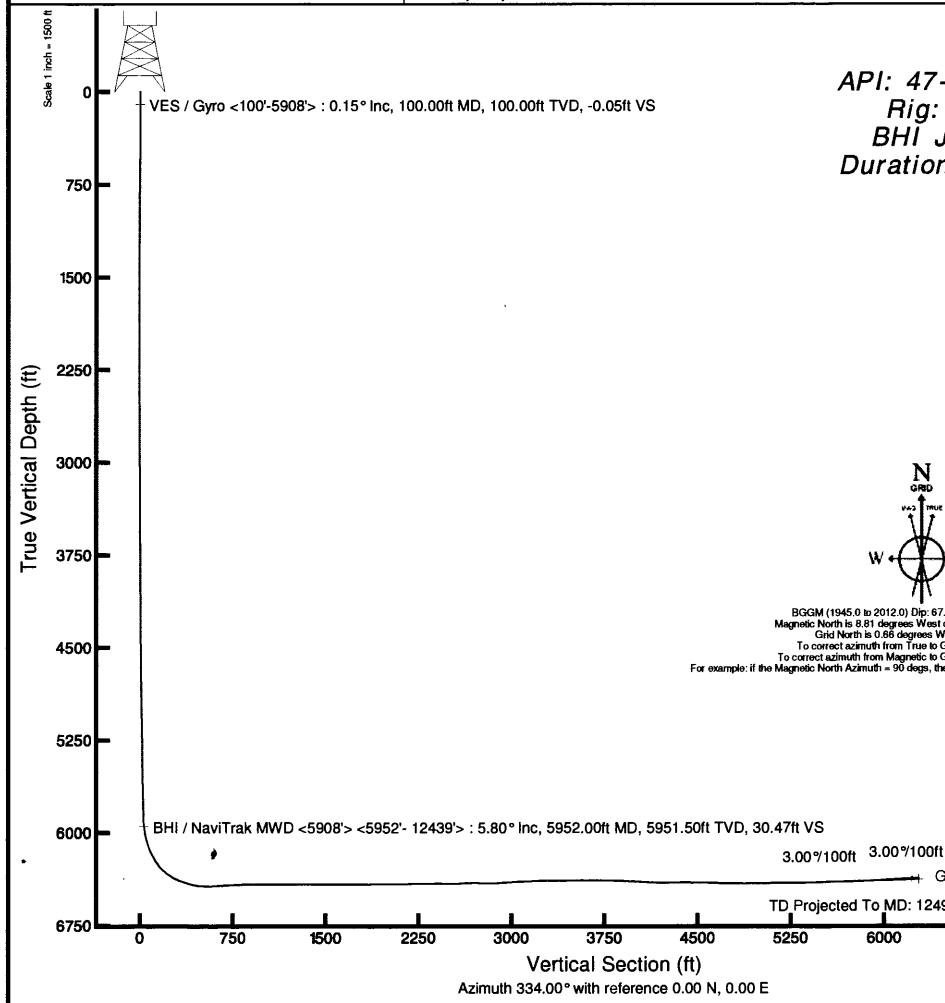


### Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Gary Kestner		1708846.000	602159.200	40°08'54.936"N	80°32'29.422"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot 3H	0.00	0.00	1708846.000	602159.200	40°08'54.936"N	80°32'29.422"W
Rig on Slot 3H (RT) to Mud line (At Slot: Slot 3H)				16ft		
Mean Sea Level to Mud line (At Slot: Slot 3H)				-1130ft		
Rig on Slot 3H (RT) to Mean Sea Level				1146ft		
Plot reference wellpath is Rev-F.0						
True vertical depths are referenced to Rig on Slot 3H (RT)			Grid System: NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet			
Measured depths are referenced to Rig on Slot 3H (RT)			North Reference: Grid north			
Rig on Slot 3H (RT) to Mean Sea Level: 1146 feet			Scale: True distance			
Mean Sea Level to Mud line (At Slot: Slot 3H): -1130 feet			Depths are in feet			
Coordinates are in feet referenced to Slot						
Created by: alvayes on 8/25/2011						



API: 47-069-00081-00-00  
Rig: Nomac 243  
BHI Job#: 3924674  
Duration: 8/6/11-8/23/11





# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

## REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Alvayes
Scale	0.999982	Report Generated	8/25/2011 at 5:11:16 PM
Convergence at slot	0.66° West	Database/Source file	WA_EasternUS/Gary_Kestner_3H_AWB_.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1708846.00	602159.20	40°08'54.936"N	80°32'29.422"W
Facility Reference Pt			1708846.00	602159.20	40°08'54.936"N	80°32'29.422"W
Field Reference Pt			0.00	0.00	38°17'12.460"N	86°28'23.077"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig on Slot 3H (RT) to Facility Vertical Datum	16.00ft
Horizontal Reference Pt	Slot	Rig on Slot 3H (RT) to Mean Sea Level	1146.00ft
Vertical Reference Pt	Rig on Slot 3H (RT)	Rig on Slot 3H (RT) to Mud Line at Slot (Slot 3H)	16.00ft
MD Reference Pt	Rig on Slot 3H (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	334.00°



# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

WELLPATH DATA (204 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]
0.00	0.000	89.160	0.00	0.00	0.00	0.00	1708846.00	602159.20	40°08'54.936"N	80°32'29.422"W	0.00	0.000	0.00	0.00	0.00
108.00	0.160	89.160	108.00	-0.06	0.00	0.15	1708846.15	602159.20	40°08'54.936"N	80°32'29.420"W	0.15	89.160	0.15	0.15	0.00
208.00	0.130	280.160	208.00	-0.06	0.02	0.18	1708846.18	602159.22	40°08'54.936"N	80°32'29.419"W	0.18	82.267	0.29	-0.03	-169.00
308.00	0.120	109.570	308.00	-0.06	0.01	0.17	1708846.17	602159.21	40°08'54.936"N	80°32'29.420"W	0.17	86.821	0.25	-0.01	-170.59
408.00	0.300	130.180	408.00	-0.38	0.19	0.46	1708846.46	602159.01	40°08'54.934"N	80°32'29.416"W	0.50	112.754	0.19	0.18	20.61
508.00	0.690	131.490	508.00	-1.17	-0.76	1.12	1708847.12	602158.44	40°08'54.928"N	80°32'29.407"W	1.35	124.359	0.39	0.39	1.31
608.00	0.590	138.160	607.99	-2.23	-1.55	1.91	1708847.91	602157.65	40°08'54.921"N	80°32'29.397"W	2.46	128.972	0.12	-0.10	6.67
708.00	0.590	119.950	707.98	-3.15	-2.19	2.70	1708848.70	602157.01	40°08'54.915"N	80°32'29.387"W	3.47	128.996	0.19	0.00	-18.21
808.00	0.600	128.140	807.98	-4.05	-2.77	3.56	1708849.56	602156.43	40°08'54.909"N	80°32'29.376"W	4.51	127.867	0.09	0.01	8.19
908.00	0.480	112.450	907.97	-4.82	-3.25	4.36	1708850.36	602155.95	40°08'54.904"N	80°32'29.365"W	5.43	126.719	0.19	-0.12	-15.69
1008.00	0.390	141.570	1007.97	-5.48	-3.68	4.96	1708850.95	602155.52	40°08'54.900"N	80°32'29.357"W	6.17	126.571	0.24	-0.09	29.12
1108.00	0.290	166.930	1107.97	-6.06	-4.19	5.22	1708851.22	602155.01	40°08'54.895"N	80°32'29.354"W	6.70	128.727	0.18	-0.10	25.36
1208.00	0.310	196.580	1207.97	-6.50	-4.69	5.20	1708851.20	602154.51	40°08'54.890"N	80°32'29.354"W	7.01	132.057	0.15	0.02	29.65
1308.00	0.330	189.060	1307.97	-6.94	-5.24	5.08	1708851.08	602153.96	40°08'54.885"N	80°32'29.356"W	7.30	135.873	0.05	0.02	-7.52
1408.00	0.090	187.230	1407.97	-7.24	-5.60	5.03	1708851.03	602153.60	40°08'54.881"N	80°32'29.356"W	7.53	138.096	0.24	-0.28	-1.43
1508.00	0.090	109.950	1507.97	-7.36	-5.71	5.09	1708851.09	602153.49	40°08'54.880"N	80°32'29.355"W	7.65	138.264	0.11	0.00	-77.28
1608.00	0.040	170.160	1607.97	-7.45	-5.77	5.17	1708851.17	602153.43	40°08'54.879"N	80°32'29.354"W	7.74	138.124	0.08	-0.05	60.21
1708.00	0.040	311.330	1707.97	-7.45	-5.78	5.15	1708851.15	602153.42	40°08'54.879"N	80°32'29.355"W	7.74	138.292	0.08	0.00	141.17
1808.00	0.160	158.430	1807.97	-7.56	-5.88	5.17	1708851.17	602153.32	40°08'54.878"N	80°32'29.354"W	7.84	138.675	0.20	0.12	-152.90
1908.00	0.140	173.620	1907.97	-7.81	-6.14	5.24	1708851.24	602153.06	40°08'54.876"N	80°32'29.353"W	8.07	139.507	0.04	0.02	13.19
2008.00	0.110	222.460	2007.96	-7.96	-6.33	5.19	1708851.19	602152.87	40°08'54.874"N	80°32'29.354"W	8.18	140.653	0.11	-0.03	48.84
2108.00	0.330	254.840	2107.96	-7.94	-6.47	4.85	1708850.85	602152.73	40°08'54.872"N	80°32'29.358"W	8.09	143.189	0.24	0.22	32.38
2208.00	0.240	274.000	2207.96	-7.78	-6.54	4.36	1708850.36	602152.66	40°08'54.872"N	80°32'29.365"W	7.86	146.299	0.13	-0.09	19.16
2308.00	0.460	271.830	2307.96	-7.49	-6.51	3.75	1708849.75	602152.69	40°08'54.872"N	80°32'29.373"W	7.51	150.058	0.22	0.22	-2.17
2408.00	0.540	253.880	2407.96	-7.18	-6.58	2.68	1708848.68	602152.62	40°08'54.871"N	80°32'29.384"W	7.18	156.329	0.13	0.01	-11.55
2508.00	0.510	284.670	2507.95	-6.76	-6.55	1.99	1708847.99	602152.65	40°08'54.871"N	80°32'29.395"W	6.84	163.103	0.23	-0.03	24.79
2608.00	0.460	281.090	2607.95	-6.22	-6.36	1.16	1708847.16	602152.84	40°08'54.873"N	80°32'29.406"W	6.46	169.621	0.06	-0.05	-3.58
2708.00	0.310	301.160	2707.95	-5.76	-6.14	0.54	1708846.54	602153.06	40°08'54.875"N	80°32'29.414"W	6.16	174.983	0.20	-0.15	20.07
2808.00	0.470	289.100	2807.94	-5.24	-5.87	-0.08	1708845.92	602153.33	40°08'54.878"N	80°32'29.422"W	5.87	180.781	0.18	0.16	-12.06
2908.00	0.430	287.050	2907.94	-4.69	-5.62	-0.83	1708845.17	602153.58	40°08'54.880"N	80°32'29.432"W	5.68	188.361	0.04	-0.04	-2.05



# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

## WELLPATH DATA (204 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]
3008.00	0.240	322.340	3007.94	-4.23	-5.35	-1.31	1708844.69	602153.85	40°08'54.883"N	80°32'29.438"W	5.51	193.798	0.27	-0.19	35.29
3108.00	0.290	322.060	3107.94	-3.78	-4.98	-1.60	1708844.40	602154.22	40°08'54.886"N	80°32'29.442"W	5.23	197.772	0.05	0.05	-0.28
3208.00	0.200	329.340	3207.94	-3.36	-4.63	-1.84	1708844.16	602154.57	40°08'54.890"N	80°32'29.445"W	4.98	201.680	0.10	-0.09	7.28
3308.00	0.280	295.700	3307.94	-2.99	-4.38	-2.15	1708843.85	602154.82	40°08'54.892"N	80°32'29.449"W	4.88	206.173	0.16	0.08	-33.64
3408.00	0.330	290.600	3407.94	-2.59	-4.17	-2.64	1708843.36	602155.03	40°08'54.894"N	80°32'29.455"W	4.93	212.351	0.06	0.03	-5.10
3508.00	0.270	280.480	3507.93	-2.24	-4.02	-3.14	1708842.86	602155.18	40°08'54.896"N	80°32'29.462"W	5.10	217.978	0.08	-0.06	-10.12
3608.00	0.370	290.670	3607.93	-1.86	-3.87	-3.68	1708842.32	602155.33	40°08'54.897"N	80°32'29.469"W	5.33	223.542	0.11	0.10	10.19
3708.00	0.390	293.780	3707.93	-1.37	-3.62	-4.29	1708841.71	602155.58	40°08'54.900"N	80°32'29.476"W	5.61	229.865	0.03	0.02	3.11
3808.00	0.360	292.740	3807.93	-0.87	-3.36	-4.89	1708841.11	602155.84	40°08'54.902"N	80°32'29.484"W	5.93	235.528	0.03	-0.03	-1.04
3908.00	0.560	284.750	3907.93	-0.32	-3.11	-5.65	1708840.35	602156.09	40°08'54.904"N	80°32'29.494"W	6.45	241.169	0.21	0.20	-7.99
4008.00	0.650	290.170	4007.92	0.41	-2.79	-6.66	1708839.34	602156.41	40°08'54.907"N	80°32'29.507"W	7.22	247.252	0.11	0.09	5.42
4108.00	0.690	279.120	4107.91	1.17	-2.50	-7.78	1708838.22	602156.70	40°08'54.910"N	80°32'29.522"W	8.18	252.193	0.14	0.04	-11.05
4208.00	0.760	264.990	4207.91	1.75	-2.46	-9.04	1708836.96	602156.74	40°08'54.910"N	80°32'29.538"W	9.37	254.760	0.19	0.07	-14.13
4308.00	0.640	287.510	4307.90	2.37	-2.35	-10.23	1708835.77	602156.85	40°08'54.911"N	80°32'29.553"W	10.50	257.052	0.30	-0.12	22.52
4408.00	0.550	279.390	4407.89	3.03	-2.11	-11.24	1708834.76	602157.09	40°08'54.914"N	80°32'29.566"W	11.43	259.333	0.12	-0.03	8.12
4508.00	0.450	295.190	4507.89	3.62	-1.86	-12.07	1708833.93	602157.34	40°08'54.916"N	80°32'29.577"W	12.21	261.234	0.17	-0.10	15.80
4608.00	0.590	273.390	4607.88	4.18	-1.66	-12.94	1708833.06	602157.54	40°08'54.918"N	80°32'29.588"W	13.04	262.674	0.24	0.14	-21.80
4708.00	1.050	283.680	4707.87	5.01	-1.42	-14.34	1708831.66	602157.78	40°08'54.920"N	80°32'29.606"W	14.41	264.361	0.48	0.46	10.29
4808.00	1.320	299.910	4807.85	6.55	-0.63	-16.23	1708829.77	602158.57	40°08'54.928"N	80°32'29.631"W	16.24	267.794	0.43	0.27	16.23
4908.00	1.260	295.710	4907.83	8.37	0.43	-18.22	1708827.78	602159.63	40°08'54.938"N	80°32'29.656"W	18.22	271.340	0.11	-0.06	-4.20
5008.00	1.070	294.950	5007.81	9.96	1.30	-20.06	1708825.94	602160.50	40°08'54.946"N	80°32'29.680"W	20.10	273.700	0.19	-0.19	-0.76
5108.00	1.120	297.190	5107.79	11.47	2.14	-21.77	1708824.23	602161.34	40°08'54.954"N	80°32'29.702"W	21.88	275.607	0.07	0.05	2.24
5208.00	1.090	303.010	5207.77	13.06	3.10	-23.44	1708822.56	602162.30	40°08'54.964"N	80°32'29.724"W	23.64	277.540	0.12	-0.03	5.82
5308.00	1.170	307.850	5307.75	14.80	4.25	-25.04	1708820.96	602163.45	40°08'54.975"N	80°32'29.745"W	25.40	279.625	0.12	0.08	4.84
5408.00	1.200	315.660	5407.73	16.71	5.62	-26.58	1708819.42	602164.82	40°08'54.988"N	80°32'29.765"W	27.17	281.943	0.16	-0.03	7.81
5508.00	1.180	307.720	5507.71	18.62	7.00	-28.13	1708817.87	602166.20	40°08'55.002"N	80°32'29.785"W	28.99	283.977	0.17	-0.02	-7.94
5608.00	1.430	311.870	5607.68	20.70	8.46	-29.87	1708816.13	602167.66	40°08'55.016"N	80°32'29.808"W	31.05	285.820	0.27	0.25	4.15
5708.00	1.440	316.730	5707.65	23.06	10.21	-31.66	1708814.34	602169.41	40°08'55.033"N	80°32'29.831"W	33.27	287.876	0.12	0.01	4.86
5808.00	1.260	321.230	5807.62	25.33	11.98	-33.21	1708812.79	602171.18	40°08'55.050"N	80°32'29.851"W	35.31	289.841	0.21	-0.18	4.50
5908.00	1.470	330.870	5907.59	27.68	13.96	-34.52	1708811.48	602173.16	40°08'55.070"N	80°32'29.868"W	37.24	292.018	0.31	0.21	9.64



# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

**WELLPATH DATA (204 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]
5952.00	5.800	330.000	5951.50	30.47	16.38	-35.91	1708810.09	602175.58	40°08'55.094"N	80°32'29.887"W	39.47	294.520	9.84	9.84	-1.98
5995.00	9.600	332.400	5994.10	36.22	21.44	-38.66	1708807.34	602180.64	40°08'55.143"N	80°32'29.923"W	44.21	299.014	8.87	8.84	5.58
6039.00	13.200	334.400	6037.23	44.91	29.23	-42.53	1708803.47	602188.43	40°08'55.220"N	80°32'29.974"W	51.60	304.496	8.23	8.18	4.55
6083.00	16.900	334.000	6079.71	56.34	39.51	-47.51	1708798.49	602198.71	40°08'55.321"N	80°32'30.039"W	61.79	309.748	8.41	8.41	-0.91
6126.00	20.800	334.400	6120.39	70.23	52.02	-53.55	1708792.45	602211.22	40°08'55.444"N	80°32'30.119"W	74.65	314.169	9.07	9.07	0.93
6169.00	24.600	335.600	6160.06	86.81	67.06	-60.55	1708785.45	602226.26	40°08'55.592"N	80°32'30.211"W	90.35	317.921	8.90	8.84	2.79
6213.00	27.400	338.200	6199.60	106.07	84.80	-68.09	1708777.91	602244.00	40°08'55.766"N	80°32'30.311"W	108.76	321.238	6.87	6.36	5.91
6260.00	32.800	338.000	6240.25	129.57	106.66	-76.88	1708769.12	602265.86	40°08'55.981"N	80°32'30.428"W	131.48	324.216	11.49	11.49	-0.43
6304.00	39.200	339.400	6275.83	155.33	130.75	-86.25	1708759.75	602289.95	40°08'56.218"N	80°32'30.552"W	156.64	326.590	14.66	14.55	3.18
6347.00	46.200	336.900	6307.41	184.40	157.78	-97.13	1708748.87	602316.98	40°08'56.484"N	80°32'30.696"W	185.28	328.383	16.75	16.28	5.81
6391.00	53.300	335.300	6335.82	217.93	188.45	-110.75	1708735.25	602347.65	40°08'56.785"N	80°32'30.876"W	218.59	329.558	16.37	16.14	-3.64
6434.00	58.900	333.300	6359.80	253.61	220.59	-126.24	1708719.76	602379.79	40°08'57.101"N	80°32'31.080"W	254.16	330.218	13.58	13.02	-4.65
6477.00	63.600	334.300	6380.48	291.29	254.41	-142.87	1708703.13	602413.60	40°08'57.433"N	80°32'31.299"W	291.78	330.682	11.12	10.93	2.33
6521.00	68.700	335.100	6398.26	331.52	290.78	-160.06	1708685.94	602449.98	40°08'57.791"N	80°32'31.526"W	331.92	331.169	11.71	11.59	1.82
6564.00	72.900	334.600	6412.40	372.11	327.33	-177.32	1708668.69	602486.72	40°08'58.152"N	80°32'31.754"W	372.45	331.570	9.83	9.77	-1.16
6608.00	77.000	334.000	6423.82	414.59	365.81	-195.74	1708650.26	602525.00	40°08'58.528"N	80°32'31.997"W	414.89	331.849	9.41	9.32	-1.36
6651.00	81.400	334.100	6431.88	456.82	403.78	-214.22	1708631.78	602562.97	40°08'58.901"N	80°32'32.240"W	457.09	332.052	10.24	10.23	0.23
6694.00	85.600	334.400	6436.74	499.54	442.25	-232.78	1708613.23	602601.44	40°08'59.279"N	80°32'32.485"W	499.77	332.240	9.79	9.77	0.70
6738.00	89.900	331.500	6438.47	543.48	481.39	-252.76	1708593.24	602640.59	40°08'59.664"N	80°32'32.748"W	543.72	332.298	11.78	9.77	-6.59
6781.00	93.400	330.600	6437.23	586.40	519.00	-273.57	1708572.44	602678.19	40°09'00.033"N	80°32'33.022"W	586.69	332.206	8.40	8.17	2.09
6824.00	93.500	330.300	6434.65	629.24	556.34	-294.73	1708551.27	602715.53	40°09'00.400"N	80°32'33.300"W	629.59	332.086	0.73	0.23	-0.70
6867.00	92.800	328.700	6432.28	672.04	593.33	-316.53	1708529.48	602752.52	40°09'00.763"N	80°32'33.586"W	672.48	331.921	4.06	-1.63	-3.72
6911.00	93.700	329.300	6429.79	715.80	630.99	-339.15	1708506.86	602790.17	40°09'01.132"N	80°32'33.883"W	716.36	331.742	2.46	2.05	1.36
6954.00	93.100	330.300	6427.24	758.61	668.08	-360.74	1708485.27	602827.27	40°09'01.496"N	80°32'34.167"W	759.26	331.633	2.71	-1.40	2.33
6997.00	92.200	330.900	6425.25	801.49	705.50	-381.83	1708464.18	602864.69	40°09'01.864"N	80°32'34.444"W	802.20	331.577	2.51	-2.09	1.40
7041.00	91.100	331.500	6423.98	845.41	744.05	-403.02	1708442.99	602903.23	40°09'02.242"N	80°32'34.722"W	846.18	331.558	2.85	-2.50	1.36
7084.00	90.500	332.100	6423.38	888.38	781.94	-423.33	1708422.68	602941.12	40°09'02.614"N	80°32'34.990"W	889.18	331.569	1.97	-1.40	1.40
7128.00	90.600	332.000	6422.96	932.35	820.80	-443.95	1708402.05	602979.99	40°09'02.996"N	80°32'35.261"W	933.17	331.592	0.32	0.23	-0.23
7171.00	89.800	332.700	6422.81	975.33	858.89	-463.91	1708382.10	603018.08	40°09'03.370"N	80°32'35.524"W	976.17	331.625	2.47	-1.86	1.63
7215.00	90.100	333.000	6422.85	1019.32	898.04	-483.99	1708362.02	603057.23	40°09'03.754"N	80°32'35.788"W	1020.16	331.678	0.96	0.68	0.68





# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

**WELLPATH DATA (204 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]
7258.00	90.400	333.700	6422.66	1062.32	936.48	-503.27	1708342.74	603095.66	40°09'04.132"N	80°32'36.042"W	1063.14	331.746	1.77	0.70	1.63
7301.00	90.400	333.200	6422.36	1105.32	974.94	-522.49	1708323.52	603134.12	40°09'04.510"N	80°32'36.295"W	1106.12	331.812	1.16	0.00	-1.16
7345.00	89.300	334.300	6422.48	1149.31	1014.40	-541.95	1708304.06	603173.58	40°09'04.898"N	80°32'36.552"W	1150.10	331.886	3.54	-2.50	2.50
7388.00	89.300	334.900	6423.00	1192.31	1053.24	-560.40	1708285.61	603212.42	40°09'05.279"N	80°32'36.795"W	1193.05	331.984	1.40	0.00	1.40
7432.00	89.300	334.800	6423.54	1236.30	1093.07	-579.09	1708266.92	603252.25	40°09'05.671"N	80°32'37.042"W	1236.99	332.056	0.23	0.00	-0.23
7475.00	89.500	334.300	6423.99	1279.30	1131.89	-597.57	1708248.44	603291.07	40°09'06.052"N	80°32'37.286"W	1279.95	332.169	1.25	0.47	-1.16
7519.00	89.600	334.800	6424.33	1323.29	1171.62	-616.48	1708229.53	603330.80	40°09'06.443"N	80°32'37.535"W	1323.91	332.248	1.16	0.23	1.14
7562.00	90.300	335.000	6424.37	1366.29	1210.56	-634.72	1708211.29	603369.74	40°09'06.825"N	80°32'37.776"W	1366.87	332.331	1.69	1.63	0.47
7605.00	91.100	335.700	6423.85	1409.27	1249.64	-652.65	1708193.36	603408.81	40°09'07.209"N	80°32'38.013"W	1409.80	332.423	2.47	1.86	1.63
7649.00	91.400	335.300	6422.89	1453.25	1289.67	-670.89	1708175.12	603448.84	40°09'07.603"N	80°32'38.253"W	1453.73	332.516	1.14	0.68	-0.91
7692.00	91.400	335.400	6421.84	1496.22	1328.74	-688.82	1708157.19	603487.91	40°09'07.987"N	80°32'38.490"W	1496.67	332.598	0.23	0.00	0.23
7736.00	91.500	333.900	6420.72	1540.20	1368.49	-707.65	1708138.36	603527.66	40°09'08.377"N	80°32'38.739"W	1540.63	332.656	3.42	0.23	-3.41
7779.00	89.600	334.000	6420.31	1583.20	1407.11	-726.54	1708119.48	603566.29	40°09'08.757"N	80°32'38.988"W	1583.61	332.691	4.42	-4.42	0.23
7823.00	88.500	333.100	6421.04	1627.19	1446.50	-746.13	1708099.88	603605.67	40°09'09.144"N	80°32'39.246"W	1627.60	332.714	3.23	-2.50	-2.05
7866.00	88.800	334.400	6422.05	1670.18	1485.06	-765.14	1708080.87	603644.24	40°09'09.522"N	80°32'39.496"W	1670.88	332.741	3.10	0.70	3.02
7909.00	90.400	336.900	6422.35	1713.15	1524.23	-782.87	1708063.14	603683.40	40°09'09.908"N	80°32'39.730"W	1713.52	332.814	6.90	3.72	5.81
7953.00	91.800	338.400	6421.51	1757.05	1564.91	-799.60	1708046.42	603724.08	40°09'10.308"N	80°32'39.952"W	1757.36	332.935	4.66	3.18	3.41
7996.00	90.700	338.700	6420.57	1799.91	1604.92	-815.32	1708030.70	603764.09	40°09'10.701"N	80°32'40.160"W	1800.14	333.069	2.65	-2.56	0.70
8039.00	89.900	340.000	6420.35	1842.72	1645.16	-830.48	1708015.53	603804.32	40°09'11.097"N	80°32'40.362"W	1842.89	333.215	3.55	-1.86	3.02
8083.00	91.200	341.400	6419.92	1886.41	1686.68	-845.02	1708000.99	603845.85	40°09'11.506"N	80°32'40.555"W	1886.52	333.389	4.34	2.95	3.18
8126.00	90.200	341.100	6419.40	1929.07	1727.39	-858.85	1707987.17	603886.56	40°09'11.907"N	80°32'40.739"W	1929.12	333.564	2.43	-2.33	-0.70
8170.00	89.600	340.600	6419.47	1972.75	1768.96	-873.28	1707972.74	603928.12	40°09'12.316"N	80°32'40.931"W	1972.77	333.726	1.78	-1.36	-1.14
8213.00	90.300	339.600	6419.51	2015.51	1809.39	-887.92	1707958.10	603968.56	40°09'12.714"N	80°32'41.126"W	2015.51	333.862	2.84	1.63	-2.33
8256.00	91.100	339.700	6418.99	2058.29	1849.70	-902.87	1707943.15	604008.87	40°09'13.110"N	80°32'41.321"W	2058.29	333.982	1.87	1.86	0.23
8300.00	90.600	341.100	6418.39	2102.01	1891.15	-917.63	1707928.39	604050.51	40°09'13.518"N	80°32'41.521"W	2102.02	334.116	3.18	-1.14	3.18
8343.00	90.800	343.500	6417.81	2144.56	1932.11	-930.70	1707915.32	604091.27	40°09'13.921"N	80°32'41.695"W	2144.58	334.280	5.60	0.47	5.58
8387.00	90.300	343.300	6417.39	2187.96	1974.27	-943.27	1707902.75	604133.43	40°09'14.336"N	80°32'41.863"W	2188.04	334.462	1.22	-1.14	-0.45
8430.00	90.300	342.800	6417.16	2230.43	2015.40	-955.80	1707890.22	604174.56	40°09'14.741"N	80°32'42.031"W	2230.56	334.627	1.16	0.00	-1.16
8473.00	89.600	342.500	6417.20	2272.94	2056.45	-968.62	1707877.39	604215.61	40°09'15.146"N	80°32'42.202"W	2273.15	334.779	1.77	-1.63	-0.70
8517.00	91.200	343.100	6416.89	2316.42	2098.48	-981.64	1707864.38	604257.63	40°09'15.559"N	80°32'42.376"W	2316.72	334.931	3.88	3.64	1.36



# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

**WELLPATH DATA (204 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]
8560.00	92.000	342.300	6415.69	2358.91	2139.51	-994.42	1707851.60	604298.67	40°09'15.963"N	80°32'42.547"W	2359.32	335.072	2.63	1.86	-1.86
8604.00	90.300	340.700	6414.81	2402.52	2181.23	-1008.37	1707837.64	604340.39	40°09'16.374"N	80°32'42.733"W	2403.04	335.189	5.31	-3.86	-3.64
8647.00	88.600	339.100	6415.22	2445.29	2221.61	-1023.15	1707822.87	604380.76	40°09'16.771"N	80°32'42.929"W	2445.89	335.272	5.43	-3.95	-3.72
8690.00	88.900	338.000	6416.16	2488.14	2261.62	-1038.87	1707807.15	604420.77	40°09'17.165"N	80°32'43.138"W	2488.81	335.328	2.65	0.70	-2.56
8734.00	90.000	337.900	6416.58	2532.03	2302.40	-1055.39	1707790.63	604461.53	40°09'17.566"N	80°32'43.336"W	2532.76	335.374	2.51	2.50	-0.23
8777.00	93.100	337.100	6415.42	2574.93	2342.10	-1071.84	1707774.19	604501.26	40°09'17.956"N	80°32'43.574"W	2575.71	335.409	7.45	7.21	-1.86
8820.00	93.800	334.500	6412.83	2617.83	2381.25	-1089.43	1707756.59	604540.40	40°09'18.341"N	80°32'43.807"W	2618.63	335.416	6.25	1.63	-6.05
8864.00	92.200	333.500	6410.53	2661.76	2420.74	-1108.69	1707737.33	604579.89	40°09'18.729"N	80°32'44.060"W	2662.55	335.392	4.29	-3.64	-2.27
8907.00	89.700	332.100	6409.81	2704.74	2458.98	-1128.34	1707717.68	604618.13	40°09'19.105"N	80°32'44.319"W	2705.50	335.351	6.66	-5.81	-3.26
8951.00	88.700	331.000	6410.43	2748.70	2497.66	-1149.30	1707696.72	604656.81	40°09'19.485"N	80°32'44.595"W	2749.40	335.290	3.38	-2.27	-2.50
8994.00	88.700	329.100	6411.40	2791.58	2534.90	-1170.76	1707675.26	604694.05	40°09'19.850"N	80°32'44.877"W	2792.21	335.210	4.42	0.00	-4.42
9037.00	89.800	327.600	6411.97	2834.37	2571.50	-1193.32	1707652.70	604730.65	40°09'20.209"N	80°32'45.173"W	2834.90	335.106	4.33	2.56	-3.49
9081.00	92.700	327.400	6411.01	2878.07	2608.60	-1216.95	1707629.07	604767.75	40°09'20.573"N	80°32'45.483"W	2878.50	334.990	6.61	6.59	-0.45
9124.00	93.900	327.200	6408.53	2920.71	2644.72	-1240.14	1707605.88	604803.87	40°09'20.927"N	80°32'45.787"W	2921.05	334.878	2.83	2.79	-0.47
9167.00	94.000	326.700	6405.57	2963.28	2680.68	-1263.54	1707582.48	604839.83	40°09'21.280"N	80°32'46.094"W	2963.34	334.763	1.18	0.23	-1.16
9211.00	93.500	325.800	6402.69	3006.78	2717.19	-1287.93	1707558.09	604876.33	40°09'21.638"N	80°32'46.413"W	3006.97	334.639	2.34	-1.14	-2.05
9254.00	93.100	325.800	6400.22	3049.27	2752.69	-1312.06	1707533.96	604911.84	40°09'21.986"N	80°32'46.729"W	3049.40	334.515	0.93	-0.93	0.00
9297.00	92.900	325.700	6397.97	3091.77	2788.19	-1336.23	1707509.80	604947.33	40°09'22.334"N	80°32'47.046"W	3091.84	334.394	0.52	-0.47	-0.23
9341.00	92.600	325.300	6395.86	3135.24	2824.41	-1361.12	1707484.90	604983.55	40°09'22.689"N	80°32'47.372"W	3135.27	334.270	1.14	-0.68	-0.91
9384.00	92.300	325.100	6394.02	3177.68	2859.68	-1385.64	1707460.39	605018.83	40°09'23.035"N	80°32'47.693"W	3177.70	334.148	0.84	-0.70	-0.47
9428.00	92.400	324.900	6392.21	3221.11	2895.70	-1410.86	1707435.17	605054.84	40°09'23.388"N	80°32'48.023"W	3221.11	334.023	0.51	0.23	-0.45
9471.00	91.300	326.100	6390.82	3263.62	2931.11	-1435.20	1707410.83	605090.26	40°09'23.735"N	80°32'48.342"W	3263.62	333.912	3.78	-2.56	2.79
9514.00	89.300	326.500	6390.60	3306.23	2966.89	-1459.06	1707386.97	605126.03	40°09'24.086"N	80°32'48.654"W	3306.24	333.813	4.74	-4.65	0.93
9558.00	89.900	328.500	6390.91	3349.94	3003.99	-1482.69	1707363.33	605163.13	40°09'24.450"N	80°32'48.964"W	3349.98	333.730	4.75	1.36	4.55
9601.00	90.800	330.100	6390.64	3392.79	3040.96	-1504.62	1707341.38	605200.10	40°09'24.812"N	80°32'49.253"W	3392.85	333.674	4.27	2.09	3.72
9644.00	90.700	332.100	6390.08	3435.73	3078.60	-1525.24	1707320.61	605237.74	40°09'25.182"N	80°32'49.526"W	3435.80	333.642	4.66	-0.23	4.65
9688.00	90.300	334.500	6389.70	3479.72	3117.91	-1545.19	1707300.84	605277.05	40°09'25.568"N	80°32'49.786"W	3479.79	333.638	5.53	-0.91	5.45
9731.00	90.000	335.300	6389.58	3522.72	3156.85	-1563.43	1707282.60	605315.98	40°09'25.951"N	80°32'50.027"W	3522.78	333.653	1.99	-0.70	1.86
9774.00	89.800	334.500	6389.66	3565.71	3195.78	-1581.67	1707264.36	605354.92	40°09'26.333"N	80°32'50.268"W	3565.77	333.668	1.92	-0.47	-1.86
9818.00	90.800	334.800	6389.43	3609.71	3235.55	-1600.51	1707245.52	605394.68	40°09'26.724"N	80°32'50.516"W	3609.76	333.680	2.37	2.27	0.68



# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

## WELLPATH DATA (204 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]
9861.00	90.700	335.600	6388.87	3652.69	3274.58	-1618.55	1707227.49	605433.71	40°09'27.108"N	80°32'50.754"W	3652.75	333.698	1.87	-0.23	1.86
9905.00	90.300	336.100	6388.48	3696.67	3314.73	-1636.55	1707209.49	605473.86	40°09'27.502"N	80°32'50.992"W	3696.71	333.724	1.46	-0.91	1.14
9948.00	89.500	337.200	6388.56	3739.62	3354.20	-1653.59	1707192.44	605513.34	40°09'27.891"N	80°32'51.218"W	3739.66	333.757	3.16	-1.86	2.56
9991.00	88.900	336.600	6389.16	3782.56	3393.75	-1670.46	1707175.58	605552.88	40°09'28.279"N	80°32'51.441"W	3782.59	333.793	1.97	-1.40	-1.40
10035.00	88.300	336.200	6390.23	3826.51	3434.06	-1688.07	1707157.97	605593.19	40°09'28.676"N	80°32'51.674"W	3826.53	333.823	1.64	-1.36	-0.91
10078.00	88.100	336.400	6391.58	3869.46	3473.41	-1705.34	1707140.69	605632.54	40°09'29.063"N	80°32'51.902"W	3869.47	333.850	0.66	-0.47	0.47
10121.00	87.600	337.300	6393.20	3912.37	3512.92	-1722.24	1707123.80	605672.05	40°09'29.451"N	80°32'52.126"W	3912.38	333.883	2.39	-1.16	2.09
10165.00	86.900	336.700	6395.31	3956.26	3553.38	-1739.41	1707106.63	605712.51	40°09'29.849"N	80°32'52.353"W	3956.26	333.918	2.09	-1.59	-1.36
10208.00	87.200	335.200	6397.52	3999.18	3592.59	-1756.91	1707089.13	605751.72	40°09'30.234"N	80°32'52.584"W	3999.18	333.940	3.55	0.70	-3.49
10252.00	87.100	335.000	6399.71	4043.11	3632.45	-1775.41	1707070.62	605791.58	40°09'30.626"N	80°32'52.828"W	4043.12	333.962	0.51	-0.23	-0.45
10295.00	88.000	335.700	6401.55	4086.06	3671.50	-1793.33	1707052.71	605830.62	40°09'31.010"N	80°32'53.065"W	4086.06	333.967	2.65	2.09	1.63
10338.00	87.200	334.600	6403.35	4129.02	3710.48	-1811.38	1707034.65	605869.61	40°09'31.393"N	80°32'53.303"W	4129.02	333.979	3.16	-1.86	-2.56
10382.00	87.900	334.900	6405.23	4172.97	3750.24	-1830.13	1707015.90	605909.37	40°09'31.784"N	80°32'53.551"W	4172.97	333.987	1.73	1.59	0.68
10425.00	89.500	334.600	6406.20	4215.95	3789.12	-1848.47	1706997.57	605948.24	40°09'32.166"N	80°32'53.793"W	4215.95	333.995	3.79	3.72	-0.70
10468.00	90.000	334.500	6406.39	4258.95	3827.95	-1866.95	1706979.09	605987.07	40°09'32.547"N	80°32'54.037"W	4258.95	334.001	1.19	1.16	-0.23
10511.00	91.200	334.500	6405.94	4301.95	3866.75	-1885.46	1706960.58	606025.88	40°09'32.929"N	80°32'54.281"W	4301.95	334.006	2.79	2.79	0.00
10555.00	90.800	334.700	6405.17	4345.94	3906.50	-1904.33	1706941.71	606065.62	40°09'33.319"N	80°32'54.530"W	4345.94	334.012	1.02	-0.91	0.45
10598.00	90.000	335.500	6404.87	4388.93	3945.50	-1922.43	1706923.60	606104.62	40°09'33.702"N	80°32'54.769"W	4388.93	334.022	2.63	-1.86	1.86
10642.00	89.700	336.000	6404.99	4432.91	3985.61	-1940.51	1706905.53	606144.74	40°09'34.097"N	80°32'55.007"W	4432.91	334.040	1.33	-0.68	1.14
10685.00	89.500	335.900	6405.29	4475.88	4024.38	-1958.03	1706888.01	606184.00	40°09'34.483"N	80°32'55.249"W	4475.88	334.058	0.52	-0.47	-0.23
10728.00	89.200	335.200	6405.78	4518.86	4064.02	-1975.83	1706870.21	606223.14	40°09'34.867"N	80°32'55.474"W	4518.87	334.072	1.77	-0.70	-1.63
10772.00	88.300	334.100	6406.74	4562.85	4103.77	-1994.66	1706851.38	606262.89	40°09'35.258"N	80°32'55.723"W	4562.85	334.078	3.23	-2.05	-2.50
10815.00	88.000	333.400	6408.12	4605.83	4142.32	-2013.67	1706832.37	606301.44	40°09'35.637"N	80°32'55.973"W	4605.83	334.075	1.77	-0.70	-1.63
10859.00	87.600	333.700	6409.81	4649.79	4181.68	-2033.25	1706812.79	606340.80	40°09'36.024"N	80°32'56.231"W	4649.79	334.070	1.14	-0.91	0.68
10902.00	88.700	332.500	6411.20	4692.76	4220.01	-2052.69	1706793.35	606379.13	40°09'36.400"N	80°32'56.483"W	4692.76	334.061	3.78	2.56	2.79
10945.00	89.800	331.900	6411.76	4735.74	4258.04	-2072.75	1706773.29	606417.16	40°09'36.774"N	80°32'56.752"W	4735.74	334.044	2.91	2.56	-1.40
10989.00	89.500	331.400	6412.03	4779.70	4296.76	-2093.64	1706752.40	606455.88	40°09'37.154"N	80°32'57.026"W	4779.70	334.022	1.33	-0.68	-1.14
11032.00	89.700	332.500	6412.33	4822.67	4334.71	-2113.86	1706732.18	606493.83	40°09'37.526"N	80°32'57.293"W	4822.67	334.003	2.60	0.47	2.56
11076.00	89.700	332.600	6412.56	4866.65	4373.76	-2134.14	1706711.90	606532.87	40°09'37.910"N	80°32'57.560"W	4866.65	333.990	0.23	0.00	0.23
11119.00	90.900	332.000	6412.34	4909.63	4411.83	-2154.13	1706691.91	606570.94	40°09'38.284"N	80°32'57.823"W	4909.63	333.975	3.12	2.79	-1.40





# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

## WELLPATH DATA (204 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]
11163.00	90.600	331.700	6411.76	4953.60	4450.62	-2174.89	1706671.16	606609.73	40°09'38.665"N	80°32'58.096"W	4953.60	333.957	0.96	-0.68	-0.68
11206.00	90.300	332.100	6411.42	4996.57	4488.55	-2195.14	1706650.90	606647.66	40°09'39.037"N	80°32'58.362"W	4996.57	333.939	1.16	-0.70	0.93
11249.00	91.100	333.200	6410.90	5039.55	4526.74	-2214.89	1706631.15	606685.85	40°09'39.412"N	80°32'58.623"W	5039.56	333.928	3.16	1.86	2.56
11336.00	90.500	332.900	6409.68	5126.53	4604.28	-2254.32	1706591.73	606763.39	40°09'40.174"N	80°32'59.142"W	5126.54	333.913	0.77	-0.69	-0.34
11423.00	89.900	332.700	6409.38	5213.51	4681.66	-2294.09	1706551.96	606840.77	40°09'40.934"N	80°32'59.666"W	5213.52	333.894	0.73	-0.69	-0.23
11510.00	90.500	332.500	6409.08	5300.48	4758.90	-2334.12	1706511.92	606918.01	40°09'41.693"N	80°33'00.193"W	5300.50	333.873	0.73	0.69	-0.23
11596.00	91.900	334.200	6407.28	5386.45	4835.74	-2372.69	1706473.36	606994.85	40°09'42.447"N	80°33'00.701"W	5386.47	333.865	2.56	1.63	1.98
11683.00	91.800	334.900	6404.47	5473.40	4914.26	-2410.05	1706436.00	607073.36	40°09'43.219"N	80°33'01.194"W	5473.42	333.876	0.81	-0.11	0.80
11770.00	91.500	334.300	6401.96	5560.36	4992.82	-2447.35	1706398.69	607151.92	40°09'43.991"N	80°33'01.687"W	5560.37	333.887	0.77	-0.34	-0.69
11857.00	90.600	333.800	6400.37	5647.35	5071.03	-2485.42	1706360.67	607230.13	40°09'44.759"N	80°33'02.189"W	5647.36	333.890	1.18	-1.04	-0.57
11943.00	92.200	337.500	6398.27	5733.27	5149.34	-2520.86	1706325.19	607308.44	40°09'45.529"N	80°33'02.657"W	5733.27	333.916	4.69	1.86	4.30
11987.00	91.000	337.000	6397.04	5777.18	5189.90	-2537.87	1706308.18	607349.00	40°09'45.928"N	80°33'02.882"W	5777.18	333.941	2.95	-2.73	-1.14
12030.00	92.100	339.900	6395.87	5820.03	5229.88	-2553.65	1706292.40	607388.97	40°09'46.321"N	80°33'03.091"W	5820.03	333.975	7.21	2.56	6.74
12073.00	91.800	340.200	6394.41	5862.77	5270.27	-2568.32	1706277.73	607429.37	40°09'46.719"N	80°33'03.286"W	5862.77	334.019	0.99	-0.70	0.70
12117.00	91.700	341.900	6393.07	5906.41	5311.87	-2583.60	1706263.45	607470.96	40°09'47.128"N	80°33'03.475"W	5906.41	334.071	3.87	-0.27	3.46
12160.00	91.700	342.400	6391.79	5948.96	5352.78	-2595.77	1706250.28	607511.87	40°09'47.531"N	80°33'03.652"W	5948.97	334.129	1.16	0.00	1.16
12204.00	91.900	343.200	6390.41	5992.42	5394.79	-2608.78	1706237.27	607553.88	40°09'47.944"N	80°33'03.826"W	5992.45	334.193	1.87	0.45	1.82
12247.00	92.200	341.300	6388.87	6034.94	5435.71	-2621.88	1706224.17	607594.81	40°09'48.347"N	80°33'04.001"W	6035.00	334.250	4.47	0.70	-4.42
12290.00	91.500	340.500	6387.48	6077.61	5476.33	-2635.94	1706210.11	607635.42	40°09'48.747"N	80°33'04.188"W	6077.69	334.297	2.47	-1.63	-1.86
12333.00	91.100	339.000	6386.51	6120.38	5510.56	-2650.82	1706195.23	607675.75	40°09'49.144"N	80°33'04.366"W	6120.48	334.338	3.61	-0.93	-3.49
12377.00	91.900	340.700	6385.36	6164.13	5557.95	-2665.97	1706180.08	607717.04	40°09'49.550"N	80°33'04.587"W	6164.27	334.374	4.27	1.82	3.86
12420.00	92.300	341.600	6383.78	6206.77	5598.61	-2679.85	1706166.20	607757.70	40°09'49.950"N	80°33'04.772"W	6206.94	334.421	2.29	0.93	2.09
12439.00	91.900	341.700	6383.08	6225.59	5616.63	-2685.83	1706160.22	607775.72	40°09'50.128"N	80°33'04.852"W	6225.78	334.443	2.17	-2.11	0.53
12494.00	91.900	341.700	6381.26	6280.06	5668.82	-2703.09	1706142.96	607827.91	40°09'50.641"N	80°33'05.082"W	6280.31	334.507	0.00	0.00	0.00



# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Gary Kestner 3H PBHL:Rev-6		6375.43	5586.31	-2750.85	1706095.20	607745.40	40°09'49.820"N	80°33'05.685"W	point

## WELLPATH COMPOSITION - Ref Wellbore: Gary Kestner 3H (AWB) Ref Wellpath: Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	5908.00	Generic gyro - continuous (Standard)	VES / Gyro <0'> <108'-5908'>	Gary Kestner 3H (AWB)
5908.00	12439.00	NaviTrak (MagCorr)	BHI / NaviTrak MWD<5908'> <5952'- 12439'>	Gary Kestner 3H (AWB)
12439.00	12494.00	Blind Drilling (std)	Projection to bit	Gary Kestner 3H (AWB)



# Actual Wellpath Report

Gary Kestner 3H <5908'><5952'-12439'> Proj: 12494'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 3H
Area	Ohio County, WV	Well	Gary Kestner 3H
Field	Ohio	Wellbore	Gary Kestner 3H (AWB)
Facility	Gary Kestner		

## COMMENTS

### Wellpath general comments

API: 47-069-00081-00-00

Rig: Nomac 243

BHI Job#: 3924674

Duration: 8/6/11-8/23/11

VES / Gyro <100'-5908'>

BHI / NaviTrak MWD <5908'> <5952'- 12439'>

TD Projected To MD: 12494'