



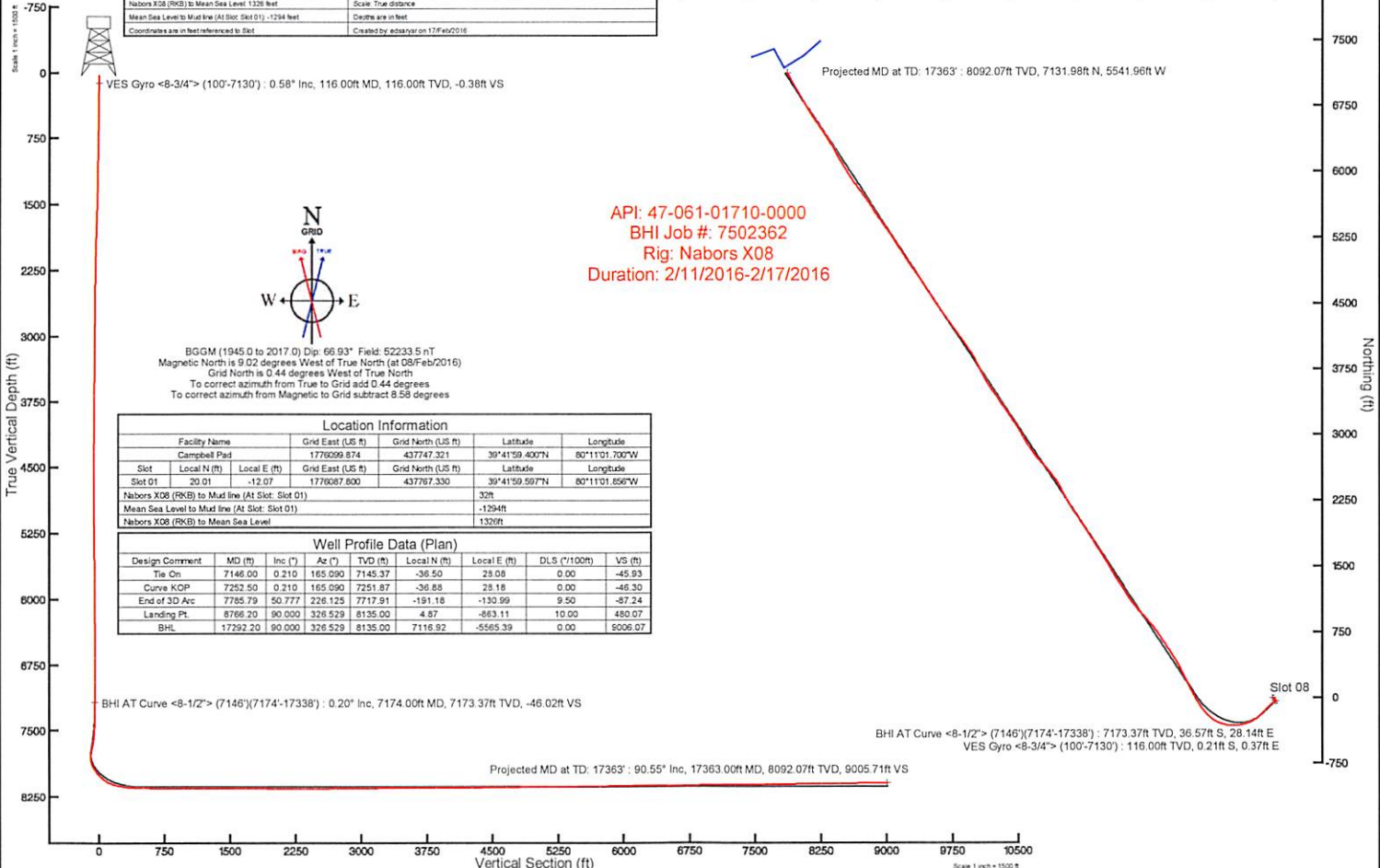
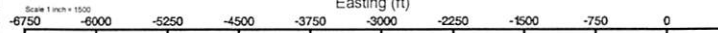
# NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV  
 Field: Monongalia  
 Facility: Campbell Pad

Slot: Slot 01  
 Well: Campbell 1H  
 Wellbore: Campbell 1H PWB



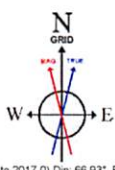
Plot reference wellpath is Campbell 1H PWB Rev 8.0	Grid System: NAD83 (Lambert West Virginia SP, Northern Zone (4701)) US feet
True vertical depths are referenced to Nabors X08 (RKB)	North Reference: Grid north
Measured depths are referenced to Nabors X08 (RKB)	Scale: True distance
Nabors X08 (RKB) to Mean Sea Level: 1326 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: Slot 01): -1294 feet	Coordinates are in feet referenced to East
Created by: ecdanray on 17/Feb/2016	



VES Gyro <8-3/4"> (100°-7130') : 0.58° Inc, 116.00ft MD, 116.00ft TVD, -0.36R VS

Projected MD at TD: 17363' : 8092.07ft TVD, 7131.98ft N, 5541.96ft W

API: 47-061-01710-0000  
 BHI Job #: 7502362  
 Rig: Nabors X08  
 Duration: 2/11/2016-2/17/2016



BGGM (1945 0 to 2017 0) Dip: 66.93° Field: 52233.5 nT  
 Magnetic North is 9.02 degrees West of True North (at 08/Feb/2016)  
 Grid North is 0.44 degrees West of True North  
 To correct azimuth from True to Grid add 0.44 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.58 degrees

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Campbell Pad	1776099.874	437747.321	39°41'59.400"N	80°11'01.700"W
Slot	Local N (ft)	Local E (ft)	Latitude	Longitude
Slot 01	20.01	-12.07	39°41'59.597"N	80°11'01.856"W
Nabors X08 (RKB) to Mud line (At Slot: Slot 01)	32ft			
Mean Sea Level to Mud line (At Slot: Slot 01)	-1294ft			
Nabors X08 (RKB) to Mean Sea Level	1326ft			

Well Profile Data (Plan)						
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)
Tie On	7146.00	0.210	165.090	7145.37	-36.50	28.08
Curve KOP	7252.50	0.210	165.090	7251.87	-36.88	28.18
End of 3D Arc	7785.79	50.777	226.125	7717.91	-191.18	-130.99
Landing Pt.	8766.20	90.000	326.529	8135.00	4.87	-863.11
BHI	17292.20	90.000	326.529	8135.00	7116.92	-5565.39

BHI AT Curve <8-1/2"> (7146°)(7174'-17338') : 0.20° Inc, 7174.00ft MD, 7173.37ft TVD, -46.02R VS

Projected MD at TD: 17363' : 8092.07ft TVD, 7131.98ft N, 5541.96ft W  
 VES Gyro <8-3/4"> (100°-7130') : 116.00ft TVD, 0.21ft S, 0.37ft E

Projected MD at TD: 17363' : 90.55° Inc, 17363.00ft MD, 8092.07ft TVD, 9005.71ft VS

Vertical Section (ft)  
 Azimuth 326.53° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500 ft



## Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 1 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

### REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	Edsaryar
Scale	0.999942	Report Generated	17/Feb/2016 at 14:48
Convergence at slot	0.44° West	Database/Source file	WA_MPL_EASTERNUS_Defn/Campbell_1H_AWB.xml

### WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	20.01	-12.07	1776087.80	437767.33	39°41'59.597"N	80°11'01.856"W
Facility Reference Pt			1776099.87	437747.32	39°41'59.400"N	80°11'01.700"W
Field Reference Pt			1777685.71	440640.65	39°42'28.114"N	80°10'41.690"W

### WELLPATH DATUM

Calculation method	Minimum curvature	Nabors X08 (RKB) to Facility Vertical Datum	1326.00ft
Horizontal Reference Pt	Slot	Nabors X08 (RKB) to Mean Sea Level	1326.00ft
Vertical Reference Pt	Nabors X08 (RKB)	Nabors X08 (RKB) to Mud Line at Slot (Slot 01)	32.00ft
MD Reference Pt	Nabors X08 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	326.53°

17/Feb/2016





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 2 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## WELLPATH DATA (184 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 [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00†	0.000	119.400	0.00	0.00	0.00	0.00	1776087.80	437767.33	39°41'59.597"N	80°11'01.856"W	0.00	0.000	0.00	0.00	0.00
32.00	0.000	119.400	32.00	0.00	0.00	0.00	1776087.80	437767.33	39°41'59.597"N	80°11'01.856"W	0.00	0.000	0.00	0.00	0.00
116.00	0.580	119.400	116.00	-0.38	-0.21	0.37	1776088.17	437767.12	39°41'59.595"N	80°11'01.852"W	0.43	119.400	0.69	0.69	0.00
216.00	0.420	118.300	215.99	-1.15	-0.63	1.13	1776088.93	437766.70	39°41'59.591"N	80°11'01.842"W	1.30	119.089	0.16	-0.16	-1.10
316.00	0.840	114.000	315.99	-2.09	-1.10	2.13	1776089.93	437766.23	39°41'59.586"N	80°11'01.829"W	2.40	117.413	0.42	0.42	-4.30
416.00	0.600	113.040	415.98	-3.15	-1.61	3.28	1776091.08	437765.72	39°41'59.581"N	80°11'01.814"W	3.65	116.101	0.24	-0.24	-0.96
516.00	0.830	115.560	515.97	-4.21	-2.12	4.41	1776092.21	437765.21	39°41'59.576"N	80°11'01.800"W	4.90	115.694	0.23	0.23	2.52
616.00	0.840	117.200	615.96	-5.47	-2.77	5.72	1776093.52	437764.56	39°41'59.570"N	80°11'01.783"W	6.35	115.852	0.03	0.01	1.64
716.00	0.860	119.610	715.95	-6.77	-3.48	7.02	1776094.82	437763.85	39°41'59.563"N	80°11'01.766"W	7.84	116.338	0.04	0.02	2.41
816.00	0.810	125.310	815.94	-8.10	-4.26	8.25	1776096.05	437763.07	39°41'59.555"N	80°11'01.750"W	9.29	117.283	0.10	-0.05	5.70
916.00	1.010	133.330	915.93	-9.62	-5.27	9.47	1776097.27	437762.06	39°41'59.545"N	80°11'01.735"W	10.84	119.093	0.24	0.20	8.02
1016.00	0.760	140.320	1015.92	-11.14	-6.38	10.53	1776098.33	437760.95	39°41'59.535"N	80°11'01.721"W	12.32	121.218	0.27	-0.25	6.99
1116.00	0.610	134.580	1115.91	-12.32	-7.27	11.34	1776099.14	437760.06	39°41'59.526"N	80°11'01.711"W	13.47	122.665	0.16	-0.15	-5.74
1216.00	0.950	135.590	1215.90	-13.65	-8.23	12.30	1776100.10	437759.10	39°41'59.516"N	80°11'01.698"W	14.80	123.809	0.34	0.34	1.01
1316.00	0.760	142.400	1315.89	-15.13	-9.35	13.28	1776101.08	437757.98	39°41'59.505"N	80°11'01.686"W	16.24	125.152	0.22	-0.19	6.81
1416.00	1.490	145.560	1415.87	-17.09	-10.95	14.42	1776102.22	437756.38	39°41'59.490"N	80°11'01.671"W	18.11	127.209	0.73	0.73	3.16
1516.00	1.710	146.750	1515.83	-19.88	-13.27	15.97	1776103.77	437754.06	39°41'59.467"N	80°11'01.651"W	20.77	129.716	0.22	0.22	1.19
1616.00	1.630	146.360	1615.79	-22.79	-15.70	17.58	1776105.38	437751.63	39°41'59.443"N	80°11'01.630"W	23.57	131.769	0.08	-0.08	-0.39
1716.00	1.880	148.250	1715.74	-25.86	-18.28	19.23	1776107.03	437749.05	39°41'59.418"N	80°11'01.609"W	26.53	133.548	0.26	0.25	1.89
1816.00	1.970	141.690	1815.68	-29.21	-21.02	21.16	1776108.96	437746.31	39°41'59.391"N	80°11'01.584"W	29.83	134.815	0.24	0.09	-6.56
1916.00	1.560	142.380	1915.64	-32.28	-23.45	23.06	1776110.86	437743.88	39°41'59.367"N	80°11'01.559"W	32.89	135.486	0.41	-0.41	0.69
2016.00	1.190	140.880	2015.61	-34.67	-25.33	24.54	1776112.34	437742.00	39°41'59.348"N	80°11'01.540"W	35.27	135.910	0.37	-0.37	-1.50
2116.00	1.160	145.410	2115.59	-36.71	-26.97	25.77	1776113.57	437740.36	39°41'59.332"N	80°11'01.524"W	37.31	136.305	0.10	-0.03	4.53
2216.00	0.970	144.700	2215.57	-38.57	-28.50	26.84	1776114.63	437738.83	39°41'59.317"N	80°11'01.510"W	39.14	136.720	0.19	-0.19	-0.71
2316.00	0.730	142.620	2315.56	-40.05	-29.69	27.71	1776115.51	437737.64	39°41'59.305"N	80°11'01.499"W	40.62	136.978	0.24	-0.24	-2.08
2416.00	0.480	144.810	2415.55	-41.11	-30.54	28.34	1776116.14	437736.79	39°41'59.297"N	80°11'01.491"W	41.67	137.143	0.25	-0.25	2.19
2516.00	0.600	140.230	2515.55	-42.05	-31.29	28.92	1776116.71	437736.04	39°41'59.290"N	80°11'01.483"W	42.60	137.256	0.13	0.12	-4.58
2616.00	0.740	137.050	2615.54	-43.20	-32.16	29.69	1776117.49	437735.17	39°41'59.281"N	80°11'01.473"W	43.77	137.288	0.14	0.14	-3.18
2716.00	0.760	123.820	2715.53	-44.45	-33.01	30.68	1776118.48	437734.33	39°41'59.273"N	80°11'01.461"W	45.06	137.088	0.17	0.02	-13.23
2816.00	0.620	120.550	2815.52	-45.55	-33.65	31.70	1776119.50	437733.68	39°41'59.267"N	80°11'01.448"W	46.23	136.709	0.15	-0.14	-3.27





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 3 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## WELLPATH DATA (184 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]
2916.00	0.520	119.730	2915.52	-46.44	-34.15	32.56	1776120.36	437733.18	39°41'59.262"N	80°11'01.437"W	47.18	136.365	0.10	-0.10	-0.82
3016.00	0.560	121.670	3015.52	-47.29	-34.63	33.37	1776121.17	437732.70	39°41'59.257"N	80°11'01.426"W	48.09	136.063	0.04	0.04	1.94
3116.00	0.630	134.850	3115.51	-48.27	-35.28	34.18	1776121.97	437732.06	39°41'59.251"N	80°11'01.416"W	49.11	135.907	0.15	0.07	13.18
3216.00	0.370	119.120	3215.51	-49.10	-35.82	34.85	1776122.64	437731.51	39°41'59.245"N	80°11'01.407"W	49.97	135.789	0.29	-0.26	-15.73
3316.00	0.200	117.900	3315.50	-49.54	-36.06	35.28	1776123.08	437731.27	39°41'59.243"N	80°11'01.402"W	50.45	135.623	0.17	-0.17	-1.22
3416.00	0.410	118.390	3415.50	-50.01	-36.31	35.75	1776123.55	437731.02	39°41'59.241"N	80°11'01.395"W	50.96	135.444	0.21	0.21	0.49
3516.00	0.730	116.420	3515.50	-50.87	-36.76	36.64	1776124.44	437730.57	39°41'59.236"N	80°11'01.384"W	51.90	135.099	0.32	0.32	-1.97
3616.00	0.330	114.360	3615.49	-51.67	-37.17	37.47	1776125.27	437730.17	39°41'59.232"N	80°11'01.373"W	52.78	134.767	0.40	-0.40	-2.06
3716.00	0.460	124.160	3715.49	-52.28	-37.51	38.06	1776125.86	437729.82	39°41'59.229"N	80°11'01.366"W	53.44	134.580	0.15	0.13	9.80
3816.00	0.640	130.450	3815.49	-53.19	-38.10	38.82	1776126.62	437729.23	39°41'59.223"N	80°11'01.356"W	54.39	134.461	0.19	0.18	6.29
3916.00	0.390	130.230	3915.48	-54.05	-38.68	39.51	1776127.30	437728.65	39°41'59.218"N	80°11'01.347"W	55.29	134.394	0.25	-0.25	-0.22
4016.00	0.320	136.000	4015.48	-54.66	-39.10	39.96	1776127.76	437728.23	39°41'59.213"N	80°11'01.341"W	55.91	134.377	0.08	-0.07	5.77
4116.00	0.390	146.700	4115.48	-55.27	-39.59	40.34	1776128.14	437727.75	39°41'59.209"N	80°11'01.336"W	56.52	134.459	0.10	0.07	10.70
4216.00	0.410	149.810	4215.48	-55.97	-40.18	40.71	1776128.51	437727.15	39°41'59.203"N	80°11'01.332"W	57.20	134.626	0.03	0.02	3.11
4316.00	0.250	143.690	4315.47	-56.54	-40.67	41.02	1776128.81	437726.67	39°41'59.198"N	80°11'01.328"W	57.76	134.753	0.16	-0.16	-6.12
4416.00	0.200	159.760	4415.47	-56.93	-41.00	41.21	1776129.00	437726.33	39°41'59.195"N	80°11'01.325"W	58.13	134.859	0.08	-0.05	16.07
4516.00	0.180	179.960	4515.47	-57.23	-41.33	41.27	1776129.06	437726.01	39°41'59.192"N	80°11'01.324"W	58.40	135.040	0.07	-0.02	20.20
4616.00	0.470	201.990	4615.47	-57.60	-41.86	41.11	1776128.91	437725.47	39°41'59.186"N	80°11'01.326"W	58.68	135.517	0.31	0.29	22.03
4716.00	0.170	219.730	4715.47	-57.87	-42.36	40.87	1776128.66	437724.98	39°41'59.181"N	80°11'01.329"W	58.86	136.027	0.31	-0.30	17.74
4816.00	0.540	247.110	4815.47	-57.83	-42.65	40.34	1776128.13	437724.68	39°41'59.178"N	80°11'01.336"W	58.71	136.600	0.40	0.37	27.38
4916.00	0.570	257.240	4915.46	-57.56	-42.95	39.42	1776127.22	437724.38	39°41'59.175"N	80°11'01.348"W	58.29	137.454	0.10	0.03	10.13
5016.00	0.570	265.620	5015.46	-57.15	-43.10	38.44	1776126.23	437724.24	39°41'59.174"N	80°11'01.360"W	57.75	138.271	0.08	0.00	8.38
5116.00	0.610	282.730	5115.45	-56.52	-43.02	37.42	1776125.22	437724.32	39°41'59.175"N	80°11'01.373"W	57.02	138.979	0.18	0.04	17.11
5216.00	0.910	307.230	5215.44	-55.39	-42.42	36.27	1776124.07	437724.91	39°41'59.180"N	80°11'01.388"W	55.81	139.468	0.44	0.30	24.50
5316.00	1.040	302.760	5315.43	-53.81	-41.45	34.87	1776122.67	437725.89	39°41'59.190"N	80°11'01.406"W	54.17	139.922	0.15	0.13	-4.47
5416.00	0.880	293.710	5415.42	-52.33	-40.65	33.41	1776121.21	437726.69	39°41'59.198"N	80°11'01.425"W	52.61	140.583	0.22	-0.16	-9.05
5516.00	0.680	295.310	5515.41	-51.18	-40.08	32.17	1776119.97	437727.25	39°41'59.203"N	80°11'01.441"W	51.40	141.253	0.20	-0.20	1.60
5616.00	0.490	314.580	5615.40	-50.25	-39.53	31.33	1776119.13	437727.80	39°41'59.209"N	80°11'01.452"W	50.44	141.604	0.27	-0.19	19.27
5716.00	0.450	313.200	5715.40	-49.45	-38.96	30.74	1776118.53	437728.37	39°41'59.214"N	80°11'01.459"W	49.63	141.731	0.04	-0.04	-1.38
5816.00	0.620	310.130	5815.39	-48.55	-38.34	30.04	1776117.83	437728.99	39°41'59.220"N	80°11'01.468"W	48.71	141.927	0.17	0.17	-3.07





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 4 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## WELLPATH DATA (184 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]
5916.00	0.340	291.610	5915.39	-47.79	-37.89	29.35	1776117.15	437729.45	39°41'59.225"N	80°11'01.477"W	47.92	142.239	0.32	-0.28	-18.52
6016.00	0.270	295.230	6015.39	-47.34	-37.68	28.86	1776116.66	437729.66	39°41'59.227"N	80°11'01.484"W	47.46	142.550	0.07	-0.07	3.62
6116.00	0.420	301.690	6115.39	-46.81	-37.38	28.33	1776116.13	437729.95	39°41'59.230"N	80°11'01.490"W	46.91	142.842	0.15	0.15	6.46
6216.00	0.380	292.670	6215.38	-46.20	-37.06	27.72	1776115.51	437730.27	39°41'59.233"N	80°11'01.498"W	46.28	143.212	0.07	-0.04	-9.02
6316.00	0.250	316.580	6315.38	-45.71	-36.78	27.26	1776115.06	437730.55	39°41'59.235"N	80°11'01.504"W	45.78	143.454	0.18	-0.13	23.91
6416.00	0.410	292.970	6415.38	-45.20	-36.48	26.78	1776114.58	437730.85	39°41'59.238"N	80°11'01.510"W	45.25	143.717	0.21	0.16	-23.61
6516.00	0.060	286.290	6515.38	-44.86	-36.32	26.40	1776114.20	437731.01	39°41'59.240"N	80°11'01.515"W	44.91	143.991	0.35	-0.35	-6.68
6616.00	0.180	339.270	6615.38	-44.67	-36.16	26.29	1776114.09	437731.17	39°41'59.241"N	80°11'01.517"W	44.71	143.979	0.15	0.12	52.98
6716.00	0.250	69.530	6715.38	-44.56	-35.94	26.44	1776114.24	437731.39	39°41'59.244"N	80°11'01.515"W	44.62	143.656	0.31	0.07	90.26
6816.00	0.320	86.520	6815.38	-44.75	-35.85	26.93	1776114.72	437731.49	39°41'59.245"N	80°11'01.508"W	44.83	143.088	0.11	0.07	16.99
6916.00	0.080	104.140	6915.38	-44.94	-35.85	27.27	1776115.07	437731.49	39°41'59.245"N	80°11'01.504"W	45.04	142.736	0.24	-0.24	17.62
7016.00	0.490	127.120	7015.38	-45.40	-36.12	27.68	1776115.48	437731.21	39°41'59.242"N	80°11'01.499"W	45.51	142.536	0.42	0.41	22.98
7116.00	0.070	147.440	7115.37	-45.86	-36.43	28.06	1776115.85	437730.90	39°41'59.239"N	80°11'01.494"W	45.98	142.401	0.43	-0.42	20.32
7146.00	0.210	165.090	7145.37	-45.93	-36.50	28.08	1776115.88	437730.83	39°41'59.238"N	80°11'01.494"W	46.05	142.429	0.48	0.47	58.83
7174.00	0.200	109.490	7173.37	-46.02	-36.57	28.14	1776115.94	437730.77	39°41'59.238"N	80°11'01.493"W	46.14	142.421	0.68	-0.04	-198.57
7269.00	1.490	213.900	7268.36	-46.63	-37.65	27.61	1776115.40	437729.69	39°41'59.227"N	80°11'01.500"W	46.68	143.748	1.63	1.36	109.91
7363.00	11.290	229.520	7361.67	-48.23	-44.65	19.91	1776107.71	437722.68	39°41'59.157"N	80°11'01.597"W	48.89	155.972	10.49	10.43	16.62
7458.00	19.310	230.780	7453.23	-50.94	-60.65	0.63	1776088.43	437706.69	39°41'58.998"N	80°11'01.842"W	60.65	179.402	8.45	8.44	1.33
7552.00	27.210	228.650	7539.52	-55.45	-84.71	-27.59	1776060.22	437682.62	39°41'58.758"N	80°11'02.201"W	89.09	198.038	8.45	8.40	-2.27
7646.00	36.130	225.780	7619.45	-63.58	-118.31	-63.65	1776024.15	437649.03	39°41'58.423"N	80°11'02.659"W	134.34	208.283	9.62	9.49	-3.05
7741.00	46.400	222.560	7690.77	-77.15	-163.30	-107.11	1775980.69	437604.04	39°41'57.975"N	80°11'03.211"W	195.29	213.262	11.04	10.81	-3.39
7836.00	50.540	228.630	7753.77	-90.51	-212.92	-157.95	1775929.86	437554.42	39°41'57.481"N	80°11'03.856"W	265.11	216.569	6.47	4.36	6.39
7930.00	51.900	239.740	7812.76	-93.43	-255.63	-217.24	1775870.57	437511.72	39°41'57.054"N	80°11'04.611"W	335.47	220.359	9.32	1.45	11.82
8025.00	54.050	250.030	7870.06	-82.34	-287.65	-285.80	1775802.02	437479.69	39°41'56.733"N	80°11'05.485"W	405.49	224.814	8.93	2.26	10.83
8119.00	54.720	260.860	7924.91	-57.60	-306.78	-359.58	1775728.24	437460.57	39°41'56.538"N	80°11'06.427"W	472.67	229.531	9.39	0.71	11.52
8214.00	56.570	267.950	7978.56	-20.92	-314.37	-437.56	1775650.27	437452.98	39°41'56.457"N	80°11'07.424"W	538.78	234.304	6.46	1.95	7.46
8308.00	61.720	277.360	8026.83	26.70	-310.46	-517.99	1775569.84	437456.89	39°41'56.490"N	80°11'08.453"W	603.90	239.064	10.18	5.48	10.01
8403.00	65.290	289.820	8069.34	88.86	-290.40	-600.36	1775487.48	437476.95	39°41'56.682"N	80°11'09.509"W	666.91	244.187	12.32	3.76	13.12
8497.00	73.210	302.730	8102.74	164.65	-251.39	-678.79	1775409.05	437515.96	39°41'57.061"N	80°11'10.516"W	723.85	249.678	15.35	8.43	13.73
8592.00	79.760	315.540	8125.02	252.59	-193.14	-750.15	1775337.70	437574.20	39°41'57.632"N	80°11'11.434"W	774.61	255.561	14.80	6.89	13.48





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 5 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## WELLPATH DATA (184 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]
8686.00	85.280	324.390	8137.28	345.05	-121.86	-809.98	1775277.87	437645.48	39°41'58.332"N	80°11'12.207"W	819.09	261.444	11.02	5.87	9.41
8781.00	90.150	328.690	8141.06	439.93	-42.70	-862.28	1775225.57	437724.63	39°41'59.110"N	80°11'12.884"W	863.34	267.165	6.84	5.13	4.53
8875.00	86.920	332.440	8143.47	533.64	39.11	-908.45	1775179.40	437806.44	39°41'59.915"N	80°11'13.482"W	909.29	272.465	5.26	-3.44	3.99
8970.00	89.480	333.460	8146.45	627.98	123.67	-951.63	1775136.23	437890.99	39°42'00.747"N	80°11'14.043"W	959.63	277.404	2.90	2.69	1.07
9064.00	90.000	334.870	8146.88	721.15	208.27	-992.59	1775095.27	437975.59	39°42'01.580"N	80°11'14.575"W	1014.20	281.850	1.60	0.55	1.50
9159.00	90.460	334.200	8146.50	815.22	294.04	-1033.43	1775054.43	438061.35	39°42'02.425"N	80°11'15.106"W	1074.45	285.882	0.86	0.48	-0.71
9254.00	90.340	330.740	8145.83	909.69	378.27	-1077.34	1775010.53	438145.57	39°42'03.254"N	80°11'15.676"W	1141.81	289.347	3.64	-0.13	-3.64
9348.00	89.720	328.190	8145.78	1003.56	459.22	-1125.09	1774962.78	438226.53	39°42'04.050"N	80°11'16.295"W	1215.20	292.204	2.79	-0.66	-2.71
9443.00	89.630	327.030	8146.32	1098.54	539.44	-1175.98	1774911.89	438306.74	39°42'04.839"N	80°11'16.954"W	1293.80	294.642	1.22	-0.09	-1.22
9537.00	89.690	325.190	8146.88	1192.53	617.47	-1228.39	1774859.48	438384.76	39°42'05.606"N	80°11'17.632"W	1374.85	296.687	1.96	0.06	-1.96
9632.00	89.820	327.650	8147.29	1287.52	696.61	-1280.93	1774806.95	438463.89	39°42'06.384"N	80°11'18.312"W	1458.10	298.539	2.59	0.14	2.59
9727.00	89.880	323.430	8147.54	1382.49	774.92	-1334.67	1774753.21	438542.20	39°42'07.154"N	80°11'19.007"W	1543.32	300.140	4.44	0.06	-4.44
9821.00	90.000	320.150	8147.64	1476.15	848.77	-1392.81	1774695.08	438616.05	39°42'07.880"N	80°11'19.758"W	1631.05	301.358	3.49	0.13	-3.49
9916.00	89.850	316.810	8147.76	1570.20	919.89	-1455.77	1774632.12	438687.16	39°42'08.578"N	80°11'20.571"W	1722.05	302.288	3.52	-0.16	-3.52
10010.00	90.030	317.930	8147.86	1663.00	989.05	-1519.43	1774568.46	438756.32	39°42'09.256"N	80°11'21.392"W	1812.98	303.061	1.21	0.19	1.19
10105.00	89.910	323.670	8147.91	1757.49	1062.63	-1579.45	1774508.44	438829.90	39°42'09.979"N	80°11'22.167"W	1903.64	303.932	6.04	-0.13	6.04
10200.00	88.490	324.840	8149.23	1852.40	1139.73	-1634.94	1774452.96	438906.99	39°42'10.737"N	80°11'22.885"W	1992.99	304.881	1.94	-1.49	1.23
10294.00	89.450	325.800	8150.92	1946.36	1217.01	-1688.42	1774399.49	438984.27	39°42'11.496"N	80°11'23.577"W	2081.31	305.784	1.44	1.02	1.02
10389.00	89.510	326.740	8151.79	2041.36	1296.02	-1741.16	1774346.74	439063.27	39°42'12.273"N	80°11'24.259"W	2170.56	306.662	0.99	0.06	0.99
10483.00	89.850	327.390	8152.31	2135.35	1374.91	-1792.27	1774295.64	439142.16	39°42'13.049"N	80°11'24.921"W	2258.89	307.493	0.78	0.36	0.69
10578.00	90.030	328.470	8152.41	2230.32	1455.41	-1842.71	1774245.20	439222.65	39°42'13.841"N	80°11'25.574"W	2348.15	308.302	1.15	0.19	1.14
10673.00	90.180	329.990	8152.24	2325.21	1537.03	-1891.31	1774196.61	439304.27	39°42'14.644"N	80°11'26.204"W	2437.11	309.100	1.61	0.16	1.60
10767.00	90.220	328.010	8151.91	2419.12	1617.60	-1939.72	1774148.20	439384.84	39°42'15.436"N	80°11'26.831"W	2525.70	309.826	2.11	0.04	-2.11
10862.00	90.310	326.900	8151.47	2514.11	1697.68	-1990.83	1774097.10	439464.91	39°42'16.224"N	80°11'27.493"W	2616.39	310.456	1.17	0.09	-1.17
10957.00	90.400	327.940	8150.88	2609.09	1777.73	-2041.98	1774045.94	439544.95	39°42'17.011"N	80°11'28.155"W	2707.40	311.043	1.10	0.09	1.09
11051.00	90.430	327.340	8150.20	2703.07	1857.13	-2092.29	1773995.64	439624.35	39°42'17.792"N	80°11'28.807"W	2797.61	311.592	0.64	0.03	-0.64
11146.00	90.520	326.910	8149.41	2798.06	1936.92	-2143.85	1773944.08	439704.13	39°42'18.576"N	80°11'29.474"W	2889.25	312.097	0.46	0.09	-0.45
11241.00	90.620	326.390	8148.47	2893.06	2016.27	-2196.08	1773891.85	439783.48	39°42'19.357"N	80°11'30.150"W	2981.29	312.556	0.56	0.11	-0.55
11335.00	90.460	325.210	8147.58	2987.04	2094.01	-2248.91	1773839.03	439861.21	39°42'20.121"N	80°11'30.834"W	3072.86	312.957	1.27	-0.17	-1.26
11430.00	90.650	326.920	8146.66	3082.03	2172.82	-2301.94	1773786.00	439940.02	39°42'20.896"N	80°11'31.520"W	3165.45	313.347	1.81	0.20	1.80





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 6 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## WELLPATH DATA (184 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]
11524.00	90.520	329.880	8145.70	3175.97	2252.87	-2351.19	1773736.76	440020.06	39°42'21.683"N	80°11'32.158"W	3256.30	313.777	3.15	-0.14	3.15
11619.00	90.520	333.800	8144.84	3270.54	2336.60	-2396.01	1773691.94	440103.79	39°42'22.507"N	80°11'32.740"W	3346.73	314.281	4.13	0.00	4.13
11714.00	90.860	331.620	8143.69	3364.97	2421.02	-2439.56	1773648.39	440188.20	39°42'23.338"N	80°11'33.306"W	3436.97	314.781	2.32	0.36	-2.29
11809.00	90.310	323.690	8142.72	3459.87	2501.21	-2490.34	1773597.61	440268.39	39°42'24.127"N	80°11'33.963"W	3529.57	315.125	8.37	-0.58	-8.35
11903.00	90.030	319.810	8142.44	3553.53	2575.02	-2548.53	1773539.43	440342.19	39°42'24.852"N	80°11'34.715"W	3622.94	315.296	4.14	-0.30	-4.13
11997.00	90.220	318.690	8142.24	3646.77	2646.23	-2609.89	1773478.07	440413.40	39°42'25.551"N	80°11'35.507"W	3716.72	315.396	1.21	0.20	-1.19
12092.00	89.690	318.660	8142.31	3740.88	2717.57	-2672.62	1773415.34	440484.73	39°42'26.251"N	80°11'36.317"W	3811.57	315.478	0.56	-0.56	-0.03
12187.00	90.090	324.950	8142.50	3835.50	2792.19	-2731.33	1773356.64	440559.35	39°42'26.984"N	80°11'37.075"W	3905.96	315.631	6.63	0.42	6.62
12281.00	90.090	326.510	8142.35	3929.49	2869.87	-2784.26	1773303.71	440637.03	39°42'27.747"N	80°11'37.760"W	3998.53	315.867	1.66	0.00	1.66
12376.00	90.520	330.220	8141.84	4024.43	2950.74	-2834.08	1773253.89	440717.89	39°42'28.543"N	80°11'38.406"W	4091.31	316.155	3.93	0.45	3.91
12470.00	90.250	330.010	8141.21	4118.24	3032.24	-2880.91	1773207.06	440799.38	39°42'29.345"N	80°11'39.013"W	4182.60	316.466	0.36	-0.29	-0.22
12565.00	90.000	327.770	8141.00	4213.15	3113.57	-2929.99	1773157.98	440880.71	39°42'30.145"N	80°11'39.649"W	4275.42	316.740	2.37	-0.26	-2.36
12660.00	90.120	325.760	8140.90	4308.15	3193.03	-2982.06	1773105.92	440960.16	39°42'30.926"N	80°11'40.323"W	4368.99	316.957	2.12	0.13	-2.12
12754.00	90.430	325.730	8140.45	4402.14	3270.72	-3034.97	1773053.02	441037.85	39°42'31.690"N	80°11'41.008"W	4461.91	317.141	0.33	0.33	-0.03
12849.00	90.830	325.180	8139.41	4497.11	3348.96	-3088.83	1772999.15	441116.09	39°42'32.459"N	80°11'41.705"W	4555.93	317.314	0.72	0.42	-0.58
12943.00	90.710	325.480	8138.14	4591.08	3426.27	-3142.30	1772945.69	441193.39	39°42'33.219"N	80°11'42.396"W	4649.02	317.475	0.34	-0.13	0.32
13038.00	90.400	323.130	8137.22	4686.00	3503.41	-3197.72	1772890.27	441270.53	39°42'33.977"N	80°11'43.113"W	4743.35	317.612	2.49	-0.33	-2.47
13132.00	90.980	328.190	8136.09	4779.95	3580.99	-3250.73	1772837.27	441348.11	39°42'34.740"N	80°11'43.799"W	4836.40	317.768	5.42	0.62	5.38
13227.00	90.550	332.420	8134.82	4874.72	3663.49	-3297.78	1772790.22	441430.60	39°42'35.551"N	80°11'44.409"W	4929.15	318.007	4.48	-0.45	4.45
13321.00	90.250	333.070	8134.17	4968.16	3747.05	-3340.82	1772747.18	441514.16	39°42'36.374"N	80°11'44.968"W	5020.11	318.280	0.76	-0.32	0.69
13416.00	90.430	334.360	8133.60	5062.41	3832.23	-3382.89	1772705.11	441599.33	39°42'37.212"N	80°11'45.515"W	5111.74	318.564	1.37	0.19	1.36
13510.00	90.620	329.560	8132.74	5155.96	3915.17	-3427.06	1772660.94	441682.26	39°42'38.028"N	80°11'46.088"W	5203.20	318.803	5.11	0.20	-5.11
13605.00	90.180	325.300	8132.08	5250.92	3995.21	-3478.19	1772609.82	441762.29	39°42'38.816"N	80°11'46.751"W	5297.12	318.957	4.51	-0.46	-4.48
13700.00	90.250	323.960	8131.72	5345.87	4072.67	-3533.18	1772554.83	441839.75	39°42'39.577"N	80°11'47.462"W	5391.66	319.057	1.41	0.07	-1.41
13794.00	90.680	324.660	8130.96	5439.79	4149.01	-3588.02	1772500.00	441916.09	39°42'40.327"N	80°11'48.171"W	5485.27	319.147	0.87	0.46	0.74
13889.00	90.710	323.930	8129.81	5534.71	4226.15	-3643.46	1772444.56	441993.22	39°42'41.085"N	80°11'48.888"W	5579.88	319.235	0.77	0.03	-0.77
13983.00	90.710	324.250	8128.64	5628.62	4302.28	-3698.58	1772389.44	442069.35	39°42'41.833"N	80°11'49.601"W	5673.54	319.315	0.34	0.00	0.34
14078.00	91.050	326.090	8127.18	5723.58	4380.24	-3752.83	1772335.19	442147.31	39°42'42.600"N	80°11'50.303"W	5768.04	319.411	1.97	0.36	1.94
14172.00	91.290	325.190	8125.26	5817.55	4457.83	-3805.88	1772282.15	442224.89	39°42'43.362"N	80°11'50.989"W	5861.48	319.511	0.99	0.26	-0.96
14267.00	90.890	325.320	8123.46	5912.51	4535.87	-3860.01	1772228.02	442302.93	39°42'44.129"N	80°11'51.690"W	5955.99	319.602	0.44	-0.42	0.14





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 7 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## WELLPATH DATA (184 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]
14361.00	90.860	326.180	8122.02	6006.48	4613.56	-3912.91	1772175.13	442380.61	39°42'44.893"N	80°11'52.374"W	6049.44	319.698	0.92	-0.03	0.91
14456.00	90.800	327.910	8120.64	6101.47	4693.26	-3964.58	1772123.46	442460.31	39°42'45.677"N	80°11'53.043"W	6143.66	319.811	1.82	-0.06	1.82
14550.00	90.710	327.160	8119.40	6195.44	4772.57	-4015.03	1772073.01	442539.61	39°42'46.457"N	80°11'53.697"W	6236.81	319.927	0.80	-0.10	-0.80
14645.00	89.780	322.690	8119.00	6290.38	4850.29	-4069.61	1772018.44	442617.33	39°42'47.221"N	80°11'54.403"W	6331.43	320.002	4.81	-0.98	-4.71
14739.00	89.420	326.350	8119.65	6384.30	4926.82	-4124.15	1771963.89	442693.86	39°42'47.973"N	80°11'55.109"W	6425.13	320.068	3.91	-0.38	3.89
14834.00	89.480	326.020	8120.57	6479.30	5005.75	-4177.02	1771911.03	442772.78	39°42'48.749"N	80°11'55.793"W	6519.59	320.157	0.35	0.06	-0.35
14929.00	89.910	327.180	8121.07	6574.30	5085.06	-4229.31	1771858.74	442852.08	39°42'49.528"N	80°11'56.470"W	6613.99	320.249	1.30	0.45	1.22
15023.00	90.550	327.390	8120.70	6668.29	5164.15	-4280.12	1771807.94	442931.16	39°42'50.306"N	80°11'57.128"W	6707.30	320.348	0.72	0.68	0.22
15118.00	91.390	326.870	8119.09	6763.27	5243.92	-4331.67	1771756.39	443010.94	39°42'51.091"N	80°11'57.796"W	6801.62	320.442	1.04	0.88	-0.55
15212.00	92.030	325.450	8116.28	6857.22	5321.96	-4383.99	1771704.07	443088.97	39°42'51.858"N	80°11'58.473"W	6895.12	320.520	1.66	0.68	-1.51
15307.00	91.140	324.650	8113.65	6952.15	5399.80	-4438.39	1771649.68	443166.80	39°42'52.623"N	80°11'59.177"W	6989.79	320.581	1.26	-0.94	-0.84
15401.00	90.950	325.250	8111.94	7046.10	5476.74	-4492.36	1771595.71	443243.74	39°42'53.379"N	80°11'59.875"W	7083.50	320.639	0.67	-0.20	0.64
15496.00	90.830	325.560	8110.46	7141.07	5554.93	-4546.30	1771541.78	443321.93	39°42'54.148"N	80°12'00.573"W	7178.17	320.702	0.35	-0.13	0.33
15590.00	91.320	325.730	8108.70	7235.04	5632.52	-4599.33	1771488.75	443399.51	39°42'54.910"N	80°12'01.259"W	7271.81	320.766	0.55	0.52	0.18
15685.00	90.370	323.070	8107.30	7329.95	5709.75	-4654.62	1771433.46	443476.73	39°42'55.669"N	80°12'01.975"W	7366.60	320.813	2.97	-1.00	-2.80
15779.00	90.310	323.340	8106.74	7423.79	5785.02	-4710.92	1771377.16	443552.00	39°42'56.409"N	80°12'02.703"W	7460.51	320.843	0.29	-0.06	0.29
15874.00	90.250	323.710	8106.28	7518.66	5861.41	-4767.40	1771320.69	443628.39	39°42'57.159"N	80°12'03.433"W	7555.41	320.877	0.39	-0.06	0.39
15968.00	90.680	326.760	8105.51	7612.62	5938.62	-4820.99	1771267.10	443705.59	39°42'57.918"N	80°12'04.126"W	7649.13	320.930	3.28	0.46	3.24
16063.00	90.650	328.550	8104.41	7707.59	6018.87	-4871.81	1771216.28	443785.84	39°42'58.707"N	80°12'04.785"W	7743.47	321.013	1.88	-0.03	1.88
16157.00	90.830	329.210	8103.20	7801.51	6099.34	-4920.39	1771167.71	443866.30	39°42'59.499"N	80°12'05.414"W	7836.59	321.107	0.73	0.19	0.70
16252.00	90.860	330.730	8101.80	7896.32	6181.57	-4967.92	1771120.18	443948.53	39°43'00.308"N	80°12'06.031"W	7930.45	321.212	1.60	0.03	1.60
16346.00	90.890	331.130	8100.36	7990.04	6263.72	-5013.59	1771074.51	444030.67	39°43'01.116"N	80°12'06.623"W	8023.11	321.326	0.43	0.03	0.43
16441.00	90.490	326.930	8099.22	8084.92	6345.15	-5062.46	1771025.64	444112.10	39°43'01.917"N	80°12'07.257"W	8117.24	321.415	4.44	-0.42	-4.42
16536.00	89.780	326.770	8098.99	8179.91	6424.69	-5114.41	1770973.70	444191.63	39°43'02.699"N	80°12'07.930"W	8211.81	321.478	0.77	-0.75	-0.17
16630.00	90.250	325.800	8098.97	8273.91	6502.88	-5166.59	1770921.52	444269.82	39°43'03.468"N	80°12'08.605"W	8305.48	321.533	1.15	0.50	-1.03
16725.00	90.460	325.940	8098.38	8368.90	6581.52	-5219.89	1770868.23	444348.45	39°43'04.241"N	80°12'09.295"W	8400.21	321.582	0.27	0.22	0.15
16819.00	90.490	327.670	8097.60	8462.90	6660.17	-5271.35	1770816.77	444427.10	39°43'05.014"N	80°12'09.962"W	8493.82	321.639	1.84	0.03	1.84
16914.00	90.520	329.410	8096.76	8557.83	6741.20	-5320.93	1770767.20	444508.12	39°43'05.811"N	80°12'10.604"W	8588.13	321.715	1.83	0.03	1.83
17008.00	90.620	329.960	8095.83	8651.68	6822.34	-5368.37	1770719.75	444589.26	39°43'06.609"N	80°12'11.219"W	8681.23	321.801	0.59	0.11	0.59
17103.00	90.650	330.800	8094.77	8746.46	6904.92	-5415.32	1770672.81	444671.83	39°43'07.422"N	80°12'11.828"W	8775.17	321.894	0.88	0.03	0.88





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 8 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## WELLPATH DATA (184 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]
17198.00	90.550	331.200	8093.78	8841.17	6988.01	-5461.37	1770626.76	444754.91	39°43'08.239"N	80°12'12.426"W	8868.98	321.991	0.43	-0.11	0.42
17292.00	90.650	330.690	8092.80	8934.88	7070.17	-5507.02	1770581.11	444837.07	39°43'09.048"N	80°12'13.018"W	8961.84	322.085	0.55	0.11	-0.54
17338.00	90.550	330.440	8092.31	8980.77	7110.23	-5529.63	1770558.51	444877.13	39°43'09.442"N	80°12'13.312"W	9007.34	322.128	0.59	-0.22	-0.54
17363.00	90.550	330.440	8092.07	9005.71	7131.98	-5541.96	1770546.17	444898.88	39°43'09.656"N	80°12'13.472"W	9032.08	322.151	0.00	0.00	0.00

17/Feb/2016



# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 9 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Campbell 1H LL1		8066.00	7495.20	-5173.85	1770914.26	445262.08	39°43'13.274"N	80°12'08.797"W	point
Campbell 1H LL2		8066.00	7333.06	-5362.25	1770725.87	445099.95	39°43'11.657"N	80°12'11.192"W	point
Campbell 1H LL3		8066.00	7189.94	-5581.88	1770506.26	444956.84	39°43'10.226"N	80°12'13.988"W	point
Campbell 1H LL4		8066.00	7408.16	-5698.31	1770389.83	445175.04	39°43'12.373"N	80°12'15.500"W	point
Campbell 1H LL5		8066.00	7317.95	-5948.56	1770139.60	445084.84	39°43'11.462"N	80°12'18.694"W	point
Campbell 1H BHL Rev-8		8135.00	7116.92	-5565.39	1770522.75	444883.82	39°43'09.505"N	80°12'13.770"W	point
Campbell 1H LP Rev-8		8135.00	4.87	-863.11	1775224.74	437772.20	39°41'59.580"N	80°11'12.899"W	point

## WELLPATH COMPOSITION - Ref Wellbore: Campbell 1H AWB Ref Wellpath: Campbell 1H AWP Proj: 17363'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	7146.00	Generic gyro - northseeking (Standard)	01_VES Gyro <8-3/4"> (100'-7130')	Campbell 1H AWB
7146.00	17338.00	NaviTrak (AT Curve Short Spaced)	02_BHI AT Curve <8-1/2"> (7146')(7174'-17338')	Campbell 1H AWB
17338.00	17363.00	Blind Drilling (std)	Projection to bit	Campbell 1H AWB

17/Feb/2016





# Actual Wellpath Report

Campbell 1H AWP Proj: 17363'

Page 10 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Slot	Slot 01
Area	Monongalia County, WV	Well	Campbell 1H
Field	Monongalia	Wellbore	Campbell 1H AWB
Facility	Campbell Pad		

## COMMENTS

**Wellpath general comments**  
API: 47-061-01710-0000  
BHI Job #: 7502362  
Rig: Nabors X08  
Duration: 2/11/2016-2/17/2016  
VES Gyro <8-3/4"> (100'-7130')  
BHI AT Curve <8-1/2"> (7146')(7174'-17338')  
Projected MD at TD: 17363'