

NORTHEAST NATURAL ENERGY, LLC

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

Slot: Slot 7H
 Well: Bunner 7H
 Wellbore: Bunner 7H PWB

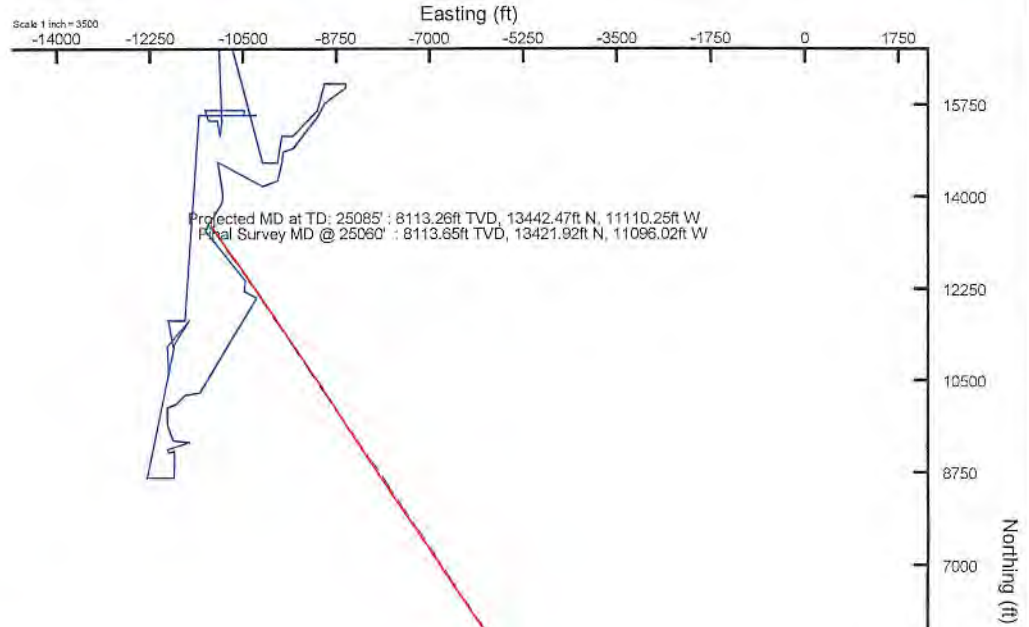


Well Name	Bunner 7H	Wellbore	Bunner 7H PWB
Well ID	47061019090000	Well ID	111543084
Well Type	Production	Well Type	Production
Well Status	Active	Well Status	Active
Well Depth	17345.79 ft	Well Depth	17345.79 ft
Well Completion	Open Hole	Well Completion	Open Hole
Well Completion Date	12/24/2022	Well Completion Date	12/24/2022

Location Information				
Family Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
Bunner Pad	1166438.500	424248.800	39°39'45.2443"N	80°13'3.8725"W
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)
Slot 7H	0.11	-20.00	1166438.500	424248.800
Patterson 277 (RGR) to Ground level (At Slot Slot 7H)				209'
Mean Sea Level to Ground level (At Slot Slot 7H)				-1277'
Patterson 277 (RGR) to Mean Sea Level				1309'

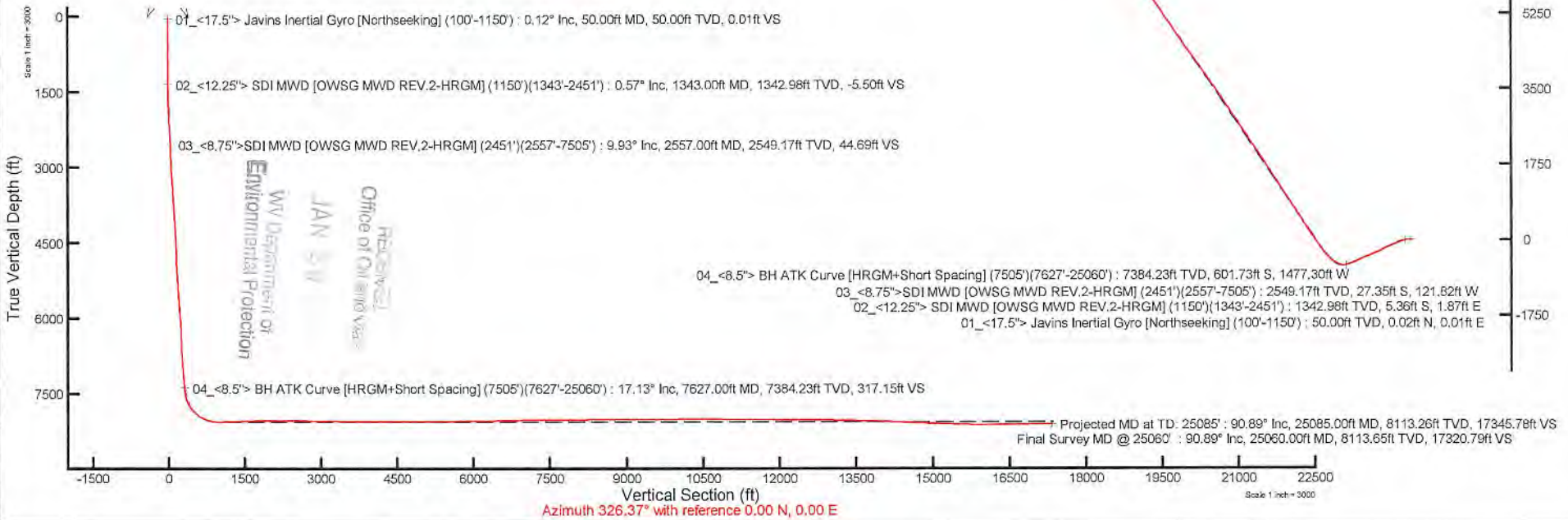
Well Profile Data									
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (1/100ft)	VS (ft)	
Top Of	7525.00	19.410	249.610	2289.39	-588.34	-1441.48	1.25	329.40	
Projection	7581.00	19.410	249.610	2349.07	-597.14	-1465.15	0.00	314.24	
Slake Turn	7694.01	25.892	278.292	7629.62	-607.63	-1582.05	3.91	370.08	
Landing Pt	8714.80	50.000	326.464	8050.00	-186.53	-2093.02	9.90	661.71	
Bunner 7H Injection Point Rev-2	23629.01	50.000	326.464	8068.00	12143.07	-10291.36	0.00	12803.00	
End of Turn	23677.75	50.000	325.420	8068.00	12285.94	-10220.34	2.00	15845.35	
BL	23678.00	50.000	325.420	8068.00	13486.75	-11115.45	0.00	17345.40	

Well Data			
Slot	Well	Wellbore	Wellpath
Slot 7H	Bunner 7H	Bunner 7H AWH	Bunner 7H ANP Proj: 25065'
Slot 7H	Bunner 7H	Bunner 7H PWB	Bunner 7H Rev-B.0



User specified HDGM Dip: 86.33° Field: 51876 nT
 Magnetic North is 8.63 degrees West of True North (at 12/19/2022)
 Grid North is 0.48 degrees West of True North
 To correct azimuth from True to Grid add 0.48 degrees
 To correct azimuth from Magnetic to Grid subtract 8.63 degrees

API:47061019090000
 BH Job #: 111543084
 Rig: Patterson 277
 Duration: 12/19/2022 - 12/24/2022



WV Department of
 Environmental Protection
 JAN 20 2023
 RECEIVED
 Office of Oil and Gas



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 1 of 13



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Manajohj
Scale	0.999941	Report Generated	12/27/2022 at 1:45:51 PM
Convergence at slot	0.46° West	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.11	-20.00	1766438.50	424248.48	39°39'45.2438"N	80°13'3.9293"W
Facility Reference Pt			1766458.50	424248.37	39°39'45.2443"N	80°13'3.6735"W
Field Reference Pt			1777685.71	440640.65	39°42'28.1140"N	80°10'41.6900"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 277 (RKB) to Facility Vertical Datum	1305.00ft
Horizontal Reference Pt	Slot	Patterson 277 (RKB) to Mean Sea Level	1305.00ft
Vertical Reference Pt	Patterson 277 (RKB)	Patterson 277 (RKB) to Ground Level at Slot (Slot 7H)	28.00ft
MD Reference Pt	Patterson 277 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	326.37°



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 2 of 13



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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	20.130	0.00	0.00	0.00	0.00	1766438.50	424248.48	39°39'45.2438"N	80°13'3.9293"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	20.130	28.00	0.00	0.00	0.00	1766438.50	424248.48	39°39'45.2438"N	80°13'3.9293"W	0.00	0.000	0.00	0.00	0.00
50.00	0.120	20.130	50.00	0.01	0.02	0.01	1766438.51	424248.50	39°39'45.2441"N	80°13'3.9292"W	0.02	20.130	0.55	0.55	0.00
100.00	0.110	64.950	100.00	0.04	0.09	0.07	1766438.57	424248.57	39°39'45.2448"N	80°13'3.9284"W	0.11	37.308	0.18	-0.02	89.64
150.00	0.160	134.820	150.00	-0.04	0.06	0.16	1766438.66	424248.54	39°39'45.2445"N	80°13'3.9272"W	0.17	69.039	0.32	-0.10	139.74
200.00	0.170	84.240	200.00	-0.14	0.02	0.29	1766438.79	424248.50	39°39'45.2441"N	80°13'3.9256"W	0.29	85.904	0.28	0.02	-101.16
250.00	0.150	103.550	250.00	-0.22	0.01	0.42	1766438.92	424248.49	39°39'45.2440"N	80°13'3.9239"W	0.42	88.298	0.11	-0.04	38.62
300.00	0.230	131.400	300.00	-0.37	-0.07	0.56	1766439.06	424248.41	39°39'45.2432"N	80°13'3.9221"W	0.57	97.011	0.24	0.16	55.70
350.00	0.220	185.810	350.00	-0.54	-0.23	0.63	1766439.13	424248.25	39°39'45.2416"N	80°13'3.9212"W	0.67	110.205	0.41	-0.02	108.82
400.00	0.120	238.140	400.00	-0.61	-0.35	0.57	1766439.07	424248.13	39°39'45.2404"N	80°13'3.9219"W	0.67	121.697	0.35	-0.20	104.66
450.00	0.130	175.600	450.00	-0.66	-0.44	0.53	1766439.03	424248.04	39°39'45.2396"N	80°13'3.9224"W	0.69	129.415	0.26	0.02	-125.08
500.00	0.250	168.070	500.00	-0.81	-0.60	0.56	1766439.06	424247.88	39°39'45.2379"N	80°13'3.9221"W	0.82	137.039	0.24	0.24	-15.06
550.00	0.640	169.040	550.00	-1.17	-0.98	0.64	1766439.14	424247.50	39°39'45.2342"N	80°13'3.9210"W	1.17	147.088	0.78	0.78	1.94
600.00	0.540	159.300	599.99	-1.66	-1.48	0.77	1766439.27	424247.00	39°39'45.2293"N	80°13'3.9193"W	1.67	152.398	0.28	-0.20	-19.48
650.00	0.430	180.120	649.99	-2.04	-1.89	0.86	1766439.36	424246.60	39°39'45.2259"N	80°13'3.9181"W	2.07	155.599	0.41	-0.22	41.64
700.00	0.420	179.480	699.99	-2.35	-2.26	0.86	1766439.36	424246.22	39°39'45.2216"N	80°13'3.9181"W	2.41	159.212	0.02	-0.02	-1.28
750.00	0.360	141.220	749.99	-2.66	-2.56	0.96	1766439.46	424245.92	39°39'45.2186"N	80°13'3.9168"W	2.73	159.525	0.52	-0.12	-76.52
800.00	0.490	164.230	799.99	-3.02	-2.89	1.11	1766439.61	424245.59	39°39'45.2154"N	80°13'3.9147"W	3.10	158.937	0.42	0.26	46.02
850.00	0.700	168.600	849.99	-3.51	-3.40	1.23	1766439.73	424245.09	39°39'45.2104"N	80°13'3.9132"W	3.61	160.063	0.43	0.42	8.74
900.00	0.130	249.370	899.98	-3.78	-3.71	1.24	1766439.74	424244.77	39°39'45.2072"N	80°13'3.9131"W	3.92	161.557	1.38	-1.14	161.54
950.00	0.400	171.120	949.98	-3.92	-3.91	1.21	1766439.71	424244.57	39°39'45.2053"N	80°13'3.9134"W	4.09	162.757	0.79	0.54	-156.50
1000.00	0.350	171.640	999.98	-4.22	-4.23	1.26	1766439.76	424244.25	39°39'45.2021"N	80°13'3.9127"W	4.41	163.393	0.10	-0.10	1.04
1050.00	0.240	155.220	1049.98	-4.46	-4.48	1.33	1766439.83	424244.00	39°39'45.1997"N	80°13'3.9118"W	4.67	163.479	0.28	-0.22	-32.84
1100.00	0.200	155.770	1099.98	-4.65	-4.65	1.41	1766439.91	424243.83	39°39'45.1980"N	80°13'3.9108"W	4.86	163.163	0.08	-0.08	1.10
1150.00	0.230	243.970	1149.98	-4.73	-4.77	1.35	1766439.85	424243.71	39°39'45.1968"N	80°13'3.9115"W	4.96	164.178	0.60	0.06	176.40
1343.00	0.570	115.870	1342.98	-5.50	-5.36	1.87	1766440.37	424243.12	39°39'45.1910"N	80°13'3.9048"W	5.68	160.790	0.38	0.18	-66.37
1405.00	0.570	185.850	1404.98	-6.00	-5.81	2.11	1766440.61	424242.68	39°39'45.1866"N	80°13'3.9016"W	6.18	159.982	1.05	0.00	112.87
1499.00	2.310	244.780	1498.95	-6.09	-7.08	0.35	1766438.85	424241.40	39°39'45.1739"N	80°13'3.9240"W	7.09	177.142	2.21	1.85	62.69
1595.00	4.640	247.850	1594.76	-5.03	-9.37	-4.99	1766433.51	424239.11	39°39'45.1509"N	80°13'3.9922"W	10.61	208.067	2.43	2.43	3.20
1690.00	6.830	251.050	1689.28	-2.84	-12.65	-13.90	1766424.60	424235.83	39°39'45.1177"N	80°13'4.1057"W	18.79	227.690	2.38	2.31	3.37



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 3 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
1785.00	7.890	258.460	1783.50	1.05	-15.79	-25.63	1766412.87	424232.69	39°39'45.0868"N	80°13'4.2554"W	30.10	238.365	1.50	1.12	7.80
1880.00	7.390	264.660	1877.66	6.40	-17.66	-38.10	1766400.40	424230.82	39°39'45.0663"N	80°13'4.4146"W	42.00	245.130	1.01	-0.53	6.53
1975.00	6.330	272.060	1971.98	12.35	-18.04	-49.42	1766389.08	424230.44	39°39'45.0616"N	80°13'4.5593"W	52.61	249.943	1.45	-1.12	7.79
2071.00	5.700	274.030	2067.45	18.35	-17.52	-59.46	1766379.04	424230.96	39°39'45.0660"N	80°13'4.6878"W	61.99	253.586	0.69	-0.66	2.05
2165.00	6.100	267.080	2160.95	23.75	-17.44	-69.11	1766369.40	424231.04	39°39'45.0660"N	80°13'4.8111"W	71.27	255.834	0.87	0.43	-7.39
2260.00	6.670	262.840	2255.36	28.79	-18.39	-79.62	1766358.88	424230.09	39°39'45.0558"N	80°13'4.9455"W	81.72	256.996	0.78	0.60	-4.46
2356.00	7.900	260.250	2350.59	33.94	-20.20	-91.66	1766346.85	424228.28	39°39'45.0370"N	80°13'5.0992"W	93.86	257.571	1.33	1.28	-2.70
2451.00	8.810	258.500	2444.58	39.33	-22.76	-105.22	1766333.29	424225.72	39°39'45.0106"N	80°13'5.2724"W	107.65	257.796	0.99	0.96	-1.84
2557.00	9.930	250.980	2549.17	44.69	-27.35	-121.82	1766316.69	424221.13	39°39'44.9639"N	80°13'5.4841"W	124.85	257.344	1.56	1.06	-7.09
2652.00	7.540	247.400	2643.06	47.95	-32.42	-135.32	1766303.19	424216.06	39°39'44.9128"N	80°13'5.6562"W	139.15	256.527	2.58	-2.52	-3.77
2747.00	5.490	255.450	2737.44	50.63	-35.96	-145.47	1766293.04	424212.53	39°39'44.8770"N	80°13'5.7857"W	149.85	256.116	2.36	-2.16	8.47
2841.00	5.410	250.960	2831.02	53.21	-38.53	-154.01	1766284.50	424209.95	39°39'44.8509"N	80°13'5.8946"W	158.76	255.954	0.46	-0.09	-4.78
2936.00	5.210	252.710	2925.61	55.56	-41.27	-162.36	1766276.15	424207.21	39°39'44.8231"N	80°13'6.0011"W	167.53	255.737	0.27	-0.21	1.84
3031.00	5.840	264.880	3020.17	59.08	-42.99	-171.30	1766267.21	424205.49	39°39'44.8055"N	80°13'6.1152"W	176.61	255.912	1.40	0.66	12.81
3126.00	7.540	270.660	3114.52	64.89	-43.35	-182.34	1766256.17	424205.14	39°39'44.8011"N	80°13'6.2564"W	187.43	256.628	1.92	1.79	6.08
3220.00	9.950	261.630	3207.43	71.84	-44.46	-196.55	1766241.96	424204.02	39°39'44.7889"N	80°13'6.4379"W	201.51	257.254	2.94	2.56	-9.61
3315.00	12.410	254.700	3300.62	78.55	-48.35	-214.52	1766224.00	424200.13	39°39'44.7491"N	80°13'6.6673"W	219.90	257.299	2.95	2.59	-7.29
3414.00	14.810	249.430	3396.84	84.76	-55.60	-236.63	1766201.89	424192.88	39°39'44.6757"N	80°13'6.9492"W	243.07	256.777	2.73	2.42	-5.32
3508.00	16.420	246.240	3487.37	89.75	-65.18	-260.04	1766178.48	424183.31	39°39'44.5792"N	80°13'7.2476"W	268.08	255.929	1.94	1.71	-3.39
3604.00	17.510	245.520	3579.19	94.37	-76.63	-286.60	1766152.92	424171.86	39°39'44.4640"N	80°13'7.5733"W	295.70	254.981	1.16	1.14	-0.75
3698.00	19.010	247.690	3668.45	99.62	-88.30	-312.64	1766125.88	424160.18	39°39'44.3465"N	80°13'7.9178"W	324.87	254.228	1.75	1.60	2.31
3793.00	19.370	245.670	3758.17	105.21	-100.67	-341.31	1766097.21	424147.82	39°39'44.2220"N	80°13'8.2831"W	355.84	253.567	0.79	0.38	-2.13
3887.00	18.530	243.780	3847.08	109.65	-113.69	-368.91	1766069.61	424134.80	39°39'44.0912"N	80°13'8.6347"W	386.03	252.872	1.11	-0.89	-2.01
3982.00	18.860	245.190	3937.07	113.95	-126.80	-396.39	1766042.13	424121.69	39°39'43.9594"N	80°13'8.9847"W	416.18	252.261	0.59	0.35	1.48
4077.00	20.230	248.150	4026.59	119.66	-139.36	-425.58	1766012.95	424109.13	39°39'43.8330"N	80°13'9.3566"W	447.81	251.869	1.78	1.44	3.12
4176.00	20.030	248.050	4119.55	126.59	-152.06	-457.19	1765981.34	424096.42	39°39'43.7049"N	80°13'9.7595"W	481.81	251.602	0.20	-0.20	-0.10
4271.00	19.100	245.290	4209.06	132.29	-164.64	-486.40	1765952.13	424083.85	39°39'43.5783"N	80°13'10.1318"W	513.51	251.299	1.38	-0.98	-2.91
4366.00	19.410	245.530	4298.75	137.22	-177.68	-514.89	1765923.65	424070.81	39°39'43.4472"N	80°13'10.4947"W	544.68	250.961	0.34	0.33	0.25
4461.00	19.830	247.000	4388.23	142.70	-190.51	-544.09	1765894.45	424057.98	39°39'43.3181"N	80°13'10.8667"W	576.48	250.702	0.68	0.44	1.56
4555.00	19.730	245.440	4476.69	148.14	-203.34	-573.19	1765865.34	424045.15	39°39'43.1890"N	80°13'11.2376"W	608.19	250.468	0.57	-0.11	-1.66

RECEIVED
 11/13/2013 10:00 AM
 11/13/2013 10:00 AM



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'
Page 4 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
4650.00	19.230	242.080	4566.25	152.23	-217.33	-601.60	1765836.93	424031.16	39°39'43.0485"N	80°13'11.5994"W	639.66	250.138	1.29	-0.53	-3.54
4745.00	18.680	239.760	4656.10	154.68	-232.32	-628.57	1765809.97	424016.18	39°39'42.8982"N	80°13'11.9427"W	670.13	249.716	0.98	-0.58	-2.44
4840.00	18.990	239.890	4746.01	156.53	-247.73	-655.09	1765783.45	424000.76	39°39'42.7438"N	80°13'12.2801"W	700.36	249.285	0.33	0.33	0.14
4935.00	19.160	241.280	4835.80	158.82	-262.98	-682.13	1765756.41	423985.52	39°39'42.5910"N	80°13'12.6244"W	731.07	248.917	0.51	0.18	1.46
5030.00	19.620	242.490	4925.41	161.85	-277.84	-709.95	1765728.60	423970.66	39°39'42.4419"N	80°13'12.9785"W	762.38	248.627	0.64	0.48	1.27
5125.00	19.110	245.880	5015.04	166.12	-291.56	-738.29	1765700.26	423956.94	39°39'42.3041"N	80°13'13.3395"W	793.77	248.450	1.30	-0.54	3.57
5224.00	18.980	247.040	5108.62	171.78	-304.46	-767.90	1765670.65	423944.04	39°39'42.1742"N	80°13'13.7168"W	826.06	248.372	0.40	-0.13	1.17
5318.00	17.970	248.320	5197.77	177.61	-315.78	-795.45	1765643.10	423932.72	39°39'42.0602"N	80°13'14.0679"W	855.84	248.348	1.16	-1.07	1.36
5413.00	17.970	248.550	5288.14	183.74	-326.56	-822.71	1765615.84	423921.94	39°39'41.9515"N	80°13'14.4154"W	885.15	248.351	0.07	0.00	0.24
5509.00	18.450	245.290	5379.38	189.22	-338.32	-850.29	1765588.26	423910.18	39°39'41.8331"N	80°13'14.7669"W	915.18	248.308	1.17	0.50	-3.40
5603.00	19.050	243.520	5468.35	193.43	-351.38	-877.54	1765561.02	423897.12	39°39'41.7019"N	80°13'15.1139"W	945.27	248.178	0.88	0.64	-1.88
5699.00	20.210	245.280	5558.77	197.95	-365.30	-906.62	1765531.93	423883.20	39°39'41.5620"N	80°13'15.4844"W	977.45	248.054	1.36	1.21	1.83
5794.00	20.690	248.550	5647.78	204.04	-378.30	-937.15	1765501.41	423870.20	39°39'41.4311"N	80°13'15.8733"W	1010.63	248.018	1.30	0.51	3.44
5889.00	19.400	248.900	5737.02	211.00	-390.12	-967.49	1765471.07	423858.39	39°39'41.3119"N	80°13'16.2601"W	1043.18	248.039	1.36	-1.36	0.37
5983.00	18.570	250.090	5825.91	217.94	-400.84	-996.13	1765442.43	423847.67	39°39'41.2037"N	80°13'16.6252"W	1073.75	248.081	0.97	-0.88	1.27
6077.00	19.710	250.640	5914.71	225.39	-411.19	-1025.16	1765413.40	423837.32	39°39'41.0991"N	80°13'16.9953"W	1104.55	248.144	1.23	1.21	0.59
6176.00	18.420	247.740	6008.28	232.59	-422.65	-1055.39	1765383.18	423825.86	39°39'40.9834"N	80°13'17.3806"W	1136.87	248.178	1.62	-1.30	-2.93
6271.00	17.920	247.090	6098.55	238.27	-434.02	-1082.74	1765355.83	423814.48	39°39'40.8689"N	80°13'17.7292"W	1166.49	248.156	0.57	-0.53	-0.68
6366.00	17.350	245.220	6189.08	243.17	-445.65	-1109.06	1765329.50	423802.86	39°39'40.7519"N	80°13'18.0646"W	1195.25	248.109	0.85	-0.60	-1.97
6461.00	15.940	243.040	6280.10	246.86	-457.50	-1133.55	1765305.02	423791.01	39°39'40.6328"N	80°13'18.3765"W	1222.40	248.021	1.62	-1.48	-2.29
6556.00	15.820	244.300	6371.47	250.17	-469.03	-1156.85	1765281.72	423779.48	39°39'40.5170"N	80°13'18.6731"W	1248.32	247.930	0.38	-0.13	1.33
6652.00	16.100	244.050	6463.77	253.75	-480.53	-1180.61	1765257.96	423767.98	39°39'40.4015"N	80°13'18.9758"W	1274.66	247.853	0.30	0.29	-0.26
6747.00	17.370	242.840	6554.75	257.11	-492.77	-1205.07	1765233.50	423755.74	39°39'40.2786"N	80°13'19.2873"W	1301.93	247.760	1.39	1.34	-1.27
6842.00	19.100	243.530	6644.97	260.64	-506.17	-1231.60	1765206.97	423742.34	39°39'40.1440"N	80°13'19.6252"W	1331.56	247.658	1.84	1.82	0.73
6937.00	20.660	246.080	6734.31	265.41	-519.89	-1260.84	1765177.74	423728.62	39°39'40.0061"N	80°13'19.9976"W	1363.82	247.592	1.88	1.64	2.68
7031.00	19.940	247.130	6822.47	271.20	-532.85	-1290.77	1765147.81	423715.86	39°39'39.8757"N	80°13'20.3789"W	1396.43	247.568	0.86	-0.77	1.12
7126.00	18.790	248.230	6912.10	277.37	-544.82	-1319.90	1765118.68	423703.70	39°39'39.7551"N	80°13'20.7502"W	1427.93	247.571	1.27	-1.21	1.16
7221.00	19.170	250.800	7001.93	284.40	-555.62	-1348.84	1765089.74	423692.89	39°39'39.6460"N	80°13'21.1191"W	1458.80	247.612	0.97	0.40	2.71
7315.00	20.840	251.310	7090.26	292.55	-566.06	-1379.26	1765059.33	423682.46	39°39'39.5405"N	80°13'21.5070"W	1490.90	247.686	1.79	1.78	0.54
7410.00	20.590	250.100	7179.12	300.88	-577.16	-1410.97	1765027.61	423671.36	39°39'39.4282"N	80°13'21.9113"W	1524.45	247.758	0.52	-0.26	-1.27



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 5 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]	
7505.00	19.410	249.610	7268.39	308.46	-588.34	-1441.48	1764997.11	423660.17	39°39'39.3153"N	80°13'22.3002"W	1556.92	247.797	1.25	-1.24	-0.52	
7627.00	17.130	249.390	7384.23	317.15	-601.73	-1477.30	1764961.29	423646.78	39°39'39.1801"N	80°13'22.7569"W	1595.15	247.838	1.87	-1.87	-0.18	
7722.00	16.450	259.820	7475.20	325.66	-609.04	-1503.64	1764934.95	423639.48	39°39'39.1058"N	80°13'23.0929"W	1622.30	247.950	3.25	-0.72	10.98	
7817.00	21.670	272.730	7565.00	341.42	-610.58	-1534.44	1764904.16	423637.94	39°39'39.0881"N	80°13'23.4865"W	1651.46	248.301	7.03	5.49	13.59	
7912.00	28.630	281.170	7650.97	367.90	-605.33	-1574.35	1764864.25	423643.19	39°39'39.1368"N	80°13'23.9974"W	1686.71	248.969	8.23	7.33	8.88	
8007.00	33.990	294.370	7732.20	406.53	-589.93	-1620.95	1764817.65	423658.58	39°39'39.2853"N	80°13'24.5949"W	1724.97	250.001	9.14	5.64	13.89	
8102.00	41.670	299.430	7807.20	457.29	-563.41	-1672.74	1764765.87	423685.10	39°39'39.5433"N	80°13'25.2597"W	1765.07	251.385	8.71	8.08	5.33	
8196.00	48.660	301.500	7873.44	517.24	-529.58	-1730.11	1764708.49	423718.94	39°39'39.8731"N	80°13'25.9968"W	1809.35	252.981	7.60	7.44	2.20	
8291.00	55.990	307.700	7931.49	587.04	-486.78	-1791.80	1764646.81	423761.73	39°39'40.2911"N	80°13'26.7899"W	1856.74	254.801	9.28	7.72	6.53	
8384.00	63.140	315.600	7978.63	664.50	-433.44	-1851.47	1764587.14	423815.07	39°39'40.8135"N	80°13'27.5584"W	1901.53	256.824	10.61	7.69	8.49	
8480.00	70.810	318.040	8016.15	751.56	-369.03	-1911.84	1764526.78	423879.47	39°39'41.4452"N	80°13'28.3369"W	1947.13	259.075	8.32	7.99	2.54	
8575.00	76.980	320.140	8042.50	842.05	-300.07	-1971.56	1764467.06	423948.43	39°39'42.1219"N	80°13'29.1076"W	1994.26	261.346	6.83	6.49	2.21	
8670.00	83.770	325.730	8058.38	935.46	-225.38	-2027.91	1764410.71	424023.11	39°39'42.8556"N	80°13'29.8360"W	2040.40	263.668	9.20	7.15	5.88	
8766.00	92.550	327.730	8061.46	1031.31	-145.24	-2080.49	1764358.13	424103.25	39°39'43.6434"N	80°13'30.5165"W	2085.56	266.007	9.38	9.16	2.08	
8861.00	91.940	323.330	8057.74	1126.20	-67.00	-2134.21	1764304.42	424181.49	39°39'44.4123"N	80°13'31.2114"W	2135.26	268.202	4.67	-0.64	-4.63	
8955.00	91.970	324.730	8054.53	1220.06	9.03	-2189.39	1764249.25	424257.51	39°39'45.1593"N	80°13'31.9248"W	2189.40	270.236	1.49	0.03	1.49	
9050.00	92.150	324.800	8051.12	1314.97	86.58	-2244.16	1764194.48	424335.05	39°39'45.9213"N	80°13'32.6332"W	2245.83	272.209	0.20	0.19	0.07	
9145.00	92.130	327.100	8047.57	1409.89	165.23	-2297.31	1764141.33	424413.70	39°39'46.6943"N	80°13'33.3209"W	2303.24	274.114	2.42	-0.02	2.42	
9240.00	92.340	327.540	8043.87	1504.80	245.13	-2348.57	1764090.08	424493.60	39°39'47.4799"N	80°13'33.9846"W	2361.32	275.959	0.51	0.22	0.46	
9335.00	91.320	327.160	8040.83	1599.74	325.08	-2399.79	1764038.85	424573.54	39°39'48.2658"N	80°13'34.6478"W	2421.71	277.714	1.15	-1.07	-0.40	
9431.00	91.020	327.290	8038.87	1695.71	405.78	-2451.75	1763986.90	424654.23	39°39'49.0592"N	80°13'35.3205"W	2485.10	279.398	0.34	-0.31	0.14	
9525.00	90.740	326.880	8037.43	1789.69	484.68	-2502.82	1763936.83	424733.13	39°39'49.8349"N	80°13'35.9818"W	2549.32	280.960	0.53	-0.30	-0.44	
9620.00	90.740	328.860	8036.20	1884.65	565.12	-2553.34	1763885.31	424813.56	39°39'50.6258"N	80°13'36.6360"W	2615.13	282.480	2.08	0.00	2.08	
9716.00	90.490	327.740	8035.17	1980.58	646.79	-2603.78	1763834.88	424895.23	39°39'51.4289"N	80°13'37.2895"W	2682.91	283.950	1.20	-0.26	-1.17	
9811.00	90.340	327.460	8034.48	2075.56	727.00	-2654.69	1763783.98	424975.43	39°39'52.2175"N	80°13'37.9487"W	2752.48	285.315	0.33	-0.16	-0.29	
9906.00	90.250	326.890	8033.99	2170.55	806.83	-2706.18	1763732.48	425055.26	39°39'53.0023"N	80°13'38.6154"W	2823.90	286.802	0.61	-0.09	-0.60	
10002.00	89.420	327.950	8034.27	2266.53	887.72	-2757.87	1763680.79	425136.15	39°39'53.7976"N	80°13'39.2848"W	2897.23	287.843	1.40	-0.86	1.10	
10097.00	89.290	327.440	8035.34	2361.50	968.01	-2808.64	1763630.03	425216.43	39°39'54.5870"N	80°13'39.9422"W	2970.78	289.017	0.55	-0.14	-0.54	
10192.00	89.720	327.320	8036.16	2456.48	1048.02	-2859.85	1763578.82	425296.44	39°39'55.3736"N	80°13'40.6053"W	3045.83	290.126	0.47	0.45	-0.13	
10287.00	89.720	327.080	8036.62	2551.47	1127.87	-2911.31	1763527.37	425376.29	39°39'56.1586"N	80°13'41.2716"W	3122.15	291.177	0.25	0.00	-0.25	



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'
Page 6 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
10383.00	89.080	327.320	8037.63	2647.45	1208.56	-2963.31	1763475.37	425456.97	39°39'56.9519"N	80°13'41.9450"W	3200.29	292.188	0.71	-0.67	0.25
10477.00	89.570	327.150	8038.74	2741.44	1287.60	-3014.18	1763424.50	425536.00	39°39'57.7289"N	80°13'42.6036"W	3277.68	293.131	0.55	0.52	-0.18
10572.00	89.510	328.370	8039.50	2836.40	1367.95	-3064.86	1763373.83	425616.35	39°39'58.5189"N	80°13'43.2600"W	3356.28	294.053	1.29	-0.06	1.28
10667.00	88.520	325.840	8041.13	2931.37	1447.70	-3116.44	1763322.25	425696.09	39°39'59.3029"N	80°13'43.9278"W	3436.28	294.917	2.86	-1.04	-2.66
10762.00	88.950	326.740	8043.23	3026.35	1526.71	-3169.15	1763269.54	425775.09	39°40'0.0794"N	80°13'44.6100"W	3517.72	295.722	1.05	0.45	0.95
10856.00	89.450	327.790	8044.54	3120.33	1605.77	-3219.98	1763218.72	425854.15	39°40'0.8567"N	80°13'45.2682"W	3598.16	296.505	1.24	0.53	1.12
10951.00	89.170	327.900	8045.69	3215.29	1686.19	-3270.53	1763168.17	425934.57	39°40'1.6474"N	80°13'45.9230"W	3679.62	297.274	0.32	-0.29	0.12
11046.00	88.430	327.390	8047.88	3310.24	1766.42	-3321.36	1763117.34	426014.80	39°40'2.4362"N	80°13'46.5813"W	3761.87	298.006	0.95	-0.78	-0.54
11141.00	88.770	326.990	8050.00	3405.20	1846.24	-3372.82	1763065.88	426094.61	39°40'3.2210"N	80°13'47.2476"W	3845.07	298.696	0.55	0.36	-0.42
11236.00	88.710	327.360	8052.09	3500.17	1926.08	-3424.31	1763014.40	426174.42	39°40'4.0056"N	80°13'47.9143"W	3928.81	299.356	0.39	-0.06	0.39
11331.00	88.990	326.070	8053.99	3595.15	2005.45	-3476.43	1762962.28	426253.81	39°40'4.7860"N	80°13'48.5891"W	4013.40	299.979	1.39	0.29	-1.36
11429.00	89.170	325.910	8055.57	3693.13	2086.68	-3531.24	1762907.48	426335.03	39°40'5.5843"N	80°13'49.2984"W	4101.69	300.580	0.25	0.18	-0.16
11524.00	90.030	326.250	8056.23	3788.13	2165.51	-3584.25	1762854.47	426413.86	39°40'6.3591"N	80°13'49.9844"W	4187.63	301.139	0.97	0.91	0.36
11619.00	89.660	326.670	8056.49	3883.13	2244.69	-3636.74	1762801.98	426493.03	39°40'7.1374"N	80°13'50.6639"W	4273.70	301.684	0.59	-0.39	0.44
11715.00	89.600	326.640	8057.11	3979.12	2324.89	-3689.51	1762749.22	426573.22	39°40'7.9257"N	80°13'51.3470"W	4360.91	302.216	0.07	-0.06	-0.03
11809.00	89.850	327.850	8057.56	4073.11	2403.94	-3740.36	1762698.36	426652.27	39°40'8.7028"N	80°13'52.0056"W	4446.26	302.729	1.31	0.27	1.29
11905.00	89.230	326.430	8058.33	4169.10	2484.57	-3792.45	1762646.28	426732.90	39°40'9.4955"N	80°13'52.6800"W	4533.85	303.230	1.61	-0.65	-1.48
12000.00	90.060	325.880	8058.92	4264.09	2563.47	-3845.36	1762593.38	426811.79	39°40'10.2710"N	80°13'53.3648"W	4621.49	303.889	1.05	0.87	-0.58
12095.00	90.220	326.130	8058.69	4359.09	2642.23	-3898.47	1762540.26	426890.55	39°40'11.0451"N	80°13'54.0523"W	4709.51	304.128	0.31	0.17	0.26
12190.00	90.490	326.680	8058.10	4454.09	2721.37	-3951.03	1762487.71	426969.68	39°40'11.8229"N	80°13'54.7328"W	4797.55	304.558	0.65	0.28	0.59
12285.00	90.860	327.190	8056.98	4549.08	2800.98	-4002.85	1762435.89	427049.29	39°40'12.6055"N	80°13'55.4036"W	4885.52	304.982	0.65	0.39	0.53
12380.00	90.220	325.970	8056.08	4644.07	2880.27	-4055.17	1762383.58	427128.57	39°40'13.3849"N	80°13'56.0809"W	4973.97	305.385	1.45	-0.67	-1.28
12474.00	89.660	326.130	8056.18	4738.07	2958.24	-4107.67	1762331.08	427206.54	39°40'14.1512"N	80°13'56.7603"W	5062.03	305.761	0.62	-0.60	0.17
12570.00	90.030	326.460	8056.44	4834.07	3038.11	-4160.94	1762277.82	427286.40	39°40'14.9362"N	80°13'57.4499"W	5152.04	306.135	0.52	0.39	0.34
12665.00	90.030	326.570	8056.39	4929.07	3117.34	-4213.35	1762225.41	427365.63	39°40'15.7150"N	80°13'58.1284"W	5241.20	306.497	0.12	0.00	0.12
12760.00	90.220	327.730	8056.18	5024.05	3197.15	-4264.88	1762173.88	427445.43	39°40'16.4995"N	80°13'58.7957"W	5330.19	306.857	1.24	0.20	1.22
12855.00	89.850	326.870	8056.13	5119.04	3277.09	-4316.20	1762122.56	427525.37	39°40'17.2854"N	80°13'59.4604"W	5419.31	307.208	0.99	-0.39	-0.91
12949.00	89.780	326.520	8056.43	5213.04	3355.65	-4367.82	1762070.95	427603.93	39°40'18.0577"N	80°14'0.1286"W	5508.02	307.534	0.38	-0.07	-0.37
13045.00	90.520	325.230	8056.18	5309.03	3435.12	-4421.67	1762017.10	427683.39	39°40'18.8387"N	80°14'0.8256"W	5599.22	307.843	1.55	0.77	-1.34
13140.00	91.450	325.520	8054.54	5404.00	3513.28	-4475.64	1761963.13	427761.55	39°40'19.6067"N	80°14'1.5240"W	5689.86	308.121	1.03	0.98	0.31

10/13/2015 10:40 AM
 10/13/2015 10:40 AM
 10/13/2015 10:40 AM
 10/13/2015 10:40 AM



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 7 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
13235.00	91.320	325.400	8052.25	5498.96	3591.51	-4529.49	1761909.28	427839.77	39°40'20.3755"N	80°14'2.2208"W	5780.59	308.412	0.19	-0.14	-0.13
13330.00	91.200	324.910	8050.16	5593.92	3669.46	-4583.76	1761855.02	427917.72	39°40'21.1415"N	80°14'2.9229"W	5871.61	308.678	0.53	-0.13	-0.52
13426.00	90.520	325.640	8048.72	5689.89	3748.35	-4638.44	1761800.35	427996.60	39°40'21.9167"N	80°14'3.6304"W	5963.66	308.942	1.04	-0.71	0.76
13521.00	89.850	325.350	8048.41	5784.88	3826.64	-4692.25	1761746.54	428074.88	39°40'22.6860"N	80°14'4.3268"W	6054.78	309.198	0.77	-0.71	-0.31
13616.00	90.860	325.370	8047.82	5879.86	3904.80	-4746.25	1761692.54	428153.04	39°40'23.4541"N	80°14'5.0255"W	6146.08	309.445	1.06	1.06	0.02
13711.00	90.460	325.340	8046.73	5974.84	3982.95	-4800.25	1761638.54	428231.18	39°40'24.2220"N	80°14'5.7243"W	6237.49	309.684	0.42	-0.42	-0.03
13806.00	91.080	325.750	8045.45	6069.82	4061.27	-4853.99	1761584.80	428309.50	39°40'24.9917"N	80°14'6.4198"W	6328.92	309.919	0.78	0.65	0.43
13900.00	91.230	325.550	8043.56	6163.79	4138.86	-4907.02	1761531.78	428387.09	39°40'25.7542"N	80°14'7.1060"W	6419.43	310.146	0.27	0.16	-0.21
13996.00	90.710	324.890	8041.93	6259.76	4217.70	-4961.77	1761477.03	428465.92	39°40'26.5289"N	80°14'7.8145"W	6512.16	310.366	0.88	-0.54	-0.69
14090.00	90.830	325.100	8040.67	6353.72	4294.69	-5015.69	1761423.11	428542.91	39°40'27.2854"N	80°14'8.5121"W	6603.15	310.572	0.26	0.13	0.22
14185.00	91.110	324.260	8039.06	6448.67	4372.19	-5070.61	1761368.20	428620.40	39°40'28.0469"N	80°14'9.2225"W	6695.31	310.770	0.93	0.29	-0.88
14282.00	91.350	325.830	8038.98	6545.61	4451.67	-5126.17	1761312.65	428699.88	39°40'28.8279"N	80°14'9.9414"W	6789.33	310.972	1.64	0.25	1.62
14377.00	91.140	325.690	8034.91	6640.59	4530.19	-5179.61	1761259.21	428778.39	39°40'29.5995"N	80°14'10.6330"W	6881.20	311.174	0.27	-0.22	-0.15
14473.00	90.920	326.240	8033.19	6736.57	4609.73	-5233.33	1761205.49	428857.93	39°40'30.3812"N	80°14'11.3284"W	6974.05	311.375	0.62	-0.23	0.57
14568.00	91.110	326.790	8031.51	6831.55	4688.95	-5285.73	1761153.09	428937.14	39°40'31.1598"N	80°14'12.0069"W	7065.78	311.576	0.61	0.20	0.58
14663.00	90.990	326.040	8029.77	6926.54	4768.08	-5338.28	1761100.55	429016.27	39°40'31.9376"N	80°14'12.6872"W	7157.64	311.771	0.80	-0.13	-0.79
14758.00	91.230	326.270	8027.92	7021.52	4846.96	-5391.18	1761047.65	429095.15	39°40'32.7129"N	80°14'13.3720"W	7249.68	311.957	0.35	0.25	0.24
14854.00	90.620	326.270	8026.38	7117.50	4926.79	-5444.48	1760994.36	429174.97	39°40'33.4975"N	80°14'14.0620"W	7342.73	312.142	0.64	-0.64	0.00
14949.00	91.020	326.620	8025.02	7212.49	5005.95	-5496.98	1760941.85	429254.13	39°40'34.2755"N	80°14'14.7418"W	7434.81	312.323	0.56	0.42	0.37
15045.00	89.720	325.090	8024.40	7308.48	5085.40	-5550.86	1760887.98	429333.57	39°40'35.0563"N	80°14'15.4392"W	7528.17	312.494	2.09	-1.35	-1.59
15141.00	90.120	325.930	8024.53	7404.47	5164.52	-5605.22	1760833.62	429412.69	39°40'35.8338"N	80°14'16.1427"W	7621.73	312.657	0.97	0.42	0.87
15236.00	90.090	326.990	8024.38	7499.47	5243.71	-5657.71	1760781.14	429491.87	39°40'36.6121"N	80°14'16.8223"W	7714.02	312.825	1.12	-0.03	1.12
15331.00	91.080	327.390	8023.39	7594.45	5323.55	-5709.18	1760729.67	429571.70	39°40'37.3963"N	80°14'17.4890"W	7806.08	312.998	1.12	1.04	0.42
15427.00	90.150	326.300	8022.36	7690.44	5403.91	-5761.68	1760677.17	429652.06	39°40'38.1868"N	80°14'18.1689"W	7899.32	313.165	1.49	-0.97	-1.14
15522.00	90.150	327.670	8022.11	7785.43	5483.57	-5813.44	1760625.41	429731.71	39°40'38.9699"N	80°14'18.8392"W	7991.60	313.327	1.44	0.00	1.44
15618.00	90.580	326.220	8021.49	7881.42	5564.03	-5865.80	1760573.06	429812.17	39°40'39.7607"N	80°14'19.5173"W	8084.92	313.488	1.58	0.45	-1.51
15713.00	90.620	326.000	8020.50	7976.42	5642.88	-5918.77	1760520.09	429891.02	39°40'40.5357"N	80°14'20.2031"W	8177.65	313.633	0.24	0.04	-0.23
15809.00	90.030	325.730	8019.96	8072.41	5722.34	-5972.64	1760466.23	429970.47	39°40'41.3166"N	80°14'20.9004"W	8271.49	313.774	0.68	-0.61	-0.28
15905.00	90.400	326.310	8019.60	8168.41	5801.95	-6026.29	1760412.57	430050.07	39°40'42.0989"N	80°14'21.5949"W	8365.33	313.913	0.72	0.39	0.60
16000.00	90.550	326.390	8018.81	8263.41	5881.02	-6078.93	1760359.94	430129.15	39°40'42.8762"N	80°14'22.2765"W	8458.12	314.052	0.18	0.16	0.08



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'
Page 8 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
16095.00	90.090	326.010	8018.28	8358.40	5959.97	-6131.78	1760307.09	430208.08	39°40'43.6520"N	80°14'22.9607"W	8551.02	314.186	0.63	-0.48	-0.40
16190.00	90.120	326.420	8018.10	8453.40	6038.92	-6184.61	1760254.27	430287.03	39°40'44.4280"N	80°14'23.6446"W	8643.96	314.317	0.43	0.03	0.43
16285.00	90.000	326.020	8018.00	8548.40	6117.89	-6237.43	1760201.45	430365.99	39°40'45.2040"N	80°14'24.3285"W	8736.93	314.446	0.44	-0.13	-0.42
16380.00	90.030	326.710	8017.98	8643.40	6196.98	-6290.05	1760148.84	430445.08	39°40'45.9814"N	80°14'25.0098"W	8829.91	314.573	0.73	0.03	0.73
16475.00	90.550	326.740	8017.50	8738.40	6276.40	-6342.17	1760096.72	430524.50	39°40'46.7621"N	80°14'25.6848"W	8922.80	314.701	0.55	0.55	0.03
16570.00	91.780	325.950	8015.57	8833.38	6355.46	-6394.81	1760044.09	430603.55	39°40'47.5391"N	80°14'26.3663"W	9015.84	314.823	1.54	1.29	-0.83
16666.00	90.680	325.960	8013.51	8929.35	6434.99	-6448.54	1759990.36	430683.08	39°40'48.3206"N	80°14'27.0619"W	9110.03	314.940	1.15	-1.15	0.01
16761.00	90.060	326.280	8012.89	9024.35	6513.86	-6501.49	1759937.40	430761.94	39°40'49.0957"N	80°14'27.7476"W	9203.25	315.054	0.73	-0.65	0.34
16856.00	90.090	326.140	8012.77	9119.35	6592.81	-6554.33	1759884.67	430840.89	39°40'49.8717"N	80°14'28.4316"W	9296.47	315.168	0.15	0.03	-0.15
16951.00	90.030	326.250	8012.67	9214.35	6671.75	-6607.18	1759831.72	430919.82	39°40'50.6475"N	80°14'29.1160"W	9389.73	315.279	0.13	-0.06	0.12
17046.00	90.280	326.350	8012.41	9309.35	6750.78	-6659.89	1759779.01	430998.85	39°40'51.4242"N	80°14'29.7985"W	9483.00	315.388	0.28	0.26	0.11
17141.00	90.120	326.430	8012.08	9404.34	6829.90	-6712.48	1759726.43	431077.96	39°40'52.2018"N	80°14'30.4794"W	9576.27	315.497	0.19	-0.17	0.08
17237.00	90.120	326.180	8011.88	9500.34	6909.77	-6765.74	1759673.18	431157.83	39°40'52.9868"N	80°14'31.1690"W	9670.58	315.603	0.26	0.00	-0.26
17332.00	90.310	326.320	8011.52	9595.34	6988.76	-6818.52	1759620.40	431236.81	39°40'53.7631"N	80°14'31.8524"W	9763.96	315.706	0.25	0.20	0.15
17427.00	90.340	326.480	8010.98	9690.34	7067.89	-6871.09	1759567.83	431315.94	39°40'54.5408"N	80°14'32.5331"W	9857.33	315.809	0.17	0.03	0.17
17522.00	90.280	326.220	8010.47	9785.34	7146.97	-6923.73	1759515.20	431395.01	39°40'55.3180"N	80°14'33.2148"W	9950.74	315.909	0.28	-0.06	-0.27
17617.00	90.430	326.490	8009.88	9880.34	7226.05	-6976.36	1759462.57	431474.09	39°40'56.0953"N	80°14'33.8963"W	10044.17	316.007	0.33	0.16	0.28
17712.00	90.370	326.710	8009.22	9975.34	7305.36	-7028.65	1759410.27	431553.39	39°40'56.8748"N	80°14'34.5735"W	10137.57	316.106	0.24	-0.06	0.23
17808.00	90.220	326.020	8008.72	10071.33	7385.29	-7081.83	1759357.10	431633.32	39°40'57.6603"N	80°14'35.2621"W	10232.05	316.202	0.74	-0.16	-0.72
17903.00	89.780	325.900	8008.72	10166.33	7464.01	-7135.01	1759303.93	431712.03	39°40'58.4339"N	80°14'35.9506"W	10325.68	316.291	0.48	-0.46	-0.13
17998.00	90.150	326.190	8008.78	10261.33	7542.81	-7188.07	1759250.87	431790.83	39°40'59.2083"N	80°14'36.6376"W	10419.32	316.379	0.49	0.39	0.31
18091.00	90.060	326.300	8008.61	10354.33	7620.13	-7239.74	1759199.20	431868.15	39°40'59.9682"N	80°14'37.3067"W	10510.96	316.466	0.15	-0.10	0.12
18186.00	90.180	326.040	8008.41	10449.33	7699.05	-7292.63	1759146.31	431947.06	39°41'0.7438"N	80°14'37.9915"W	10604.61	316.553	0.30	0.13	-0.27
18281.00	89.880	326.150	8008.36	10544.33	7777.89	-7345.62	1759093.32	432025.90	39°41'1.5186"N	80°14'38.6777"W	10698.31	316.637	0.34	-0.32	0.12
18375.00	89.630	325.830	8008.76	10638.32	7855.81	-7398.20	1759040.75	432103.81	39°41'2.2844"N	80°14'39.3584"W	10791.07	316.718	0.43	-0.27	-0.34
18470.00	90.490	327.190	8008.66	10733.32	7935.04	-7450.62	1758988.34	432183.03	39°41'3.0630"N	80°14'40.0373"W	10884.69	316.803	1.69	0.91	1.43
18565.00	89.630	326.590	8008.56	10828.31	8014.61	-7502.51	1758936.45	432262.80	39°41'3.8452"N	80°14'40.7094"W	10978.24	316.890	1.10	-0.91	-0.63
18661.00	88.620	325.800	8010.03	10924.30	8094.37	-7555.92	1758883.04	432342.36	39°41'4.6290"N	80°14'41.4010"W	11072.97	316.971	1.34	-1.05	-0.82
18756.00	89.260	326.210	8011.79	11019.28	8173.12	-7609.02	1758829.94	432421.10	39°41'5.4029"N	80°14'42.0886"W	11166.79	317.047	0.80	0.67	0.43
18851.00	89.540	326.340	8012.78	11114.28	8252.13	-7661.77	1758777.20	432500.10	39°41'6.1794"N	80°14'42.7716"W	11260.56	317.125	0.32	0.29	0.14



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 9 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
18946.00	89.970	326.400	8013.19	11209.28	8331.23	-7714.38	1758724.59	432579.20	39°41'6.9568"N	80°14'43.4529"W	11354.34	317.202	0.46	0.45	0.06
19042.00	89.570	326.060	8013.57	11305.27	8411.03	-7767.74	1758671.23	432658.99	39°41'7.7410"N	80°14'44.1439"W	11449.16	317.277	0.55	-0.42	-0.35
19137.00	89.630	326.020	8014.24	11400.27	8489.82	-7820.81	1758618.17	432737.78	39°41'8.5153"N	80°14'44.8311"W	11543.05	317.349	0.08	0.06	-0.04
19232.00	89.820	326.200	8014.69	11495.27	8568.68	-7873.78	1758565.20	432816.64	39°41'9.2903"N	80°14'45.5170"W	11636.95	317.420	0.28	0.20	0.19
19327.00	89.880	326.440	8014.94	11590.27	8647.73	-7926.46	1758512.52	432895.69	39°41'10.0673"N	80°14'46.1992"W	11730.82	317.492	0.26	0.06	0.25
19422.00	89.450	327.140	8015.50	11685.26	8727.22	-7978.49	1758460.50	432975.16	39°41'10.8485"N	80°14'46.8732"W	11824.58	317.566	0.86	-0.45	0.74
19518.00	89.010	327.350	8016.79	11781.24	8807.94	-8030.43	1758408.56	433055.89	39°41'11.6420"N	80°14'47.5461"W	11919.21	317.644	0.51	-0.46	0.22
19613.00	89.230	327.300	8018.25	11876.22	8887.90	-8081.71	1758357.28	433135.84	39°41'12.4279"N	80°14'48.2105"W	12012.86	317.720	0.24	0.23	-0.05
19708.00	89.170	327.090	8019.57	11971.20	8967.74	-8133.17	1758305.82	433215.67	39°41'13.2128"N	80°14'48.8773"W	12106.56	317.794	0.23	-0.06	-0.22
19803.00	89.080	327.250	8021.02	12066.18	9047.56	-8184.67	1758254.33	433295.49	39°41'13.9973"N	80°14'49.5445"W	12200.29	317.867	0.19	-0.09	0.17
19899.00	89.050	327.070	8022.59	12162.16	9128.21	-8236.73	1758202.28	433376.13	39°41'14.7900"N	80°14'50.2189"W	12295.03	317.939	0.19	-0.03	-0.19
19994.00	89.380	326.800	8023.89	12257.14	9207.81	-8288.55	1758150.45	433455.73	39°41'15.5725"N	80°14'50.8903"W	12388.86	318.008	0.45	0.35	-0.28
20089.00	89.910	327.160	8024.48	12352.14	9287.47	-8340.32	1758098.69	433535.38	39°41'16.3554"N	80°14'51.5609"W	12482.71	318.076	0.67	0.56	0.38
20185.00	90.030	326.920	8024.53	12448.13	9368.02	-8392.55	1758046.46	433615.92	39°41'17.1471"N	80°14'52.2375"W	12577.54	318.144	0.28	0.12	-0.25
20280.00	90.030	326.900	8024.48	12543.12	9447.61	-8444.41	1757994.60	433695.51	39°41'17.9295"N	80°14'52.9094"W	12671.44	318.209	0.02	0.00	-0.02
20375.00	89.350	327.070	8025.00	12638.12	9527.27	-8496.17	1757942.84	433775.17	39°41'18.7124"N	80°14'53.5800"W	12765.34	318.274	0.74	-0.72	0.18
20470.00	89.290	326.990	8026.12	12733.10	9606.96	-8547.87	1757891.15	433854.86	39°41'19.4958"N	80°14'54.2498"W	12859.23	318.339	0.11	-0.06	-0.08
20566.00	90.120	328.650	8026.62	12829.07	9688.21	-8598.99	1757840.03	433936.10	39°41'20.2945"N	80°14'54.9124"W	12953.92	318.409	1.93	0.86	1.73
20661.00	89.230	327.450	8027.16	12924.02	9768.81	-8649.26	1757789.76	434016.70	39°41'21.0869"N	80°14'55.5640"W	13047.59	318.478	1.57	-0.94	-1.26
20756.00	89.380	327.830	8028.31	13018.99	9849.06	-8700.11	1757738.92	434096.93	39°41'21.8757"N	80°14'56.2229"W	13141.38	318.544	0.43	0.16	0.40
20852.00	89.170	327.610	8029.52	13114.96	9930.21	-8751.37	1757687.66	434178.09	39°41'22.6735"N	80°14'56.8873"W	13236.15	318.611	0.32	-0.22	-0.23
20947.00	88.830	327.090	8031.18	13209.93	10010.19	-8802.62	1757636.42	434258.06	39°41'23.4596"N	80°14'57.5513"W	13330.04	318.673	0.65	-0.36	-0.55
21043.00	88.340	327.580	8033.55	13305.89	10090.98	-8854.42	1757584.63	434338.84	39°41'24.2538"N	80°14'58.2225"W	13424.92	318.734	0.72	-0.51	0.51
21138.00	88.280	327.640	8036.35	13400.82	10171.16	-8905.28	1757533.76	434419.02	39°41'25.0420"N	80°14'58.8818"W	13518.75	318.796	0.09	-0.06	0.06
21233.00	88.680	326.820	8038.87	13495.78	10251.02	-8956.68	1757482.36	434498.87	39°41'25.8269"N	80°14'59.5478"W	13612.70	318.855	0.96	0.42	-0.86
21328.00	88.920	327.050	8040.86	13590.75	10330.61	-9008.50	1757430.55	434578.46	39°41'26.6093"N	80°15'0.2192"W	13706.74	318.911	0.35	0.25	0.24
21423.00	88.740	327.030	8042.80	13685.72	10410.31	-9060.18	1757378.87	434658.15	39°41'27.3926"N	80°15'0.8887"W	13800.77	318.967	0.19	-0.19	-0.02
21518.00	88.620	326.270	8044.99	13780.70	10489.64	-9112.39	1757326.67	434737.48	39°41'28.1723"N	80°15'1.5650"W	13894.90	319.019	0.81	-0.13	-0.80
21614.00	88.770	326.130	8047.18	13876.67	10569.39	-9165.78	1757273.28	434817.23	39°41'28.9560"N	80°15'2.2565"W	13990.13	319.068	0.21	0.16	-0.15
21709.00	88.770	325.840	8049.22	13971.65	10648.12	-9218.91	1757220.15	434895.95	39°41'29.7297"N	80°15'2.9446"W	14084.42	319.115	0.31	0.00	-0.31



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 10 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
21805.00	87.350	326.270	8052.47	14067.59	10727.71	-9272.49	1757166.58	434975.54	39°41'30.5118"N	80°15'3.6384"W	14179.66	319.162	1.55	-1.48	0.45
21899.00	87.750	326.590	8056.49	14161.50	10805.96	-9324.42	1757114.65	435053.78	39°41'31.2808"N	80°15'4.3110"W	14272.83	319.209	0.54	0.43	0.34
21994.00	87.350	326.400	8060.55	14256.42	10885.10	-9376.81	1757062.26	435132.82	39°41'32.0586"N	80°15'4.9897"W	14366.98	319.257	0.47	-0.42	-0.20
22089.00	87.050	326.350	8065.19	14351.30	10964.11	-9429.35	1757009.72	435211.93	39°41'32.8351"N	80°15'5.6703"W	14461.14	319.304	0.32	-0.32	-0.05
22183.00	87.050	326.460	8070.02	14445.18	11042.31	-9481.30	1756957.78	435290.12	39°41'33.6036"N	80°15'6.3431"W	14554.30	319.350	0.12	0.00	0.12
22278.00	87.480	326.510	8074.56	14540.07	11121.42	-9533.69	1756905.39	435369.23	39°41'34.3811"N	80°15'7.0218"W	14648.46	319.396	0.46	0.45	0.05
22374.00	87.720	325.830	8078.58	14635.98	11201.10	-9587.09	1756851.99	435448.90	39°41'35.1641"N	80°15'7.7135"W	14743.71	319.440	0.75	0.25	-0.71
22469.00	87.570	326.270	8082.48	14730.90	11279.84	-9640.10	1756798.99	435527.63	39°41'35.9378"N	80°15'8.4000"W	14838.00	319.482	0.49	-0.16	0.46
22565.00	87.810	326.160	8086.35	14826.82	11359.56	-9693.44	1756745.65	435607.35	39°41'36.7213"N	80°15'9.0909"W	14933.27	319.525	0.27	0.25	-0.11
22660.00	87.940	326.540	8089.87	14921.76	11438.69	-9746.05	1756693.05	435686.37	39°41'37.4979"N	80°15'9.7723"W	15027.53	319.568	0.42	0.14	0.40
22755.00	87.070	326.410	8094.01	15016.67	11517.71	-9798.46	1756640.63	435765.49	39°41'38.2754"N	80°15'10.4513"W	15121.76	319.611	0.93	-0.92	-0.14
22850.00	87.690	326.720	8098.35	15111.57	11596.91	-9850.75	1756588.35	435844.68	39°41'39.0538"N	80°15'11.1287"W	15215.96	319.654	0.73	0.65	0.33
22945.00	87.230	326.290	8102.56	15206.47	11676.05	-9903.13	1756535.98	435923.82	39°41'39.8316"N	80°15'11.8072"W	15310.20	319.697	0.66	-0.48	-0.45
23040.00	88.310	326.270	8106.26	15301.40	11755.01	-9955.82	1756483.28	436002.77	39°41'40.6075"N	80°15'12.4898"W	15404.50	319.737	1.14	1.14	-0.02
23136.00	88.240	325.970	8109.15	15397.35	11834.67	-10009.32	1756429.79	436082.43	39°41'41.3903"N	80°15'13.1826"W	15499.87	319.777	0.32	-0.07	-0.31
23231.00	88.030	326.130	8112.24	15492.30	11913.43	-10062.34	1756376.77	436161.19	39°41'42.1643"N	80°15'13.8694"W	15594.25	319.815	0.28	-0.22	0.17
23326.00	88.220	326.220	8115.35	15587.25	11992.31	-10115.20	1756323.92	436240.06	39°41'42.9394"N	80°15'14.5540"W	15688.62	319.853	0.22	0.20	0.09
23421.00	88.490	326.150	8118.08	15682.21	12071.21	-10168.04	1756271.08	436318.95	39°41'43.7148"N	80°15'15.2385"W	15783.00	319.891	0.29	0.28	-0.07
23517.00	89.260	326.010	8119.96	15778.19	12150.86	-10221.60	1756217.52	436398.59	39°41'44.4974"N	80°15'15.9322"W	15878.43	319.929	0.82	0.80	-0.15
23612.00	89.110	326.120	8121.31	15873.18	12229.67	-10274.63	1756164.49	436477.40	39°41'45.2719"N	80°15'16.6191"W	15972.88	319.965	0.20	-0.16	0.12
23707.00	89.110	326.050	8122.79	15968.17	12308.49	-10327.63	1756111.50	436556.22	39°41'46.0465"N	80°15'17.3056"W	16067.33	320.001	0.07	0.00	-0.07
23802.00	89.170	325.970	8124.21	16063.15	12387.25	-10380.74	1756058.40	436634.98	39°41'46.8204"N	80°15'17.9934"W	16161.80	320.036	0.11	0.06	-0.08
23897.00	89.200	326.320	8125.56	16158.14	12466.14	-10433.65	1756005.48	436713.86	39°41'47.5956"N	80°15'18.6788"W	16256.25	320.072	0.37	0.03	0.37
23991.00	90.090	326.130	8126.15	16252.14	12544.27	-10485.91	1755953.23	436791.98	39°41'48.3634"N	80°15'19.3557"W	16349.71	320.107	0.97	0.95	-0.20
24087.00	90.150	326.400	8125.95	16348.14	12624.11	-10539.22	1755899.92	436871.81	39°41'49.1479"N	80°15'20.0463"W	16445.16	320.143	0.29	0.06	0.28
24182.00	91.230	325.110	8124.80	16443.12	12702.63	-10592.68	1755846.47	436950.33	39°41'49.9195"N	80°15'20.7386"W	16539.70	320.175	1.77	1.14	-1.36
24277.00	91.140	324.980	8122.84	16538.08	12780.47	-10647.10	1755792.05	437028.17	39°41'50.6843"N	80°15'21.4431"W	16634.34	320.203	0.17	-0.09	-0.14
24371.00	90.980	324.470	8121.10	16632.02	12857.20	-10701.37	1755737.78	437104.90	39°41'51.4380"N	80°15'22.1458"W	16728.03	320.229	0.57	-0.17	-0.54
24466.00	90.490	325.120	8119.88	16726.98	12934.82	-10756.13	1755683.02	437182.51	39°41'52.2005"N	80°15'22.8547"W	16822.72	320.254	0.86	-0.52	0.68
24561.00	90.220	324.770	8119.29	16821.95	13012.58	-10810.70	1755628.46	437260.27	39°41'52.9646"N	80°15'23.5611"W	16917.40	320.281	0.47	-0.28	-0.37



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 11 of 13



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

WELLPATH DATA (277 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]
24657.00	90.580	325.230	8118.62	16917.92	13091.22	-10865.76	1755573.40	437338.90	39°41'53.7370"N	80°15'24.2740"W	17013.08	320.307	0.61	0.38	0.48
24752.00	90.520	324.800	8117.71	17012.89	13169.05	-10920.23	1755518.94	437416.73	39°41'54.5016"N	80°15'24.9792"W	17107.75	320.333	0.46	-0.06	-0.45
24847.00	90.740	325.120	8116.66	17107.85	13246.83	-10974.77	1755464.40	437494.50	39°41'55.2657"N	80°15'25.6853"W	17202.44	320.359	0.41	0.23	0.34
24942.00	90.920	325.380	8115.29	17202.82	13324.87	-11028.91	1755410.26	437572.54	39°41'56.0325"N	80°15'26.3864"W	17297.08	320.386	0.33	0.19	0.27
25037.00	90.680	325.300	8113.96	17297.80	13403.01	-11082.93	1755356.24	437650.67	39°41'56.8002"N	80°15'27.0859"W	17391.72	320.413	0.27	-0.25	-0.08
25060.00	90.890	325.310	8113.65	17320.79	13421.92	-11096.02	1755343.15	437669.58	39°41'56.9859"N	80°15'27.2554"W	17414.64	320.419	0.91	0.91	0.04
25085.00‡	90.890	325.310	8113.26	17345.78	13442.47	-11110.25	1755328.93	437690.13	39°41'57.1879"N	80°15'27.4396"W	17439.54	320.426	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Bunner 7H AWB Ref Wellpath: Bunner 7H AWP Proj: 25085'

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]
17.5in Open Hole	28.00	1280.00	1252.00	28.00	1279.98	0.00	0.00	-5.12	1.43
13.375in Casing Surface	28.00	1250.00	1222.00	28.00	1249.98	0.00	0.00	-5.02	1.32
12.25in Open Hole	1280.00	2530.00	1250.00	1279.98	2522.56	-5.12	1.43	-25.92	-117.46
9.625in Casing Intermediate	28.00	2500.00	2472.00	28.00	2492.97	0.00	0.00	-24.54	-112.72
8.75in Open Hole	2530.00	7581.00	5051.00	2522.56	7340.37	-25.92	-117.46	-596.86	-1464.31
8.5in Open Hole	7581.00	25085.00	17504.00	7340.37	8113.26	-596.86	-1464.31	13442.47	-11110.25
5.5in Casing Production	28.00	25055.00	25027.00	28.00	8113.72	0.00	0.00	13417.81	-11093.18



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'
Page 12 of 13



REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Bunner 7H BHL Rev-6	8060.00	13439.75	-11115.45	1755323.73	437687.41	39°41'57.1606"N	80°15'27.5058"W	point
Bunner 7H Inflection Point Rev-2	8060.00	12243.07	-10291.36	1756147.77	436490.80	39°41'45.4029"N	80°15'16.8345"W	point
Bunner 7H LP Rev-4	8060.00	-186.53	-2053.02	1764385.60	424061.96	39°39'43.2375"N	80°13'30.1610"W	point
Bunner South Hardline #1 (4.1.21)	8600.00	-849.01	2943.24	1769381.56	423399.52	39°39'37.0841"N	80°12'26.2100"W	polygon
2D Polygon: dimensions not calculated								
Bunner South Hardline #1 (8.15.2022)	9003.00	8639.71	-11818.47	1754620.75	432887.66	39°41'9.6655"N	80°15'35.9803"W	polygon
2D Polygon: dimensions not calculated								

WELLPATH COMPOSITION - Ref Wellbore: Bunner 7H AWB Ref Wellpath: Bunner 7H AWP Proj: 25085'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	1150.00	BH Generic gyro - northseeking (Standard)	01 <17.5"> Javins Inertial Gyro [Northseeking] (100'-1150')	Bunner 7H AWB	12/19/2022
1150.00	2451.00	OWSG MWD rev2 + HRGM	02 <12.25"> SDI MWD [OWSG MWD REV.2-HRGM] (1150')(1343'-2451')	Bunner 7H AWB	12/19/2022
2451.00	7505.00	OWSG MWD rev2 + HRGM	03 <8.75">SDI MWD [OWSG MWD REV.2-HRGM] (2451')(2557'-7505')	Bunner 7H AWB	12/19/2022
7505.00	25085.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 <8.5"> BH ATK Curve [HRGM+Short Spacing] (7505')(7627'-25060')	Bunner 7H AWB	12/19/2022



Actual Wellpath Report

Bunner 7H AWP Proj: 25085'

Page 13 of 13



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 7H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 7H AWB
Slot	Slot 7H		

COMMENTS

Wellpath general comments

API:47061019090000

BH Job #: 111543084

Rig: Patterson 277

Duration: 12/19/2022 - 12/24/2022

01_<17.5"> Javins Inertial Gyro [Northseeking] (100'-1150')

02_<12.25"> SDI MWD [OWSG MWD REV.2-HRGM] (1150')(1343'-2451')

03_<8.75">SDI MWD [OWSG MWD REV.2-HRGM] (2451')(2557'-7505')

04_<8.5"> BH ATK Curve [HRGM+Short Spacing] (7505')(7627'-25060')

Final Survey MD @ 25060'

Projected MD at TD: 25085'