

NORTHEAST NATURAL ENERGY, LLC

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

Slot: Slot 09
Well: Phoenix 9H
Wellbore: Phoenix 9H PWB



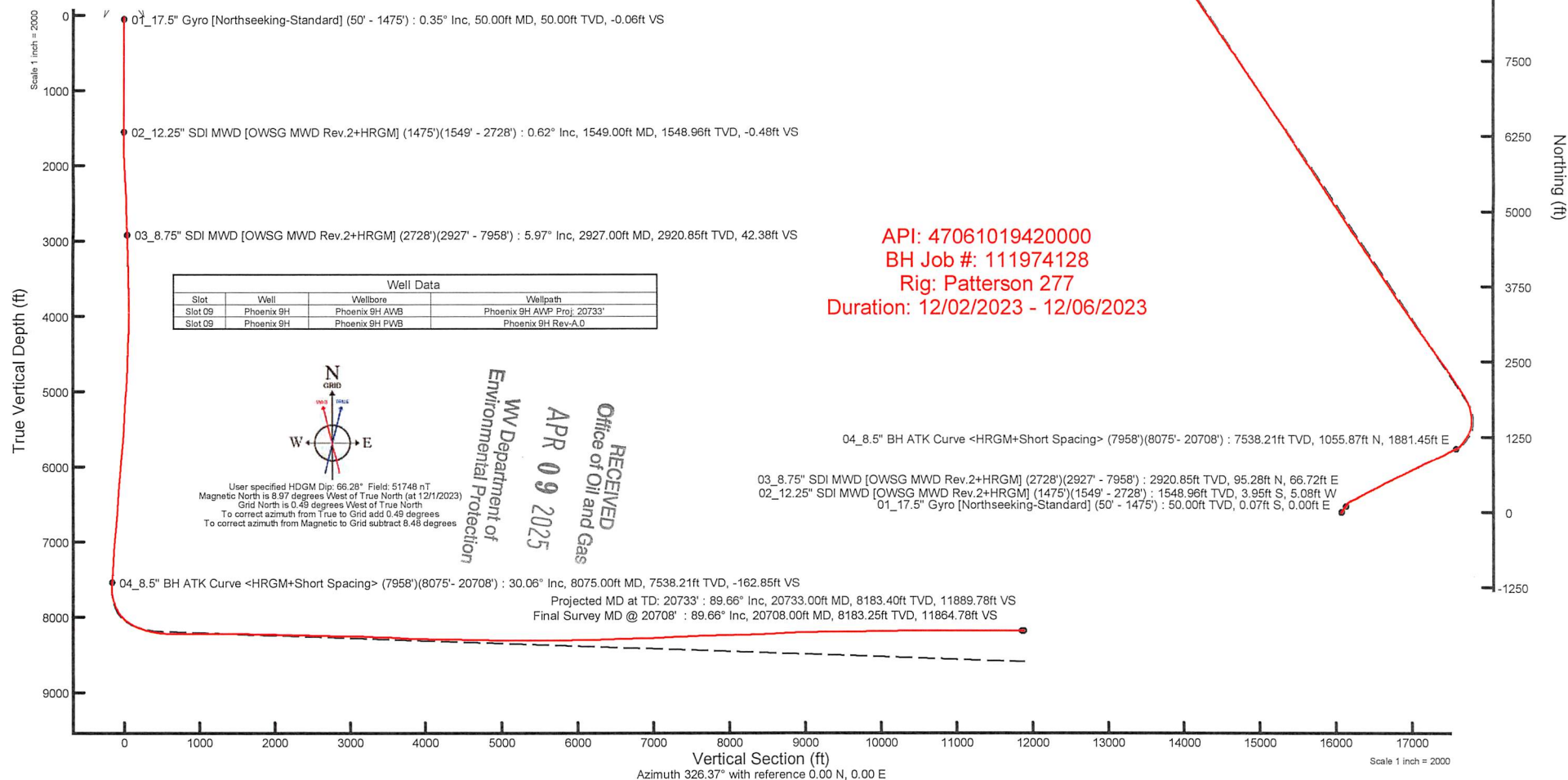
Grid reference wellpath is Phoenix 9H Rev-A-1	Grid System: NAD83 (1) Lambert Conformal Conic (2) Northern Zone (3) 111.15 US Feet
True vertical depths are referenced to Patterson 277 (2008)	North reference: Grid north
Reference wellpath measured depths are referenced to Patterson 277 (2008)	Scale: True distance
Patterson 277 (2008) to Mean Sea Level: 1531 feet	Coordinates are in feet referenced to Grid
Mean Sea Level to Ground level (At Slot: Slot 09): 1531 feet	Depths are in feet
Vertical wellpath MDs are referenced to each other's default MD datum	Created by: Monogalia on 2023-02-17, Conduco, WVA, MPA, EASTERNVA, DASH

Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Phoenix Pad	1751051.880	416618.940	39°38'28.5589"N	80°16'19.8414"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot 09	14.97	31.63	1751053.610	416631.910	39°38'28.7095"N
Patterson 277 (RKB) to Ground level (At Slot: Slot 09)					28ft
Mean Sea Level to Ground level (At Slot: Slot 09)					-1503ft
Patterson 277 (RKB) to Mean Sea Level					1531ft

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
The On	7958.00	30.540	62.040	7437.18	1028.71	1828.55	0.03	-155.33
Projection	8130.00	30.540	62.040	7585.32	1070.69	1905.75	0.00	-163.97
Build/Turn	8537.62	50.361	34.189	7896.42	1292.31	2088.68	6.49	-114.06
Landing Pt.	9293.07	88.000	326.373	8190.00	1893.34	2036.00	9.50	-448.86
BHL	20741.37	88.000	326.373	8589.54	11420.12	-4299.96	0.00	11890.19

Scale 1 inch = 2500
Easting (ft)
-11250 -10000 -8750 -7500 -6250 -5000 -3750 -2500 -1250 0 1250

Projected MD at TD: 20733' : 8183.40ft TVD, 11421.50ft N, 4297.15ft W
Final Survey MD @ 20708' : 8183.25ft TVD, 11400.58ft N, 4283.47ft W



110637

Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'

Page 1 of 11

REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

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	12/11/2023 at 1:29:15 PM
Convergence at slot	0.49° 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	14.97	31.63	1751083.61	416631.91	39°38'28.7095"N	80°16'19.4387"W
Facility Reference Pt			1751051.98	416616.94	39°38'28.5589"N	80°16'19.8414"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	1531.00ft
Horizontal Reference Pt	Slot	Patterson 277 (RKB) to Mean Sea Level	1531.00ft
Vertical Reference Pt	Patterson 277 (RKB)	Patterson 277 (RKB) to Ground Level at Slot (Slot 09)	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°

RECEIVED
Office of Oil and Gas
APR 09 2025
WV Department of
Environmental Protection

1506 27

Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'
Page 2 of 11

REFERENCE WELLPATH IDENTIFICATION

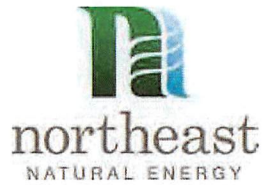
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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	177.630	0.00	-1531.00	0.00	0.00	0.00	1751083.61	416631.91	39°38'28.7095"N	80°16'19.4387"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	177.630	28.00	-1503.00	0.00	0.00	0.00	1751083.61	416631.91	39°38'28.7095"N	80°16'19.4387"W	0.00	0.000	0.00	0.00	0.00
50.00	0.350	177.630	50.00	-1481.00	-0.06	-0.07	0.00	1751083.61	416631.84	39°38'28.7089"N	80°16'19.4387"W	0.07	177.630	1.59	1.59	0.00
100.00	0.650	194.210	100.00	-1431.00	-0.38	-0.49	-0.06	1751083.55	416631.42	39°38'28.7047"N	80°16'19.4394"W	0.50	186.976	0.66	0.60	33.16
150.00	0.720	154.080	149.99	-1381.01	-0.88	-1.05	0.01	1751083.62	416630.86	39°38'28.6992"N	80°16'19.4385"W	1.05	179.609	0.95	0.14	-80.26
200.00	0.280	205.910	199.99	-1331.01	-1.25	-1.44	0.09	1751083.70	416630.47	39°38'28.6953"N	80°16'19.4374"W	1.45	176.391	1.18	-0.88	103.66
250.00	0.590	192.130	249.99	-1281.01	-1.49	-1.81	-0.02	1751083.59	416630.10	39°38'28.6917"N	80°16'19.4387"W	1.81	180.519	0.65	0.62	-27.56
300.00	0.220	127.910	299.99	-1231.01	-1.77	-2.12	0.01	1751083.62	416629.79	39°38'28.6886"N	80°16'19.4384"W	2.12	179.857	1.07	-0.74	-128.44
350.00	0.260	250.660	349.99	-1181.01	-1.83	-2.21	-0.03	1751083.58	416629.70	39°38'28.6877"N	80°16'19.4388"W	2.21	180.674	0.84	0.08	245.50
400.00	0.110	338.710	399.99	-1131.01	-1.75	-2.21	-0.15	1751083.46	416629.70	39°38'28.6877"N	80°16'19.4404"W	2.21	183.903	0.56	-0.30	176.10
450.00	0.320	263.970	449.99	-1081.01	-1.64	-2.18	-0.31	1751083.30	416629.73	39°38'28.6880"N	80°16'19.4424"W	2.20	188.024	0.62	0.42	-149.48
500.00	0.350	247.430	499.99	-1031.01	-1.55	-2.25	-0.59	1751083.02	416629.66	39°38'28.6873"N	80°16'19.4460"W	2.32	194.617	0.20	0.06	-33.08
550.00	0.100	151.270	549.99	-981.01	-1.56	-2.35	-0.71	1751082.90	416629.56	39°38'28.6863"N	80°16'19.4475"W	2.45	196.762	0.75	-0.50	-192.32
600.00	0.060	25.630	599.99	-931.01	-1.59	-2.36	-0.67	1751082.94	416629.55	39°38'28.6862"N	80°16'19.4471"W	2.46	195.942	0.29	-0.08	-251.28
650.00	0.280	320.460	649.99	-881.01	-1.46	-2.24	-0.74	1751082.87	416629.67	39°38'28.6873"N	80°16'19.4479"W	2.36	198.277	0.52	0.44	-130.34
700.00	0.390	269.020	699.99	-831.01	-1.24	-2.15	-0.99	1751082.62	416629.76	39°38'28.6882"N	80°16'19.4511"W	2.37	204.679	0.61	0.22	-102.88
750.00	0.480	237.860	749.99	-781.01	-1.15	-2.27	-1.34	1751082.27	416629.64	39°38'28.6870"N	80°16'19.4556"W	2.63	210.526	0.50	0.18	-62.32
800.00	0.320	207.930	799.98	-731.02	-1.21	-2.50	-1.58	1751082.03	416629.41	39°38'28.6847"N	80°16'19.4586"W	2.96	212.267	0.52	-0.32	-59.86
850.00	0.320	198.020	849.98	-681.02	-1.36	-2.76	-1.69	1751081.92	416629.15	39°38'28.6822"N	80°16'19.4600"W	3.23	211.470	0.11	0.00	-19.82
900.00	0.290	173.120	899.98	-631.02	-1.56	-3.02	-1.72	1751081.89	416628.89	39°38'28.6796"N	80°16'19.4603"W	3.47	209.637	0.27	-0.06	-49.80
950.00	0.140	146.970	949.98	-581.02	-1.73	-3.19	-1.67	1751081.94	416628.72	39°38'28.6779"N	80°16'19.4597"W	3.60	207.575	0.35	-0.30	-52.30
1000.00	0.080	108.070	999.98	-531.02	-1.82	-3.25	-1.60	1751082.01	416628.66	39°38'28.6773"N	80°16'19.4588"W	3.63	206.191	0.19	-0.12	-77.80
1050.00	0.110	348.540	1049.98	-481.02	-1.81	-3.22	-1.58	1751082.03	416628.69	39°38'28.6776"N	80°16'19.4585"W	3.58	206.107	0.33	0.06	-239.06
1100.00	0.170	320.250	1099.98	-431.02	-1.69	-3.11	-1.63	1751081.98	416628.80	39°38'28.6786"N	80°16'19.4593"W	3.52	207.687	0.18	0.12	-56.58
1150.00	0.230	296.720	1149.98	-381.02	-1.53	-3.01	-1.77	1751081.84	416628.90	39°38'28.6796"N	80°16'19.4610"W	3.49	210.456	0.20	0.12	-47.06
1200.00	0.200	288.740	1199.98	-331.02	-1.37	-2.94	-1.94	1751081.67	416628.97	39°38'28.6803"N	80°16'19.4632"W	3.52	213.476	0.08	-0.06	-15.96
1250.00	0.280	285.910	1249.98	-281.02	-1.21	-2.88	-2.14	1751081.47	416629.03	39°38'28.6809"N	80°16'19.4658"W	3.59	216.685	0.16	0.16	-5.66
1300.00	0.610	265.500	1299.98	-231.02	-0.99	-2.86	-2.53	1751081.08	416629.05	39°38'28.6810"N	80°16'19.4707"W	3.82	221.409	0.72	0.66	-40.82
1350.00	0.750	266.550	1349.98	-181.02	-0.69	-2.91	-3.12	1751080.49	416629.00	39°38'28.6806"N	80°16'19.4783"W	4.26	227.026	0.28	0.28	2.10
1400.00	0.780	232.000	1399.97	-131.03	-0.55	-3.13	-3.71	1751079.90	416628.78	39°38'28.6783"N	80°16'19.4858"W	4.86	229.831	0.91	0.06	-69.10

RECEIVED
Office of Oil and Gas
APR 09 2025
Department of Environmental Protection

1109 071



Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'
Page 3 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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]
1450.00	0.640	230.200	1449.97	-81.03	-0.61	-3.52	-4.20	1751079.41	416628.39	39°38'28.6744"N	80°16'19.4920"W	5.48	229.984	0.28	-0.28	-3.60
1475.00	0.520	246.840	1474.97	-56.03	-0.60	-3.66	-4.41	1751079.20	416628.25	39°38'28.6730"N	80°16'19.4947"W	5.73	230.318	0.82	-0.48	66.56
1549.00	0.620	245.960	1548.96	17.96	-0.48	-3.95	-5.08	1751078.53	416627.96	39°38'28.6701"N	80°16'19.5032"W	6.44	232.129	0.14	0.14	-1.19
1560.00	0.680	226.020	1559.96	28.96	-0.48	-4.02	-5.18	1751078.43	416627.89	39°38'28.6694"N	80°16'19.5045"W	6.56	232.193	2.12	0.55	-181.27
1592.00	0.510	129.290	1591.96	60.96	-0.65	-4.24	-5.21	1751078.40	416627.67	39°38'28.6672"N	80°16'19.5048"W	6.72	230.835	2.80	-0.53	-302.28
1687.00	2.780	69.240	1686.92	155.92	-1.57	-3.69	-2.73	1751080.88	416628.22	39°38'28.6728"N	80°16'19.4732"W	4.59	216.438	2.70	2.39	-63.21
1781.00	5.120	37.620	1780.70	249.70	-0.72	0.44	1.97	1751085.58	416632.35	39°38'28.7140"N	80°16'19.4136"W	2.01	77.472	3.31	2.49	-33.64
1876.00	6.820	31.020	1875.18	344.18	3.05	8.63	7.46	1751091.07	416640.54	39°38'28.7955"N	80°16'19.3443"W	11.41	40.845	1.93	1.79	-6.95
1971.00	6.040	31.930	1969.58	438.58	7.54	17.70	13.01	1751096.62	416649.61	39°38'28.8856"N	80°16'19.2744"W	21.97	36.310	0.83	-0.82	0.96
2065.00	5.330	34.210	2063.12	532.12	11.23	25.51	18.08	1751101.69	416657.42	39°38'28.9632"N	80°16'19.2104"W	31.27	35.325	0.79	-0.76	2.43
2160.00	5.660	31.490	2157.68	626.68	14.86	33.16	23.01	1751106.62	416665.06	39°38'29.0392"N	80°16'19.1483"W	40.36	34.758	0.44	0.35	-2.86
2255.00	6.550	30.150	2252.15	721.15	19.23	41.84	28.18	1751111.79	416673.74	39°38'29.1254"N	80°16'19.0831"W	50.44	33.960	0.95	0.94	-1.41
2349.00	5.840	35.970	2345.60	814.60	23.27	50.34	33.68	1751117.29	416682.25	39°38'29.2099"N	80°16'19.0137"W	60.57	33.782	1.01	-0.76	6.19
2444.00	4.840	41.550	2440.18	909.18	25.98	57.25	39.18	1751122.78	416689.16	39°38'29.2787"N	80°16'18.9442"W	69.37	34.382	1.18	-1.05	5.87
2539.00	5.330	42.560	2534.81	1003.81	28.05	63.50	44.82	1751128.43	416695.41	39°38'29.3409"N	80°16'18.8728"W	77.73	35.213	0.52	0.52	1.06
2633.00	6.050	43.160	2628.35	1097.35	30.23	70.33	51.16	1751134.77	416702.24	39°38'29.4090"N	80°16'18.7925"W	86.97	36.032	0.77	0.77	0.64
2728.00	5.600	35.590	2722.86	1191.86	33.02	77.75	57.28	1751140.89	416709.66	39°38'29.4828"N	80°16'18.7150"W	96.58	36.380	0.94	-0.47	-7.97
2927.00	5.970	21.470	2920.85	1389.85	42.38	95.28	66.72	1751150.33	416727.19	39°38'29.6568"N	80°16'18.5963"W	116.32	35.002	0.74	0.19	-7.10
3022.00	4.990	27.980	3015.42	1484.42	47.17	103.53	70.47	1751154.07	416735.43	39°38'29.7387"N	80°16'18.5493"W	125.24	34.242	1.22	-1.03	6.85
3116.00	4.620	32.830	3109.09	1578.09	50.63	110.32	74.44	1751158.04	416742.22	39°38'29.8061"N	80°16'18.4993"W	133.09	34.010	0.58	-0.39	5.16
3211.00	4.950	31.180	3203.76	1672.76	53.90	117.04	78.64	1751162.24	416748.94	39°38'29.8729"N	80°16'18.4464"W	141.00	33.896	0.38	0.35	-1.74
3305.00	4.130	37.050	3297.46	1766.46	56.75	123.21	82.77	1751166.38	416755.12	39°38'29.9342"N	80°16'18.3942"W	148.44	33.893	1.00	-0.87	6.24
3400.00	4.070	40.780	3392.22	1861.22	58.79	128.50	87.04	1751170.64	416760.40	39°38'29.9868"N	80°16'18.3403"W	155.20	34.112	0.29	-0.06	3.93
3495.00	4.420	39.990	3486.96	1955.96	60.72	133.85	91.59	1751175.20	416765.76	39°38'30.0401"N	80°16'18.2826"W	162.19	34.383	0.37	0.37	-0.83
3589.00	4.330	35.020	3580.68	2049.68	63.04	139.53	95.96	1751179.56	416771.44	39°38'30.0967"N	80°16'18.2275"W	169.34	34.516	0.41	-0.10	-5.29
3684.00	5.440	44.360	3675.34	2144.34	65.28	145.69	101.16	1751184.77	416777.59	39°38'30.1579"N	80°16'18.1616"W	177.37	34.775	1.43	1.17	9.83
3779.00	6.660	45.930	3769.81	2238.81	67.22	152.74	108.27	1751191.87	416784.64	39°38'30.2282"N	80°16'18.0715"W	187.22	35.330	1.30	1.28	1.65
3877.00	8.170	49.660	3866.99	2335.99	69.06	161.20	117.66	1751201.26	416793.10	39°38'30.3126"N	80°16'17.9524"W	199.58	36.125	1.62	1.54	3.81
3972.00	9.710	51.950	3960.83	2429.83	70.47	170.51	129.12	1751212.72	416802.41	39°38'30.4056"N	80°16'17.8070"W	213.88	37.134	1.66	1.62	2.41
4066.00	11.330	59.780	4053.25	2522.25	70.53	180.05	143.34	1751226.94	416811.95	39°38'30.5010"N	80°16'17.6263"W	230.14	38.524	2.29	1.72	8.33

RECEIVED
Office of Oil and Gas
APR 09 2025
Department of
Environmental Protection

17627



Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'
Page 4 of 11



REFERENCE WELLPATH IDENTIFICATION

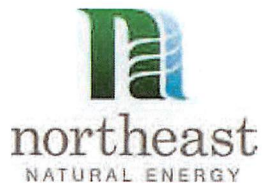
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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]
4161.00	13.280	65.210	4146.07	2615.07	68.30	189.32	161.31	1751244.91	416821.22	39°38'30.5942"N	80°16'17.3975"W	248.72	40.433	2.38	2.05	5.72
4256.00	15.010	66.710	4238.18	2707.18	64.41	198.76	182.52	1751266.12	416830.66	39°38'30.6893"N	80°16'17.1275"W	269.85	42.561	1.86	1.82	1.58
4350.00	17.870	67.080	4328.33	2797.33	59.54	209.19	206.99	1751290.58	416841.09	39°38'30.7945"N	80°16'16.8159"W	294.29	44.697	3.04	3.04	0.39
4444.00	20.240	63.210	4417.18	2886.18	54.93	222.14	234.79	1751318.39	416854.03	39°38'30.9248"N	80°16'16.4619"W	323.22	46.586	2.86	2.52	-4.12
4539.00	22.130	60.330	4505.76	2974.76	51.73	238.40	265.01	1751348.60	416870.30	39°38'31.0881"N	80°16'16.0774"W	356.46	48.025	2.27	1.99	-3.03
4633.00	23.840	60.310	4592.29	3061.29	49.20	256.58	296.90	1751380.49	416888.47	39°38'31.2704"N	80°16'15.6717"W	392.41	49.167	1.82	1.82	-0.02
4728.00	25.210	59.980	4678.72	3147.72	46.61	276.21	331.10	1751414.69	416908.10	39°38'31.4673"N	80°16'15.2368"W	431.18	50.164	1.45	1.44	-0.35
4826.00	26.240	60.560	4767.00	3236.00	43.71	297.30	368.04	1751451.62	416929.19	39°38'31.6789"N	80°16'14.7669"W	473.12	51.068	1.08	1.05	0.59
4921.00	26.940	60.920	4851.96	3320.96	40.47	318.08	405.13	1751488.72	416949.97	39°38'31.8874"N	80°16'14.2950"W	515.08	51.863	0.76	0.74	0.38
5015.00	29.030	63.410	4934.96	3403.96	35.99	338.65	444.14	1751527.73	416970.53	39°38'32.0939"N	80°16'13.7986"W	558.52	52.676	2.55	2.22	2.65
5110.00	31.500	64.150	5017.01	3486.01	29.80	359.79	487.10	1751570.68	416991.68	39°38'32.3065"N	80°16'13.2518"W	605.57	53.549	2.63	2.60	0.78
5205.00	32.300	63.970	5097.66	3566.66	23.09	381.75	532.24	1751615.82	417013.63	39°38'32.5273"N	80°16'12.6772"W	654.99	54.350	0.85	0.84	-0.19
5300.00	32.820	62.400	5177.73	3646.73	17.02	404.81	577.87	1751661.44	417036.70	39°38'32.7592"N	80°16'12.0965"W	705.55	54.987	1.04	0.55	-1.65
5395.00	32.470	60.830	5257.72	3726.72	12.34	429.17	622.95	1751706.52	417061.06	39°38'33.0037"N	80°16'11.5229"W	756.47	55.436	0.96	-0.37	-1.65
5490.00	31.930	59.950	5338.11	3807.11	8.78	454.18	666.96	1751750.53	417086.06	39°38'33.2546"N	80°16'10.9630"W	806.92	55.746	0.75	-0.57	-0.93
5584.00	30.760	61.820	5418.39	3887.39	4.95	477.98	709.67	1751793.23	417109.86	39°38'33.4934"N	80°16'10.4197"W	855.63	56.039	1.62	-1.24	1.99
5679.00	30.500	61.800	5500.14	3969.14	0.36	500.85	752.33	1751835.89	417132.73	39°38'33.7230"N	80°16'9.8769"W	903.80	56.347	0.27	-0.27	-0.02
5777.00	31.580	64.140	5584.11	4053.11	-5.46	523.79	797.34	1751880.90	417155.67	39°38'33.9536"N	80°16'9.3040"W	954.00	56.698	1.65	1.10	2.39
5872.00	31.130	65.310	5665.23	4134.23	-12.64	544.90	842.04	1751925.60	417176.78	39°38'34.1659"N	80°16'8.7350"W	1002.97	57.092	0.80	-0.47	1.23
5967.00	32.160	64.210	5746.11	4215.11	-19.91	566.16	887.12	1751970.67	417198.03	39°38'34.3798"N	80°16'8.1611"W	1052.38	57.454	1.24	1.08	-1.16
6061.00	33.540	64.810	5825.08	4294.08	-27.13	588.10	933.14	1752016.69	417219.97	39°38'34.6005"N	80°16'7.5751"W	1103.00	57.780	1.51	1.47	0.64
6156.00	34.470	64.500	5903.83	4372.83	-34.79	610.84	981.16	1752064.71	417242.71	39°38'34.8294"N	80°16'6.9639"W	1155.77	58.095	1.00	0.98	-0.33
6251.00	34.960	63.410	5981.92	4450.92	-41.92	634.60	1029.76	1752113.31	417266.47	39°38'35.0683"N	80°16'6.3451"W	1209.60	58.356	0.83	0.52	-1.15
6346.00	33.560	63.410	6060.43	4529.43	-48.48	658.54	1077.58	1752161.13	417290.41	39°38'35.3089"N	80°16'5.7365"W	1262.88	58.570	1.47	-1.47	0.00
6440.00	33.200	63.800	6138.93	4607.93	-54.99	681.53	1123.91	1752207.45	417313.40	39°38'35.5400"N	80°16'5.1468"W	1314.40	58.768	0.45	-0.38	0.41
6535.00	32.850	64.320	6218.58	4687.58	-61.92	704.18	1170.47	1752254.01	417336.04	39°38'35.7678"N	80°16'4.5541"W	1365.96	58.968	0.47	-0.37	0.55
6629.00	31.120	63.010	6298.31	4767.31	-68.25	726.25	1215.09	1752298.63	417358.12	39°38'35.9897"N	80°16'3.9861"W	1415.59	59.134	1.98	-1.84	-1.39
6727.00	30.590	62.580	6382.44	4851.44	-73.88	749.23	1259.80	1752343.33	417381.09	39°38'36.2205"N	80°16'3.4172"W	1465.75	59.259	0.59	-0.54	-0.44
6822.00	29.970	62.560	6464.47	4933.47	-79.05	771.29	1302.31	1752385.84	417403.16	39°38'36.4422"N	80°16'2.8761"W	1513.57	59.364	0.65	-0.65	-0.02
6917.00	29.480	64.150	6546.98	5015.98	-84.78	792.42	1344.41	1752427.94	417424.28	39°38'36.6545"N	80°16'2.3403"W	1560.56	59.484	0.98	-0.52	1.67

RECEIVED
Office of Oil and Gas
APR 09 2025
WV Department of
Environmental Protection

180627



Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'

Page 5 of 11



REFERENCE WELLPATH IDENTIFICATION

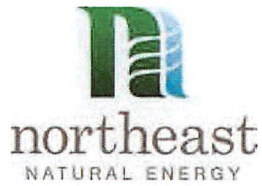
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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]
7012.00	31.000	65.410	6629.05	5098.05	-91.78	812.79	1387.69	1752471.22	417444.66	39°38'36.8595"N	80°16'1.7892"W	1608.21	59.642	1.73	1.60	1.33
7107.00	31.950	64.610	6710.07	5179.07	-99.23	833.75	1432.65	1752516.17	417465.61	39°38'37.0705"N	80°16'1.2168"W	1657.60	59.802	1.09	1.00	-0.84
7201.00	33.040	63.600	6789.35	5258.35	-106.02	855.81	1478.07	1752561.59	417487.67	39°38'37.2923"N	80°16'0.6386"W	1707.96	59.929	1.30	1.16	-1.07
7296.00	32.980	65.540	6869.02	5338.02	-113.40	878.03	1524.81	1752608.32	417509.89	39°38'37.5158"N	80°16'0.0436"W	1759.54	60.065	1.11	-0.06	2.04
7390.00	30.880	65.890	6948.79	5417.79	-121.47	898.48	1570.12	1752653.63	417530.34	39°38'37.7218"N	80°15'59.4666"W	1809.02	60.220	2.24	-2.23	0.37
7485.00	30.670	65.460	7030.41	5499.41	-129.33	918.51	1614.41	1752697.92	417550.36	39°38'37.9234"N	80°15'58.9026"W	1857.41	60.363	0.32	-0.22	-0.45
7579.00	30.710	64.470	7111.25	5580.25	-136.50	938.81	1657.88	1752741.39	417570.66	39°38'38.1277"N	80°15'58.3492"W	1905.24	60.478	0.54	0.04	-1.05
7674.00	30.990	60.700	7192.81	5661.81	-141.76	961.23	1701.10	1752784.61	417593.08	39°38'38.3529"N	80°15'57.7991"W	1953.90	60.531	2.06	0.29	-3.97
7770.00	30.660	60.730	7275.25	5744.25	-145.49	985.30	1744.01	1752827.51	417617.15	39°38'38.5943"N	80°15'57.2533"W	2003.09	60.535	0.34	-0.34	0.03
7864.00	30.470	63.190	7356.20	5825.20	-150.14	1007.76	1786.19	1752869.69	417639.61	39°38'38.8199"N	80°15'56.7165"W	2050.87	60.568	1.35	-0.20	2.62
7958.00	30.540	62.040	7437.18	5906.18	-155.33	1029.71	1828.55	1752912.05	417661.56	39°38'39.0404"N	80°15'56.1774"W	2098.55	60.615	0.63	0.07	-1.22
8075.00	30.060	65.360	7538.21	6007.21	-162.85	1055.87	1881.45	1752964.94	417687.71	39°38'39.3033"N	80°15'55.5040"W	2157.48	60.699	1.49	-0.41	2.84
8169.00	29.460	59.930	7619.83	6088.83	-167.96	1077.27	1922.86	1753006.35	417709.11	39°38'39.5183"N	80°15'54.9770"W	2204.06	60.741	2.94	-0.64	-5.78
8263.00	35.000	40.250	7699.53	6168.53	-161.89	1109.54	1960.41	1753043.90	417741.38	39°38'39.8404"N	80°15'54.5004"W	2252.62	60.491	12.56	5.89	-20.94
8357.00	41.940	38.770	7773.08	6242.08	-144.89	1154.66	1997.55	1753081.04	417786.50	39°38'40.2895"N	80°15'54.0307"W	2307.26	59.970	7.45	7.38	-1.57
8451.00	45.740	34.380	7840.89	6309.89	-122.77	1206.97	2036.25	1753119.74	417838.80	39°38'40.8096"N	80°15'53.5416"W	2367.08	59.343	5.18	4.04	-4.67
8545.00	50.550	30.970	7903.60	6372.60	-94.58	1265.91	2073.96	1753157.44	417897.74	39°38'41.3953"N	80°15'53.0660"W	2429.78	58.601	5.79	5.12	-3.63
8638.00	53.240	23.810	7961.03	6430.03	-59.09	1330.84	2107.51	1753190.99	417962.67	39°38'42.0398"N	80°15'52.6442"W	2492.54	57.729	6.71	2.89	-7.70
8733.00	56.040	13.010	8016.11	6485.11	-11.46	1404.21	2131.80	1753215.28	418036.03	39°38'42.7669"N	80°15'52.3417"W	2552.71	56.627	9.72	2.95	-11.37
8828.00	60.850	3.170	8065.90	6534.90	48.95	1484.20	2142.99	1753226.46	418116.02	39°38'43.5584"N	80°15'52.2074"W	2606.77	55.294	10.17	5.06	-10.36
8923.00	64.530	355.360	8109.53	6578.53	119.79	1568.50	2141.81	1753225.29	418200.31	39°38'44.3914"N	80°15'52.2316"W	2654.72	53.784	8.27	3.87	-8.22
9018.00	69.790	350.720	8146.41	6615.41	198.00	1655.33	2131.14	1753214.62	418287.14	39°38'45.2486"N	80°15'52.3774"W	2698.50	52.162	7.13	5.54	-4.88
9112.00	74.640	344.270	8175.14	6644.14	281.44	1742.62	2111.71	1753195.19	418374.43	39°38'46.1096"N	80°15'52.6353"W	2737.89	50.470	8.32	5.16	-6.86
9207.00	78.790	334.420	8197.02	6666.02	371.41	1828.98	2079.08	1753162.57	418460.77	39°38'46.9603"N	80°15'53.0618"W	2769.07	48.662	10.99	4.37	-10.37
9302.00	84.170	329.270	8211.10	6680.10	464.87	1911.74	2034.76	1753118.24	418543.53	39°38'47.7744"N	80°15'53.6374"W	2791.95	46.785	7.80	5.66	-5.42
9396.00	84.980	327.530	8219.99	6688.99	558.38	1991.44	1985.73	1753069.21	418623.23	39°38'48.5580"N	80°15'54.2729"W	2812.28	44.918	2.03	0.86	-1.85
9491.00	89.480	326.520	8224.58	6693.58	653.24	2071.02	1934.09	1753017.58	418702.80	39°38'49.3401"N	80°15'54.9416"W	2833.70	43.042	4.85	4.74	-1.06
9586.00	90.120	327.670	8224.91	6693.91	748.23	2150.78	1882.49	1752965.98	418782.55	39°38'50.1239"N	80°15'55.6100"W	2858.25	41.194	1.39	0.67	1.21
9681.00	91.480	326.870	8223.58	6692.58	843.21	2230.68	1831.13	1752914.63	418862.46	39°38'50.9093"N	80°15'56.2753"W	2886.00	39.382	1.66	1.43	-0.84
9775.00	90.180	325.680	8222.22	6691.22	937.19	2308.85	1778.95	1752862.45	418940.62	39°38'51.6774"N	80°15'56.9509"W	2914.69	37.614	1.87	-1.38	-1.27

RECEIVED
Office of Oil and Gas
Environmental Protection
APR 09 2025

1960-7



Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'
Page 6 of 11



REFERENCE WELLPATH IDENTIFICATION

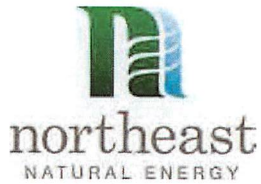
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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]
9870.00	92.030	324.860	8220.39	6689.39	1032.15	2386.91	1724.84	1752808.34	419018.67	39°38'52.4443"N	80°15'57.6511"W	2944.89	35.853	2.13	1.95	-0.86
9964.00	87.540	322.740	8220.74	6689.74	1126.03	2462.74	1669.34	1752752.84	419094.50	39°38'53.1890"N	80°15'58.3689"W	2975.19	34.131	5.28	-4.78	-2.26
10059.00	91.750	327.140	8221.33	6690.33	1220.95	2540.46	1614.79	1752698.30	419172.22	39°38'53.9525"N	80°15'59.0746"W	3010.23	32.441	6.41	4.43	4.63
10154.00	89.290	324.760	8220.47	6689.47	1315.93	2619.16	1561.61	1752645.13	419250.91	39°38'54.7257"N	80°15'59.7631"W	3049.37	30.804	3.60	-2.59	-2.51
10249.00	89.820	324.870	8221.21	6690.21	1410.89	2696.80	1506.87	1752590.39	419328.55	39°38'55.4884"N	80°16'0.4713"W	3089.24	29.195	0.57	0.56	0.12
10343.00	89.420	326.070	8221.83	6690.83	1504.88	2774.24	1453.59	1752537.11	419405.98	39°38'56.2492"N	80°16'1.1609"W	3131.98	27.653	1.35	-0.43	1.28
10438.00	88.650	322.760	8223.43	6692.43	1599.80	2851.47	1398.33	1752481.85	419483.21	39°38'57.0078"N	80°16'1.8758"W	3175.88	26.123	3.58	-0.81	-3.48
10533.00	88.310	326.290	8225.95	6694.95	1694.70	2928.80	1343.22	1752426.75	419560.53	39°38'57.7673"N	80°16'2.5887"W	3222.13	24.637	3.73	-0.36	3.72
10628.00	90.180	324.450	8227.20	6696.20	1789.67	3006.96	1289.24	1752372.78	419638.68	39°38'58.5352"N	80°16'3.2873"W	3271.69	23.207	2.76	1.97	-1.94
10723.00	88.920	325.390	8227.95	6696.95	1884.63	3084.69	1234.65	1752318.18	419716.41	39°38'59.2988"N	80°16'3.9938"W	3322.60	21.814	1.65	-1.33	0.99
10818.00	88.030	324.440	8230.48	6699.48	1979.56	3162.40	1180.06	1752263.60	419794.12	39°39'0.0622"N	80°16'4.7001"W	3375.40	20.463	1.37	-0.94	-1.00
10912.00	88.770	324.260	8233.10	6702.10	2073.47	3238.76	1125.30	1752208.84	419870.47	39°39'0.8121"N	80°16'5.4085"W	3428.68	19.160	0.81	0.79	-0.19
11007.00	87.050	325.820	8236.57	6705.57	2168.37	3316.56	1070.90	1752154.45	419948.26	39°39'1.5764"N	80°16'6.1125"W	3485.17	17.895	2.44	-1.81	1.64
11102.00	89.690	324.980	8239.27	6708.27	2263.31	3394.71	1016.99	1752100.53	420026.42	39°39'2.3442"N	80°16'6.8103"W	3543.78	16.677	2.92	2.78	-0.88
11197.00	88.250	326.760	8240.98	6709.98	2358.29	3473.33	963.70	1752047.25	420105.03	39°39'3.1167"N	80°16'7.5002"W	3604.55	15.507	2.41	-1.52	1.87
11291.00	87.690	326.910	8244.31	6713.31	2452.22	3551.97	912.31	1751995.86	420183.66	39°39'3.8895"N	80°16'8.1658"W	3667.26	14.405	0.62	-0.60	0.16
11386.00	88.400	325.720	8247.55	6716.55	2547.17	3630.97	859.65	1751943.20	420262.66	39°39'4.6657"N	80°16'8.8476"W	3731.35	13.320	1.46	0.75	-1.25
11480.00	88.890	326.260	8249.77	6718.77	2641.14	3708.87	807.08	1751890.65	420340.55	39°39'5.4311"N	80°16'9.5281"W	3795.67	12.277	0.78	0.52	0.57
11575.00	88.710	326.650	8251.76	6720.76	2736.12	3788.03	754.60	1751838.16	420419.71	39°39'6.2090"N	80°16'10.2078"W	3862.46	11.266	0.45	-0.19	0.41
11670.00	89.420	325.930	8253.31	6722.31	2831.10	3867.05	701.88	1751785.45	420498.72	39°39'6.9854"N	80°16'10.8904"W	3930.23	10.287	1.06	0.75	-0.76
11764.00	89.230	327.300	8254.42	6723.42	2925.09	3945.53	650.16	1751733.73	420577.20	39°39'7.7566"N	80°16'11.5602"W	3998.74	9.357	1.47	-0.20	1.46
11859.00	89.600	327.320	8255.39	6724.39	3020.07	4025.48	598.86	1751682.43	420657.14	39°39'8.5424"N	80°16'12.2249"W	4069.78	8.462	0.39	0.39	0.02
11954.00	88.890	324.910	8256.64	6725.64	3115.06	4104.33	545.90	1751629.48	420735.99	39°39'9.3171"N	80°16'12.9105"W	4140.47	7.576	2.64	-0.75	-2.54
12048.00	87.630	326.720	8259.49	6728.49	3209.00	4182.05	493.11	1751576.69	420813.70	39°39'10.0807"N	80°16'13.5939"W	4211.02	6.725	2.35	-1.34	1.93
12143.00	85.940	325.740	8264.82	6733.82	3303.85	4260.89	440.39	1751523.98	420892.54	39°39'10.8554"N	80°16'14.2766"W	4283.59	5.901	2.06	-1.78	-1.03
12237.00	89.480	326.990	8268.58	6737.58	3397.76	4339.08	388.38	1751471.96	420970.72	39°39'11.6237"N	80°16'14.9502"W	4356.42	5.115	3.99	3.77	1.33
12332.00	89.320	328.120	8269.57	6738.57	3492.73	4419.24	337.42	1751421.00	421050.88	39°39'12.4116"N	80°16'15.6105"W	4432.11	4.366	1.20	-0.17	1.19
12427.00	86.400	325.960	8273.12	6742.12	3587.64	4498.89	285.78	1751369.37	421130.52	39°39'13.1943"N	80°16'16.2794"W	4507.95	3.635	3.82	-3.07	-2.27
12522.00	86.240	326.190	8279.22	6748.22	3682.44	4577.55	232.87	1751316.46	421209.18	39°39'13.9672"N	80°16'16.9645"W	4583.47	2.912	0.29	-0.17	0.24
12617.00	87.260	326.710	8284.60	6753.60	3777.29	4656.60	180.45	1751264.05	421288.22	39°39'14.7439"N	80°16'17.6434"W	4660.09	2.219	1.20	1.07	0.55

RECEIVED
Office of Oil and Gas
APR 09 2025
Department of
Environmental Protection

2025



Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'

Page 7 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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]
12712.00	88.310	324.850	8288.27	6757.27	3872.21	4735.09	127.07	1751210.67	421366.71	39°39'15.5151"N	80°16'18.3345"W	4736.79	1.537	2.25	1.11	-1.96
12806.00	89.200	327.880	8290.32	6759.32	3966.17	4813.32	75.02	1751158.62	421444.94	39°39'16.2838"N	80°16'19.0085"W	4813.90	0.893	3.36	0.95	3.22
12900.00	88.250	326.330	8292.41	6761.41	4060.14	4892.23	23.98	1751107.59	421523.84	39°39'17.0593"N	80°16'19.6697"W	4892.29	0.281	1.93	-1.01	-1.65
12995.00	91.350	326.490	8292.74	6761.74	4155.13	4971.35	-28.57	1751055.04	421602.96	39°39'17.8368"N	80°16'20.3502"W	4971.43	359.671	3.27	3.26	0.17
13090.00	87.780	324.520	8293.46	6762.46	4250.09	5049.63	-82.36	1751001.26	421681.23	39°39'18.6058"N	80°16'21.0465"W	5050.30	359.066	4.29	-3.76	-2.07
13184.00	89.290	324.990	8295.86	6764.86	4344.02	5126.37	-136.58	1750947.03	421757.97	39°39'19.3596"N	80°16'21.7482"W	5128.19	358.474	1.68	1.61	0.50
13279.00	89.020	328.110	8297.27	6766.27	4439.00	5205.62	-188.94	1750894.68	421837.21	39°39'20.1383"N	80°16'22.4263"W	5209.05	357.921	3.30	-0.28	3.28
13374.00	87.570	324.710	8300.09	6769.09	4533.94	5284.71	-241.46	1750842.16	421916.29	39°39'20.9154"N	80°16'23.1065"W	5290.22	357.384	3.89	-1.53	-3.58
13468.00	89.170	329.080	8302.77	6771.77	4627.87	5363.40	-292.77	1750790.86	421994.98	39°39'21.6887"N	80°16'23.7711"W	5371.38	356.876	4.95	1.70	4.65
13563.00	89.540	326.790	8303.84	6772.84	4722.83	5443.89	-343.19	1750740.44	422075.47	39°39'22.4799"N	80°16'24.4247"W	5454.70	356.393	2.44	0.39	-2.41
13658.00	89.350	327.120	8304.76	6773.76	4817.82	5523.52	-394.99	1750688.64	422155.09	39°39'23.2625"N	80°16'25.0958"W	5537.63	355.910	0.40	-0.20	0.35
13753.00	90.150	326.990	8305.17	6774.17	4912.81	5603.24	-446.66	1750636.98	422234.81	39°39'24.0459"N	80°16'25.7651"W	5621.02	355.442	0.85	0.84	-0.14
13847.00	89.200	327.810	8305.71	6774.71	5006.79	5682.43	-497.30	1750586.34	422313.99	39°39'24.8242"N	80°16'26.4213"W	5704.15	354.998	1.34	-1.01	0.87
13941.00	89.320	323.840	8306.92	6775.92	5100.76	5760.18	-550.09	1750533.56	422391.74	39°39'25.5880"N	80°16'27.1048"W	5786.38	354.545	4.22	0.13	-4.22
14036.00	87.010	327.140	8309.96	6778.96	5195.68	5838.40	-603.87	1750479.77	422469.96	39°39'26.3565"N	80°16'27.8011"W	5869.55	354.095	4.24	-2.43	3.47
14131.00	92.250	327.470	8310.58	6779.58	5290.63	5918.32	-655.17	1750428.48	422549.87	39°39'27.1419"N	80°16'28.4657"W	5954.48	353.683	5.53	5.52	0.35
14226.00	91.350	327.310	8307.59	6776.59	5385.57	5998.31	-706.34	1750377.31	422629.85	39°39'27.9280"N	80°16'29.1288"W	6039.75	353.284	0.96	-0.95	-0.17
14320.00	89.170	327.680	8307.17	6776.17	5479.54	6077.57	-756.85	1750326.81	422709.11	39°39'28.7071"N	80°16'29.7833"W	6124.52	352.901	2.35	-2.32	0.39
14415.00	89.350	326.790	8308.39	6777.39	5574.52	6157.45	-808.26	1750275.40	422788.98	39°39'29.4921"N	80°16'30.4494"W	6210.27	352.522	0.96	0.19	-0.94
14510.00	90.220	325.940	8308.75	6777.75	5669.52	6236.54	-860.88	1750222.78	422868.07	39°39'30.2693"N	80°16'31.1309"W	6295.68	352.141	1.28	0.92	-0.89
14604.00	90.280	329.230	8308.34	6777.34	5763.49	6315.89	-911.26	1750172.41	422947.41	39°39'31.0491"N	80°16'31.7838"W	6381.29	351.790	3.50	0.06	3.50
14699.00	91.390	327.370	8306.95	6775.95	5858.42	6396.70	-961.17	1750122.50	423028.22	39°39'31.8435"N	80°16'32.4309"W	6468.51	351.455	2.28	1.17	-1.96
14793.00	91.540	327.070	8304.55	6773.55	5952.38	6475.71	-1012.05	1750071.63	423107.22	39°39'32.6199"N	80°16'33.0901"W	6554.31	351.117	0.36	0.16	-0.32
14888.00	90.520	327.340	8302.84	6771.84	6047.35	6555.55	-1063.49	1750020.18	423187.06	39°39'33.4046"N	80°16'33.7567"W	6641.25	350.785	1.11	-1.07	0.28
14983.00	91.170	324.220	8301.44	6770.44	6142.32	6634.09	-1116.91	1749966.77	423265.59	39°39'34.1761"N	80°16'34.4483"W	6727.45	350.443	3.35	0.68	-3.28
15078.00	91.080	327.610	8299.58	6768.58	6237.29	6712.74	-1170.13	1749913.55	423344.24	39°39'34.9489"N	80°16'35.1375"W	6813.96	350.112	3.57	-0.09	3.57
15172.00	90.520	325.950	8298.26	6767.26	6331.27	6791.37	-1221.62	1749862.07	423422.86	39°39'35.7215"N	80°16'35.8046"W	6900.36	349.803	1.86	-0.60	-1.77
15267.00	93.320	325.970	8295.08	6764.08	6426.21	6870.04	-1274.76	1749808.93	423501.52	39°39'36.4944"N	80°16'36.4927"W	6987.30	349.488	2.95	2.95	0.02
15362.00	91.510	326.350	8291.08	6760.08	6521.12	6948.87	-1327.62	1749756.08	423580.35	39°39'37.2690"N	80°16'37.1773"W	7074.56	349.184	1.95	-1.91	0.40
15456.00	91.690	325.980	8288.45	6757.45	6615.08	7026.92	-1379.93	1749703.76	423658.40	39°39'38.0358"N	80°16'37.8548"W	7161.13	348.890	0.44	0.19	-0.39

RECEIVED
Office of Oil and Gas
APR 09 2025
Department of
Environmental Protection

210207



Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'
Page 8 of 11



REFERENCE WELLPATH IDENTIFICATION

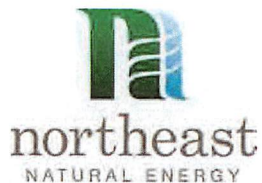
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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]
15551.00	91.540	326.250	8285.78	6754.78	6710.04	7105.75	-1432.88	1749650.82	423737.23	39°39'38.8104"N	80°16'38.5405"W	7248.78	348.599	0.33	-0.16	0.28
15646.00	91.020	326.450	8283.65	6752.65	6805.02	7184.81	-1485.51	1749598.19	423816.28	39°39'39.5872"N	80°16'39.2222"W	7336.78	348.318	0.59	-0.55	0.21
15740.00	91.450	324.600	8281.63	6750.63	6898.98	7262.28	-1538.70	1749545.00	423893.75	39°39'40.3483"N	80°16'39.9109"W	7423.50	348.037	2.02	0.46	-1.97
15834.00	91.910	326.270	8278.87	6747.87	6992.92	7339.65	-1592.01	1749491.70	423971.11	39°39'41.1083"N	80°16'40.6010"W	7510.33	347.762	1.84	0.49	1.78
15929.00	92.890	327.330	8274.89	6743.89	7087.83	7419.07	-1643.98	1749439.73	424050.53	39°39'41.8887"N	80°16'41.2743"W	7599.03	347.506	1.52	1.03	1.12
16024.00	93.170	327.300	8269.87	6738.87	7182.69	7498.92	-1695.21	1749388.51	424130.37	39°39'42.6734"N	80°16'41.9382"W	7688.14	347.262	0.30	0.29	-0.03
16119.00	92.830	325.480	8264.90	6733.90	7277.55	7577.93	-1747.72	1749336.00	424209.37	39°39'43.4497"N	80°16'42.6184"W	7776.86	347.013	1.95	-0.36	-1.92
16213.00	91.720	325.570	8261.17	6730.17	7371.47	7655.36	-1800.88	1749282.84	424286.80	39°39'44.2104"N	80°16'43.3068"W	7864.33	346.762	1.18	-1.18	0.10
16307.00	92.710	325.940	8257.54	6726.54	7465.39	7733.00	-1853.74	1749229.98	424364.44	39°39'44.9732"N	80°16'43.9912"W	7952.08	346.520	1.12	1.05	0.39
16402.00	92.550	326.980	8253.18	6722.18	7560.29	7812.10	-1906.17	1749177.55	424443.53	39°39'45.7503"N	80°16'44.6704"W	8041.29	346.288	1.11	-0.17	1.09
16497.00	91.170	324.080	8250.09	6719.09	7655.22	7890.37	-1959.91	1749123.82	424521.79	39°39'46.5192"N	80°16'45.3662"W	8130.14	346.050	3.38	-1.45	-3.05
16591.00	91.170	326.850	8248.17	6717.17	7749.18	7967.78	-2013.18	1749070.55	424599.20	39°39'47.2797"N	80°16'46.0559"W	8218.17	345.820	2.95	0.00	2.95
16686.00	92.890	326.270	8244.81	6713.81	7844.11	8047.00	-2065.50	1749018.24	424678.42	39°39'48.0581"N	80°16'46.7337"W	8307.86	345.604	1.91	1.81	-0.61
16780.00	91.140	326.290	8241.50	6710.50	7938.05	8125.13	-2117.64	1748966.09	424756.55	39°39'48.8258"N	80°16'47.4091"W	8396.56	345.392	1.86	-1.86	0.02
16875.00	91.480	326.150	8239.33	6708.33	8033.03	8204.07	-2170.45	1748913.29	424835.48	39°39'49.6014"N	80°16'48.0931"W	8486.32	345.181	0.39	0.36	-0.15
16970.00	91.570	326.500	8236.80	6705.80	8127.99	8283.10	-2223.11	1748860.64	424914.51	39°39'50.3779"N	80°16'48.7752"W	8576.25	344.976	0.38	0.09	0.37
17064.00	91.720	326.830	8234.10	6703.10	8221.95	8361.61	-2274.74	1748809.01	424993.00	39°39'51.1493"N	80°16'49.4442"W	8665.50	344.781	0.39	0.16	0.35
17159.00	91.970	326.610	8231.05	6700.05	8316.90	8440.99	-2326.85	1748756.91	425072.38	39°39'51.9292"N	80°16'50.1192"W	8755.82	344.589	0.35	0.26	-0.23
17253.00	92.120	326.280	8227.69	6696.69	8410.84	8519.27	-2378.77	1748704.99	425150.66	39°39'52.6984"N	80°16'50.7918"W	8845.14	344.399	0.39	0.16	-0.35
17348.00	92.860	326.130	8223.56	6692.56	8505.75	8598.14	-2431.56	1748652.20	425229.53	39°39'53.4734"N	80°16'51.4756"W	8935.35	344.209	0.79	0.78	-0.16
17443.00	92.550	325.680	8219.08	6688.08	8600.64	8676.73	-2484.75	1748599.01	425308.10	39°39'54.2454"N	80°16'52.1646"W	9025.50	344.020	0.57	-0.33	-0.47
17538.00	93.480	326.640	8214.08	6683.08	8695.51	8755.52	-2537.58	1748546.18	425386.90	39°39'55.0196"N	80°16'52.8488"W	9115.84	343.837	1.41	0.98	1.01
17633.00	92.800	326.400	8208.88	6677.88	8790.36	8834.64	-2589.91	1748493.86	425466.01	39°39'55.7969"N	80°16'53.5268"W	9206.44	343.661	0.76	-0.72	-0.25
17728.00	92.120	324.240	8204.80	6673.80	8885.25	8912.68	-2643.91	1748439.86	425544.05	39°39'56.5636"N	80°16'54.2260"W	9296.57	343.477	2.38	-0.72	-2.27
17822.00	92.060	326.950	8201.37	6670.37	8979.17	8990.18	-2696.99	1748386.79	425621.54	39°39'57.3249"N	80°16'54.9132"W	9386.01	343.301	2.88	-0.06	2.88
17917.00	90.030	324.230	8199.64	6668.64	9074.13	9068.53	-2750.66	1748333.12	425699.89	39°39'58.0946"N	80°16'55.6082"W	9476.52	343.126	3.57	-2.14	-2.86
18012.00	91.540	327.400	8198.34	6667.34	9169.11	9147.10	-2804.02	1748279.76	425778.45	39°39'58.8664"N	80°16'56.2993"W	9567.23	342.957	3.70	1.59	3.34
18107.00	90.580	324.410	8196.58	6665.58	9264.07	9225.75	-2857.26	1748226.53	425857.09	39°39'59.6391"N	80°16'56.9889"W	9658.07	342.792	3.31	-1.01	-3.15
18201.00	90.180	326.900	8195.96	6664.96	9358.06	9303.35	-2910.28	1748173.50	425934.69	39°40'0.4014"N	80°16'57.6756"W	9747.93	342.629	2.68	-0.43	2.65
18296.00	90.490	326.560	8195.40	6664.40	9453.05	9382.78	-2962.40	1748121.39	426014.11	39°40'1.1819"N	80°16'58.3508"W	9839.33	342.478	0.48	0.33	-0.36

RECEIVED
Office of Oil and Gas
APR 09 2025
Department of
Environmental Protection

see
pg 27



Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'

Page 9 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

WELLPATH DATA (237 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [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]
18391.00	90.030	326.930	8194.97	6663.97	9548.05	9462.22	-3014.49	1748069.30	426093.55	39°40'1.9625"N	80°16'59.0258"W	9930.80	342.329	0.62	-0.48	0.39
18486.00	90.710	326.260	8194.36	6663.36	9643.05	9541.52	-3066.79	1748017.00	426172.85	39°40'2.7417"N	80°16'59.7035"W	10022.27	342.182	1.00	0.72	-0.71
18580.00	90.950	325.930	8193.00	6662.00	9737.04	9619.53	-3119.22	1747964.58	426250.85	39°40'3.5081"N	80°17'0.3826"W	10112.61	342.034	0.43	0.26	-0.35
18675.00	91.020	326.110	8191.36	6660.36	9832.02	9698.30	-3172.31	1747911.49	426329.61	39°40'4.2819"N	80°17'1.0702"W	10203.95	341.887	0.20	0.07	0.19
18769.00	90.710	326.240	8189.94	6658.94	9926.01	9776.38	-3224.63	1747859.18	426407.69	39°40'5.0490"N	80°17'1.7480"W	10294.45	341.745	0.36	-0.33	0.14
18864.00	91.420	326.300	8188.18	6657.18	10020.99	9855.37	-3277.37	1747806.44	426486.68	39°40'5.8251"N	80°17'2.4312"W	10386.02	341.606	0.75	0.75	0.06
18959.00	91.110	326.460	8186.08	6655.08	10115.97	9934.46	-3329.96	1747753.85	426565.76	39°40'6.6022"N	80°17'3.1125"W	10477.70	341.469	0.37	-0.33	0.17
19054.00	90.180	326.500	8185.01	6654.01	10210.96	10013.66	-3382.42	1747701.40	426644.95	39°40'7.3803"N	80°17'3.7922"W	10569.49	341.336	0.98	-0.98	0.04
19148.00	90.180	326.400	8184.72	6653.72	10304.96	10092.00	-3434.37	1747649.45	426723.29	39°40'8.1500"N	80°17'4.4652"W	10660.36	341.206	0.11	0.00	-0.11
19243.00	90.280	326.490	8184.33	6653.33	10399.96	10171.16	-3486.88	1747596.95	426802.45	39°40'8.9279"N	80°17'5.1455"W	10752.25	341.077	0.14	0.11	0.09
19337.00	90.580	326.300	8183.63	6652.63	10493.96	10249.45	-3538.90	1747544.92	426880.73	39°40'9.6971"N	80°17'5.8195"W	10843.20	340.951	0.38	0.32	-0.20
19432.00	90.150	326.360	8183.02	6652.02	10588.95	10328.51	-3591.57	1747492.26	426959.79	39°40'10.4738"N	80°17'6.5019"W	10935.15	340.826	0.46	-0.45	0.06
19527.00	90.490	327.380	8182.49	6651.49	10683.95	10408.07	-3643.49	1747440.34	427039.34	39°40'11.2556"N	80°17'7.1747"W	11027.37	340.707	1.13	0.36	1.07
19622.00	90.770	327.060	8181.45	6650.45	10778.93	10487.93	-3694.92	1747388.92	427119.20	39°40'12.0404"N	80°17'7.8413"W	11119.77	340.593	0.45	0.29	-0.34
19716.00	90.950	326.980	8180.04	6649.04	10872.91	10566.78	-3746.08	1747337.76	427198.04	39°40'12.8151"N	80°17'8.5044"W	11211.15	340.480	0.21	0.19	-0.09
19811.00	90.220	327.070	8179.07	6648.07	10967.90	10646.47	-3797.79	1747286.06	427277.73	39°40'13.5982"N	80°17'9.1745"W	11303.56	340.368	0.77	-0.77	0.09
19906.00	89.970	327.000	8178.91	6647.91	11062.90	10726.17	-3849.48	1747234.37	427357.43	39°40'14.3814"N	80°17'9.8444"W	11396.02	340.258	0.27	-0.26	-0.07
20000.00	89.940	327.170	8178.98	6647.98	11156.89	10805.08	-3900.56	1747183.29	427436.33	39°40'15.1569"N	80°17'10.5065"W	11487.57	340.151	0.18	-0.03	0.18
20095.00	89.510	326.940	8179.44	6648.44	11251.88	10884.81	-3952.22	1747131.63	427516.05	39°40'15.9402"N	80°17'11.1761"W	11580.12	340.044	0.51	-0.45	-0.24
20190.00	89.940	326.910	8179.90	6648.90	11346.87	10964.41	-4004.06	1747079.79	427595.65	39°40'16.7225"N	80°17'11.8480"W	11672.65	339.938	0.45	0.45	-0.03
20284.00	89.480	327.440	8180.37	6649.37	11440.86	11043.40	-4055.02	1747028.84	427674.63	39°40'17.4987"N	80°17'12.5084"W	11764.35	339.837	0.75	-0.49	0.56
20379.00	89.420	327.600	8181.28	6650.28	11535.84	11123.54	-4106.03	1746977.83	427754.77	39°40'18.2862"N	80°17'13.1697"W	11857.17	339.739	0.18	-0.06	0.17
20474.00	89.720	327.620	8182.00	6651.00	11630.81	11203.75	-4156.92	1746926.94	427834.98	39°40'19.0745"N	80°17'13.8295"W	11950.07	339.644	0.32	0.32	0.02
20568.00	89.690	327.040	8182.48	6651.48	11724.80	11282.88	-4207.66	1746876.21	427914.10	39°40'19.8521"N	80°17'14.4872"W	12041.92	339.548	0.62	-0.03	-0.62
20663.00	89.690	327.460	8182.99	6651.99	11819.79	11362.78	-4259.05	1746824.82	427993.99	39°40'20.6373"N	80°17'15.1534"W	12134.76	339.453	0.44	0.00	0.44
20708.00	89.660	326.820	8183.25	6652.25	11864.78	11400.58	-4283.47	1746800.40	428031.79	39°40'21.0087"N	80°17'15.4699"W	12178.72	339.408	1.42	-0.07	-1.42
20733.00†	89.660	326.820	8183.40	6652.40	11889.78	11421.50	-4297.15	1746786.72	428052.71	39°40'21.2143"N	80°17'15.6472"W	12203.12	339.382	0.00	0.00	0.00

RECEIVED
Office of Oil and Gas
APR 09 2025
WV Department of
Environmental Protection

230627

Actual Wellpath Report

Phoenix 9H AWP Proj: 20733'

Page 10 of 11

REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

HOLE & CASING SECTIONS - Ref Wellbore: Phoenix 9H AWB Ref Wellpath: Phoenix 9H AWP Proj: 20733'

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	1544.00	1516.00	28.00	1543.96	0.00	0.00	-3.93	-5.03
13.375in Casing Surface	28.00	1514.00	1486.00	28.00	1513.97	0.00	0.00	-3.80	-4.75
12.25in Open Hole	1544.00	2858.00	1314.00	1543.96	2852.22	-3.93	-5.03	88.81	63.87
9.625in Casing Intermediate	28.00	2828.00	2800.00	28.00	2822.37	0.00	0.00	86.13	62.49
8.75in Open Hole	2858.00	8130.00	5272.00	2852.22	7585.91	88.81	63.87	1067.96	1906.02
8.5in Open Hole	8130.00	20733.00	12603.00	7585.91	8183.40	1067.96	1906.02	11421.50	-4297.15
5.5in Casing Production	28.00	20703.00	20675.00	28.00	8183.22	0.00	0.00	11396.39	-4280.73

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Phoenix 9H LP Rev-5	8190.00	1893.34	2036.00	1753119.49	418525.13	39°38'47.5927"N	80°15'53.6195"W	point
Phoenix 9H BHL Rev-5	8589.54	11420.12	-4299.96	1746783.91	428051.33	39°40'21.2003"N	80°17'15.6830"W	point

WELLPATH COMPOSITION - Ref Wellbore: Phoenix 9H AWB Ref Wellpath: Phoenix 9H AWP Proj: 20733'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	1475.00	BH Generic gyro - northseeking (Standard)	01 17.5" Gyro [Northseeking-Standard] (50' - 1475')	Phoenix 9H AWB	12/1/2023
1475.00	2728.00	OWSG MWD rev2 + HRGM	02 12.25" SDI MWD [OWSG MWD Rev.2+HRGM] (1475')(1549' - 2728')	Phoenix 9H AWB	12/1/2023
2728.00	7958.00	OWSG MWD rev2 + HRGM	03 8.75" SDI MWD [OWSG MWD Rev.2+HRGM] (2728')(2927' - 7958')	Phoenix 9H AWB	12/1/2023
7958.00	20733.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 8.5" BH ATK Curve <HRGM+Short Spacing> (7958')(8075'- 20708')	Phoenix 9H AWB	12/1/2023

RECEIVED
 Office of Oil and Gas
 APR 09 2023
 WV Department of
 Environmental Protection

240627

REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Phoenix 9H
Field	Monongalia	API/Legal	
Facility	Phoenix Pad	Wellbore	Phoenix 9H AWB
Slot	Slot 09		

COMMENTS

Wellpath general comments

API: 47061019420000

BH Job #: 111974128

Rig: Patterson 277

Duration: 12/02/2023 - 12/06/2023

01_17.5" Gyro [Northseeking-Standard] (50' - 1475')

02_12.25" SDI MWD [OWSG MWD Rev.2+HRGM] (1475')(1549' - 2728')

03_8.75" SDI MWD [OWSG MWD Rev.2+HRGM] (2728')(2927' - 7958')

04_8.5" BH ATK Curve <HRGM+Short Spacing> (7958')(8075' - 20708')

Final Survey MD @ 20708'

Projected MD at TD: 20733'

RECEIVED
Office of Oil and Gas
APR 09 2025
WV Department of
Environmental Protection

250627