

API: 47-061-01869-0000
 BH Job #: 110853553
 Rig: Patterson 277
 Duration: 4/26/21 - 5/3/21



BH AT Curve $\langle 8-1/2^\circ \rangle (7712^\circ) (7761^\circ-26170^\circ)$: 7561.97ft TVD, 650.79ft N, 651.63ft E
 Tally MWD $\langle 8-1/2^\circ \rangle (4375^\circ) (4427^\circ-7712^\circ)$: 4426.77ft TVD, 19.90ft S, 20.00ft E
 Javins Inertial Gyro $\langle 8-3/4^\circ \rangle (100^\circ-4375^\circ)$: 100.00ft TVD, 0.48ft S, 0.01ft W

Slot 6H

Plot reference wellbore is Bunner 6H PWB Rev-A.0	Grid System: NAD83 / Lambert West Virginia State, Northern Zone (4791), US feet
True vertical depths are referenced to Patterson 277 (RIG)	North Reference: Grid north
Reference wellbore depths are referenced to Patterson 277 (RIG)	Scale: True distance
Patterson 277 (RIG) to Mean Sea Level: 1305 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot 6H) -1277 feet	Depths are in feet
Offset wellbore depths are referenced to each path's datum	Created by: Mapcon on 2021-05-05, Dallas, VA, MAP_CONVERTER_6.0, Dms

Scale 1 inch = 200'



Javins Inertial Gyro $\langle 8-3/4^\circ \rangle (100^\circ-4375^\circ)$: 0.76° Inc, 100.00ft MD, 100.00ft TVD, 0.39ft VS

Slot	Well	Wellbore	Wellbore
Slot 6H	Bunner 6H	Bunner 6H AWB	Bunner 6H AWP Proj. 2019
Slot 6H	Bunner 6H	Bunner 6H PWB	Bunner 6H PWB Rev-A.0

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Bunner Pad	1786458.500	424248.370	39°29'45.2443"N	80°13'3.8735"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot 6H	-30.21	40.00	1786486.500	424218.160
Patterson 277 (RIG) to Ground level (At Slot: Slot 6H)				
26ft				
Mean Sea Level to Ground level (At Slot: Slot 6H)				
-1277ft				
Patterson 277 (RIG) to Mean Sea Level				
1305ft				



User specified (HDGM) Dip: 66.55° Field: 52043 nT
 Magnetic North is 9.08 degrees West of True North (at 4/25/2021)
 Grid North is 0.46 degrees West of True North
 To correct azimuth from True to Grid add 0.46 degrees
 To correct azimuth from Magnetic to Grid subtract 8.62 degrees

True Vertical Depth (ft)

Northing (ft)

Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	7712.00	29.710	82.390	7518.62	648.35	627.11	-190.20
Proj. to Bottom	7777.00	30.700	88.500	7575.81	650.91	659.67	-163.91
End of 3D Az	7898.20	30.675	96.046	7890.57	648.47	721.37	-127.01
Landing Pt.	8701.15	90.000	145.588	8077.00	243.02	1218.45	487.33
BHL	26163.61	90.000	145.588	8077.00	-14176.56	11101.61	0.00

Projected MD at TD: 26195' : 7817.53ft TVD, 14174.76ft S, 11102.44ft E

BH AT Curve $\langle 8-1/2^\circ \rangle (7712^\circ) (7761^\circ-26170^\circ)$: 30.69° Inc, 7761.00ft MD, 7561.97ft TVD, -168.35ft VS

Projected MD at TD: 26195' : 90.31° Inc, 26195.00ft MD, 7817.53ft TVD, 17968.90ft VS

Vertical Section (ft)
 Azimuth 145.57° with reference 0.00 N, 0.00 E

Scale 1 inch = 2000'

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/19/2021
Job End Date:	10/3/2021
State:	West Virginia
County:	Monongalia
API Number:	47-061-01869-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	Bunner 6H
Latitude:	39.66248600
Longitude:	-80.21754400
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8,116
Total Base Water Volume (gal):	34,747,864
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Northeast Natural Energy LLC	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	88.24262	
Sand	U.S. Well Services	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	11.41023	
HCL Acid (5% to 7.5%)	U.S. Well Services	Bulk Acid					
			Water	7732-18-5	95.00000	0.22896	
			Hydrogen Chloride	7647-01-0	7.50000	0.02099	
Clearal 268	U.S. Well Services	Anti-Bacterial Agent					
			Non-hazardous substances	Proprietary	90.00000	0.02620	
			Glutaraldehyde	111-30-8	20.00000	0.00617	
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00087	
			Alkyl dimethyl benzyl ammonium chloride	68391-01-5	3.00000	0.00087	
StimSTREAM SC-405	ChemSTREAM, INC.	Scale Inhibitor					
			Non-hazardous substances	Proprietary	70.00000	0.02238	
			Diethylenetriamine penta (methylene phosphonic acid) (DTPMP)	15827-60-8	10.00000	0.00320	

			2-Phosphono-1,2,4-butane-1,2,4-tricarboxylic acid (PBTC)	37971-36-1	10.00000	0.00320
			Citric acid	77-92-9	10.00000	0.00320
Alphastim C1500+	U.S. Well Services	Friction Reducer				
			Alkanes, C16-20-iso-	90622-59-6	25.00000	0.01452
			Butene, homopolymer	9003-29-6	25.00000	0.01452
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00174
ALPHACLEAN	U.S. Well Services	Other				
			Mineral oil, petroleum distillates, hydro-treated light naphthenic	64742-53-6	100.00000	0.00017
Alphainhibit	U.S. Well Services	Acid Corrosion Inhibitor				
			Ethylene glycol	107-21-1	40.00000	0.00007
			Cinnamaldehyde	104-55-2	20.00000	0.00003
			Formic acid	64-18-6	20.00000	0.00002
			Butyl cellosolve	111-76-2	20.00000	0.00002
			Polyether	60828-78-6	10.00000	0.00001
			Acetophenone, thiourea, formaldehyde polymer	68527-49-1	5.00000	0.00001

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Hilpthop
Scale	0.999941	Report Generated	5/3/2021 at 4:32:06 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	-30.21	40.00	1766498.50	424218.16	39°39'44.9489"N	80°13'3.1589"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 6H)	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	145.57°



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Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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	181.600	0.00	0.00	0.00	0.00	1766498.50	424218.16	39°39'44.9489"N	80°13'3.1589"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	181.600	28.00	0.00	0.00	0.00	1766498.50	424218.16	39°39'44.9489"N	80°13'3.1589"W	0.00	0.000	0.00	0.00	0.00
100.00	0.760	181.600	100.00	0.39	-0.48	-0.01	1766498.49	424217.68	39°39'44.9442"N	80°13'3.1591"W	0.48	181.600	1.06	1.06	0.00
200.00	0.590	207.500	199.99	1.16	-1.60	-0.27	1766498.23	424216.56	39°39'44.9331"N	80°13'3.1622"W	1.62	189.582	0.34	-0.17	25.90
300.00	0.120	16.800	299.99	1.34	-1.95	-0.48	1766498.02	424216.21	39°39'44.9296"N	80°13'3.1648"W	2.01	193.724	0.71	-0.47	169.30
400.00	0.560	69.100	399.99	1.39	-1.68	0.01	1766498.51	424216.48	39°39'44.9323"N	80°13'3.1586"W	1.68	179.668	0.50	0.44	52.30
500.00	0.710	106.400	499.98	1.98	-1.68	1.06	1766499.56	424216.48	39°39'44.9324"N	80°13'3.1452"W	1.99	147.725	0.43	0.15	37.30
600.00	0.770	158.600	599.97	3.12	-2.48	1.90	1766500.40	424215.68	39°39'44.9246"N	80°13'3.1344"W	3.12	142.540	0.65	0.06	52.20
700.00	0.620	179.400	699.97	4.22	-3.65	2.15	1766500.65	424214.51	39°39'44.9131"N	80°13'3.1311"W	4.23	149.465	0.29	-0.15	20.80
800.00	0.600	175.800	799.96	5.13	-4.71	2.20	1766500.69	424213.45	39°39'44.9026"N	80°13'3.1304"W	5.20	155.012	0.04	-0.02	-3.60
900.00	0.560	193.800	899.96	5.90	-5.71	2.12	1766500.62	424212.45	39°39'44.8927"N	80°13'3.1313"W	6.09	159.648	0.19	-0.04	18.00
1000.00	0.380	293.500	999.95	5.95	-6.05	1.70	1766500.20	424212.11	39°39'44.8893"N	80°13'3.1366"W	6.28	164.336	0.73	-0.18	99.70
1100.00	0.390	15.200	1099.95	5.45	-5.59	1.48	1766499.98	424212.57	39°39'44.8938"N	80°13'3.1394"W	5.78	165.154	0.50	0.01	81.70
1200.00	0.620	111.000	1199.95	5.67	-5.45	2.08	1766500.58	424212.71	39°39'44.8952"N	80°13'3.1318"W	5.84	159.164	0.77	0.23	95.80
1300.00	0.620	107.700	1299.94	6.54	-5.81	3.10	1766501.60	424212.35	39°39'44.8917"N	80°13'3.1188"W	6.59	151.955	0.04	0.00	-3.30
1400.00	0.390	247.500	1399.94	6.90	-6.11	3.30	1766501.80	424212.05	39°39'44.8888"N	80°13'3.1162"W	6.94	151.635	0.95	-0.23	139.80
1500.00	0.320	28.700	1499.94	6.70	-5.99	3.12	1766501.62	424212.17	39°39'44.8900"N	80°13'3.1185"W	6.75	152.519	0.67	-0.07	141.20
1600.00	0.670	83.400	1599.94	6.85	-5.68	3.83	1766502.33	424212.48	39°39'44.8931"N	80°13'3.1094"W	6.85	145.996	0.55	0.35	54.70
1700.00	0.650	79.000	1699.93	7.35	-5.50	4.97	1766503.47	424212.66	39°39'44.8949"N	80°13'3.0948"W	7.42	137.925	0.05	-0.02	-4.40
1800.00	0.800	108.000	1799.92	8.13	-5.61	6.19	1766504.69	424212.55	39°39'44.8940"N	80°13'3.0792"W	8.36	132.196	0.39	0.15	29.00
1900.00	0.870	130.600	1899.91	9.42	-6.32	7.43	1766505.93	424211.84	39°39'44.8870"N	80°13'3.0633"W	9.76	130.391	0.33	0.07	22.60
2000.00	0.930	159.500	1999.90	10.94	-7.58	8.29	1766506.79	424210.58	39°39'44.8747"N	80°13'3.0522"W	11.23	132.420	0.45	0.06	28.90
2100.00	0.360	236.700	2099.90	11.72	-8.51	8.31	1766506.81	424209.65	39°39'44.8655"N	80°13'3.0518"W	11.90	135.667	0.92	-0.57	77.20
2200.00	0.160	343.900	2199.90	11.58	-8.55	8.01	1766506.51	424209.61	39°39'44.8651"N	80°13'3.0556"W	11.71	136.853	0.44	-0.20	107.20
2300.00	0.610	91.300	2299.89	11.76	-8.42	8.50	1766507.00	424209.74	39°39'44.8663"N	80°13'3.0493"W	11.97	134.729	0.68	0.45	107.40
2400.00	0.790	133.300	2399.89	12.74	-8.91	9.54	1766508.04	424209.25	39°39'44.8616"N	80°13'3.0361"W	13.05	133.047	0.53	0.18	42.00
2500.00	0.890	137.700	2499.88	14.19	-9.96	10.56	1766509.06	424208.20	39°39'44.8514"N	80°13'3.0229"W	14.52	133.308	0.12	0.10	4.40
2600.00	0.730	179.800	2599.87	15.48	-11.17	11.09	1766509.59	424206.99	39°39'44.8394"N	80°13'3.0160"W	15.74	135.207	0.60	-0.16	42.10
2700.00	0.050	304.900	2699.86	15.97	-11.78	11.05	1766509.55	424206.38	39°39'44.8334"N	80°13'3.0164"W	16.16	136.821	0.76	-0.68	125.10
2800.00	0.170	269.500	2799.86	15.84	-11.76	10.87	1766509.37	424206.40	39°39'44.8336"N	80°13'3.0187"W	16.01	137.244	0.13	0.12	-35.40



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
2900.00	0.840	91.900	2899.86	16.19	-11.78	11.45	1766509.95	424206.38	39°39'44.8334"N	80°13'3.0113"W	16.43	135.808	1.01	0.67	-177.60
3000.00	0.670	185.500	2999.86	17.08	-12.39	12.13	1766510.63	424205.77	39°39'44.8274"N	80°13'3.0026"W	17.34	135.602	1.11	-0.17	93.60
3100.00	0.180	65.600	3099.85	17.55	-12.91	12.22	1766510.72	424205.25	39°39'44.8223"N	80°13'3.0014"W	17.77	136.568	0.78	-0.49	-119.90
3200.00	0.970	102.800	3199.85	18.20	-13.03	13.19	1766511.69	424205.13	39°39'44.8212"N	80°13'2.9890"W	18.54	134.654	0.83	0.79	37.20
3300.00	1.010	128.800	3299.83	19.67	-13.77	14.70	1766513.20	424204.39	39°39'44.8140"N	80°13'2.9696"W	20.14	133.127	0.45	0.04	26.00
3400.00	0.840	155.900	3399.82	21.23	-14.99	15.69	1766514.18	424203.17	39°39'44.8020"N	80°13'2.9569"W	21.70	133.701	0.46	-0.17	27.10
3500.00	0.810	148.700	3499.81	22.66	-16.26	16.35	1766514.85	424201.90	39°39'44.7895"N	80°13'2.9482"W	23.06	134.844	0.11	-0.03	-7.20
3600.00	0.170	13.700	3599.81	23.27	-16.72	16.75	1766515.25	424201.44	39°39'44.7850"N	80°13'2.9430"W	23.67	134.946	0.94	-0.64	-135.00
3700.00	0.430	42.200	3699.81	23.08	-16.30	17.04	1766515.54	424201.86	39°39'44.7892"N	80°13'2.9394"W	23.58	133.727	0.29	0.26	28.50
3800.00	0.180	233.000	3799.81	23.00	-16.12	17.17	1766515.67	424202.04	39°39'44.7910"N	80°13'2.9378"W	23.55	133.192	0.61	-0.25	-169.20
3900.00	1.050	112.400	3899.80	23.77	-16.56	17.89	1766516.39	424201.60	39°39'44.7867"N	80°13'2.9285"W	24.38	132.791	1.15	0.87	-120.60
4000.00	0.650	186.600	3999.79	24.97	-17.47	18.67	1766517.17	424200.69	39°39'44.7777"N	80°13'2.9184"W	25.57	133.101	1.07	-0.40	74.20
4100.00	0.810	162.800	4099.78	26.07	-18.71	18.82	1766517.31	424199.45	39°39'44.7655"N	80°13'2.9164"W	26.54	134.842	0.34	0.16	-23.80
4200.00	0.610	85.400	4199.78	27.01	-19.34	19.56	1766518.05	424198.82	39°39'44.7593"N	80°13'2.9069"W	27.51	134.690	0.90	-0.20	-77.40
4300.00	0.210	359.500	4299.78	27.12	-19.12	20.08	1766518.58	424199.04	39°39'44.7616"N	80°13'2.9002"W	27.73	133.589	0.63	-0.40	-85.90
4375.00	0.700	190.700	4374.77	27.33	-19.43	20.00	1766518.50	424198.73	39°39'44.7585"N	80°13'2.9013"W	27.88	134.177	1.21	0.65	-225.07
4427.00	0.380	158.550	4426.77	27.73	-19.90	20.00	1766518.50	424198.26	39°39'44.7538"N	80°13'2.9012"W	28.22	134.860	0.82	-0.62	-61.83
4522.00	0.420	171.400	4521.77	28.35	-20.54	20.17	1766518.67	424197.62	39°39'44.7475"N	80°13'2.8990"W	28.79	135.524	0.10	0.04	13.53
4618.00	0.440	183.580	4617.77	28.95	-21.26	20.20	1766518.70	424196.90	39°39'44.7404"N	80°13'2.8985"W	29.32	136.463	0.10	0.02	12.69
4712.00	0.440	192.840	4711.76	29.48	-21.97	20.10	1766518.59	424196.19	39°39'44.7334"N	80°13'2.8997"W	29.77	137.550	0.08	0.00	9.85
4807.00	0.620	210.080	4806.76	29.95	-22.77	19.76	1766518.26	424195.39	39°39'44.7255"N	80°13'2.9040"W	30.15	139.052	0.25	0.19	18.15
4904.00	0.580	238.750	4903.76	30.15	-23.48	19.07	1766517.57	424194.68	39°39'44.7184"N	80°13'2.9126"W	30.25	140.909	0.31	-0.04	29.56
5000.00	0.620	333.170	4999.75	29.61	-23.27	18.42	1766516.92	424194.89	39°39'44.7204"N	80°13'2.9210"W	29.68	141.625	0.92	0.04	98.35
5095.00	3.610	15.320	5094.68	27.17	-19.92	18.98	1766517.48	424198.24	39°39'44.7535"N	80°13'2.9142"W	27.52	136.384	3.34	3.15	44.37
5190.00	5.990	15.330	5189.34	22.03	-12.26	21.08	1766519.58	424205.90	39°39'44.8295"N	80°13'2.8881"W	24.39	120.171	2.51	2.51	0.01
5285.00	7.940	12.680	5283.63	14.36	-1.07	23.84	1766522.33	424217.09	39°39'44.9402"N	80°13'2.8541"W	23.86	92.580	2.08	2.05	-2.79
5379.00	9.530	13.230	5376.54	4.70	12.84	27.04	1766525.54	424231.00	39°39'45.0779"N	80°13'2.8145"W	29.93	64.607	1.69	1.69	0.59
5474.00	11.050	17.980	5470.01	-6.15	29.15	31.65	1766530.15	424247.31	39°39'45.2395"N	80°13'2.7572"W	43.03	47.354	1.83	1.60	5.00
5568.00	11.680	25.260	5562.17	-16.45	46.33	38.49	1766536.99	424264.48	39°39'45.4098"N	80°13'2.6715"W	60.23	39.723	1.67	0.67	7.74
5662.00	12.630	33.560	5654.07	-25.10	63.50	48.24	1766546.73	424281.65	39°39'45.5802"N	80°13'2.5487"W	79.74	37.222	2.11	1.01	8.83



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
5760.00	14.030	39.430	5749.43	-32.42	81.60	61.70	1766560.20	424299.76	39°39'45.7602"N	80°13'2.3783"W	102.31	37.095	1.99	1.43	5.99
5853.00	15.740	41.810	5839.31	-38.55	99.71	77.28	1766575.77	424317.87	39°39'45.9404"N	80°13'2.1810"W	126.15	37.775	1.95	1.84	2.56
5947.00	18.530	42.240	5929.13	-45.03	120.28	95.82	1766594.31	424338.43	39°39'46.1452"N	80°13'1.9460"W	153.78	38.542	2.97	2.97	0.46
6041.00	20.170	41.350	6017.82	-52.46	143.50	116.57	1766615.06	424361.66	39°39'46.3763"N	80°13'1.6831"W	184.88	39.087	1.77	1.74	-0.95
6136.00	21.610	39.550	6106.57	-61.31	169.29	138.53	1766637.02	424387.44	39°39'46.6329"N	80°13'1.4049"W	218.74	39.293	1.66	1.52	-1.89
6230.00	22.770	38.240	6193.61	-71.50	196.92	160.81	1766659.30	424415.07	39°39'46.9077"N	80°13'1.1228"W	254.24	39.236	1.34	1.23	-1.39
6325.00	23.650	38.570	6280.92	-82.55	226.26	184.07	1766682.56	424444.41	39°39'47.1995"N	80°13'0.8284"W	291.68	39.129	0.94	0.93	0.35
6419.00	25.130	38.660	6366.53	-93.87	256.59	208.30	1766706.78	424474.74	39°39'47.5011"N	80°13'0.5217"W	330.49	39.069	1.57	1.57	0.10
6513.00	24.490	43.520	6451.86	-103.74	286.31	234.18	1766732.67	424504.45	39°39'47.7969"N	80°13'0.1938"W	369.88	39.281	2.27	-0.68	5.17
6611.00	25.020	41.440	6540.85	-113.04	316.57	261.89	1766760.37	424534.71	39°39'48.0981"N	80°12'59.8426"W	410.86	39.599	1.04	0.54	-2.12
6706.00	29.210	37.250	6625.40	-125.24	350.10	289.23	1766787.71	424568.24	39°39'48.4317"N	80°12'59.4964"W	454.12	39.561	4.84	4.41	-4.41
6800.00	28.190	41.450	6707.86	-137.87	385.01	317.81	1766816.29	424603.14	39°39'48.7789"N	80°12'59.1345"W	499.24	39.539	2.40	-1.09	4.47
6895.00	26.530	42.100	6792.23	-148.29	417.57	346.89	1766845.37	424635.70	39°39'49.1030"N	80°12'58.7660"W	542.86	39.718	1.78	-1.75	0.68
6988.00	25.740	44.140	6875.72	-157.13	447.47	374.88	1766873.36	424665.61	39°39'49.4007"N	80°12'58.4111"W	583.76	39.955	1.29	-0.85	2.19
7083.00	27.450	44.800	6960.67	-165.31	477.82	404.68	1766903.16	424695.95	39°39'49.7029"N	80°12'58.0332"W	626.16	40.262	1.83	1.80	0.69
7177.00	27.740	42.800	7043.98	-174.19	509.24	434.81	1766933.28	424727.37	39°39'50.0159"N	80°12'57.6511"W	669.62	40.492	1.03	0.31	-2.13
7272.00	28.390	40.460	7127.81	-184.97	542.65	464.49	1766962.96	424760.78	39°39'50.3483"N	80°12'57.2750"W	714.30	40.562	1.35	0.68	-2.46
7366.00	25.470	37.800	7211.61	-196.96	575.63	491.39	1766989.86	424793.76	39°39'50.6764"N	80°12'56.9345"W	756.84	40.486	3.36	-3.11	-2.83
7461.00	26.380	52.830	7297.14	-204.21	604.56	520.76	1767019.22	424822.68	39°39'50.9646"N	80°12'56.5619"W	797.92	40.741	6.97	0.96	15.82
7555.00	27.190	64.760	7381.12	-201.78	626.35	556.85	1767055.32	424844.47	39°39'51.1828"N	80°12'56.1026"W	838.09	41.638	5.78	0.86	12.69
7650.00	28.080	73.170	7465.31	-191.55	642.08	597.90	1767096.36	424860.20	39°39'51.3415"N	80°12'55.5793"W	877.36	42.959	4.21	0.94	8.85
7712.00	29.710	82.390	7519.62	-180.20	648.35	627.11	1767125.57	424866.47	39°39'51.4057"N	80°12'55.2064"W	902.01	44.046	7.64	2.63	14.87
7761.00	30.690	86.190	7561.97	-168.35	650.79	651.63	1767150.09	424868.91	39°39'51.4317"N	80°12'54.8932"W	920.95	45.037	4.38	2.00	7.76
7856.00	30.620	99.740	7643.79	-139.11	648.30	699.72	1767198.18	424866.42	39°39'51.4109"N	80°12'54.2779"W	953.89	47.184	7.26	-0.07	14.26
7951.00	32.460	106.390	7724.78	-102.47	637.01	748.04	1767246.50	424855.13	39°39'51.3032"N	80°12'53.6589"W	982.52	49.583	4.14	1.94	7.00
8046.00	39.160	114.390	7801.82	-56.97	617.40	799.91	1767298.36	424835.52	39°39'51.1134"N	80°12'52.9937"W	1010.46	52.338	8.59	7.05	8.42
8142.00	45.200	121.360	7872.97	0.11	587.11	856.68	1767355.13	424805.23	39°39'50.8186"N	80°12'52.2647"W	1038.56	55.576	7.95	6.29	7.26
8236.00	52.220	125.460	7934.97	65.51	548.14	915.50	1767413.95	424766.27	39°39'50.4381"N	80°12'51.5086"W	1067.06	59.090	8.15	7.47	4.36
8331.00	58.240	129.320	7989.14	139.62	500.72	977.40	1767475.84	424718.85	39°39'49.9743"N	80°12'50.7123"W	1098.19	62.874	7.16	6.34	4.06
8426.00	65.580	132.170	8033.85	220.59	446.01	1040.80	1767539.23	424664.14	39°39'49.4386"N	80°12'49.8961"W	1132.33	66.804	8.17	7.73	3.00



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
8521.00	71.900	135.980	8068.29	307.30	384.42	1104.31	1767602.74	424602.56	39°39'48.8349"N	80°12'49.0777"W	1169.31	70.806	7.63	6.65	4.01
8616.00	78.190	140.690	8092.80	398.28	315.88	1165.23	1767663.66	424534.02	39°39'48.1623"N	80°12'48.2917"W	1207.29	74.833	8.17	6.62	4.96
8712.00	84.240	143.560	8107.46	492.93	241.02	1223.43	1767721.86	424459.16	39°39'47.4271"N	80°12'47.5400"W	1246.95	78.855	6.96	6.30	2.99
8807.00	88.120	146.380	8113.79	587.69	163.42	1277.82	1767776.24	424381.57	39°39'46.6645"N	80°12'46.8367"W	1288.23	82.712	5.04	4.08	2.97
8902.00	89.780	146.300	8115.53	682.66	84.36	1330.47	1767828.89	424302.52	39°39'45.8873"N	80°12'46.1555"W	1333.14	86.372	1.75	1.75	-0.08
8997.00	90.370	145.910	8115.41	777.65	5.51	1383.44	1767881.86	424223.67	39°39'45.1122"N	80°12'45.4701"W	1383.46	89.772	0.74	0.62	-0.41
9007.00	90.490	145.730	8115.33	787.65	-2.76	1389.06	1767887.48	424215.40	39°39'45.0309"N	80°12'45.3974"W	1389.07	90.114	2.16	1.20	-1.80
9102.00	90.680	147.880	8114.36	882.62	-82.25	1441.07	1767939.48	424135.91	39°39'44.2494"N	80°12'44.7244"W	1443.41	93.267	2.27	0.20	2.26
9197.00	90.980	147.260	8112.99	977.55	-162.43	1492.01	1767990.42	424055.74	39°39'43.4611"N	80°12'44.0649"W	1500.82	96.213	0.72	0.32	-0.65
9291.00	91.380	146.760	8111.05	1071.50	-241.25	1543.18	1768041.59	423976.92	39°39'42.6861"N	80°12'43.4026"W	1561.92	98.885	0.68	0.43	-0.53
9385.00	91.480	145.980	8108.70	1165.46	-319.50	1595.22	1768093.63	423898.68	39°39'41.9169"N	80°12'42.7292"W	1626.90	101.326	0.84	0.11	-0.83
9480.00	92.680	146.160	8105.26	1260.40	-398.27	1648.21	1768146.61	423819.92	39°39'41.1426"N	80°12'42.0437"W	1695.65	103.584	1.28	1.26	0.19
9575.00	92.340	145.780	8101.10	1355.30	-476.92	1701.33	1768199.72	423741.27	39°39'40.3694"N	80°12'41.3566"W	1766.91	105.659	0.54	-0.36	-0.40
9670.00	91.660	146.300	8097.78	1450.24	-555.67	1754.36	1768252.76	423662.53	39°39'39.5954"N	80°12'40.6705"W	1840.26	107.575	0.90	-0.72	0.55
9765.00	91.290	145.830	8095.33	1545.20	-634.46	1807.38	1768305.77	423583.74	39°39'38.8208"N	80°12'39.9847"W	1915.50	109.343	0.63	-0.39	-0.49
9859.00	90.800	146.110	8093.62	1639.19	-712.35	1859.97	1768358.36	423505.85	39°39'38.0552"N	80°12'39.3043"W	1991.72	110.956	0.60	-0.52	0.30
9954.00	90.980	146.360	8092.14	1734.17	-791.32	1912.77	1768411.15	423426.89	39°39'37.2789"N	80°12'38.6213"W	2069.99	112.475	0.32	0.19	0.26
10048.00	90.830	146.040	8090.66	1828.15	-869.42	1965.05	1768463.43	423348.79	39°39'36.5112"N	80°12'37.9449"W	2148.80	113.867	0.38	-0.16	-0.34
10142.00	90.800	145.840	8089.32	1922.14	-947.28	2017.69	1768516.07	423270.93	39°39'35.7458"N	80°12'37.2639"W	2229.00	115.150	0.22	-0.03	-0.21
10237.00	91.480	146.070	8087.43	2017.12	-1025.99	2070.87	1768569.24	423192.24	39°39'34.9722"N	80°12'36.5761"W	2311.09	116.356	0.76	0.72	0.24
10331.00	91.350	146.110	8085.11	2111.09	-1103.97	2123.29	1768621.66	423114.25	39°39'34.2055"N	80°12'35.8979"W	2393.14	117.471	0.14	-0.14	0.04
10427.00	91.350	146.170	8082.85	2207.05	-1183.67	2176.77	1768675.13	423034.56	39°39'33.4221"N	80°12'35.2061"W	2477.78	118.536	0.06	0.00	0.06
10521.00	91.540	146.030	8080.48	2301.02	-1261.67	2229.18	1768727.54	422956.57	39°39'32.6554"N	80°12'34.5281"W	2561.45	119.509	0.25	0.20	-0.15
10617.00	91.790	146.070	8077.69	2396.98	-1341.27	2282.77	1768781.13	422876.97	39°39'31.8729"N	80°12'33.8349"W	2647.65	120.437	0.26	0.26	0.04
10712.00	91.510	145.960	8074.95	2491.93	-1420.01	2335.85	1768834.21	422798.24	39°39'31.0989"N	80°12'33.1483"W	2733.61	121.296	0.32	-0.29	-0.12
10807.00	90.310	144.660	8073.45	2586.92	-1498.11	2389.91	1768888.26	422720.14	39°39'30.3313"N	80°12'32.4492"W	2820.64	122.081	1.86	-1.26	-1.37
10902.00	89.880	145.840	8073.29	2681.91	-1576.16	2444.06	1768942.41	422642.09	39°39'29.5641"N	80°12'31.7490"W	2908.21	122.818	1.32	-0.45	1.24
10996.00	89.820	145.730	8073.53	2775.91	-1653.89	2496.91	1768995.26	422564.37	39°39'28.8000"N	80°12'31.0653"W	2994.99	123.520	0.13	-0.06	-0.12
11090.00	90.650	146.140	8073.15	2869.91	-1731.76	2549.56	1769047.91	422486.50	39°39'28.0346"N	80°12'30.3843"W	3082.09	124.186	0.98	0.88	0.44
11186.00	90.650	145.830	8072.06	2965.90	-1811.33	2603.26	1769101.61	422406.94	39°39'27.2524"N	80°12'29.6897"W	3171.42	124.830	0.32	0.00	-0.32



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
11280.00	91.020	145.810	8070.69	3059.89	-1889.09	2656.07	1769154.40	422329.19	39°39'26.4881"N	80°12'29.0067"W	3259.35	125.422	0.39	0.39	-0.02
11376.00	90.950	146.140	8069.04	3155.87	-1968.64	2709.78	1769208.11	422249.64	39°39'25.7061"N	80°12'28.3120"W	3349.39	125.998	0.35	-0.07	0.34
11470.00	90.460	146.160	8067.88	3249.86	-2046.70	2762.13	1769260.46	422171.59	39°39'24.9388"N	80°12'27.6348"W	3437.78	126.538	0.52	-0.52	0.02
11564.00	90.250	145.840	8067.30	3343.86	-2124.63	2814.70	1769313.02	422093.66	39°39'24.1727"N	80°12'26.9549"W	3526.55	127.047	0.41	-0.22	-0.34
11660.00	90.580	146.270	8066.61	3439.85	-2204.26	2868.30	1769366.62	422014.03	39°39'23.3899"N	80°12'26.2615"W	3617.45	127.542	0.56	0.34	0.45
11753.00	90.340	146.230	8065.86	3532.84	-2281.59	2919.97	1769418.29	421936.71	39°39'22.6297"N	80°12'25.5931"W	3705.65	128.003	0.26	-0.26	-0.04
11848.00	90.620	146.540	8065.06	3627.83	-2360.70	2972.56	1769470.88	421857.61	39°39'21.8520"N	80°12'24.9128"W	3795.92	128.455	0.44	0.29	0.33
11943.00	90.580	144.900	8064.07	3722.82	-2439.19	3026.06	1769524.38	421779.12	39°39'21.0805"N	80°12'24.2208"W	3886.73	128.871	1.73	-0.04	-1.73
12038.00	90.770	145.040	8062.95	3817.81	-2516.97	3080.59	1769578.90	421701.34	39°39'20.3160"N	80°12'23.5159"W	3978.09	129.250	0.25	0.20	0.15
12133.00	90.620	144.960	8061.80	3912.79	-2594.79	3135.07	1769633.38	421623.53	39°39'19.5512"N	80°12'22.8114"W	4069.60	129.613	0.18	-0.16	-0.08
12228.00	91.540	144.710	8060.01	4007.77	-2672.44	3189.78	1769688.08	421545.89	39°39'18.7881"N	80°12'22.1043"W	4161.32	129.957	1.00	0.97	-0.26
12322.00	91.380	145.040	8057.61	4101.73	-2749.29	3243.84	1769742.14	421469.03	39°39'18.0328"N	80°12'21.4053"W	4252.19	130.283	0.39	-0.17	0.35
12417.00	92.180	144.810	8054.66	4196.68	-2827.00	3298.41	1769796.71	421391.33	39°39'17.2690"N	80°12'20.6999"W	4344.13	130.599	0.88	0.84	-0.24
12511.00	91.690	144.780	8051.49	4290.62	-2903.77	3352.57	1769850.86	421314.57	39°39'16.5146"N	80°12'19.9997"W	4435.26	130.897	0.52	-0.52	-0.03
12605.00	92.340	145.000	8048.18	4384.55	-2980.61	3406.60	1769904.89	421237.73	39°39'15.7593"N	80°12'19.3012"W	4526.47	131.184	0.73	0.69	0.23
12700.00	92.340	144.960	8044.30	4479.47	-3058.35	3461.07	1769959.36	421160.00	39°39'14.9953"N	80°12'18.5970"W	4618.71	131.465	0.04	0.00	-0.04
12794.00	91.690	144.670	8041.00	4573.40	-3135.13	3515.20	1770013.48	421083.22	39°39'14.2408"N	80°12'17.8972"W	4710.16	131.729	0.76	-0.69	-0.31
12889.00	91.820	145.170	8038.09	4668.35	-3212.83	3569.77	1770068.05	421005.52	39°39'13.4771"N	80°12'17.1917"W	4802.66	131.988	0.54	0.14	0.53
12983.00	91.850	145.410	8035.08	4762.30	-3290.07	3623.27	1770121.55	420928.29	39°39'12.7179"N	80°12'16.5000"W	4894.14	132.241	0.26	0.03	0.26
13078.00	92.060	145.710	8031.84	4857.24	-3368.37	3676.97	1770175.24	420850.00	39°39'11.9483"N	80°12'15.8057"W	4986.58	132.492	0.39	0.22	0.32
13173.00	91.630	144.780	8028.78	4952.19	-3446.38	3731.09	1770229.37	420771.99	39°39'11.1815"N	80°12'15.1058"W	5079.23	132.728	1.08	-0.45	-0.98
13268.00	91.850	144.620	8025.89	5047.14	-3523.88	3785.96	1770284.23	420694.50	39°39'10.4199"N	80°12'14.3966"W	5172.16	132.947	0.29	0.23	-0.17
13362.00	91.140	144.690	8023.44	5141.09	-3600.52	3840.32	1770338.59	420617.86	39°39'9.6666"N	80°12'13.6939"W	5264.21	133.154	0.76	-0.76	0.07
13458.00	91.290	144.760	8021.41	5237.06	-3678.88	3895.75	1770394.01	420539.50	39°39'8.8966"N	80°12'12.9774"W	5358.27	133.360	0.17	0.16	0.07
13552.00	90.250	144.950	8020.14	5331.04	-3755.74	3949.86	1770448.12	420462.65	39°39'8.1412"N	80°12'12.2780"W	5450.41	133.557	1.12	-1.11	0.20
13647.00	90.370	145.210	8019.63	5426.04	-3833.63	4004.24	1770502.49	420384.76	39°39'7.3756"N	80°12'11.5750"W	5543.52	133.753	0.30	0.13	0.27
13743.00	90.770	145.010	8018.67	5522.03	-3912.37	4059.15	1770557.40	420306.03	39°39'6.6017"N	80°12'10.8651"W	5637.67	133.945	0.47	0.42	-0.21
13837.00	91.290	144.680	8016.98	5616.01	-3989.21	4113.26	1770611.51	420229.19	39°39'5.8465"N	80°12'10.1656"W	5729.99	134.123	0.66	0.55	-0.35
13932.00	91.230	145.080	8014.89	5710.98	-4066.90	4167.90	1770666.15	420151.51	39°39'5.0830"N	80°12'9.4593"W	5823.32	134.297	0.43	-0.06	0.42
14027.00	91.350	145.350	8012.76	5805.95	-4144.90	4222.08	1770720.33	420073.51	39°39'4.3163"N	80°12'8.7588"W	5916.60	134.471	0.31	0.13	0.28



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
14122.00	91.390	144.950	8010.48	5900.92	-4222.84	4276.35	1770774.59	419995.58	39°39'3.5502"N	80°12'8.0572"W	6009.96	134.639	0.42	0.04	-0.42
14217.00	91.540	145.270	8008.06	5995.89	-4300.74	4330.68	1770828.91	419917.68	39°39'2.7846"N	80°12'7.3549"W	6103.37	134.801	0.37	0.16	0.34
14311.00	91.600	145.300	8005.48	6089.85	-4377.98	4384.19	1770882.42	419840.45	39°39'2.0254"N	80°12'6.6631"W	6195.79	134.959	0.07	0.06	0.03
14406.00	91.790	144.490	8002.67	6184.80	-4455.66	4438.80	1770937.03	419762.77	39°39'1.2619"N	80°12'5.9572"W	6289.34	135.109	0.88	0.20	-0.85
14501.00	92.340	145.080	7999.25	6279.73	-4533.23	4493.54	1770991.77	419685.21	39°39'0.4996"N	80°12'5.2496"W	6382.95	135.252	0.85	0.58	-0.62
14595.00	91.540	145.090	7996.06	6373.67	-4610.26	4547.31	1771045.54	419608.18	39°38'59.7424"N	80°12'4.5545"W	6475.54	135.394	0.85	-0.85	0.01
14690.00	91.780	145.420	7993.31	6468.63	-4688.29	4601.43	1771099.65	419530.16	39°38'58.9755"N	80°12'3.8548"W	6569.11	135.536	0.43	0.25	0.35
14784.00	91.320	145.000	7990.77	6562.59	-4765.46	4655.05	1771153.26	419452.99	39°38'58.2170"N	80°12'3.1617"W	6661.76	135.671	0.66	-0.49	-0.45
14878.00	91.050	144.920	7988.83	6656.57	-4842.40	4709.01	1771207.22	419376.05	39°38'57.4607"N	80°12'2.4642"W	6754.53	135.800	0.30	-0.29	-0.09
14973.00	90.520	145.300	7987.52	6751.55	-4920.32	4763.34	1771261.55	419298.14	39°38'56.6949"N	80°12'1.7618"W	6848.28	135.929	0.69	-0.56	0.40
15068.00	90.400	145.820	7986.76	6846.55	-4998.67	4817.07	1771315.27	419219.80	39°38'55.9248"N	80°12'1.0672"W	6941.96	136.060	0.56	-0.13	0.55
15163.00	90.490	145.590	7986.02	6941.55	-5077.15	4870.59	1771368.79	419141.32	39°38'55.1533"N	80°12'0.3751"W	7035.63	136.190	0.26	0.09	-0.24
15257.00	90.520	145.270	7985.20	7035.54	-5154.55	4923.93	1771422.13	419063.93	39°38'54.3925"N	80°11'59.6856"W	7128.42	136.311	0.34	0.03	-0.34
15352.00	90.770	145.360	7984.13	7130.54	-5232.66	4977.98	1771476.18	418985.82	39°38'53.6247"N	80°11'58.9867"W	7222.26	136.429	0.28	0.26	0.09
15446.00	90.250	144.820	7983.29	7224.53	-5309.74	5031.78	1771529.97	418908.74	39°38'52.8671"N	80°11'58.2914"W	7315.20	136.540	0.80	-0.55	-0.57
15541.00	90.000	145.390	7983.08	7319.53	-5387.66	5086.12	1771584.31	418830.83	39°38'52.1012"N	80°11'57.5889"W	7409.15	136.649	0.66	-0.26	0.60
15636.00	89.820	145.310	7983.23	7414.52	-5465.81	5140.14	1771638.32	418752.68	39°38'51.3330"N	80°11'56.8906"W	7503.07	136.759	0.21	-0.19	-0.08
15730.00	88.120	145.070	7984.92	7508.50	-5542.97	5193.79	1771691.97	418675.52	39°38'50.5746"N	80°11'56.1971"W	7596.05	136.863	1.83	-1.81	-0.26
15825.00	88.430	145.230	7987.78	7603.46	-5620.90	5248.05	1771746.23	418597.60	39°38'49.8086"N	80°11'55.4957"W	7690.03	136.965	0.37	0.33	0.17
15921.00	88.490	145.360	7990.36	7699.42	-5699.79	5302.69	1771800.86	418518.72	39°38'49.0332"N	80°11'54.7893"W	7784.99	137.067	0.15	0.06	0.14
16015.00	88.310	145.280	7992.99	7793.38	-5777.06	5356.15	1771854.32	418441.45	39°38'48.2736"N	80°11'54.0982"W	7877.99	137.165	0.21	-0.19	-0.09
16109.00	88.340	145.240	7995.73	7887.34	-5854.27	5409.69	1771907.86	418364.24	39°38'47.5147"N	80°11'53.4060"W	7971.03	137.260	0.05	0.03	-0.04
16204.00	88.400	145.050	7998.44	7982.30	-5932.20	5463.96	1771962.13	418286.32	39°38'46.7487"N	80°11'52.7045"W	8065.10	137.353	0.21	0.06	-0.20
16299.00	88.180	145.050	8001.27	8077.26	-6010.03	5518.36	1772016.52	418208.50	39°38'45.9837"N	80°11'52.0014"W	8159.22	137.442	0.23	-0.23	0.00
16394.00	87.140	144.900	8005.15	8172.17	-6087.76	5572.84	1772071.00	418130.77	39°38'45.2197"N	80°11'51.2973"W	8253.33	137.528	1.11	-1.09	-0.16
16489.00	87.480	144.840	8009.61	8267.06	-6165.37	5627.44	1772125.60	418053.17	39°38'44.4569"N	80°11'50.5915"W	8347.45	137.612	0.36	0.36	-0.06
16585.00	88.030	144.920	8013.37	8362.98	-6243.83	5682.63	1772180.78	417974.71	39°38'43.6858"N	80°11'49.8783"W	8442.61	137.694	0.58	0.57	0.08
16678.00	88.520	145.140	8016.17	8455.93	-6320.01	5735.91	1772234.06	417898.54	39°38'42.9370"N	80°11'49.1897"W	8534.82	137.774	0.58	0.53	0.24
16774.00	88.430	145.390	8018.72	8551.89	-6398.87	5790.59	1772288.73	417819.68	39°38'42.1619"N	80°11'48.4828"W	8629.98	137.857	0.28	-0.09	0.26
16869.00	88.520	146.000	8021.25	8646.86	-6477.32	5844.11	1772342.25	417741.24	39°38'41.3907"N	80°11'47.7909"W	8724.06	137.942	0.65	0.09	0.64



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
16964.00	88.310	146.010	8023.88	8741.82	-6556.05	5897.21	1772395.35	417662.51	39°38'40.6167"N	80°11'47.1043"W	8818.10	138.028	0.22	-0.22	0.01
17063.00	89.140	145.970	8026.08	8840.79	-6638.10	5952.57	1772450.70	417580.47	39°38'39.8101"N	80°11'46.3885"W	8916.13	138.117	0.84	0.84	-0.04
17158.00	90.460	145.890	8026.41	8935.79	-6716.79	6005.79	1772503.92	417501.78	39°38'39.0365"N	80°11'45.7004"W	9010.25	138.199	1.39	1.39	-0.08
17253.00	90.150	146.130	8025.91	9030.78	-6795.55	6058.89	1772557.02	417423.02	39°38'38.2621"N	80°11'45.0137"W	9104.38	138.280	0.41	-0.33	0.25
17349.00	90.220	146.020	8025.60	9126.78	-6875.21	6112.47	1772610.60	417343.37	39°38'37.4790"N	80°11'44.3210"W	9199.50	138.361	0.14	0.07	-0.11
17444.00	90.090	146.190	8025.34	9221.78	-6954.07	6165.45	1772663.57	417264.52	39°38'36.7038"N	80°11'43.6359"W	9293.64	138.440	0.23	-0.14	0.18
17540.00	90.000	145.860	8025.26	9317.77	-7033.68	6219.10	1772717.22	417184.91	39°38'35.9211"N	80°11'42.9423"W	9388.81	138.517	0.36	-0.09	-0.34
17635.00	90.060	146.200	8025.21	9412.77	-7112.46	6272.18	1772770.30	417106.13	39°38'35.1466"N	80°11'42.2559"W	9483.01	138.592	0.36	0.06	0.36
17730.00	90.150	146.280	8025.04	9507.76	-7191.44	6324.97	1772823.09	417027.15	39°38'34.3701"N	80°11'41.5733"W	9577.17	138.668	0.13	0.09	0.08
17825.00	90.310	146.310	8024.66	9602.75	-7270.47	6377.69	1772875.80	416948.13	39°38'33.5931"N	80°11'40.8916"W	9671.34	138.743	0.17	0.17	0.03
17920.00	90.030	146.160	8024.38	9697.75	-7349.45	6430.49	1772928.60	416869.16	39°38'32.8166"N	80°11'40.2089"W	9765.53	138.815	0.33	-0.29	-0.16
18015.00	90.220	146.230	8024.17	9792.74	-7428.39	6483.34	1772981.45	416790.22	39°38'32.0405"N	80°11'39.5254"W	9859.75	138.886	0.21	0.20	0.07
18110.00	90.620	145.930	8023.47	9887.73	-7507.22	6536.36	1773034.46	416711.40	39°38'31.2655"N	80°11'38.8400"W	9954.01	138.955	0.53	0.42	-0.32
18205.00	91.450	146.230	8021.76	9982.71	-7586.04	6589.36	1773087.46	416632.59	39°38'30.4906"N	80°11'38.1547"W	10048.27	139.022	0.93	0.87	0.32
18300.00	91.750	145.890	8019.11	10077.67	-7664.82	6642.38	1773140.47	416553.81	39°38'29.7161"N	80°11'37.4692"W	10142.52	139.088	0.48	0.32	-0.36
18396.00	92.120	146.130	8015.86	10173.62	-7744.37	6696.02	1773194.11	416474.26	39°38'28.9340"N	80°11'36.7757"W	10237.77	139.152	0.46	0.39	0.25
18490.00	91.940	145.520	8012.53	10267.56	-7822.09	6748.79	1773246.87	416396.55	39°38'28.1700"N	80°11'36.0935"W	10331.08	139.213	0.68	-0.19	-0.65
18585.00	92.000	146.300	8009.27	10362.50	-7900.72	6802.00	1773300.09	416317.92	39°38'27.3970"N	80°11'35.4055"W	10425.38	139.274	0.82	0.06	0.82
18679.00	91.380	145.060	8006.50	10456.45	-7978.32	6854.98	1773353.06	416240.33	39°38'26.6341"N	80°11'34.7207"W	10518.76	139.331	1.47	-0.66	-1.32
18774.00	91.050	143.700	8004.48	10551.41	-8055.52	6910.29	1773408.37	416163.13	39°38'25.8753"N	80°11'34.0060"W	10613.37	139.376	1.47	-0.35	-1.43
18870.00	89.970	142.710	8003.63	10647.32	-8132.39	6967.79	1773465.86	416086.26	39°38'25.1200"N	80°11'33.2635"W	10709.15	139.410	1.53	-1.13	-1.03
18964.00	90.250	146.080	8003.45	10741.29	-8208.81	7022.50	1773520.58	416009.85	39°38'24.3690"N	80°11'32.5566"W	10802.78	139.454	3.60	0.30	3.59
19059.00	90.950	146.860	8002.45	10836.27	-8288.00	7074.98	1773573.04	415930.67	39°38'23.5904"N	80°11'31.8780"W	10897.07	139.515	1.10	0.74	0.82
19153.00	90.980	146.190	8000.87	10930.24	-8366.39	7126.82	1773624.88	415852.28	39°38'22.8196"N	80°11'31.2077"W	10990.36	139.574	0.71	0.03	-0.71
19248.00	92.800	147.190	7997.74	11025.17	-8445.74	7178.96	1773677.02	415772.94	39°38'22.0395"N	80°11'30.5334"W	11084.58	139.635	2.19	1.92	1.05
19343.00	92.250	145.650	7993.55	11120.06	-8524.80	7231.45	1773729.51	415693.88	39°38'21.2621"N	80°11'29.8546"W	11178.83	139.693	1.72	-0.58	-1.62
19438.00	92.180	146.080	7989.88	11214.99	-8603.38	7284.72	1773782.77	415615.31	39°38'20.4896"N	80°11'29.1660"W	11273.21	139.744	0.46	-0.07	0.45
19534.00	91.140	144.440	7987.10	11310.94	-8682.23	7339.40	1773837.45	415536.46	39°38'19.7145"N	80°11'28.4593"W	11368.72	139.791	2.02	-1.08	-1.71
19629.00	92.490	146.260	7984.09	11405.89	-8760.33	7393.38	1773891.43	415458.36	39°38'18.9467"N	80°11'27.7616"W	11463.23	139.837	2.38	1.42	1.92
19724.00	92.250	145.130	7980.16	11500.81	-8838.74	7446.88	1773944.92	415379.96	39°38'18.1759"N	80°11'27.0701"W	11557.65	139.885	1.22	-0.25	-1.19



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
19819.00	92.430	145.460	7976.28	11595.72	-8916.77	7500.92	1773998.96	415301.93	39°38'17.4089"N	80°11'26.3717"W	11652.15	139.929	0.40	0.19	0.35
19913.00	93.140	145.190	7971.71	11689.61	-8993.99	7554.33	1774052.37	415224.72	39°38'16.6498"N	80°11'25.6813"W	11745.63	139.972	0.81	0.76	-0.29
20007.00	92.800	145.620	7966.84	11783.49	-9071.26	7607.63	1774105.67	415147.45	39°38'15.8902"N	80°11'24.9925"W	11839.08	140.015	0.58	-0.36	0.46
20102.00	91.140	145.330	7963.58	11878.43	-9149.48	7661.44	1774159.47	415069.24	39°38'15.1213"N	80°11'24.2970"W	11933.60	140.058	1.77	-1.75	-0.31
20197.00	91.380	145.850	7961.49	11973.40	-9227.84	7715.11	1774213.14	414990.88	39°38'14.8510"N	80°11'23.6033"W	12028.13	140.102	0.60	0.25	0.55
20293.00	91.660	146.700	7958.94	12069.36	-9307.65	7768.40	1774266.42	414911.07	39°38'13.5662"N	80°11'22.9144"W	12123.55	140.151	0.93	0.29	0.89
20388.00	91.200	146.990	7956.57	12164.31	-9387.16	7820.34	1774318.36	414831.57	39°38'12.7844"N	80°11'22.2428"W	12217.88	140.203	0.57	-0.48	0.31
20483.00	91.660	146.440	7954.20	12259.26	-9466.55	7872.46	1774370.47	414752.18	39°38'12.0038"N	80°11'21.5688"W	12312.24	140.253	0.75	0.48	-0.58
20578.00	91.420	146.430	7951.65	12354.21	-9545.68	7924.96	1774422.98	414673.06	39°38'11.2257"N	80°11'20.8899"W	12406.65	140.300	0.25	-0.25	-0.01
20673.00	92.430	146.230	7948.46	12449.15	-9624.70	7977.60	1774475.61	414594.05	39°38'10.4488"N	80°11'20.2094"W	12501.08	140.346	1.08	1.06	-0.21
20768.00	92.250	146.170	7944.58	12544.06	-9703.58	8030.40	1774528.41	414515.17	39°38'9.6733"N	80°11'19.5267"W	12595.51	140.390	0.20	-0.19	-0.06
20864.00	92.580	146.110	7940.53	12639.97	-9783.23	8083.84	1774581.85	414435.53	39°38'8.8902"N	80°11'18.8358"W	12690.94	140.433	0.35	0.34	-0.06
20959.00	92.340	145.980	7936.45	12734.88	-9861.95	8136.86	1774634.86	414356.81	39°38'8.1162"N	80°11'18.1506"W	12785.40	140.475	0.29	-0.25	-0.14
21054.00	92.310	146.140	7932.60	12829.80	-9940.70	8189.85	1774687.85	414278.06	39°38'7.3420"N	80°11'17.4655"W	12879.88	140.516	0.17	-0.03	0.17
21150.00	92.340	145.940	7928.71	12925.72	-10020.26	8243.43	1774741.43	414198.51	39°38'6.5598"N	80°11'16.7728"W	12975.36	140.557	0.21	0.03	-0.21
21245.00	92.430	145.820	7924.75	13020.64	-10098.84	8296.68	1774794.67	414119.93	39°38'5.7872"N	80°11'16.0846"W	13069.87	140.595	0.16	0.09	-0.13
21340.00	92.400	146.050	7920.75	13115.55	-10177.47	8349.84	1774847.83	414041.31	39°38'5.0142"N	80°11'15.3974"W	13164.38	140.634	0.24	-0.03	0.24
21435.00	92.400	145.920	7916.77	13210.46	-10256.15	8402.94	1774900.93	413962.64	39°38'4.2407"N	80°11'14.7110"W	13258.88	140.672	0.14	0.00	-0.14
21530.00	92.400	145.810	7912.79	13305.38	-10334.71	8456.20	1774954.19	413884.08	39°38'3.4683"N	80°11'14.0226"W	13353.41	140.709	0.12	0.00	-0.12
21625.00	92.090	145.170	7909.07	13400.30	-10412.93	8509.98	1775007.96	413805.86	39°38'2.6993"N	80°11'13.3275"W	13448.01	140.743	0.75	-0.33	-0.67
21721.00	90.770	145.840	7906.68	13496.27	-10492.03	8564.33	1775062.31	413726.77	39°38'1.9218"N	80°11'12.6252"W	13543.65	140.776	1.54	-1.37	0.70
21816.00	91.690	146.550	7904.64	13591.24	-10570.95	8617.17	1775115.15	413647.86	39°38'1.1458"N	80°11'11.9421"W	13638.20	140.814	1.22	0.97	0.75
21911.00	91.660	146.350	7901.86	13686.19	-10650.09	8669.65	1775167.63	413568.72	39°38'0.3677"N	80°11'11.2636"W	13732.71	140.853	0.21	-0.03	-0.21
22006.00	91.480	146.220	7899.26	13781.15	-10729.08	8722.37	1775220.33	413489.74	39°37'59.5910"N	80°11'10.5821"W	13827.25	140.890	0.23	-0.19	-0.14
22101.00	91.200	145.710	7897.04	13876.12	-10807.78	8775.52	1775273.49	413411.04	39°37'58.8172"N	80°11'9.8951"W	13921.85	140.925	0.61	-0.29	-0.54
22195.00	91.420	145.890	7894.89	13970.09	-10885.51	8828.34	1775326.31	413333.32	39°37'58.0531"N	80°11'9.2123"W	14015.49	140.957	0.30	0.23	0.19
22290.00	91.320	145.930	7892.62	14065.07	-10964.16	8881.58	1775379.53	413254.67	39°37'57.2798"N	80°11'8.5243"W	14110.11	140.991	0.11	-0.11	0.04
22386.00	91.350	146.030	7890.38	14161.04	-11043.71	8935.27	1775433.23	413175.13	39°37'56.4977"N	80°11'7.8303"W	14205.72	141.024	0.11	0.03	0.10
22481.00	91.940	145.720	7887.65	14256.00	-11122.32	8988.54	1775486.50	413096.52	39°37'55.7248"N	80°11'7.1417"W	14300.34	141.056	0.70	0.62	-0.33
22576.00	91.850	146.030	7884.51	14350.94	-11200.92	9041.81	1775539.76	413017.93	39°37'54.9521"N	80°11'6.4533"W	14394.96	141.088	0.34	-0.09	0.33



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
22671.00	91.850	145.890	7881.44	14445.89	-11279.60	9094.96	1775592.91	412939.25	39°37'54.1785"N	80°11'5.7663"W	14489.57	141.120	0.15	0.00	-0.15
22767.00	92.460	145.710	7877.83	14541.82	-11358.94	9148.88	1775646.82	412859.91	39°37'53.3984"N	80°11'5.0694"W	14585.18	141.151	0.66	0.64	-0.19
22862.00	91.780	145.970	7874.32	14636.75	-11437.50	9202.19	1775700.13	412781.36	39°37'52.6261"N	80°11'4.3805"W	14679.80	141.181	0.77	-0.72	0.27
22958.00	91.910	146.100	7871.23	14732.70	-11517.07	9255.79	1775753.73	412701.79	39°37'51.8437"N	80°11'3.6876"W	14775.41	141.213	0.19	0.14	0.14
23052.00	91.880	144.990	7868.12	14826.65	-11594.54	9308.95	1775806.88	412624.33	39°37'51.0821"N	80°11'3.0007"W	14869.09	141.240	1.18	-0.03	-1.18
23148.00	91.940	145.150	7864.92	14922.59	-11673.20	9363.88	1775861.81	412545.67	39°37'50.3089"N	80°11'2.2909"W	14964.82	141.264	0.18	0.06	0.17
23243.00	91.690	145.160	7861.91	15017.54	-11751.13	9418.13	1775916.06	412467.75	39°37'49.5428"N	80°11'1.5900"W	15059.56	141.289	0.26	-0.26	0.01
23339.00	91.850	145.180	7858.95	15113.49	-11829.89	9472.94	1775970.86	412388.99	39°37'48.7686"N	80°11'0.8819"W	15155.29	141.314	0.17	0.17	0.02
23434.00	91.910	147.690	7855.83	15208.42	-11909.00	9525.43	1776023.35	412309.88	39°37'47.9907"N	80°11'0.2033"W	15249.86	141.345	2.64	0.06	2.64
23529.00	91.850	145.060	7852.71	15303.35	-11988.06	9578.00	1776075.92	412230.83	39°37'47.2134"N	80°10'59.5237"W	15344.44	141.376	2.77	-0.06	-2.77
23625.00	91.880	145.040	7849.59	15399.30	-12066.70	9632.97	1776130.88	412152.19	39°37'46.4403"N	80°10'58.8136"W	15440.19	141.399	0.04	0.03	-0.02
23720.00	91.170	144.900	7847.06	15494.26	-12144.47	9687.48	1776185.39	412074.43	39°37'45.6758"N	80°10'58.1094"W	15534.97	141.421	0.76	-0.75	-0.15
23814.00	91.510	145.050	7844.86	15588.23	-12221.42	9741.41	1776239.32	411997.48	39°37'44.9194"N	80°10'57.4126"W	15628.77	141.442	0.40	0.36	0.16
23910.00	91.630	145.470	7842.23	15684.19	-12300.28	9796.10	1776294.00	411918.63	39°37'44.1442"N	80°10'56.7060"W	15724.52	141.466	0.45	0.12	0.44
24005.00	91.290	145.020	7839.81	15779.16	-12378.31	9850.24	1776348.14	411840.61	39°37'43.3771"N	80°10'56.0066"W	15819.28	141.488	0.59	-0.36	-0.47
24100.00	91.450	145.140	7837.54	15874.13	-12456.18	9904.60	1776402.50	411762.74	39°37'42.6116"N	80°10'55.3042"W	15914.07	141.510	0.21	0.17	0.13
24196.00	90.860	145.280	7835.60	15970.11	-12535.00	9959.37	1776457.26	411683.92	39°37'41.8367"N	80°10'54.5966"W	16009.85	141.532	0.63	-0.61	0.15
24291.00	90.770	144.940	7834.25	16065.09	-12612.92	10013.70	1776511.59	411606.01	39°37'41.0708"N	80°10'53.8947"W	16104.66	141.553	0.37	-0.09	-0.36
24386.00	90.680	144.610	7833.05	16160.08	-12690.52	10068.49	1776566.38	411528.42	39°37'40.3080"N	80°10'53.1869"W	16199.50	141.572	0.36	-0.09	-0.35
24481.00	91.050	145.290	7831.62	16255.06	-12768.28	10123.04	1776620.93	411450.66	39°37'39.5436"N	80°10'52.4822"W	16294.32	141.592	0.81	0.39	0.72
24576.00	90.920	145.360	7829.98	16350.04	-12846.40	10177.08	1776674.96	411372.55	39°37'38.7756"N	80°10'51.7840"W	16389.11	141.613	0.16	-0.14	0.07
24672.00	90.980	145.140	7828.39	16446.03	-12925.26	10231.79	1776729.67	411293.69	39°37'38.0003"N	80°10'51.0772"W	16484.90	141.634	0.24	0.06	-0.23
24766.00	90.800	145.070	7826.93	16540.02	-13002.35	10285.56	1776783.44	411216.60	39°37'37.2425"N	80°10'50.3825"W	16578.72	141.654	0.21	-0.19	-0.07
24861.00	91.170	145.580	7825.30	16635.00	-13080.47	10339.60	1776837.47	411138.49	39°37'36.4746"N	80°10'49.6843"W	16673.51	141.675	0.66	0.39	0.54
24956.00	91.110	145.300	7823.41	16729.98	-13158.69	10393.48	1776891.35	411060.28	39°37'35.7056"N	80°10'48.9882"W	16768.29	141.696	0.30	-0.06	-0.29
25052.00	90.800	145.280	7821.81	16825.97	-13237.59	10448.14	1776946.00	410981.38	39°37'34.9299"N	80°10'48.2820"W	16864.09	141.717	0.32	-0.32	-0.02
25147.00	90.680	145.040	7820.58	16920.96	-13315.56	10502.41	1777000.27	410903.42	39°37'34.1634"N	80°10'47.5810"W	16958.91	141.736	0.28	-0.13	-0.25
25242.00	90.550	144.710	7819.56	17015.94	-13393.25	10557.06	1777054.92	410825.72	39°37'33.3997"N	80°10'46.8750"W	17053.76	141.753	0.37	-0.14	-0.35
25338.00	90.460	145.020	7818.72	17111.93	-13471.76	10612.31	1777110.16	410747.22	39°37'32.6280"N	80°10'46.1613"W	17149.62	141.771	0.34	-0.09	0.32
25433.00	90.000	145.340	7818.33	17206.93	-13549.75	10666.55	1777164.40	410669.24	39°37'31.8613"N	80°10'45.4606"W	17244.45	141.790	0.59	-0.48	0.34



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

WELLPATH DATA (279 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]
25528.00	89.820	145.230	7818.48	17301.93	-13627.84	10720.66	1777218.50	410591.15	39°37'31.0936"N	80°10'44.7616"W	17339.27	141.809	0.22	-0.19	-0.12
25623.00	89.780	145.060	7818.81	17396.92	-13705.79	10774.95	1777272.79	410513.20	39°37'30.3272"N	80°10'44.0602"W	17434.11	141.827	0.18	-0.04	-0.18
25719.00	90.000	144.990	7819.00	17492.92	-13784.46	10829.98	1777327.82	410434.54	39°37'29.5539"N	80°10'43.3494"W	17529.96	141.844	0.24	0.23	-0.07
25812.00	89.820	145.110	7819.15	17585.92	-13860.68	10883.25	1777381.09	410358.32	39°37'28.8046"N	80°10'42.6612"W	17622.82	141.861	0.23	-0.19	0.13
25907.00	90.370	145.020	7818.99	17680.91	-13938.57	10937.65	1777435.49	410280.45	39°37'28.0390"N	80°10'41.9585"W	17717.67	141.879	0.59	0.58	-0.09
26002.00	90.220	145.140	7818.50	17775.91	-14016.46	10992.03	1777489.86	410202.56	39°37'27.2732"N	80°10'41.2560"W	17812.52	141.896	0.20	-0.16	0.13
26097.00	90.310	144.960	7818.06	17870.90	-14094.33	11046.46	1777544.28	410124.69	39°37'26.5077"N	80°10'40.5530"W	17907.38	141.912	0.21	0.09	-0.19
26170.00	90.310	145.280	7817.66	17943.90	-14154.21	11088.20	1777586.02	410064.81	39°37'25.9190"N	80°10'40.0138"W	17980.26	141.925	0.44	0.00	0.44
26195.00‡	90.310	145.280	7817.53	17968.90	-14174.76	11102.44	1777600.26	410044.27	39°37'25.7170"N	80°10'39.8298"W	18005.22	141.930	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Bunner 6H AWB Ref Wellpath: Bunner 6H AWP Proj: 26195'									
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	40.00	1248.00	1208.00	40.00	1247.95	-0.01	0.00	-5.63	2.56
13.375in Casing Surface	28.00	1248.00	1220.00	28.00	1247.95	0.00	0.00	-5.63	2.56
12.25in Open Hole	1248.00	2525.00	1277.00	1247.95	2524.87	-5.63	2.56	-10.25	10.79
9.625in Casing Intermediate	28.00	2525.00	2497.00	28.00	2524.87	0.00	0.00	-10.25	10.79
8.75in Open Hole	2525.00	5000.00	2475.00	2524.87	4999.75	-10.25	10.79	-23.27	18.42
8.5in Open Hole	5000.00	26195.00	21195.00	4999.75	7817.53	-23.27	18.42	-14174.76	11102.44
5.5in Casing Production	28.00	26195.00	26167.00	28.00	7817.53	0.00	0.00	-14174.76	11102.44



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Bunner 6H BHL Rev-5	8077.00	-14176.66	11101.61	1777599.43	410042.37	39°37'25.6982"N	80°10'39.8402"W	point
Bunner 6H LP Rev-3	8077.00	243.02	1216.45	1767714.88	424461.17	39°39'47.4463"N	80°12'47.6294"W	point
Bunner South Hardline #1 (4.1.21)	8600.00	-818.69	2883.24	1769381.56	423399.52	39°39'37.0841"N	80°12'26.2100"W	polygon
2D Polygon: dimensions not calculated								
Bunner South Hardline #2 (4.1.21)	8600.00	1373.63	-2125.08	1764373.55	425591.71	39°39'58.3553"N	80°13'30.4730"W	polygon
2D Polygon: dimensions not calculated								

WELLPATH COMPOSITION - Ref Wellbore: Bunner 6H AWB Ref Wellpath: Bunner 6H AWP Proj: 26195'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	4375.00	BH Generic gyro - northseeking (Standard)	01_Javins Inertial Gyro <8-3/4">(100'-4375')	Bunner 6H AWB	4/25/2021
4375.00	7712.00	OWSG MWD rev2 + HRGM	02_Tally MWD <8-1/2">(4375')(4427'-7712')	Bunner 6H AWB	4/25/2021
7712.00	26195.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	03_BH AT Curve <8-1/2">(7712')(7761'-26170')	Bunner 6H AWB	4/25/2021



Actual Wellpath Report

Bunner 6H AWP Proj: 26195'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 6H
Field	Monongalia	API	47-061-01869-00-00
Facility	Bunner Pad	Wellbore	Bunner 6H AWB
Slot	Slot 6H		

COMMENTS

Wellpath general comments

API: 47-061-01869-0000

BH Job #: 110853553

Rig: Patterson 277

Duration: 4/26/21 - 5/3/21

01_Javins Inertial Gyro <8-3/4">(100'-4375')

02_Tally MWD <8-1/2">(4375')(4427'-7712')

03_BH AT Curve <8-1/2">(7712')(7761'-26170')

Projected MD at TD: 26195'