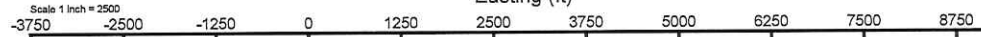


NORTHEAST NATURAL ENERGY, LLC

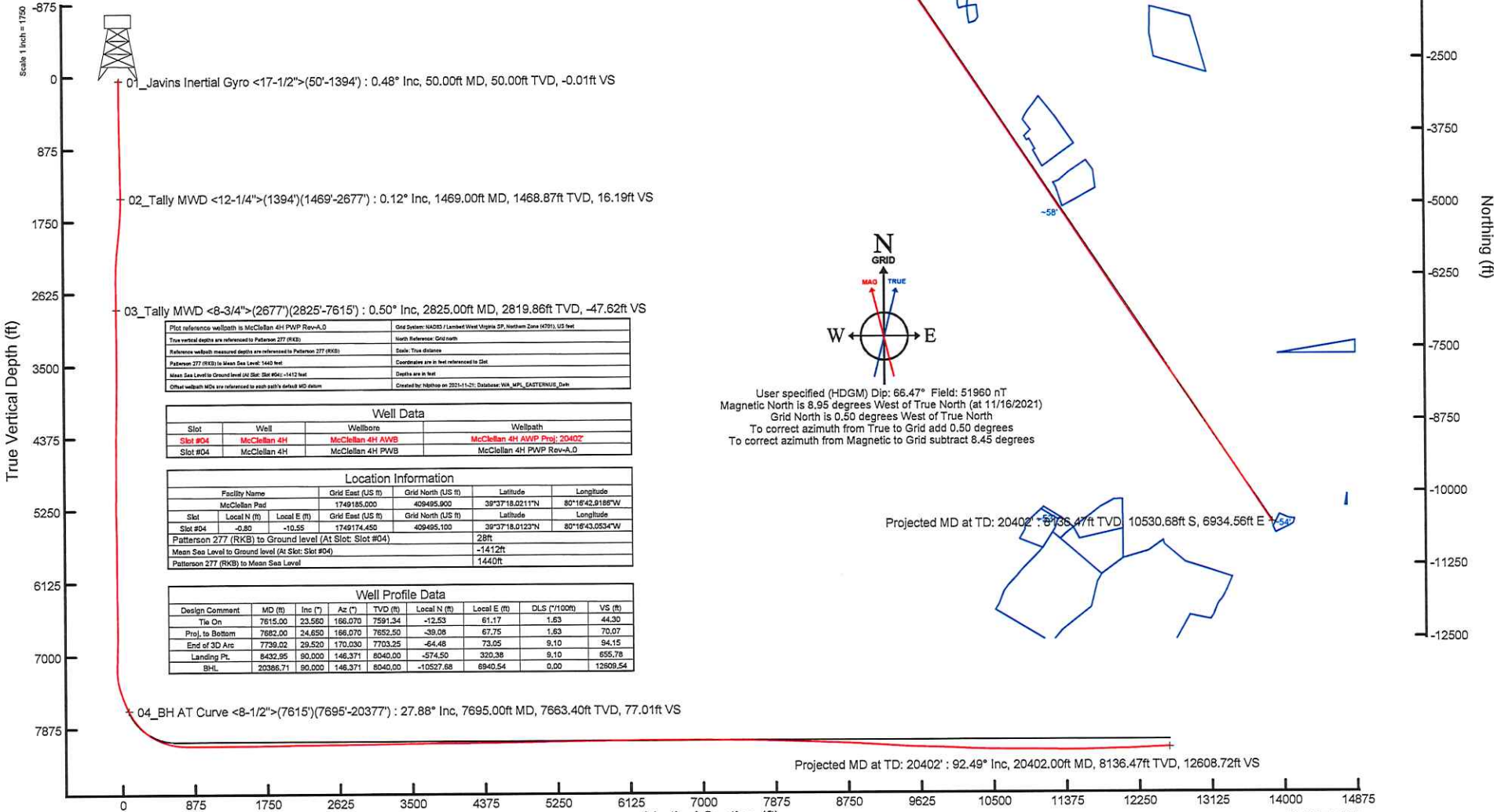
Location: Monongalia County, WV
 Field: Monongalia
 Facility: McClellan Pad

Slot: Slot #04
 Well: McClellan 4H
 Wellbore: McClellan 4H PWB



API: 47-061-01885-0000
 BH Job #: 111066129
 Rig: Patterson 277
 Duration: 11/16/21 - 11/20/21

02_Tally MWD <12-1/4">(1394')(1469'-2677') : 1468.87ft TVD, 14.68ft S, 7.15ft E
 01_Javins Inertial Gyro <17-1/2">(50'-1394') : 0.48° Inc, 50.00ft MD, 50.00ft TVD, -0.01ft VS
 03_Tally MWD <8-3/4">(2677')(2825'-7615') : 2819.86ft TVD, 69.68ft N, 18.76ft E
 04_BH AT Curve <8-1/2">(7615')(7695'-20377') : 7663.40ft TVD, 46.20ft S, 69.59ft E
 Slot #04



Plot reference wellbore is McClellan 4H PWB Rev-A.0	Grid System: NAD83 / Lambert West Virginia SP, Northern Zone (4751), US feet
True vertical depths are referenced to Patterson 277 (RKB)	North Reference: Grid north
Reference wellbore measured depths are referenced to Patterson 277 (RKB)	Scale: True distance
Patterson 277 (RKB) to Mean Sea Level: 1440 feet	Coordinates are in feet referenced to Grid
Mean Sea Level to Ground level (At Slot #04): -1412 feet	Deaths are in feet
Other wellbore MWDs are referenced to each well's default MD datum	Created by: 11/16/21 at 11:21; Database: WVA_MPL_EASTERNUS_Data

Slot	Well	Wellbore	Wellpath
Slot #04	McClellan 4H	McClellan 4H AWB	McClellan 4H AWP Proj: 20402'
Slot #04	McClellan 4H	McClellan 4H PWB	McClellan 4H PWB Rev-A.0

Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
McClellan Pad	1748185.000	409495.900	39°37'18.0211"N	80°16'42.9186"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Longitude
Slot #04	-0.80	-10.55	1748174.450	409495.100	39°37'18.0123"N 80°16'43.0534"W
Patterson 277 (RKB) to Ground level (At Slot: Slot #04)	28ft				
Mean Sea Level to Ground level (At Slot: Slot #04)	-1412ft				
Patterson 277 (RKB) to Mean Sea Level	1440ft				

Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	7615.00	23.560	186.070	7591.34	-12.53	61.17	44.30
ProJ. to Bottom	7662.00	24.650	186.070	7652.50	-39.08	67.75	70.07
End of 3D Arc	7730.02	29.520	170.030	7703.25	-64.48	73.05	94.15
Landing Pt.	8432.25	80.000	146.371	8040.00	-574.50	320.38	655.78
BHL	20386.71	90.000	146.371	8040.00	-10527.68	6940.54	12609.54



User specified (HDGM) Dip: 66.47° Field: 51960 nT
 Magnetic North is 8.95 degrees West of True North (at 11/16/2021)
 Grid North is 0.50 degrees West of True North
 To correct azimuth from True to Grid add 0.50 degrees
 To correct azimuth from Magnetic to Grid subtract 8.45 degrees

Projected MD at TD: 20402' : 8136.47ft TVD, 10530.68ft S, 6934.56ft E

Projected MD at TD: 20402' : 92.49° Inc, 20402.00ft MD, 8136.47ft TVD, 12608.72ft VS

Vertical Section (ft)
 Azimuth 146.37° with reference 0.00 N, 0.00 E

Scale 1 Inch = 1750



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

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	11/21/2021 at 9:51:37 PM
Convergence at slot	0.50° West	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.80	-10.55	1749174.45	409495.10	39°37'18.0123"N	80°16'43.0534"W
Facility Reference Pt			1749185.00	409495.90	39°37'18.0211"N	80°16'42.9186"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	1440.00ft
Horizontal Reference Pt	Slot	Patterson 277 (RKB) to Mean Sea Level	1440.00ft
Vertical Reference Pt	Patterson 277 (RKB)	Patterson 277 (RKB) to Ground Level at Slot (Slot #04)	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	146.37°



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

WELLPATH DATA (233 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	52.100	0.00	0.00	0.00	0.00	1749174.45	409495.10	39°37'18.0123"N	80°16'43.0534"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	52.100	28.00	0.00	0.00	0.00	1749174.45	409495.10	39°37'18.0123"N	80°16'43.0534"W	0.00	0.000	0.00	0.00	0.00
50.00	0.480	52.100	50.00	-0.01	0.06	0.07	1749174.52	409495.16	39°37'18.0128"N	80°16'43.0524"W	0.09	52.100	2.18	2.18	0.00
100.00	0.480	52.600	100.00	-0.04	0.31	0.40	1749174.85	409495.41	39°37'18.0154"N	80°16'43.0482"W	0.51	52.305	0.01	0.00	1.00
150.00	0.360	69.200	150.00	-0.02	0.50	0.72	1749175.17	409495.60	39°37'18.0172"N	80°16'43.0442"W	0.87	55.377	0.34	-0.24	33.20
200.00	0.470	118.700	200.00	0.20	0.45	1.04	1749175.49	409495.55	39°37'18.0168"N	80°16'43.0401"W	1.14	66.561	0.72	0.22	99.00
250.00	0.870	149.500	249.99	0.76	0.03	1.42	1749175.87	409495.13	39°37'18.0126"N	80°16'43.0353"W	1.42	88.900	1.05	0.80	61.60
300.00	0.650	181.800	299.99	1.37	-0.58	1.60	1749176.05	409494.52	39°37'18.0066"N	80°16'43.0328"W	1.70	110.024	0.95	-0.44	64.60
350.00	0.540	198.100	349.99	1.75	-1.09	1.52	1749175.97	409494.01	39°37'18.0016"N	80°16'43.0338"W	1.87	125.691	0.40	-0.22	32.60
400.00	0.570	202.500	399.98	2.03	-1.54	1.35	1749175.80	409493.56	39°37'17.9971"N	80°16'43.0359"W	2.05	138.842	0.10	0.06	8.80
450.00	0.500	187.700	449.98	2.34	-1.99	1.23	1749175.68	409493.11	39°37'17.9927"N	80°16'43.0375"W	2.34	148.376	0.31	-0.14	-29.60
500.00	0.510	189.000	499.98	2.66	-2.43	1.16	1749175.61	409492.67	39°37'17.9884"N	80°16'43.0382"W	2.69	154.417	0.03	0.02	2.60
550.00	0.580	182.300	549.98	3.03	-2.90	1.12	1749175.57	409492.20	39°37'17.9837"N	80°16'43.0388"W	3.11	158.934	0.19	0.14	-13.40
600.00	0.970	148.500	599.97	3.66	-3.51	1.33	1749175.78	409491.59	39°37'17.9777"N	80°16'43.0360"W	3.76	159.296	1.17	0.78	-67.60
650.00	0.970	148.700	649.96	4.51	-4.24	1.77	1749176.22	409490.86	39°37'17.9706"N	80°16'43.0303"W	4.59	157.334	0.01	0.00	0.40
700.00	0.960	151.600	699.96	5.35	-4.97	2.19	1749176.64	409490.13	39°37'17.9634"N	80°16'43.0249"W	5.43	156.222	0.10	-0.02	5.80
750.00	0.890	146.700	749.95	6.15	-5.66	2.60	1749177.05	409489.44	39°37'17.9566"N	80°16'43.0195"W	6.23	155.320	0.21	-0.14	-9.80
800.00	0.940	142.800	799.94	6.95	-6.31	3.06	1749177.51	409488.79	39°37'17.9502"N	80°16'43.0135"W	7.01	154.118	0.16	0.10	-7.80
850.00	0.990	157.100	849.94	7.78	-7.03	3.48	1749177.93	409488.07	39°37'17.9430"N	80°16'43.0081"W	7.85	153.694	0.49	0.10	28.60
900.00	0.870	156.500	899.93	8.58	-7.78	3.80	1749178.25	409487.32	39°37'17.9357"N	80°16'43.0040"W	8.66	153.987	0.24	-0.24	-1.20
950.00	0.950	163.300	949.93	9.35	-8.53	4.07	1749178.52	409486.58	39°37'17.9284"N	80°16'43.0004"W	9.45	154.495	0.27	0.16	13.60
1000.00	1.020	155.900	999.92	10.19	-9.33	4.37	1749178.82	409485.77	39°37'17.9204"N	80°16'42.9965"W	10.30	154.909	0.29	0.14	-14.80
1015.00	1.000	152.500	1014.92	10.45	-9.57	4.48	1749178.93	409485.53	39°37'17.9181"N	80°16'42.9950"W	10.56	154.891	0.42	-0.13	-22.67
1050.00	0.850	185.800	1049.91	10.95	-10.10	4.60	1749179.05	409485.00	39°37'17.9129"N	80°16'42.9935"W	11.09	155.514	1.57	-0.43	95.14
1100.00	0.770	137.300	1099.91	11.57	-10.71	4.79	1749179.24	409484.39	39°37'17.9068"N	80°16'42.9910"W	11.73	155.915	1.34	-0.16	-97.00
1150.00	0.780	140.300	1149.90	12.24	-11.22	5.23	1749179.68	409483.88	39°37'17.9018"N	80°16'42.9852"W	12.38	154.994	0.08	0.02	6.00
1200.00	0.970	174.300	1199.90	12.95	-11.90	5.49	1749179.94	409483.20	39°37'17.8951"N	80°16'42.9819"W	13.11	155.229	1.09	0.38	68.00
1250.00	0.900	148.700	1249.89	13.72	-12.66	5.74	1749180.19	409482.44	39°37'17.8876"N	80°16'42.9786"W	13.90	155.615	0.84	-0.14	-51.20
1300.00	0.870	145.100	1299.88	14.49	-13.31	6.16	1749180.61	409481.79	39°37'17.8813"N	80°16'42.9732"W	14.66	155.159	0.13	-0.06	-7.20
1350.00	0.820	150.000	1349.88	15.23	-13.93	6.56	1749181.01	409481.17	39°37'17.8752"N	80°16'42.9680"W	15.39	154.793	0.18	-0.10	9.80



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

WELLPATH DATA (233 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]
1394.00	0.700	136.400	1393.87	15.81	-14.40	6.90	1749181.35	409480.71	39°37'17.8706"N	80°16'42.9636"W	15.96	154.394	0.49	-0.27	-30.91
1469.00	0.120	303.320	1468.87	16.19	-14.68	7.15	1749181.60	409480.42	39°37'17.8678"N	80°16'42.9604"W	16.33	154.040	1.09	-0.77	222.56
1564.00	2.680	16.730	1563.84	14.68	-12.50	7.71	1749182.16	409482.60	39°37'17.8894"N	80°16'42.9535"W	14.69	148.352	2.79	2.69	77.27
1659.00	6.000	21.630	1658.55	10.43	-5.76	10.18	1749184.63	409489.34	39°37'17.9562"N	80°16'42.9227"W	11.69	119.502	3.51	3.49	5.16
1753.00	8.460	22.020	1751.80	3.73	5.22	14.58	1749189.03	409500.32	39°37'18.0651"N	80°16'42.8676"W	15.49	70.297	2.62	2.62	0.41
1848.00	8.520	16.440	1845.76	-4.73	18.45	19.19	1749193.64	409513.55	39°37'18.1962"N	80°16'42.8102"W	26.62	46.130	0.87	0.06	-5.87
1942.00	7.750	6.000	1938.82	-14.08	31.43	21.83	1749196.27	409526.53	39°37'18.3248"N	80°16'42.7779"W	38.27	34.774	1.77	-0.82	-11.11
2036.00	6.150	350.350	2032.13	-23.57	42.70	21.64	1749196.09	409537.80	39°37'18.4361"N	80°16'42.7815"W	47.87	26.879	2.62	-1.70	-16.65
2130.00	6.040	342.380	2125.60	-32.92	52.38	19.30	1749193.75	409547.48	39°37'18.5315"N	80°16'42.8125"W	55.82	20.230	0.91	-0.12	-8.48
2226.00	4.670	345.490	2221.18	-41.47	60.98	16.79	1749191.24	409556.07	39°37'18.6163"N	80°16'42.8455"W	63.25	15.399	1.46	-1.43	3.24
2319.00	2.930	7.000	2313.98	-46.85	67.00	16.14	1749190.58	409562.10	39°37'18.6758"N	80°16'42.8546"W	68.92	13.540	2.39	-1.87	23.13
2413.00	1.890	32.060	2407.90	-49.31	70.70	17.25	1749191.70	409565.80	39°37'18.7124"N	80°16'42.8407"W	72.77	13.712	1.55	-1.11	26.66
2509.00	0.510	84.450	2503.87	-49.76	72.08	18.52	1749192.97	409567.18	39°37'18.7262"N	80°16'42.8247"W	74.42	14.407	1.70	-1.44	54.57
2603.00	0.550	167.730	2597.87	-49.15	71.68	19.03	1749193.48	409566.78	39°37'18.7223"N	80°16'42.8181"W	74.17	14.867	0.75	0.04	88.60
2677.00	0.600	176.410	2671.87	-48.48	70.95	19.13	1749193.58	409566.04	39°37'18.7151"N	80°16'42.8168"W	73.48	15.089	0.14	0.07	11.73
2825.00	0.500	219.790	2819.86	-47.62	69.68	18.76	1749193.21	409564.77	39°37'18.7025"N	80°16'42.8213"W	72.16	15.072	0.28	-0.07	29.31
2920.00	0.620	208.640	2914.86	-47.27	68.91	18.25	1749192.70	409564.01	39°37'18.6948"N	80°16'42.8278"W	71.29	14.835	0.17	0.13	-11.74
3014.00	0.520	212.990	3008.85	-46.86	68.11	17.78	1749192.23	409563.20	39°37'18.6868"N	80°16'42.8337"W	70.39	14.628	0.12	-0.11	4.63
3108.00	0.530	190.070	3102.85	-46.38	67.32	17.47	1749191.92	409562.42	39°37'18.6790"N	80°16'42.8376"W	69.55	14.546	0.22	0.01	-24.38
3203.00	1.030	93.630	3197.84	-45.54	66.83	18.24	1749192.69	409561.93	39°37'18.6743"N	80°16'42.8276"W	69.28	15.268	1.27	0.53	-101.52
3298.00	2.220	68.000	3292.80	-44.66	67.47	20.80	1749195.25	409562.56	39°37'18.6808"N	80°16'42.7950"W	70.60	17.135	1.44	1.25	-26.98
3393.00	2.340	67.010	3387.73	-43.93	68.91	24.29	1749198.74	409564.01	39°37'18.6954"N	80°16'42.7506"W	73.07	19.418	0.13	0.13	-1.04
3487.00	2.110	58.080	3481.66	-43.52	70.58	27.53	1749201.98	409565.87	39°37'18.7121"N	80°16'42.7094"W	75.76	21.308	0.44	-0.24	-9.50
3582.00	1.460	25.350	3576.61	-44.09	72.60	29.53	1749203.98	409567.69	39°37'18.7322"N	80°16'42.6840"W	78.37	22.135	1.25	-0.68	-34.45
3680.00	1.150	26.310	3674.59	-45.23	74.61	30.50	1749204.95	409569.70	39°37'18.7522"N	80°16'42.6719"W	80.60	22.236	0.32	-0.32	0.98
3775.00	1.060	16.140	3769.57	-46.27	76.31	31.17	1749205.62	409571.40	39°37'18.7690"N	80°16'42.6635"W	82.43	22.218	0.23	-0.09	-10.71
3870.00	0.870	358.310	3864.56	-47.45	77.87	31.39	1749205.84	409572.97	39°37'18.7845"N	80°16'42.6608"W	83.96	21.955	0.37	-0.20	-18.77
3964.00	1.120	357.880	3958.54	-48.84	79.50	31.34	1749205.78	409574.60	39°37'18.8006"N	80°16'42.6617"W	85.46	21.512	0.27	0.27	-0.46
4060.00	1.020	348.680	4054.53	-50.43	81.28	31.13	1749205.58	409576.37	39°37'18.8182"N	80°16'42.6645"W	87.04	20.959	0.21	-0.10	-9.58
4154.00	1.100	344.510	4148.51	-52.06	82.97	30.73	1749205.18	409578.06	39°37'18.8348"N	80°16'42.6699"W	88.48	20.323	0.12	0.09	-4.44

REFERENCE WELLPATH IDENTIFICATION					
Operator	NORTHEAST NATURAL ENERGY, LLC			Well	McClellan 4H
Field	Monongalia			API/Legal	
Facility	McClellan Pad			Wellbore	McClellan 4H AWB
Slot	Slot #04				

WELLPATH DATA (233 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]
4249.00	0.950	339.930	4243.49	-53.70	84.59	30.21	1749204.66	409579.68	39°37'18.8508"N	80°16'42.6766"W	89.82	19.657	0.18	-0.16	-4.82
4343.00	0.860	328.330	4337.48	-55.16	85.92	29.58	1749204.03	409581.01	39°37'18.8639"N	80°16'42.6849"W	90.87	18.996	0.22	-0.10	-12.34
4437.00	0.770	296.380	4431.47	-56.41	86.80	28.64	1749203.09	409581.89	39°37'18.8725"N	80°16'42.6970"W	91.40	18.261	0.49	-0.10	-33.99
4536.00	0.830	301.590	4530.46	-57.64	87.47	27.43	1749201.88	409582.57	39°37'18.8790"N	80°16'42.7125"W	91.67	17.413	0.10	0.06	5.26
4631.00	0.650	287.390	4625.46	-58.68	87.99	26.33	1749200.78	409583.09	39°37'18.8841"N	80°16'42.7266"W	91.85	16.661	0.27	-0.19	-14.95
4725.00	0.500	237.830	4719.45	-59.11	87.93	25.48	1749199.93	409583.03	39°37'18.8834"N	80°16'42.7375"W	91.55	16.158	0.53	-0.16	-52.72
4819.00	0.470	227.130	4813.45	-59.05	87.45	24.85	1749199.30	409582.55	39°37'18.8786"N	80°16'42.7455"W	90.91	15.861	0.10	-0.03	-11.38
4914.00	0.580	306.110	4908.45	-59.44	87.47	24.17	1749198.62	409582.57	39°37'18.8788"N	80°16'42.7541"W	90.75	15.449	0.71	0.12	83.14
5009.00	0.510	305.960	5003.44	-60.29	88.00	23.44	1749197.89	409583.10	39°37'18.8840"N	80°16'42.7635"W	91.07	14.917	0.07	-0.07	-0.16
5105.00	0.500	313.890	5099.44	-61.10	88.54	22.80	1749197.24	409583.64	39°37'18.8893"N	80°16'42.7719"W	91.43	14.437	0.07	-0.01	8.26
5199.00	0.470	259.350	5193.43	-61.65	88.76	22.12	1749196.57	409583.85	39°37'18.8913"N	80°16'42.7805"W	91.47	13.995	0.47	-0.03	-58.02
5294.00	0.470	196.770	5288.43	-61.55	88.31	21.63	1749196.07	409583.41	39°37'18.8869"N	80°16'42.7868"W	90.92	13.760	0.51	0.00	-65.87
5389.00	1.010	173.920	5383.42	-60.56	87.11	21.60	1749196.05	409582.20	39°37'18.8749"N	80°16'42.7870"W	89.74	13.928	0.64	0.57	-24.05
5484.00	0.990	163.570	5478.41	-59.04	85.49	21.92	1749196.37	409580.58	39°37'18.8590"N	80°16'42.7827"W	88.25	14.383	0.19	-0.02	-10.89
5582.00	0.430	103.190	5576.40	-57.96	84.59	22.52	1749196.97	409579.69	39°37'18.8502"N	80°16'42.7749"W	87.54	14.908	0.88	-0.57	-61.61
5676.00	0.540	78.530	5670.40	-57.54	84.60	23.30	1749197.75	409579.69	39°37'18.8503"N	80°16'42.7650"W	87.75	15.397	0.25	0.12	-26.23
5770.00	0.580	87.490	5764.40	-57.12	84.71	24.21	1749198.66	409579.80	39°37'18.8515"N	80°16'42.7534"W	88.10	15.949	0.10	0.04	9.53
5864.00	0.810	78.490	5858.39	-56.63	84.86	25.33	1749199.78	409579.96	39°37'18.8531"N	80°16'42.7390"W	88.56	16.622	0.27	0.24	-9.57
5958.00	0.810	85.280	5952.38	-56.06	85.05	26.65	1749201.10	409580.14	39°37'18.8550"N	80°16'42.7223"W	89.12	17.397	0.10	0.00	7.22
6053.00	1.030	72.150	6047.37	-55.50	85.36	28.13	1749202.58	409580.46	39°37'18.8583"N	80°16'42.7034"W	89.88	18.238	0.32	0.23	-13.82
6147.00	0.170	39.240	6141.36	-55.31	85.73	29.02	1749203.47	409580.83	39°37'18.8620"N	80°16'42.6920"W	90.51	18.702	0.95	-0.91	-35.01
6241.00	0.150	92.020	6235.36	-55.28	85.84	29.23	1749203.68	409580.93	39°37'18.8630"N	80°16'42.6893"W	90.68	18.807	0.15	-0.02	56.15
6336.00	0.630	111.790	6330.36	-54.78	85.64	29.84	1749204.29	409580.73	39°37'18.8611"N	80°16'42.6815"W	90.69	19.212	0.52	0.51	20.81
6434.00	0.970	111.630	6428.35	-53.65	85.13	31.11	1749205.56	409580.23	39°37'18.8562"N	80°16'42.6652"W	90.64	20.076	0.35	0.35	-0.16
6529.00	0.500	105.680	6523.34	-52.68	84.72	32.26	1749206.71	409579.82	39°37'18.8523"N	80°16'42.6505"W	90.66	20.845	0.50	-0.49	-6.26
6624.00	1.110	80.340	6618.33	-51.99	84.77	33.57	1749208.01	409579.86	39°37'18.8528"N	80°16'42.6338"W	91.17	21.603	0.73	0.64	-26.67
6719.00	1.200	100.720	6713.31	-50.92	84.73	35.45	1749209.90	409579.83	39°37'18.8527"N	80°16'42.6097"W	91.85	22.703	0.44	0.09	21.45
6814.00	1.320	353.870	6808.30	-51.19	85.64	36.31	1749210.76	409580.73	39°37'18.8617"N	80°16'42.5988"W	93.02	22.977	2.13	0.13	-112.47
6909.00	1.750	343.990	6903.26	-53.55	88.12	35.79	1749210.24	409583.21	39°37'18.8662"N	80°16'42.6057"W	95.11	22.107	0.53	0.45	-10.40
7003.00	1.740	340.490	6997.22	-56.30	90.84	34.92	1749209.37	409585.94	39°37'18.9130"N	80°16'42.6172"W	97.33	21.027	0.11	-0.01	-3.72

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

WELLPATH DATA (233 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]
7097.00	1.820	331.430	7091.18	-59.17	93.50	33.73	1749208.18	409588.60	39°37'18.9392"N	80°16'42.6327"W	99.40	19.837	0.31	0.09	-9.64
7191.00	1.030	186.550	7185.16	-60.01	93.97	32.92	1749207.37	409589.07	39°37'18.9438"N	80°16'42.6431"W	99.57	19.307	2.90	-0.84	-154.13
7290.00	8.470	163.810	7283.76	-52.37	86.08	34.85	1749209.30	409581.17	39°37'18.8659"N	80°16'42.6175"W	92.86	22.045	7.61	7.52	-22.97
7384.00	16.450	163.890	7375.47	-33.04	66.61	40.49	1749214.93	409561.70	39°37'18.6740"N	80°16'42.5434"W	77.95	31.293	8.49	8.49	0.09
7479.00	20.760	165.350	7465.48	-4.28	37.38	48.48	1749222.93	409532.48	39°37'18.3859"N	80°16'42.4380"W	61.22	52.365	4.56	4.54	1.54
7573.00	22.880	165.880	7552.74	28.71	3.54	57.15	1749231.60	409498.64	39°37'18.0521"N	80°16'42.3234"W	57.26	86.456	2.27	2.26	0.56
7615.00	23.560	166.070	7591.34	44.30	-12.53	61.17	1749235.61	409482.58	39°37'17.8937"N	80°16'42.2703"W	62.44	101.573	1.63	1.62	0.45
7695.00	27.880	165.870	7663.40	77.01	-46.20	69.59	1749244.03	409448.90	39°37'17.5617"N	80°16'42.1590"W	83.53	123.580	5.40	5.40	-0.25
7789.00	34.420	163.020	7743.81	123.23	-92.97	82.72	1749257.17	409402.13	39°37'17.1005"N	80°16'41.9859"W	124.45	138.338	7.13	6.96	-3.03
7884.00	41.190	163.000	7818.82	178.99	-148.63	99.73	1749274.18	409346.48	39°37'16.5519"N	80°16'41.7624"W	178.99	146.139	7.13	7.13	-0.02
7979.00	48.020	161.820	7886.42	243.07	-212.17	119.92	1749294.36	409282.94	39°37'15.9257"N	80°16'41.4974"W	243.72	150.525	7.24	7.19	-1.24
8073.00	55.360	157.670	7944.67	314.79	-281.25	145.55	1749319.99	409213.87	39°37'15.2453"N	80°16'41.1622"W	316.68	152.637	8.54	7.81	-4.41
8168.00	61.860	153.740	7994.14	394.76	-355.06	178.98	1749353.42	409140.06	39°37'14.5187"N	80°16'40.7269"W	397.62	153.248	7.70	6.84	-4.14
8263.00	69.270	148.720	8033.43	480.85	-430.74	220.66	1749395.09	409064.39	39°37'13.7744"N	80°16'40.1859"W	483.97	152.875	9.16	7.80	-5.28
8358.00	75.130	146.880	8062.46	571.23	-507.23	268.85	1749443.29	408987.90	39°37'13.0226"N	80°16'39.5616"W	574.07	152.074	6.44	6.17	-1.94
8453.00	81.450	146.980	8081.73	664.20	-585.14	319.59	1749494.02	408910.00	39°37'12.2569"N	80°16'38.9047"W	666.73	151.358	6.65	6.65	0.11
8548.00	88.400	146.410	8090.13	758.77	-664.18	371.52	1749545.94	408830.96	39°37'11.4803"N	80°16'38.2324"W	761.02	150.779	7.34	7.32	-0.60
8642.00	90.000	146.540	8091.44	852.76	-742.53	423.43	1749597.85	408752.62	39°37'10.7104"N	80°16'37.5604"W	854.77	150.306	1.71	1.70	0.14
8737.00	89.910	146.400	8091.52	947.76	-821.72	475.90	1749650.32	408673.43	39°37'9.9322"N	80°16'36.8811"W	949.58	149.923	0.18	-0.09	-0.15
8831.00	89.940	146.120	8091.64	1041.76	-899.89	528.11	1749702.53	408595.27	39°37'9.1642"N	80°16'36.2053"W	1043.41	149.593	0.30	0.03	-0.30
8926.00	89.910	146.420	8091.76	1136.76	-978.90	580.86	1749755.28	408516.26	39°37'8.3879"N	80°16'35.5224"W	1138.26	149.316	0.32	-0.03	0.32
9021.00	90.090	146.730	8091.76	1231.76	-1058.18	633.19	1749807.60	408436.98	39°37'7.6088"N	80°16'34.8450"W	1233.16	149.105	0.38	0.19	0.33
9116.00	90.030	146.430	8091.66	1326.76	-1137.48	685.52	1749859.92	408357.69	39°37'6.8297"N	80°16'34.1676"W	1328.07	148.924	0.32	-0.06	-0.32
9210.00	90.030	146.440	8091.61	1420.76	-1215.80	737.49	1749911.89	408279.37	39°37'6.0600"N	80°16'33.4949"W	1421.99	148.760	0.01	0.00	0.01
9306.00	90.490	146.220	8091.18	1516.75	-1295.70	790.71	1749965.11	408199.48	39°37'5.2750"N	80°16'32.8060"W	1517.91	148.606	0.53	0.48	-0.23
9401.00	90.340	146.420	8090.49	1611.75	-1374.75	843.39	1750017.79	408120.44	39°37'4.4983"N	80°16'32.1241"W	1612.84	148.471	0.26	-0.16	0.21
9495.00	90.770	146.550	8089.58	1705.75	-1453.12	895.29	1750069.69	408042.07	39°37'3.7282"N	80°16'31.4522"W	1706.78	148.362	0.48	0.46	0.14
9590.00	90.710	146.500	8088.35	1800.74	-1532.35	947.69	1750122.08	407962.84	39°37'2.9496"N	80°16'30.7740"W	1801.72	148.265	0.08	-0.06	-0.05
9684.00	91.010	146.240	8086.94	1894.73	-1610.61	999.74	1750174.13	407884.59	39°37'2.1807"N	80°16'30.1002"W	1895.66	148.171	0.42	0.32	-0.28
9779.00	90.980	146.700	8085.29	1989.71	-1689.79	1052.21	1750226.59	407805.41	39°37'1.4027"N	80°16'29.4211"W	1990.61	148.090	0.49	-0.03	0.48



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

WELLPATH DATA (233 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]	
9874.00	90.770	146.220	8083.84	2084.70	-1768.96	1104.69	1750279.07	407726.25	39°37'0.6247"N	80°16'28.7417"W	2085.56	148.016	0.55	-0.22	-0.51	
9968.00	90.310	146.270	8082.96	2178.70	-1847.11	1156.92	1750331.30	407648.10	39°36'59.8568"N	80°16'28.0657"W	2179.51	147.939	0.49	-0.49	0.05	
10063.00	90.370	146.280	8082.39	2273.69	-1926.12	1209.66	1750384.04	407569.09	39°36'59.0805"N	80°16'27.3831"W	2274.47	147.870	0.06	0.06	0.01	
10156.00	90.370	146.680	8081.79	2366.69	-2003.65	1261.02	1750435.39	407491.57	39°36'58.3186"N	80°16'26.7183"W	2367.45	147.815	0.43	0.00	0.43	
10252.00	90.430	146.450	8081.12	2462.69	-2083.77	1313.91	1750488.28	407411.46	39°36'57.5314"N	80°16'26.0336"W	2463.42	147.767	0.25	0.06	-0.24	
10346.00	90.310	146.560	8080.51	2556.69	-2162.15	1365.79	1750540.15	407333.08	39°36'56.7612"N	80°16'25.3621"W	2557.40	147.720	0.17	-0.13	0.12	
10441.00	90.890	146.350	8079.52	2651.68	-2241.33	1418.28	1750592.64	407253.91	39°36'55.9832"N	80°16'24.6827"W	2652.37	147.675	0.65	0.61	-0.22	
10535.00	90.770	146.010	8078.16	2745.67	-2319.41	1470.59	1750644.95	407175.83	39°36'55.2159"N	80°16'24.0056"W	2746.33	147.624	0.38	-0.13	-0.36	
10630.00	90.830	146.610	8076.83	2840.66	-2398.45	1523.28	1750697.64	407096.80	39°36'54.4393"N	80°16'23.3237"W	2841.29	147.580	0.63	0.06	0.63	
10724.00	90.680	146.300	8075.59	2934.65	-2476.79	1575.22	1750749.58	407018.46	39°36'53.6696"N	80°16'22.6514"W	2935.27	147.544	0.37	-0.16	-0.33	
10819.00	90.580	146.220	8074.55	3029.65	-2555.78	1627.98	1750802.33	406939.48	39°36'52.8934"N	80°16'21.9685"W	3030.24	147.504	0.13	-0.11	-0.08	
10914.00	90.680	146.140	8073.50	3124.64	-2634.70	1680.86	1750855.20	406860.56	39°36'52.1180"N	80°16'21.2843"W	3125.21	147.463	0.13	0.11	-0.08	
11009.00	90.830	146.470	8072.25	3219.63	-2713.74	1733.56	1750907.90	406781.53	39°36'51.3414"N	80°16'20.6022"W	3220.18	147.429	0.38	0.16	0.35	
11103.00	91.010	146.140	8070.74	3313.62	-2791.93	1785.70	1750960.04	406703.34	39°36'50.5730"N	80°16'19.9274"W	3314.15	147.397	0.40	0.19	-0.35	
11197.00	90.920	146.660	8069.16	3407.61	-2870.22	1837.71	1751012.05	406625.06	39°36'49.8038"N	80°16'19.2542"W	3408.12	147.370	0.56	-0.10	0.55	
11292.00	90.860	146.140	8067.68	3502.59	-2949.33	1890.27	1751064.61	406545.95	39°36'49.0264"N	80°16'18.5739"W	3503.10	147.344	0.55	-0.06	-0.55	
11387.00	90.460	146.580	8066.59	3597.59	-3028.42	1942.90	1751117.23	406466.87	39°36'48.2493"N	80°16'17.8928"W	3598.08	147.318	0.63	-0.42	0.46	
11482.00	90.580	146.500	8065.73	3692.58	-3107.67	1995.27	1751169.60	406387.62	39°36'47.4705"N	80°16'17.2149"W	3693.07	147.298	0.15	0.13	-0.08	
11577.00	90.430	146.100	8064.89	3787.58	-3186.70	2047.98	1751222.31	406308.59	39°36'46.6939"N	80°16'16.5327"W	3788.05	147.273	0.45	-0.16	-0.42	
11672.00	90.120	146.430	8064.43	3882.58	-3265.71	2100.74	1751275.06	406229.59	39°36'45.9176"N	80°16'15.8500"W	3883.03	147.248	0.48	-0.33	0.35	
11766.00	90.060	146.180	8064.29	3976.58	-3343.91	2152.89	1751327.21	406151.39	39°36'45.1491"N	80°16'15.1751"W	3977.02	147.226	0.27	-0.06	-0.27	
11861.00	90.220	146.420	8064.05	4071.58	-3422.95	2205.60	1751379.91	406072.36	39°36'44.3725"N	80°16'14.4929"W	4072.01	147.204	0.30	0.17	0.25	
11954.00	90.370	146.330	8063.58	4164.58	-3500.39	2257.10	1751431.41	405994.93	39°36'43.6116"N	80°16'13.8264"W	4165.00	147.186	0.19	0.16	-0.10	
12048.00	90.280	146.160	8063.04	4258.57	-3578.54	2309.33	1751483.64	405916.78	39°36'42.8437"N	80°16'13.1505"W	4258.98	147.165	0.20	-0.10	-0.18	
12143.00	90.400	146.530	8062.48	4353.57	-3657.62	2361.97	1751536.28	405837.71	39°36'42.0667"N	80°16'12.4692"W	4353.97	147.147	0.41	0.13	0.39	
12238.00	90.490	146.250	8061.74	4448.57	-3736.73	2414.56	1751588.86	405758.60	39°36'41.2893"N	80°16'11.7887"W	4448.96	147.131	0.31	0.09	-0.29	
12332.00	90.860	146.540	8060.63	4542.56	-3815.02	2466.58	1751640.88	405680.32	39°36'40.5200"N	80°16'11.1154"W	4542.95	147.116	0.50	0.39	0.31	
12427.00	90.920	146.420	8059.16	4637.55	-3894.21	2519.04	1751693.33	405601.13	39°36'39.7418"N	80°16'10.4365"W	4637.93	147.102	0.14	0.06	-0.13	
12521.00	90.830	146.490	8057.72	4731.54	-3972.54	2570.97	1751745.27	405522.80	39°36'38.9721"N	80°16'9.7643"W	4731.91	147.090	0.12	-0.10	0.07	
12615.00	90.920	146.670	8056.29	4825.53	-4050.99	2622.74	1751797.03	405444.36	39°36'38.2012"N	80°16'9.0943"W	4825.90	147.080	0.21	0.10	0.19	



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	NORTHEAST NATURAL ENERGY, LLC		Well	McClellan 4H
Field	Monongalia		API/Legal	
Facility	McClellan Pad		Wellbore	McClellan 4H AWB
Slot	Slot #04			

WELLPATH DATA (233 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]	
12709.00	91.200	146.520	8054.55	4919.51	-4129.45	2674.48	1751848.77	405365.90	39°36'37.4302"N	80°16'8.4246"W	4919.88	147.070	0.34	0.30	-0.16	
12804.00	91.050	146.490	8052.68	5014.49	-4208.66	2726.90	1751901.18	405286.70	39°36'36.6518"N	80°16'7.7463"W	5014.86	147.060	0.16	-0.16	-0.03	
12899.00	91.050	146.540	8050.94	5109.48	-4287.88	2779.30	1751953.58	405207.49	39°36'35.8734"N	80°16'7.0680"W	5109.84	147.050	0.05	0.00	0.05	
12993.00	90.580	146.300	8049.60	5203.47	-4366.18	2831.29	1752005.57	405129.19	39°36'35.1039"N	80°16'6.3953"W	5203.82	147.038	0.56	-0.50	-0.26	
13088.00	90.580	146.460	8048.64	5298.46	-4445.29	2883.89	1752058.16	405050.09	39°36'34.3266"N	80°16'5.7146"W	5298.81	147.026	0.17	0.00	0.17	
13183.00	90.830	146.870	8047.47	5393.45	-4524.65	2936.09	1752110.36	404970.73	39°36'33.5467"N	80°16'5.0390"W	5393.80	147.020	0.51	0.26	0.43	
13278.00	90.740	146.580	8046.17	5488.44	-4604.07	2988.21	1752162.47	404891.32	39°36'32.7662"N	80°16'4.3644"W	5488.79	147.015	0.32	-0.09	-0.31	
13372.00	90.650	146.400	8045.03	5582.43	-4682.44	3040.10	1752214.36	404812.95	39°36'31.9961"N	80°16'3.6928"W	5582.78	147.006	0.21	-0.10	-0.19	
13467.00	90.770	146.520	8043.85	5677.43	-4761.61	3092.58	1752266.84	404733.78	39°36'31.2181"N	80°16'3.0136"W	5677.77	146.997	0.18	0.13	0.13	
13562.00	90.520	146.460	8042.79	5772.42	-4840.82	3145.03	1752319.29	404654.58	39°36'30.4397"N	80°16'2.3349"W	5772.76	146.989	0.27	-0.26	-0.06	
13657.00	90.650	146.300	8041.82	5867.42	-4919.92	3197.63	1752371.88	404575.48	39°36'29.6624"N	80°16'1.6543"W	5867.75	146.979	0.22	0.14	-0.17	
13751.00	90.710	146.580	8040.70	5961.41	-4998.25	3249.59	1752423.84	404497.16	39°36'28.8927"N	80°16'0.9819"W	5961.74	146.970	0.30	0.06	0.30	
13844.00	90.580	146.420	8039.65	6054.40	-5075.80	3300.91	1752475.16	404419.62	39°36'28.1307"N	80°16'0.3176"W	6054.73	146.963	0.22	-0.14	-0.17	
13939.00	90.620	146.360	8038.66	6149.40	-5154.91	3353.50	1752527.74	404340.51	39°36'27.3533"N	80°15'59.6372"W	6149.72	146.954	0.08	0.04	-0.06	
14034.00	90.550	146.530	8037.69	6244.39	-5234.07	3406.00	1752580.24	404261.35	39°36'26.5754"N	80°15'58.9577"W	6244.71	146.946	0.19	-0.07	0.18	
14128.00	90.680	146.560	8036.68	6338.39	-5312.50	3457.82	1752632.06	404182.93	39°36'25.8047"N	80°15'58.2871"W	6338.70	146.941	0.14	0.14	0.03	
14223.00	90.150	146.320	8035.99	6433.38	-5391.66	3510.34	1752684.57	404103.77	39°36'25.0268"N	80°15'57.6076"W	6433.69	146.933	0.61	-0.56	-0.25	
14317.00	89.880	146.600	8035.97	6527.38	-5470.01	3562.27	1752736.50	404025.43	39°36'24.2569"N	80°15'56.9355"W	6527.69	146.926	0.41	-0.29	0.30	
14413.00	90.000	146.570	8036.07	6623.38	-5550.14	3615.14	1752789.37	403945.30	39°36'23.4694"N	80°15'56.2513"W	6623.69	146.921	0.13	0.13	-0.03	
14508.00	90.120	147.060	8035.97	6718.38	-5629.64	3667.14	1752841.36	403865.80	39°36'22.6881"N	80°15'55.5783"W	6718.69	146.920	0.53	0.13	0.52	
14602.00	90.150	146.370	8035.75	6812.38	-5708.22	3718.72	1752892.95	403787.23	39°36'21.9159"N	80°15'54.9107"W	6812.69	146.917	0.73	0.03	-0.73	
14697.00	90.060	146.450	8035.57	6907.38	-5787.36	3771.28	1752945.50	403708.10	39°36'21.1382"N	80°15'54.2306"W	6907.68	146.910	0.13	-0.09	0.08	
14791.00	89.570	146.240	8035.88	7001.38	-5865.60	3823.38	1752997.59	403629.86	39°36'20.3694"N	80°15'53.5565"W	7001.68	146.902	0.57	-0.52	-0.22	
14885.00	88.890	145.590	8037.14	7095.36	-5943.45	3876.05	1753050.26	403552.02	39°36'19.6045"N	80°15'52.8751"W	7095.65	146.889	1.00	-0.72	-0.69	
14980.00	88.740	146.400	8039.10	7190.34	-6022.18	3929.17	1753103.38	403473.29	39°36'18.8308"N	80°15'52.1879"W	7190.62	146.878	0.87	-0.16	0.85	
15075.00	89.080	146.710	8040.91	7285.32	-6101.44	3981.52	1753155.72	403394.04	39°36'18.0520"N	80°15'51.5105"W	7285.60	146.873	0.48	0.36	0.33	
15170.00	89.110	146.580	8042.41	7380.31	-6180.78	4033.74	1753207.95	403314.70	39°36'17.2723"N	80°15'50.8346"W	7380.59	146.870	0.14	0.03	-0.14	
15264.00	89.630	146.990	8043.44	7474.30	-6259.42	4085.23	1753259.43	403236.07	39°36'16.4995"N	80°15'50.1683"W	7474.58	146.869	0.70	0.55	0.44	
15359.00	89.290	146.450	8044.34	7569.29	-6338.83	4137.36	1753311.56	403156.66	39°36'15.7190"N	80°15'49.4937"W	7569.58	146.867	0.67	-0.36	-0.57	
15454.00	89.420	146.720	8045.41	7664.29	-6418.12	4189.67	1753363.87	403077.37	39°36'14.9398"N	80°15'48.8167"W	7664.57	146.864	0.32	0.14	0.28	



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	NORTHEAST NATURAL ENERGY, LLC		Well	McClellan 4H
Field	Monongalia		API/Legal	
Facility	McClellan Pad		Wellbore	McClellan 4H AWB
Slot	Slot #04			

WELLPATH DATA (233 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]
15548.00	88.370	146.310	8047.22	7758.27	-6496.51	4241.52	1753415.71	402998.99	39°36'14.1695"N	80°15'48.1458"W	7758.55	146.860	1.20	-1.12	-0.44
15643.00	88.650	146.530	8049.69	7853.24	-6575.63	4294.05	1753468.24	402919.88	39°36'13.3920"N	80°15'47.4662"W	7853.52	146.854	0.37	0.29	0.23
15738.00	87.820	146.160	8052.62	7948.19	-6654.66	4346.67	1753520.86	402840.84	39°36'12.6153"N	80°15'46.7853"W	7948.47	146.848	0.96	-0.87	-0.39
15832.00	87.910	146.250	8056.12	8042.12	-6732.73	4398.92	1753573.10	402762.78	39°36'11.8482"N	80°15'46.1093"W	8042.40	146.841	0.14	0.10	0.10
15926.00	87.940	146.400	8059.52	8136.06	-6810.90	4451.01	1753625.19	402684.61	39°36'11.0800"N	80°15'45.4354"W	8136.33	146.835	0.16	0.03	0.16
16021.00	88.090	146.630	8062.81	8231.00	-6890.09	4503.39	1753677.56	402605.43	39°36'10.3019"N	80°15'44.7576"W	8231.27	146.831	0.29	0.16	0.24
16114.00	88.180	146.410	8065.84	8323.96	-6967.62	4554.67	1753728.84	402527.91	39°36'9.5400"N	80°15'44.0941"W	8324.22	146.828	0.26	0.10	-0.24
16210.00	88.090	146.530	8068.97	8419.90	-7047.60	4607.67	1753781.83	402447.93	39°36'8.7540"N	80°15'43.4084"W	8420.17	146.824	0.16	-0.09	0.12
16304.00	87.970	145.140	8072.20	8513.84	-7125.33	4660.42	1753834.59	402370.21	39°36'7.9902"N	80°15'42.7260"W	8514.10	146.813	1.48	-0.13	-1.48
16398.00	87.940	146.020	8075.55	8607.77	-7202.82	4713.52	1753887.68	402292.72	39°36'7.2288"N	80°15'42.0392"W	8608.01	146.799	0.94	-0.03	0.94
16493.00	87.480	145.560	8079.35	8702.69	-7281.32	4766.89	1753941.05	402214.22	39°36'6.4575"N	80°15'41.3489"W	8702.92	146.788	0.68	-0.48	-0.48
16587.00	86.920	145.620	8083.94	8796.57	-7358.78	4819.95	1753994.10	402136.77	39°36'5.6965"N	80°15'40.6627"W	8796.79	146.775	0.60	-0.60	0.06
16682.00	86.860	145.440	8089.09	8891.42	-7436.98	4873.63	1754047.79	402058.57	39°36'4.9281"N	80°15'39.9684"W	8891.63	146.762	0.20	-0.06	-0.19
16777.00	86.340	145.530	8094.73	8986.24	-7515.12	4927.37	1754101.52	401980.44	39°36'4.1604"N	80°15'39.2734"W	8986.44	146.749	0.56	-0.55	0.09
16871.00	86.520	145.660	8100.58	9080.05	-7592.53	4980.38	1754154.52	401903.04	39°36'3.3998"N	80°15'38.5878"W	9080.24	146.737	0.24	0.19	0.14
16966.00	86.340	145.590	8106.50	9174.86	-7670.79	5033.91	1754208.05	401824.78	39°36'2.6309"N	80°15'37.8955"W	9175.03	146.725	0.20	-0.19	-0.07
17061.00	86.610	145.850	8112.34	9269.67	-7749.14	5087.32	1754261.46	401746.44	39°36'1.8611"N	80°15'37.2047"W	9269.84	146.715	0.39	0.28	0.27
17156.00	85.690	145.260	8118.72	9364.45	-7827.30	5140.93	1754315.06	401668.28	39°36'1.0931"N	80°15'36.5114"W	9364.60	146.703	1.15	-0.97	-0.62
17250.00	86.800	145.480	8124.87	9458.23	-7904.48	5194.23	1754368.36	401591.10	39°36'0.3348"N	80°15'35.8221"W	9458.38	146.690	1.20	1.18	0.23
17345.00	87.810	145.580	8129.34	9553.11	-7982.71	5247.94	1754422.07	401512.87	39°35'59.5662"N	80°15'35.1276"W	9553.25	146.679	1.07	1.06	0.11
17440.00	89.020	145.300	8131.97	9648.06	-8060.92	5301.81	1754475.93	401434.68	39°35'58.7978"N	80°15'34.4310"W	9648.19	146.666	1.31	1.27	-0.29
17535.00	88.860	145.360	8133.72	9743.03	-8139.04	5355.84	1754529.96	401356.56	39°35'58.0303"N	80°15'33.7323"W	9743.15	146.653	0.18	-0.17	0.06
17630.00	88.030	145.450	8136.30	9837.98	-8217.21	5409.76	1754583.88	401278.39	39°35'57.2622"N	80°15'33.0350"W	9838.09	146.641	0.88	-0.87	0.09
17724.00	87.320	145.630	8140.11	9931.89	-8294.65	5462.90	1754637.02	401200.96	39°35'56.5014"N	80°15'32.3478"W	9931.99	146.631	0.78	-0.76	0.19
17819.00	87.380	146.830	8144.51	10026.79	-8373.54	5515.65	1754689.76	401122.08	39°35'55.7262"N	80°15'31.6654"W	10026.89	146.627	1.26	0.06	1.26
17913.00	87.010	146.770	8149.11	10120.67	-8452.10	5567.06	1754741.17	401043.52	39°35'54.9541"N	80°15'31.0002"W	10120.78	146.629	0.40	-0.39	-0.06
18007.00	87.630	146.830	8153.50	10214.57	-8530.67	5618.47	1754792.58	400964.96	39°35'54.1819"N	80°15'30.3349"W	10214.67	146.630	0.66	0.66	0.06
18101.00	87.910	146.500	8157.16	10308.49	-8609.14	5670.09	1754844.19	400886.49	39°35'53.4106"N	80°15'29.6671"W	10308.60	146.631	0.46	0.30	-0.35
18195.00	88.980	146.840	8159.71	10402.46	-8687.65	5721.72	1754895.82	400807.98	39°35'52.6391"N	80°15'28.9991"W	10402.56	146.631	1.19	1.14	0.36
18289.00	88.980	146.780	8161.38	10496.44	-8766.30	5773.17	1754947.27	400729.33	39°35'51.8661"N	80°15'28.3333"W	10496.55	146.633	0.06	0.00	-0.06



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

WELLPATH DATA (233 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]
18384.00	89.290	146.430	8162.82	10591.43	-8845.61	5825.45	1754999.55	400650.03	39°35'51.0867"N	80°15'27.6569"W	10591.54	146.632	0.49	0.33	-0.37
18479.00	89.570	146.600	8163.76	10686.42	-8924.84	5877.86	1755051.95	400570.81	39°35'50.3081"N	80°15'26.9789"W	10686.53	146.631	0.34	0.29	0.18
18574.00	90.310	146.650	8163.86	10781.42	-9004.17	5930.12	1755104.21	400491.48	39°35'49.5284"N	80°15'26.3027"W	10781.53	146.631	0.78	0.78	0.05
18668.00	89.380	146.480	8164.12	10875.42	-9082.61	5981.92	1755156.00	400413.04	39°35'48.7575"N	80°15'25.6326"W	10875.53	146.631	1.01	-0.99	-0.18
18763.00	89.510	146.560	8165.04	10970.41	-9161.85	6034.32	1755208.40	400333.81	39°35'47.9788"N	80°15'24.9547"W	10970.53	146.630	0.16	0.14	0.08
18857.00	89.050	146.400	8166.22	11064.41	-9240.21	6086.23	1755260.30	400255.46	39°35'47.2087"N	80°15'24.2832"W	11064.52	146.628	0.52	-0.49	-0.17
18952.00	89.110	146.910	8167.74	11159.39	-9319.56	6138.44	1755312.51	400176.11	39°35'46.4289"N	80°15'23.6077"W	11159.51	146.629	0.54	0.06	0.54
19047.00	89.230	146.770	8169.12	11254.38	-9399.08	6190.40	1755364.47	400096.60	39°35'45.6473"N	80°15'22.9354"W	11254.50	146.630	0.19	0.13	-0.15
19142.00	89.230	146.520	8170.40	11349.37	-9478.42	6242.62	1755416.69	400017.26	39°35'44.8675"N	80°15'22.2597"W	11349.49	146.631	0.26	0.00	-0.26
19236.00	90.030	146.720	8171.00	11443.37	-9556.91	6294.34	1755468.40	399938.77	39°35'44.0961"N	80°15'21.5906"W	11443.48	146.630	0.88	0.85	0.21
19331.00	90.520	146.430	8170.55	11538.36	-9636.20	6346.67	1755520.73	399859.49	39°35'43.3169"N	80°15'20.9137"W	11538.48	146.630	0.60	0.52	-0.31
19426.00	91.570	146.810	8168.82	11633.35	-9715.51	6398.93	1755572.99	399780.18	39°35'42.5374"N	80°15'20.2376"W	11633.46	146.630	1.18	1.11	0.40
19521.00	91.450	146.420	8166.31	11728.31	-9794.81	6451.18	1755625.24	399700.89	39°35'41.7581"N	80°15'19.5615"W	11728.43	146.630	0.43	-0.13	-0.41
19616.00	91.780	146.720	8163.63	11823.27	-9874.06	6503.50	1755677.55	399621.64	39°35'40.9792"N	80°15'18.8847"W	11823.39	146.629	0.47	0.35	0.32
19711.00	91.020	147.050	8161.31	11918.24	-9953.61	6555.39	1755729.43	399542.10	39°35'40.1974"N	80°15'18.2134"W	11918.36	146.631	0.87	-0.80	0.35
19806.00	91.200	146.940	8159.47	12013.22	-10033.26	6607.12	1755781.17	399462.45	39°35'39.4145"N	80°15'17.5440"W	12013.34	146.634	0.22	0.19	-0.12
19901.00	90.980	146.910	8157.67	12108.19	-10112.85	6658.96	1755833.00	399382.87	39°35'38.6323"N	80°15'16.8733"W	12108.33	146.636	0.23	-0.23	-0.03
19996.00	93.200	146.520	8154.20	12203.12	-10192.21	6711.06	1755885.10	399303.51	39°35'37.8523"N	80°15'16.1993"W	12203.26	146.637	2.37	2.34	-0.41
20092.00	92.800	146.610	8149.18	12298.99	-10272.21	6763.88	1755937.92	399223.51	39°35'37.0661"N	80°15'15.5160"W	12299.12	146.637	0.43	-0.42	0.09
20186.00	92.280	147.230	8145.01	12392.89	-10350.90	6815.13	1755989.17	399144.83	39°35'36.2927"N	80°15'14.8528"W	12393.03	146.639	0.86	-0.55	0.66
20280.00	92.090	145.880	8141.43	12486.82	-10429.28	6866.90	1756040.93	399066.46	39°35'35.5224"N	80°15'14.1831"W	12486.96	146.638	1.45	-0.20	-1.44
20377.00	92.490	146.560	8137.55	12583.74	-10509.84	6920.79	1756094.82	398985.91	39°35'34.7307"N	80°15'13.4861"W	12583.88	146.635	0.81	0.41	0.70
20402.00‡	92.490	146.560	8136.47	12608.72	-10530.68	6934.56	1756108.58	398965.07	39°35'34.5259"N	80°15'13.3081"W	12608.85	146.635	0.00	0.00	0.00



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

HOLE & CASING SECTIONS - Ref Wellbore: McClellan 4H AWB Ref Wellpath: McClellan 4H AWP Proj: 20402'									
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]
24in Conductor	28.00	128.00	100.00	28.00	128.00	0.00	0.00	0.43	0.58
17.5in Open Hole	128.00	1468.00	1340.00	128.00	1467.87	0.43	0.58	-14.69	7.15
13.375in Casing Surface	28.00	1438.00	1410.00	28.00	1437.87	0.00	0.00	-14.66	7.14
12.25in Open Hole	1468.00	2743.00	1275.00	1467.87	2737.86	-14.69	7.15	70.31	19.08
9.625in Casing Intermediate	28.00	2713.00	2685.00	28.00	2707.87	0.00	0.00	70.59	19.12
8.75in Open Hole	2743.00	7682.00	4939.00	2737.86	7651.87	70.31	19.08	-40.37	68.12
8.5in Open Hole	7682.00	20402.00	12720.00	7651.87	8136.47	-40.37	68.12	-10530.68	6934.56
5.5in Casing Production	28.00	20402.00	20374.00	28.00	8136.47	0.00	0.00	-10530.68	6934.56



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
McClellan 4H BHL Rev-8	8040.00	-10527.68	6940.54	1756114.57	398968.06	39°35'34.5560"N	80°15'13.2319"W	point
McClellan 4H LP Rev-6	8040.00	-574.50	320.38	1749494.81	408920.64	39°37'12.3622"N	80°16'38.8957"W	point
McClellan Hardline #1 (8.31.21)	8529.00	-1292.85	1541.24	1750715.60	408202.33	39°37'5.3671"N	80°16'23.2158"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #10 (8.31.21)	8529.00	-12600.83	3136.28	1752310.54	396895.04	39°35'13.7495"N	80°16'1.6000"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #11 (8.31.21)	8529.00	-10612.64	6952.95	1756126.98	398883.11	39°35'33.7174"N	80°15'13.0643"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #12 (8.31.21)	8529.00	-10051.78	8222.56	1757396.51	399443.93	39°35'39.3651"N	80°14'56.9065"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #13 (8.31.21)	8529.00	-10138.77	4220.27	1753394.47	399356.95	39°35'38.1725"N	80°15'48.0219"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #2 (8.31.21)	8529.00	-1600.72	1752.03	1750926.37	407894.48	39°37'2.3424"N	80°16'20.4885"W	polygon
	2D Polygon: dimensions not calculated							



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
McClellan Hardline #3 (8.31.21)	8529.00	-1789.33	5580.52	1754754.63	407705.88	39°37'0.8009"N	80°15'31.5471"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #4 (8.31.21)	8529.00	-3165.33	2969.09	1752143.36	406329.97	39°36'46.9831"N	80°16'4.7658"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #5 (8.31.21)	8529.00	-4654.83	3213.47	1752387.72	404840.56	39°36'32.2836"N	80°16'1.4808"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #6 (8.31.21)	8529.00	-7618.74	7053.17	1756227.19	401876.83	39°36'3.3135"N	80°15'12.1048"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #7 (8.31.21)	8529.00	-10261.81	3010.83	1752185.09	399233.92	39°35'36.8547"N	80°16'3.4577"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #8 (8.31.21)	8529.00	-10304.53	2964.52	1752138.79	399191.20	39°35'36.4286"N	80°16'4.0446"W	polygon
	2D Polygon: dimensions not calculated							
McClellan Hardline #9 (8.31.21)	8529.00	-10966.75	2992.77	1752167.03	398529.02	39°35'29.8865"N	80°16'3.6114"W	polygon
	2D Polygon: dimensions not calculated							



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

WELLPATH COMPOSITION - Ref Wellbore: McClellan 4H AWB Ref Wellpath: McClellan 4H AWP Proj: 20402'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	1394.00	BH Generic gyro - northseeking (Standard)	01_Javins Inertial Gyro <17-1/2">(50'-1394')	McClellan 4H AWB	11/15/2021
1394.00	2677.00	OWSG MWD rev2 + HRGM	02_Tally MWD <12-1/4">(1394')(1469'-2677')	McClellan 4H AWB	11/15/2021
2677.00	7615.00	OWSG MWD rev2 + HRGM	03_Tally MWD <8-3/4">(2677')(2825'-7615')	McClellan 4H AWB	11/15/2021
7615.00	20402.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04_BH AT Curve <8-1/2">(7615')(7695'-20377')	McClellan 4H AWB	11/15/2021



Actual Wellpath Report

McClellan 4H AWP Proj: 20402'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 4H
Field	Monongalia	API/Legal	
Facility	McClellan Pad	Wellbore	McClellan 4H AWB
Slot	Slot #04		

COMMENTS

Wellpath general comments

API: 47-061-01885-0000

BH Job #: 111066129

Rig: Patterson 277

Duration: 11/16/21 - 11/20/21

01_Javins Inertial Gyro <17-1/2">(50'-1394')

02_Tally MWD <12-1/4">(1394')(1469'-2677')

03_Tally MWD <8-3/4">(2677')(2825'-7615')

04_BH AT Curve <8-1/2">(7615')(7695'-20377')

Projected MD at TD: 20402'