

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-061-01882 County Monongalia District Battelle
Quad Mannington Pad Name McClellan Field/Pool Name _____
Farm name McClellan Well Number 1H
Operator (as registered with the OOG) Northeast Natural Energy LLC
Address 707 Virginia St. E., Suite 1200 City Charleston State WV Zip 25301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4386016.4 Easting 561895.5
Landing Point of Curve Northing 4385850.3 Easting 561408.1
Bottom Hole Northing 4388955.5 Easting 559268.0

Elevation (ft) 1,412' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Synthetic Based Mud - Horizontal Section: BIO-BASE 365, CALCIUM CHLORIDE POWDER, G-SEAL PLUS, HRP, LIME, M-I WATE (BARITE),
M-I-X II MEDIUM, MEGADRIL P SYSTEM, MEGADRIL P SYSTEM RENTAL, MEGAMUL, SAFE-CARB 250, VERSATHIN HF, VERSAWET, VG-PLUS, VINSEAL MEDIUM, WALNUT NUT PLUG MEDIUM

Date permit issued 9/17/2021 Date drilling commenced 2/22/2022 Date drilling ceased 9/5/2022
Date completion activities began 11/23/22 Date completion activities ceased 12/14/22
Verbal plugging (Y/N) NA Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 726', 1105', 1135' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2150', 2470' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1095' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
02/23/2024

API 47-061 - 01882 Farm name McClellan Well number 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	24"	100'	N		NA	
Surface	17-1/2"	13-3/8"	1,452'	N	54.5	NA	Y, 31 bbl
Coal							
Intermediate 1	12-1/4"	9-5/8"	2,677'	N	40	NA	Y, 23 bbl
Intermediate 2							
Intermediate 3							
Production	8-3/4"	5-1/2"	21,114	N	20	NA	Y
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	4,500 PSI Grout						48
Surface	Class A + 2%	1,240	15.6	1.19	1,472	CTS	8
Coal							
Intermediate 1	Class A + 1%	915	15.6	1.18	1,083	CTS	8
Intermediate 2							
Intermediate 3							
Production	50:50 Class A + Additives	3,870	14.5	1.16	4,481	856	48
Tubing							

Drillers TD (ft) 21,139' Loggers TD (ft) 21,109'
 Deepest formation penetrated Marcellus Plug back to (ft) 7,501'
 Plug back procedure Wellbore became unstable at 23,386' or about 678' from reaching bottom hole. We backreamed to 15,223' and became stuck with no rotation or circulation. Plug set at 9,000' and the drilled lateral was plugged back with solid cement to 7,501' and continued with side track lateral.

Kick off depth (ft) _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____
 Surface: Bow spring centralizers every 3rd joint or approximately 120'
 Intermediate: Bow spring centralizers every 3rd joint or approximately 120'
 Production: Rigid body centralizers placed at a minimum of every other joint (~80') from TD to surface

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	See attached				

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
	See	Attached						

Please insert additional pages as applicable.

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API 47- 061 - 01882 Farm name McClellan Well number 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>8,079'</u>	<u>TVD</u>	<u>21,139'</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole 3006 psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 4548 mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd
 GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
See attached	0		0		

Please insert additional pages as applicable.

Drilling Contractor Patterson UTI
 Address 4000 Town Center Blvd, Suite 240 City Canonsburg State PA Zip 15317

Logging Company Baker Hughes
 Address 837 Phillippi Pike City Clarksburg State WV Zip 26301

Cementing Company NextTier
 Address 4000 Town Center Blvd City Canonsburg State PA Zip 15317

Stimulating Company ProFrac
 Address 800 Mountain View Drive City Smithfield State PA Zip 15478

Please insert additional pages as applicable.

Completed by Hollie Medley Telephone 304-212-0422
 Signature  Title Regulatory Manager Date 1/17/2024

McClellan Completion lithology Lithology/Formation	Top Depth in FT TVD	Bottom Depth in FT TVD	Describe rock type and record quantity and type of fluid (freshwater, brine, oil, gas, H2S, etc)
Sand/silt	0	160	Sand/silt
silt/red shale	160	490	silt/red shale
siltstone/sandstone/limestone	490	520	siltstone/sandstone/limestone
limestone/siltstone/sandstone	520	576	siltstone
coal	576	580	coal
siltstone/limestone/shale	580	760	siltstone/shale
coal	760	992	siltstone/shale/limestone
siltstone/sandstone	992	998	coal
coal	998	1084	siltstone/shale/limestone
sandstone/siltstone/limestone	1084	1092	coal - Pittsburgh
coal-Pittsburgh	1092	1120	siltstone/shale/limestone
sandstone/limestone	1120	1150	sandstone
red shale/siltstone	1150	1480	siltstone/limestone/sand/red shale
Limestone/siltstone	1480	2050	siltstone/sandstone
sandstone	2050	2110	sandstone
sandstone/siltstone/red shale	2110	2260	siltstone/sandstone
siltstone/sandstone	2260	2470	siltstone/limestone
sandstone	2470	2500	Big Injun Sandstone
Upper Devonian Sands/silts	2500	3010	sandstone/siltstone
shale/siltstone	3010	3020	Gantz sandstone
Upper Devonian Sands/silts	3020	3560	Upper Devonian sandstones/siltstones
Devonian siltstones/shales	3560	7620	Devonian siltstones/shales
Middlesex shale/silt	7620	7790	Middlesex shale/silt
Burkett shale	7790	7816	Burkett Shale
Geneseo shale	7816	7845	Geneseo shale
Tully Limestone	7845	7898	Tully Limestone
Hamilton shale	7898	7996	Hamilton shale
Marcellus shale	7996	TD	Marcellus shale

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McClellan 1H Stimulation Report

Stage Number	Report Date	ISIP (psi)	Breakdown Pressure (psi)	Avg Treating Pressure (psi)	Avg Treating Rate (BPM)	Pad Volume (bbls)	Total Clean Fluid (Bbls)	Total Proppant Amount (lbs)	Flush Volume (bbls)
1	11/26/2022	4,472	10,261	8,987	94	378	7,255	300,000	546
2	11/26/2022	5,536	7,217	9,136	87	379	10,117	458,320	523
3	11/27/2022	5,741	7,147	9,137	90	392	10,119	456,220	519
4	11/27/2022	5,546	6,658	9,173	94	124	10,271	455,000	509
5	11/27/2022	5,750	6,903	9,021	83	40	10,006	456,370	517
6	11/28/2022	5,988	6,505	9,584	94	69	10,123	455,610	514
7	11/29/2022	6,220	8,391	9,691	88	31	9,866	456,820	443
8	11/29/2022	5,965	7,903	9,543	88	29	9,628	452,680	440
9	11/30/2022	6,430	8,363	9,359	89	55	9,868	465,840	435
10	11/30/2022	5,511	6,599	9,381	95	27	9,991	455,064	483
11	11/30/2022	6,232	8,575	9,404	89	85	9,976	457,960	425
12	12/1/2022	6,144	7,634	9,327	89	55	9,771	456,560	425
13	12/1/2022	6,449	7,770	9,390	94	42	9,855	457,075	472
14	12/1/2022	5,818	7,891	9,636	94	211	10,107	453,618	467
15	12/1/2022	6,483	7,562	9,319	89	31	9,687	457,970	410
16	12/2/2022	6,744	7,489	9,183	91	17	9,765	459,060	405
17	12/3/2022	5,593	7,866	9,087	92	91	9,461	455,240	400
18	12/3/2022	5,833	7,780	9,352	94	92	9,710	456,227	395
19	12/3/2022	5,662	7,891	9,302	94	53	9,683	454,443	468
20	12/3/2022	6,671	7,901	9,140	91	25	9,843	457,180	425
21	12/4/2022	6,294	8,219	9,336	91	127	9,402	460,030	385
22	12/4/2022	6,057	8,286	9,201	94	123	9,886	454,926	542
23	12/4/2022	5,956	8,308	9,151	94	15	9,683	455,944	512
24	12/4/2022	6,290	7,822	9,091	92	77	9,353	455,580	370
25	12/5/2022	6,457	7,623	9,011	92	70	9,331	455,580	365
26	12/5/2022	5,943	8,073	8,969	94	78	9,693	455,693	471
27	12/5/2022	5,901	8,763	9,352	94	86	9,543	455,399	408
28	12/5/2022	6,190	7,996	9,056	92	66	9,370	454,640	355
29	12/6/2022	5,942	8,177	9,177	91	91	9,258	456,050	350
30	12/6/2022	5,331	8,133	9,259	95	90	9,734	456,192	404
31	12/6/2022	5,370	8,205	9,425	94	17	9,740	458,732	399
32	12/6/2022	5,613	8,082	9,196	94	129	9,397	455,000	332
33	12/7/2022	5,399	8,787	9,075	94	79	9,396	455,000	330
34	12/7/2022	5,501	7,539	8,979	94	94	9,728	453,549	378
35	12/7/2022	5,939	8,408	9,160	94	41	9,608	456,360	322
36	12/8/2022	5,864	8,175	9,091	95	49	9,246	455,320	320
37	12/8/2022	5,430	7,805	9,151	93	28	9,776	456,168	363
38	12/8/2022	55,994	7,384	9,073	94	23	9,786	458,682	372
39	12/8/2022	5,306	7,747	9,166	94	112	9,320	455,080	305
40	12/9/2022	5,914	7,089	8,837	94	93	9,335	405,580	300
41	12/5/2022	5,798	7,310	8,455	84	120	10,254	454,719	487

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Stage Number	Report Date	ISIP (psi)	Breakdown Pressure (psi)	Avg Treating Pressure (psi)	Avg Treating Rate (BPM)	Pad Volume (bbls)	Total Clean Fluid (Bbls)	Total Proppant Amount (lbs)	Flush Volume (bbls)
42	12/9/2022	5,968	7,648	8,822	94	34	9,637	456,233	341
43	12/9/2022	5,797	8,431	8,935	94	45	9,683	456,080	285
44	12/9/2022	5,611	7,515	8,929	94	68	9,217	456,700	275
45	12/10/2022	5,794	7,521	9,032	94	63	9,390	455,520	278
46	12/10/2022	6,307	7,660	8,867	93	29	10,740	458,258	340
47	12/8/2022	6,408	7,482	8,569	94	32	9,676	457,337	340
48	12/10/2022	5,936	7,162	8,559	94	113	9,355	455,200	265
49	12/10/2022	5,908	7,323	8,426	94	126	9,327	454,980	260
50	12/11/2022	6,559	6,919	8,359	94	76	9,336	454,462	340
51	12/11/2022	6,281	7,139	8,277	94	245	9,730	454,886	340
52	12/11/2022	6,072	7,178	8,222	94	31	9,457	455,653	340
53	12/11/2022	5,569	7,016	8,438	95	174	9,233	455,360	300
54	12/12/2022		7,278	8,526	93	74	9,314	455,280	240
55	12/12/2022	6,341	6,565	8,527	94	95	9,748	455,691	340
56	12/12/2022	6,258	6,958	8,440	94	44	9,628	455,782	340
57	12/12/2022	5,779	8,196	8,411	94	37	9,463	455,340	224
58	12/12/2022	5,942	7,926	8,345	94	89	9,756	86,000	264
59	12/13/2022	5,660	6,163	8,269	94	58	9,610	455,000	260
60	12/13/2022	5,979	7,525	8,360	93	25	9,539	455,600	263
61	12/13/2022	5,167	7,516	8,357	93	187	9,661	455,590	261
62	12/13/2022	5,248	7,560	8,243	94	161	9,616	455,200	240
63	12/13/2022	5,471	9,162	8,450	94	74	9,549	455,000	250
64	12/14/2022	5,345	7,504	8,101	94	41	9,476	455,680	237

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McClellan 1H				
Perforation Report				
Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
1	11/26/2022	40		21,005
2	11/26/2022	40	20,961	20,803
3	11/27/2022	40	20,760	20,602
4	11/27/2022	40	20,559	20,401
5	11/27/2022	40	20,358	20,199
6	11/28/2022	40	20,157	19,998
7	11/29/2022	40	19,956	19,797
8	11/29/2022	40	19,755	19,596
9	11/30/2022	40	19,554	19,395
10	11/30/2022	40	19,353	19,194
11	11/30/2022	40	19,152	18,993
12	12/1/2022	40	18,951	18,792
13	12/1/2022	40	18,750	18,591
14	12/1/2022	40	18,549	18,390
15	12/1/2022	40	18,348	18,189
16	12/2/2022	40	18,147	17,988
17	12/3/2022	40	17,946	17,787
18	12/3/2022	40	17,745	17,586
19	12/3/2022	40	17,543	17,385
20	12/3/2022	40	17,342	17,184
21	12/4/2022	40	17,141	16,983
22	12/4/2022	40	16,940	16,781
23	12/4/2022	40	16,739	16,580
24	12/4/2022	40	16,538	16,379
25	12/5/2022	40	16,337	16,178
26	12/5/2022	40	16,136	15,977
27	12/5/2022	40	15,935	15,776
28	12/5/2022	40	15,734	15,575
29	12/6/2022	40	15,533	15,374
30	12/6/2022	40	15,332	15,173
31	12/6/2022	40	15,131	14,972
32	12/6/2022	40	14,930	14,771
33	12/7/2022	40	14,729	14,570
34	12/7/2022	40	14,528	14,369
35	12/7/2022	40	14,327	14,168
36	12/8/2022	40	14,125	13,967
37	12/8/2022	40	13,924	13,766
38	12/8/2022	40	13,723	13,564
39	12/8/2022	40	13,522	13,363
40	12/9/2022	40	13,321	13,162
41	12/5/2022	40	13,120	12,961
42	12/9/2022	40	12,919	12,760

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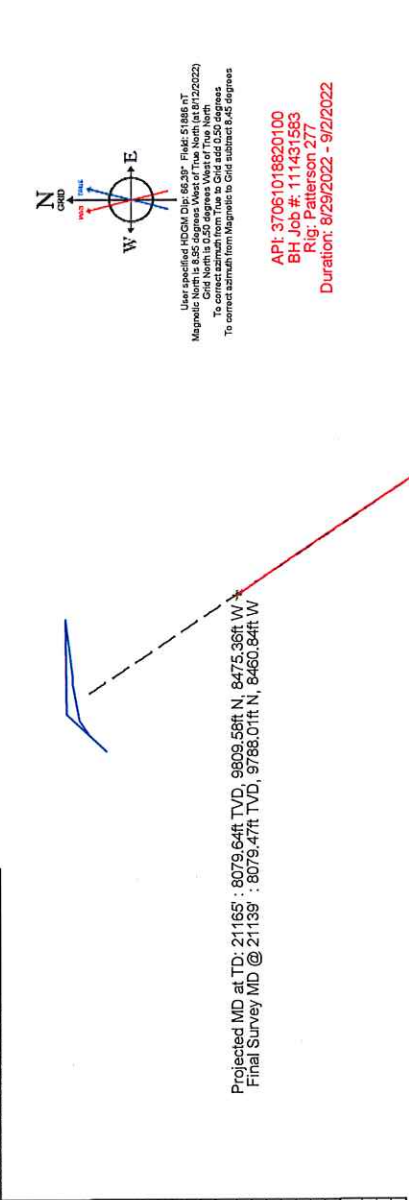
Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
43	12/9/2022	40	12,718	12,559
44	12/9/2022	40	12,517	12,358
45	12/10/2022	40	12,316	12,157
46	12/10/2022	40	12,115	11,956
47	12/8/2022	40	11,914	11,755
48	12/10/2022	40	11,713	11,554
49	12/10/2022	40	11,512	11,353
50	12/11/2022	40	11,311	11,152
51	12/11/2022	40	11,110	10,951
52	12/11/2022	40	10,908	10,750
53	12/11/2022	40	10,707	10,549
54	12/12/2022	40	10,506	10,348
55	12/12/2022	40	10,305	10,146
56	12/12/2022	40	10,104	9,945
57	12/12/2022	40	9,903	9,744
58	12/12/2022	40	9,702	9,543
59	12/13/2022	40	9,501	9,342
60	12/13/2022	40	9,300	9,141
61	12/13/2022	40	9,099	8,940
62	12/13/2022	40	8,898	8,739
63	12/13/2022	40	8,697	8,538
64	12/14/2022	40	8,496	8,337

02/23/2024

NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV
 Field: Monongalia
 Facility: McClellan Pad
 Slot: Slot #01
 Well: McClellan 1H ST01
 Wellbore: McClellan 1H_ST01_PWB

Location Information						
Grid East (US ft)	Grid North (US ft)					
174913.020	429465.600					
Grid East (US ft)	Grid North (US ft)					
174913.020	429465.600					
Well Profile Data						
MD (ft)	AS (ft)	TVD (ft)	Local E (ft)	Local N (ft)	DAS (ft/1000)	VS (ft)
7501.00	15.10	222.480	-866.15	-600.00	1.43	-252.55
ST KCP						
End Drop-Turbidimeter	13.040	227.480	-866.89	-600.00	6.00	-252.55
End Hole-Curve KCP	13.040	227.480	-866.89	-600.00	6.00	-252.55
Build-Up	8475.14	303.256	-802.15	-736.61	8.59	-460.06
Landing PL	8475.04	303.370	-802.28	-736.74	8.59	-460.06
BHL	24172.46	303.370	-802.28	-736.74	0.00	15885.48



Depth (ft)	Direction / Curve	Coordinates (Easting, Northing)
0	01_ <17.5°> Javins Inertial Gyro [Northseeking] (50°-1340°) : 0.25° Inc, 50.00ft MD, 50.00ft TVD, -0.0ft VS	-10500, 13500
1000	02_ <12.25°>SDI MWD [OWSG MWD REV.2-Standard] (1340°) : 0.44° Inc, 1498.00ft MD, 1498.99ft TVD, -1.74ft VS	-7500, 12000
2000	03_ <8.75°>SDI MWD [OWSG MWD REV.2-Standard] (2636°) : 3.73° Inc, 2741.00ft MD, 2740.26ft TVD, -13.64ft VS	-5000, 10500
3000		
4000		
5000	05_ <8.5°> BH ATK Curve [HRGM+Short Spacing] (7596°) : 7508.42ft TVD, 920.75ft S, 941.86ft W	-2500, 9000
6000	04_ <8.5°> BH ATK Curve [HRGM+Short Spacing] (7297°) : 7317.73ft TVD, 864.44ft S, 863.56ft W	-1500, 7500
7000	03_ <8.75°>SDI MWD [OWSG MWD REV.2-Standard] (2636°) : 2741.73ft TVD, 2740.26ft TVD, 1.92ft S, 0.28ft E	-500, 6000
8000	02_ <12.25°>SDI MWD [OWSG MWD REV.2-Standard] (1340°) : 1499.26ft TVD, 1498.99ft TVD, 1.92ft S, 0.28ft E	0, 4500
9000	01_ <17.5°> Javins Inertial Gyro [Northseeking] (50°-1340°) : 50.00ft TVD, 0.04ft S, 0.03ft W	1000, 3000
10000		
11000		
12000		
13000		
14000		
15000		
16000		
17000		
18000		
19000		
20000		

Scale 1 inch = 3000
 Scale 1 inch = 2000
 Vertical Section (ft)
 Azimuth 326.37° with reference 0.00 N, 0.00 E
 Projected MD at TD: 21165' : 8079.64ft TVD, 9609.56ft N, 8475.36ft W
 Final Survey MD @ 21139' : 8079.47ft TVD, 9788.01ft N, 8460.84ft W
 Projected MD at TD: 21165' : 88.63° Inc, 21165.00ft MD, 8079.64ft TVD, 12861.65ft VS
 Final Survey MD @ 21139' : 88.63° Inc, 21139.00ft MD, 8079.47ft TVD, 12835.65ft VS
 Date: 02/23/2024

Cement Job Log



NexTier Completion Solutions
 3990 Rogerdale Rd., Houston, TX 77042
 (713)325-6000

Customer:	NORTHEAST NATURAL ENERGY LLC	Date:	7-Aug-22	Serv. Supervisor:	Adam Pavelchick
Cust. Rep.:	JOSH	Ticket #:	BPA-2208-0017	Serv. Center:	Black Lick - 1571
Well Name:	McClellan 1H	API Well #:	47-061-01882	County:	Monongalia State: WV
Well Type:		Rig:	PATTERSON 277	Type of Job:	CM-SURFACE CASING

Plugs		Casing Hardware		Materials Furnished by NexTier							
CUSTOMER SUPPLIED	13 3/8 HEAD AND BOWL			Sacks of Cement	Physical Slurry Properties						
					Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Fluid Volume (cuft)	Mix Water (bbls)
6% Gel Spacer	+20.0 PPB NEX-020				8.7		4.62	33.66	25.00	-	
15.6 lb/gal Cement	100 % NCM-910 +1.0 % NAC-110+0.25 PPS NLM-600		1240	15.6	30%	1.19	5.21	262.33	1,472.99	154	
Fresh Water Displacement				8.33			-	216.12	-	-	

Displacement Chemicals:

OPEN HOLE DATA						TUBULAR DATA						
17.5 in. O.H. 128 to 1,438 ft			13.375 in. 54.5#, (0 to 1,438 ft)			SIZE WEIGHT	THR	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
Ambient Temp.	Bulk Temp.	Slurry 1 Temp.	Slurry 2 Temp.	Slurry 3 Temp.	Slurry 4 Temp.	13 3/8 54.5#	BTC	1452	J-55	12.615	2730	1130
83.0 °F	83.0 °F	93.0 °F										

PREVIOUS CASING DATA			PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS				
24 in. 97.4# (0 to 128 ft)			TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP	
							1452	1406			

WELL FLUID			DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	Mix H2O Chlorides (ppm)	Mix H2O pH	Mix H2O Temp	WATER ON LOC (bbl)
TYPE	DENSITY	VOLUME	TYPE	DENSITY								
AIR	N/A	217.4 bbl	H2O	8.3 ppg	531	430	2500	<300	7	74.0 °F	1200	

Bumped Plug	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Additional Hrs Charged (hrs)	Casing Reciprocation	Rathole Length (ft)
Yes	650.00	Y	-	32.00	-	Yes	2,500.00	No	2.00	No	48

Comments/Additional Details:

	<i>Adam Pavelchick</i>	7-Aug-22
	Service Supervisor	Date

02/23/2024

Cement Job Log



NextTier Completion Solutions
3990 Rogerdale Rd., Houston, TX 77042
(713)325-6000

Customer:	NORTHEAST NATURAL ENERGY LLC	Date:	9-Aug-22	Serv. Supervisor:	Michael Franco
Cust. Rep.:		Ticket #:	BPA-2208-0020	Serv. Center:	Black Lick - 1571
Well Name:	McClellan 1H	API Well #:	47-061-01882	County:	Monongalia
Well Type:		Rig:	Patterson 277	State:	WV
			Type of Job:	CM-INTER. CASING	

Plugs	Casing Hardware	Physical Slurry Properties							
		Sacks of Cement	Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Fluid Volume (cuft)	Mix Water (bbls)
6% Gel Spacer	+20.0 PPB NEX-020		8.7		4.62	33.66	25.00	-	
15.6 lb/gal Cement	100 % NCM-910 +0.5 % NAC-110	915	15.6	30%	1.18	5.23	192.89	1,083.05	114
Fresh Water Displacement			8.33			-	205.65	-	
0						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	

Displacement Chemicals:

OPEN HOLE DATA						TUBULAR DATA						
12.375 in. O.H. 1,438 to 2,700 ft			9.625 in. 36#, (0 to 2,700 ft)			SIZE WEIGHT	THRD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
Ambient Tmp.	Bulk Tmp.	Slurry 1 Tmp.	Slurry 2 Tmp.	Slurry 3 Tmp.	Slurry 4 Tmp.							
79.0 °F		86.0 °F				9.625 36#	LTC	2677	J-55	8.921	3520	2020

PREVIOUS CASING DATA		PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS			
13.375 in. 54.5# (0 to 1,438 ft)		TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP
						2677	2630		

WELL FLUID			DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	Mix H2O Chlorides (ppm)	Mix H2O pH	Mix H2O Temp	WATER ON LOG (bbl)
TYPE	DENSITY	VOLUME	TYPE	DENSITY								
H2O	8.3 ppg	203 bbl	H2O	8.3 ppg	1000	1155			3	6	76.0 °F	2000

Bumped Plug	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Additional Hrs Charges (hrs)	Casing Reciprocation	Rathole Length (ft)
Yes	1,100.00	Y	-	23.00	-	Yes		No		No	68

Comments/Additional Details:

Michael Franco 9-Aug-22
Service Supervisor Date

02/23/2024

Cement Job Log



NextTier Completion Solutions
3990 Rogerdale Rd., Houston, TX 77042
(713)325-6000

Customer:	NORTHEAST NATURAL ENERGY LLC	Date:	27-Aug-22	Serv. Supervisor:	Michael Franco
Cust. Rep.:	Troy	Ticket #:	BPA-2208-0075	Serv. Center:	Black Lick - 1571
Well Name:	McClellan 1H	API Well #:	47-061-01882	County:	Monongalia
Well Type:		Rig:	Patterson 277	State:	WV
				Type of Job:	CM-KICKOFF PLUG

Materials Furnished by NextTier

Plugs	Casing Hardware	Physical Slurry Properties							
		Sacks of Cement	Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbbls)	Fluid Volume (cuft)	Mix Water (bbbls)
PureScrub Spacer - Plug 1	+7.0 PPB NFP-703+5.0 PPB NSU-888		13.5		5.65	26.46	30.00	-	
17.5 lb/gal Cement - Plug 1	100% NCM-916 +0.2% NFP-703+0.1% NRT-213+0.3% NTC-405+3.%BWOW NAC-111	330	17.5	5%	0.95	3.40	55.58	312.09	27
Spacer / Mud Displacement to Balance - Plug 1 (to be calculated on location)						-	146.53	-	
PureScrub Spacer - Plug 2	+7.0 PPB NFP-703+5.0 PPB NSU-888		13.5		5.65	26.46	50.00	-	
17.5 lb/gal Cement - Plug 2	100% NCM-916 +0.2% NFP-703+0.1% NRT-213+0.3% NTC-405+3.%BWOW NAC-111	330	17.5	5%	0.95	3.40	55.58	312.09	27
Spacer / Mud Displacement to Balance - Plug 2 (to be calculated on location)						-	133.21	-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	
						-		-	

Displacement Chemicals:

OPEN HOLE DATA						TUBULAR DATA							
8.75 in. O.H. 2,700 to 7,469 ft 8.5 in. O.H. 7,469 to 9,000 ft						5 in. 19.5#, (0 to 9,000 ft)							
Ambient Temp.	Bulk Temp.	Slurry 1 Temp.	Slurry 2 Temp.	Slurry 3 Temp.	Slurry 4 Temp.	SIZE WEIGHT	THRD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)	
79.0 °F		87.0 °F	88.0 °F			5 19.5 #		9000					
PREVIOUS CASING DATA						PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS			
9.625 in. 36# (0 to 2,700 ft)						TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP
WELL FLUID			DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	Mix H ₂ O Chlorides (ppm)	Mix H ₂ O pH	Mix H ₂ O Temp	WATER ON LOC (bbl)	
TYPE	DENSITY	VOLUME	TYPE	DENSITY									
OBM		138 bbl	OBM						2	6	74.0 °F	1600	
Bumped Plug	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Additional Hrs Charged (hrs)	Casing Reciprocation	Rathole Length (ft)		
No		N		-	7,500	Yes		No	5.00	No			

Comments/Additional Details:

	<i>Michael Franco</i> Service Supervisor	27-Aug-22 Date
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Cement Job Log



NexTier Completion Solutions
3990 Rogerdale Rd., Houston, TX 77042
(713)325-6000

Customer:	NORTHEAST NATURAL ENERGY LLC	Date:	4-Sep-22	Serv. Supervisor:	Robert Given		
Cust. Rep.:	JOSH/SAM	Ticket #:	BPA-2209-0012	Serv. Center:	Black Lick - 1571		
Well Name:	McClellan 1H	API Well #:	47-061-01882	County:	Monongalia	State:	WV
Well Type:	NATURAL GAS	Rig:	PATTERSON 277	Type of Job:	CM-PROD. CASING		

Materials Furnished by NexTier

Plugs	Casing	Hardware	Physical Slurry Properties							
			Sacks of Cement	Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Fluid Volume (cuft)	Mix Water (bbls)
13.5 lb/gal PureScrub Spacer w/ Surfactant	+7.0 PPB NFP-703+5.0 PPB NSU-888+40.0 PPB NAC-111+2.0 PPB NRT-221			13.5		6.26	26.56	80.00	-	
14.5 lb/gal Cement	50 % NCM-910+50 % NPZ-010 +0.2 % NFP-703+0.15 % NAS-504+0.25 % NRT-213+0.2 % NFL-549+0.1 % NTC-405		3870	14.5		1.16	4.90	798.10	4,481.36	451
Sugar Water Displacement	+5.0 PPB NRT-215						-	20.00	-	
Fresh Water Displacement							-	449.31	-	
							-	-	-	
							-	-	-	
							-	-	-	
							-	-	-	
							-	-	-	
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							-	-	-	
							-	-	-	

Displacement Chemicals:

OPEN HOLE DATA				TUBULAR DATA								
8.75 in. O.H. 2,700 to 7,627 ft		5.5 in. 20#, (0 to 21,165 ft)			SIZE WEIGHT	THRD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)	
Ambient Temp.	Bulk Temp.	Slurry 1 Temp.	Slurry 2 Temp.	Slurry 3 Temp.	Slurry 4 Temp.							
72.0 °F		85.0 °F				5.5/20	BTC	21114	HP P-110	4.778	12640	11080
PREVIOUS CASING DATA				PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS				
9.625 in. 36# (0 to 2,700 ft)				TOP	BTM	SPF	SIZE	SHCE	FLOAT	STAGE	ACP	
								21110.8		1		
WELL FLUID		DISPLACEMENT FLUID			DIFF PRESS	CSG LIFT	MAX PRESS	Mix H2O Chlorides (ppm)	Mix H2O pH	Mix H2O Temp	WATER ON LOC (bbl)	
TYPE	DENSITY	VOLUME	TYPE	DENSITY	(psi)	(psi)	(psi)					
OBM	13.3 ppg	468.66 bbl	H2O	8.3 ppg	2582	17774	4140	<300	7.4	74.0 °F	1200	
Bumped Plug	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Additional Hrs Charged (hrs)	Casing Reciproaction	Rathole Length (ft)	
Yes	3,100.00	Y	-	-	856	Yes	4,140.00	No	-	No	51	

Comments/Additional Details:

Robert Given
Service Supervisor 4-Sep-22
Date

REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect@ 6.0
North Reference	Grid	User	Manajohj
Scale	0.999941	Report Generated	9/6/2022 at 12:59:51 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	0.43	-74.68	1749110.32	409496.33	39°37'18.0189"N	80°16'43.8731"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 #01)	28.00ft
MD Reference Pt	Patterson 277 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	326.37°



Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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	218.800	0.00	0.00	0.00	0.00	1749110.32	409496.33	39°37'18.0189"N	80°16'43.8731"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	218.800	28.00	0.00	0.00	0.00	1749110.32	409496.33	39°37'18.0189"N	80°16'43.8731"W	0.00	0.000	0.00	0.00	0.00
50.00	0.250	218.800	50.00	-0.01	-0.04	-0.03	1749110.29	409496.29	39°37'18.0185"N	80°16'43.8734"W	0.05	218.800	1.14	1.14	0.00
100.00	0.220	216.300	100.00	-0.08	-0.20	-0.16	1749110.16	409496.13	39°37'18.0169"N	80°16'43.8750"W	0.25	217.852	0.06	-0.06	-5.00
150.00	0.090	354.400	150.00	-0.08	-0.24	-0.22	1749110.10	409496.09	39°37'18.0165"N	80°16'43.8758"W	0.32	222.207	0.59	-0.26	276.20
200.00	0.210	182.200	200.00	-0.12	-0.29	-0.22	1749110.10	409496.04	39°37'18.0160"N	80°16'43.8759"W	0.37	217.540	0.60	0.24	-344.40
250.00	0.180	69.700	250.00	-0.21	-0.35	-0.15	1749110.17	409495.98	39°37'18.0154"N	80°16'43.8750"W	0.39	203.340	0.65	-0.06	-225.00
300.00	0.310	185.400	300.00	-0.33	-0.46	-0.09	1749110.23	409495.87	39°37'18.0143"N	80°16'43.8742"W	0.47	191.278	0.84	0.26	231.40
350.00	0.140	328.800	350.00	-0.38	-0.54	-0.14	1749110.18	409495.79	39°37'18.0135"N	80°16'43.8747"W	0.56	194.075	0.86	-0.34	286.80
400.00	0.370	155.000	400.00	-0.48	-0.64	-0.10	1749110.22	409495.69	39°37'18.0126"N	80°16'43.8743"W	0.65	188.896	1.02	0.46	-347.60
450.00	0.170	334.500	450.00	-0.64	-0.83	-0.09	1749110.23	409495.50	39°37'18.0107"N	80°16'43.8741"W	0.83	186.349	0.76	-0.40	159.80
500.00	0.100	344.700	500.00	-0.60	-0.83	-0.16	1749110.16	409495.50	39°37'18.0107"N	80°16'43.8751"W	0.85	191.191	0.45	-0.14	220.40
550.00	0.170	68.200	550.00	-0.57	-0.76	-0.11	1749110.21	409495.57	39°37'18.0114"N	80°16'43.8743"W	0.77	187.996	0.37	0.14	167.00
600.00	0.150	235.700	600.00	-0.59	-0.77	-0.09	1749110.23	409495.56	39°37'18.0113"N	80°16'43.8742"W	0.77	186.815	0.64	-0.04	335.00
650.00	0.370	159.800	650.00	-0.75	-0.96	-0.09	1749110.23	409495.37	39°37'18.0095"N	80°16'43.8741"W	0.96	185.383	0.73	0.44	-151.80
700.00	0.230	59.900	700.00	-0.91	-1.06	0.05	1749110.37	409495.27	39°37'18.0085"N	80°16'43.8723"W	1.06	177.167	0.94	-0.28	-199.80
750.00	0.480	166.000	750.00	-1.11	-1.21	0.19	1749110.51	409495.12	39°37'18.0070"N	80°16'43.8705"W	1.23	171.092	1.17	0.50	212.20
800.00	0.510	158.200	799.99	-1.53	-1.62	0.32	1749110.64	409494.71	39°37'18.0029"N	80°16'43.8688"W	1.65	168.726	0.15	0.06	-15.60
850.00	0.200	82.000	849.99	-1.78	-1.82	0.49	1749110.81	409494.51	39°37'18.0010"N	80°16'43.8666"W	1.88	164.831	1.00	-0.62	-152.40
900.00	0.220	318.300	899.99	-1.73	-1.73	0.51	1749110.83	409494.60	39°37'18.0018"N	80°16'43.8663"W	1.81	163.445	0.74	0.04	-247.40
950.00	0.320	290.300	949.99	-1.52	-1.61	0.32	1749110.65	409494.72	39°37'18.0030"N	80°16'43.8688"W	1.64	168.771	0.33	0.20	-56.00
1000.00	0.370	281.500	999.99	-1.29	-1.53	0.03	1749110.34	409494.80	39°37'18.0038"N	80°16'43.8725"W	1.53	178.847	0.15	0.10	-17.60
1050.00	0.210	43.800	1049.99	-1.16	-1.43	-0.06	1749110.26	409494.90	39°37'18.0048"N	80°16'43.8737"W	1.43	182.556	1.03	-0.32	244.60
1100.00	0.200	99.400	1099.99	-1.20	-1.38	0.09	1749110.41	409494.95	39°37'18.0053"N	80°16'43.8718"W	1.38	176.455	0.38	-0.02	111.20
1150.00	0.200	34.500	1149.99	-1.22	-1.32	0.22	1749110.54	409495.01	39°37'18.0059"N	80°16'43.8701"W	1.34	170.515	0.43	0.00	-129.80
1200.00	0.140	343.200	1199.99	-1.13	-1.19	0.25	1749110.57	409495.14	39°37'18.0072"N	80°16'43.8697"W	1.22	168.031	0.31	-0.12	-102.60
1250.00	0.220	232.700	1249.99	-1.08	-1.19	0.16	1749110.48	409495.14	39°37'18.0071"N	80°16'43.8709"W	1.20	172.413	0.60	0.16	-221.00
1300.00	0.240	173.500	1299.99	-1.18	-1.35	0.09	1749110.41	409494.98	39°37'18.0055"N	80°16'43.8717"W	1.36	176.017	0.46	0.04	-118.40
1350.00	0.280	86.100	1339.99	-1.30	-1.43	0.20	1749110.52	409494.90	39°37'18.0048"N	80°16'43.8703"W	1.45	171.993	0.90	0.10	-218.50
1400.00	0.440	212.500	1498.99	-1.74	-1.92	0.26	1749110.58	409494.41	39°37'18.0000"N	80°16'43.8695"W	1.94	172.261	0.41	0.10	79.50

09/22/2024



Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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]
1594.00	0.780	247.110	1593.98	-1.77	-2.48	-0.53	1749109.79	409493.85	39°37'17.9944"N	80°16'43.8796"W	2.54	192.086	0.51	0.36	36.43
1688.00	1.320	242.950	1687.97	-1.53	-3.22	-2.08	1749108.24	409493.11	39°37'17.9869"N	80°16'43.8993"W	3.84	212.916	0.58	0.57	-4.43
1782.00	1.610	217.930	1781.94	-1.82	-4.75	-3.86	1749106.46	409491.58	39°37'17.9716"N	80°16'43.9219"W	6.12	219.078	0.74	0.31	-26.62
1877.00	1.510	235.400	1876.90	-2.26	-6.52	-5.71	1749104.61	409489.81	39°37'17.9540"N	80°16'43.9453"W	8.67	221.227	0.51	-0.11	18.39
1972.00	1.590	234.470	1971.87	-2.33	-7.99	-7.81	1749102.51	409488.34	39°37'17.9392"N	80°16'43.9720"W	11.18	224.347	0.09	0.08	-0.98
2067.00	1.250	241.530	2066.84	-2.28	-9.25	-9.80	1749100.52	409487.08	39°37'17.9266"N	80°16'43.9972"W	13.48	226.634	0.40	-0.36	7.43
2163.00	1.270	231.930	2162.82	-2.27	-10.41	-11.56	1749098.77	409485.92	39°37'17.9151"N	80°16'44.0196"W	15.55	227.988	0.22	0.02	-10.00
2257.00	1.680	206.990	2256.79	-3.02	-12.28	-13.00	1749097.32	409484.05	39°37'17.8965"N	80°16'44.0378"W	17.88	226.635	0.80	0.44	-26.53
2352.00	2.300	210.320	2351.73	-4.54	-15.17	-14.60	1749095.73	409481.16	39°37'17.8678"N	80°16'44.0579"W	21.05	223.902	0.66	0.65	3.51
2447.00	3.060	209.660	2446.62	-6.52	-19.01	-16.81	1749093.51	409477.32	39°37'17.8296"N	80°16'44.0858"W	25.38	221.482	0.80	0.80	-0.69
2542.00	2.610	212.160	2541.51	-8.55	-23.05	-19.22	1749091.10	409473.28	39°37'17.7895"N	80°16'44.1161"W	30.01	219.821	0.49	-0.47	2.63
2636.00	2.510	204.530	2635.41	-10.51	-26.73	-21.21	1749089.11	409469.60	39°37'17.7529"N	80°16'44.1412"W	34.13	218.431	0.38	-0.11	-8.12
2741.00	3.730	202.330	2740.26	-13.64	-31.99	-23.46	1749086.86	409464.35	39°37'17.7008"N	80°16'44.1694"W	39.67	216.264	1.17	1.16	-2.10
2836.00	3.650	220.030	2835.06	-16.22	-37.16	-26.58	1749083.74	409459.17	39°37'17.6494"N	80°16'44.2087"W	45.69	215.580	1.20	-0.08	18.63
2931.00	4.350	251.760	2929.84	-16.11	-40.60	-31.95	1749078.37	409455.73	39°37'17.6149"N	80°16'44.2769"W	51.67	218.200	2.41	0.74	33.40
3026.00	6.670	262.860	3024.40	-12.69	-42.42	-40.85	1749069.47	409453.92	39°37'17.5962"N	80°16'44.3904"W	58.89	223.922	2.68	2.44	11.68
3121.00	9.480	258.530	3118.45	-7.28	-44.66	-53.99	1749056.33	409451.67	39°37'17.5730"N	80°16'44.5581"W	70.07	230.406	3.02	2.96	-4.56
3216.00	11.500	254.760	3211.86	-1.34	-48.70	-70.80	1749039.53	409447.63	39°37'17.5315"N	80°16'44.7724"W	85.93	235.475	2.24	2.13	-3.97
3312.00	13.070	244.620	3305.67	3.24	-55.87	-89.84	1749020.48	409440.46	39°37'17.4590"N	80°16'45.0150"W	105.80	238.123	2.77	1.64	-10.56
3409.00	14.190	237.450	3399.94	5.03	-66.97	-109.78	1749000.55	409429.36	39°37'17.3477"N	80°16'45.2685"W	128.59	238.613	2.09	1.15	-7.39
3504.00	14.570	224.940	3491.99	2.88	-81.70	-128.04	1748982.29	409414.64	39°37'17.2005"N	80°16'45.5002"W	151.88	237.458	3.29	0.40	-13.17
3599.00	15.270	217.840	3583.79	-3.46	-100.04	-144.15	1748966.18	409396.30	39°37'17.0179"N	80°16'45.7041"W	175.46	235.240	2.06	0.74	-7.47
3693.00	15.820	219.300	3674.35	-11.15	-119.73	-159.86	1748950.47	409376.61	39°37'16.8220"N	80°16'45.9026"W	199.73	233.168	0.72	0.59	1.55
3787.00	16.190	218.440	3764.71	-18.95	-139.91	-176.12	1748934.21	409356.43	39°37'16.6212"N	80°16'46.1082"W	224.93	231.537	0.47	0.39	-0.91
3882.00	17.160	221.010	3855.71	-26.74	-160.86	-193.56	1748916.78	409335.48	39°37'16.4126"N	80°16'46.3286"W	251.67	230.271	1.28	1.02	2.71
3977.00	17.180	224.280	3946.48	-33.39	-181.48	-212.55	1748897.79	409314.86	39°37'16.2072"N	80°16'46.5691"W	279.48	229.508	1.02	0.02	3.44
4072.00	17.430	222.920	4037.18	-39.64	-201.94	-232.03	1748878.30	409294.40	39°37'16.0033"N	80°16'46.8158"W	307.60	228.966	0.50	0.26	-1.43
4167.00	17.270	222.860	4126.90	-46.17	-222.48	-251.11	1748859.23	409273.86	39°37'15.7987"N	80°16'47.0573"W	335.49	228.459	0.17	-0.17	-0.06
4262.00	16.100	225.900	4220.78	-52.04	-242.60	-270.76	1748839.57	409253.74	39°37'15.5982"N	80°16'47.3062"W	363.55	228.140	1.49	-1.19	3.10
4357.00	15.360	222.770	4311.26	-57.34	-260.81	-288.58	1748821.76	409235.53	39°37'15.4167"N	80°16'47.5318"W	388.97	227.893	1.20	-0.79	-3.33

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Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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]
4452.00	15.280	226.030	4401.92	-62.49	-278.55	-305.95	1748804.39	409217.80	39°37'15.2399"N	80°16'47.7518"W	413.76	227.684	0.92	-0.09	3.47
4547.00	15.200	224.960	4493.58	-67.20	-296.05	-323.76	1748786.58	409200.25	39°37'15.0654"N	80°16'47.9775"W	438.71	227.559	0.31	-0.08	-1.13
4641.00	14.680	219.260	4584.41	-73.14	-314.00	-340.00	1748770.34	409182.35	39°37'14.8867"N	80°16'48.1831"W	462.81	227.277	1.66	-0.55	-6.06
4736.00	14.540	220.340	4676.34	-79.98	-332.41	-355.34	1748755.00	409163.94	39°37'14.7034"N	80°16'48.3770"W	486.58	226.910	0.32	-0.15	-1.14
4831.00	14.430	223.310	4768.32	-85.94	-350.11	-371.18	1748739.16	409146.24	39°37'14.5271"N	80°16'48.5775"W	510.25	226.673	0.79	-0.12	3.13
4925.00	15.130	222.740	4859.21	-91.48	-367.64	-387.54	1748722.80	409128.71	39°37'14.3524"N	80°16'48.7846"W	534.18	226.509	0.76	0.74	-0.61
5020.00	15.160	221.190	4950.91	-97.66	-386.10	-404.13	1748706.21	409110.26	39°37'14.1686"N	80°16'48.9946"W	558.92	226.308	0.43	0.03	-1.63
5115.00	17.580	223.310	5042.05	-104.15	-405.89	-422.16	1748688.19	409090.47	39°37'13.9715"N	80°16'49.2227"W	585.63	226.126	2.62	2.55	2.23
5212.00	16.540	215.340	5134.79	-112.42	-427.81	-440.20	1748670.15	409068.54	39°37'13.7533"N	80°16'49.4508"W	613.84	225.817	2.64	-1.07	-8.22
5306.00	14.940	215.890	5225.27	-121.46	-448.54	-455.04	1748655.31	409047.81	39°37'13.5471"N	80°16'49.6382"W	638.95	225.412	1.71	-1.70	0.59
5400.00	13.920	219.700	5316.30	-128.94	-467.06	-469.37	1748640.98	409029.30	39°37'13.3629"N	80°16'49.8192"W	662.16	225.141	1.48	-1.09	4.05
5495.00	15.040	222.420	5408.28	-135.19	-484.95	-484.98	1748625.37	409011.41	39°37'13.1847"N	80°16'50.0167"W	685.85	225.002	1.38	1.18	2.86
5590.00	16.580	223.020	5499.69	-141.29	-503.96	-502.54	1748607.81	408992.40	39°37'12.9953"N	80°16'50.2391"W	711.71	224.919	1.63	1.62	0.63
5685.00	17.840	223.880	5590.43	-147.57	-524.36	-521.88	1748588.47	408972.00	39°37'12.7921"N	80°16'50.4839"W	739.81	224.864	1.35	1.33	0.91
5779.00	19.070	226.590	5679.60	-153.29	-545.30	-543.02	1748567.34	408951.07	39°37'12.5834"N	80°16'50.7516"W	769.55	224.880	1.60	1.31	2.88
5873.00	19.150	224.070	5768.42	-159.19	-566.93	-564.90	1748545.46	408929.44	39°37'12.3677"N	80°16'51.0288"W	800.32	224.897	0.88	0.09	-2.68
5968.00	17.780	224.900	5858.53	-165.39	-588.40	-585.97	1748524.38	408907.97	39°37'12.1537"N	80°16'51.2958"W	830.41	224.882	1.47	-1.44	0.87
6066.00	18.280	226.060	5951.71	-171.12	-609.66	-607.60	1748502.76	408886.71	39°37'11.9417"N	80°16'51.5698"W	860.74	224.903	0.63	0.51	1.18
6161.00	18.620	225.570	6041.83	-176.62	-630.62	-629.16	1748481.20	408865.75	39°37'11.7328"N	80°16'51.8430"W	890.80	224.934	0.39	0.36	-0.52
6256.00	17.820	223.630	6132.07	-182.67	-651.76	-650.02	1748460.34	408844.61	39°37'11.5221"N	80°16'52.1072"W	920.50	224.924	1.06	-0.84	-2.04
6351.00	16.730	225.610	6222.78	-188.43	-671.84	-669.82	1748440.54	408824.53	39°37'11.3219"N	80°16'52.3580"W	948.70	224.914	1.30	-1.15	2.08
6445.00	16.790	226.680	6312.79	-193.24	-690.62	-689.37	1748420.99	408805.75	39°37'11.1346"N	80°16'52.6057"W	975.80	224.948	0.33	0.06	1.14
6539.00	16.590	223.000	6402.83	-198.63	-709.65	-708.40	1748401.96	408786.62	39°37'10.9439"N	80°16'52.8467"W	1002.78	224.945	1.14	-0.21	-3.91
6633.00	16.740	225.090	6492.88	-204.38	-729.12	-727.14	1748383.23	408767.25	39°37'10.7509"N	80°16'53.0840"W	1029.73	224.922	0.66	0.16	2.22
6727.00	16.420	223.360	6582.98	-210.02	-748.34	-745.85	1748364.52	408748.04	39°37'10.5594"N	80°16'53.3210"W	1056.55	224.904	0.63	-0.34	-1.84
6821.00	16.270	222.220	6673.18	-216.23	-767.75	-763.82	1748346.55	408728.63	39°37'10.3660"N	80°16'53.5485"W	1082.99	224.853	0.38	-0.16	-1.21
6915.00	16.090	224.690	6763.45	-222.09	-786.76	-781.83	1748328.54	408709.61	39°37'10.1765"N	80°16'53.7765"W	1109.17	224.820	0.76	-0.19	2.63
7013.00	15.630	228.030	6856.69	-226.80	-805.44	-801.39	1748308.98	408690.94	39°37'9.9903"N	80°16'54.0244"W	1136.20	224.856	1.03	-0.46	3.37
7109.00	16.040	228.850	6949.12	-230.34	-822.45	-820.59	1748289.79	408673.93	39°37'9.8205"N	80°16'54.2678"W	1161.80	224.935	0.50	0.44	0.87
7205.00	16.710	226.480	7040.27	-234.40	-840.49	-840.37	1748270.00	408655.89	39°37'9.6405"N	80°16'54.5186"W	1188.55	224.996	1.00	0.71	-2.49

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Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWP
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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]
7297.00	17.220	222.450	7130.18	-240.07	-860.06	-859.56	1748250.81	408636.32	39°37'9.4455"N	80°16'54.7617"W	1215.96	224.983	1.36	0.54	-4.29
7317.00	17.230	222.310	7149.28	-241.50	-864.44	-863.56	1748246.82	408631.94	39°37'9.4019"N	80°16'54.8122"W	1221.88	224.971	0.21	0.05	-0.70
7407.00	15.730	217.980	7235.59	-248.59	-883.92	-880.04	1748230.34	408612.47	39°37'9.2080"N	80°16'55.0207"W	1247.31	224.874	2.15	-1.67	-4.81
7501.00	15.110	222.480	7326.21	-255.55	-903.00	-896.15	1748214.22	408593.39	39°37'9.0180"N	80°16'55.2245"W	1272.20	224.782	1.43	-0.66	4.79
7596.00	16.490	253.850	7417.78	-254.47	-915.90	-917.51	1748192.87	408580.48	39°37'8.8887"N	80°16'55.4959"W	1296.41	225.050	9.00	1.45	33.02
7690.00	14.310	284.370	7508.42	-245.00	-920.75	-941.89	1748168.49	408575.63	39°37'8.8386"N	80°16'55.8069"W	1317.17	225.650	3.76	-2.32	11.19
7785.00	19.090	268.630	7599.39	-231.19	-922.28	-969.12	1748141.26	408574.11	39°37'8.8212"N	80°16'56.1547"W	1337.83	226.419	5.19	5.03	4.48
7880.00	26.600	282.230	7686.93	-207.59	-918.13	-1005.51	1748104.87	408578.25	39°37'8.8590"N	80°16'56.6202"W	1361.63	227.601	9.62	7.91	14.32
7975.00	34.440	282.270	7768.71	-172.98	-907.90	-1052.62	1748057.76	408588.48	39°37'8.9561"N	80°16'57.2233"W	1390.07	229.222	8.25	8.25	0.04
8069.00	41.530	291.730	7842.81	-128.16	-890.68	-1107.66	1748002.73	408605.70	39°37'9.1215"N	80°16'57.9286"W	1421.35	231.197	9.74	7.54	10.06
8163.00	50.710	301.580	7907.98	-69.29	-869.99	-1167.80	1747942.59	408636.39	39°37'9.4197"N	80°16'58.7005"W	1450.29	233.631	12.32	9.77	10.48
8257.00	59.210	302.690	7961.90	0.83	-819.06	-1232.89	1747877.51	408677.32	39°37'9.8186"N	80°16'59.5368"W	1480.16	236.402	9.09	9.04	1.18
8351.00	67.550	301.200	8003.99	77.26	-774.67	-1304.15	1747806.25	408721.71	39°37'10.2511"N	80°17'0.4524"W	1516.88	239.290	8.98	8.87	-1.59
8444.00	76.170	305.920	8032.93	158.66	-725.80	-1377.66	1747732.75	408770.57	39°37'10.7277"N	80°17'1.3971"W	1557.15	242.218	10.45	9.27	5.08
8539.00	84.390	309.700	8048.96	247.34	-668.43	-1451.53	1747658.88	408827.94	39°37'11.2883"N	80°17'2.3475"W	1598.04	245.274	9.50	8.65	3.98
8634.00	88.310	311.160	8055.01	338.49	-606.96	-1523.68	1747586.73	408889.41	39°37'11.8896"N	80°17'3.2763"W	1640.12	248.280	4.40	4.13	1.54
8728.00	88.430	317.110	8057.68	430.27	-541.55	-1591.09	1747519.33	408954.81	39°37'12.5301"N	80°17'4.1450"W	1680.73	251.203	6.33	0.13	6.33
8823.00	89.020	328.370	8059.80	524.91	-466.08	-1648.50	1747461.92	409030.27	39°37'13.2710"N	80°17'4.8870"W	1713.12	254.213	11.87	0.62	11.85
8917.00	89.170	328.590	8061.29	618.83	-385.96	-1697.63	1747412.79	409110.39	39°37'14.0586"N	80°17'5.5239"W	1740.96	257.191	0.28	0.16	0.23
9012.00	88.030	328.670	8063.61	713.73	-304.88	-1747.07	1747363.36	409191.47	39°37'14.8557"N	80°17'6.1647"W	1773.47	260.101	2.40	-1.20	0.08
9107.00	86.860	326.660	8067.84	808.60	-224.69	-1797.83	1747312.60	409271.65	39°37'15.6437"N	80°17'6.8222"W	1811.82	262.876	2.45	-1.23	-2.12
9202.00	85.930	326.490	8073.82	903.41	-145.56	-1850.06	1747260.38	409350.78	39°37'16.4212"N	80°17'7.4985"W	1855.77	265.501	1.00	-0.98	-0.18
9297.00	85.720	326.600	8080.73	998.16	-66.51	-1902.29	1747208.15	409429.82	39°37'17.1979"N	80°17'8.1748"W	1903.45	267.998	0.25	-0.22	0.12
9391.00	83.740	325.930	8089.37	1091.76	11.33	-1954.27	1747156.17	409507.66	39°37'17.9627"N	80°17'8.8477"W	1954.30	270.332	2.22	-2.11	-0.71
9486.00	84.950	326.430	8098.73	1186.29	89.87	-2006.88	1747103.56	409586.19	39°37'18.7343"N	80°17'9.5289"W	2008.89	272.564	1.38	1.27	0.53
9581.00	84.950	326.750	8107.09	1280.92	168.86	-2058.99	1747051.46	409665.18	39°37'19.5104"N	80°17'10.2036"W	2065.90	274.688	0.34	0.00	0.34
9676.00	85.010	326.660	8115.31	1374.56	247.13	-2110.39	1747000.06	409743.44	39°37'20.2795"N	80°17'10.8692"W	2124.81	276.679	0.11	0.06	-0.10
9769.00	85.960	326.790	8122.71	1468.27	325.47	-2161.81	1746948.65	409821.78	39°37'21.0493"N	80°17'11.5350"W	2186.17	278.562	1.02	1.01	0.14
9863.00	85.750	326.540	8129.51	1562.02	403.80	-2213.33	1746897.13	409900.11	39°37'21.8189"N	80°17'12.2021"W	2249.86	280.339	0.35	-0.22	-0.27
9958.00	87.810	326.830	8134.84	1656.86	483.06	-2265.42	1746845.04	409979.36	39°37'22.5977"N	80°17'12.8767"W	2316.35	282.037	2.19	2.17	0.31

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Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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]
10053.00	87.230	326.700	8138.96	1751.77	562.44	-2317.44	1746793.02	410058.74	39°37'23.3777"N	80°17'13.5503"W	2384.71	283.642	0.63	-0.61	-0.14
10148.00	87.540	327.080	8143.29	1846.67	641.94	-2369.28	1746741.19	410138.23	39°37'24.1588"N	80°17'14.2217"W	2454.70	285.160	0.52	0.33	0.40
10243.00	87.660	326.880	8147.27	1941.58	721.52	-2421.00	1746689.47	410217.81	39°37'24.9408"N	80°17'14.8916"W	2526.23	286.595	0.25	0.13	-0.21
10338.00	87.600	326.800	8151.20	2036.49	800.98	-2472.92	1746637.55	410297.26	39°37'25.7216"N	80°17'15.5640"W	2599.40	287.947	0.11	-0.06	-0.08
10433.00	89.110	327.070	8153.92	2131.45	880.56	-2524.73	1746585.75	410376.84	39°37'26.5036"N	80°17'16.2350"W	2673.88	289.228	1.61	1.59	0.28
10528.00	88.950	326.890	8155.53	2226.43	960.21	-2576.49	1746533.99	410456.48	39°37'27.2862"N	80°17'16.9054"W	2749.60	290.439	0.25	-0.17	-0.19
10622.00	88.800	326.860	8157.38	2320.41	1038.91	-2627.85	1746482.63	410535.18	39°37'28.0596"N	80°17'17.5705"W	2825.76	291.571	0.16	-0.16	-0.03
10717.00	88.580	326.230	8159.55	2415.38	1118.15	-2680.20	1746430.28	410614.42	39°37'28.8381"N	80°17'18.2485"W	2904.09	292.645	0.70	-0.23	-0.66
10811.00	89.140	326.940	8161.42	2509.36	1196.60	-2731.96	1746378.53	410692.86	39°37'29.6089"N	80°17'18.9187"W	2982.52	293.653	0.96	0.60	0.76
10906.00	88.980	326.670	8162.98	2604.34	1276.09	-2783.96	1746326.53	410772.34	39°37'30.3899"N	80°17'19.5922"W	3062.49	294.625	0.33	-0.17	-0.28
11000.00	89.260	327.040	8164.42	2698.33	1354.78	-2835.35	1746275.14	410851.03	39°37'31.1632"N	80°17'20.2578"W	3142.40	295.539	0.49	0.30	0.39
11095.00	89.450	326.580	8165.49	2793.32	1434.28	-2887.35	1746223.14	410930.52	39°37'31.9443"N	80°17'20.9313"W	3223.97	296.416	0.52	0.20	-0.48
11190.00	90.250	326.360	8165.74	2888.32	1513.48	-2939.81	1746170.69	411009.72	39°37'32.7225"N	80°17'21.6105"W	3306.52	297.240	0.87	0.84	-0.20
11285.00	90.150	325.540	8165.41	2983.32	1592.21	-2992.98	1746117.52	411088.44	39°37'33.4959"N	80°17'22.2988"W	3390.14	298.012	0.90	-0.11	-0.89
11379.00	90.220	326.210	8165.10	3077.31	1670.02	-3045.71	1746064.79	411166.25	39°37'34.2603"N	80°17'22.9815"W	3473.52	298.737	0.72	0.07	0.71
11474.00	90.000	325.860	8164.92	3172.31	1748.81	-3098.79	1746011.72	411245.03	39°37'35.0343"N	80°17'23.6686"W	3558.20	299.438	0.44	-0.23	-0.37
11569.00	90.090	325.820	8164.85	3267.31	1827.42	-3152.13	1745958.38	411323.64	39°37'35.8065"N	80°17'24.3592"W	3643.54	300.103	0.10	0.09	-0.04
11663.00	90.550	326.060	8164.32	3361.30	1905.29	-3204.77	1745905.74	411401.51	39°37'36.5716"N	80°17'25.0407"W	3728.37	300.732	0.55	0.49	0.26
11758.00	91.050	325.740	8163.00	3456.29	1983.95	-3258.03	1745852.49	411480.16	39°37'37.3443"N	80°17'25.7302"W	3814.55	301.339	0.62	0.53	-0.34
11853.00	90.950	325.590	8161.34	3551.27	2062.39	-3311.60	1745798.92	411558.59	39°37'38.1147"N	80°17'26.4237"W	3901.30	301.914	0.19	-0.11	-0.16
11947.00	91.140	325.850	8159.62	3645.24	2140.05	-3364.54	1745745.99	411636.24	39°37'38.8776"N	80°17'27.1089"W	3987.47	302.459	0.34	0.20	0.28
12042.00	91.080	326.050	8157.78	3740.22	2218.74	-3417.72	1745692.81	411714.94	39°37'39.6507"N	80°17'27.7974"W	4074.76	302.991	0.22	-0.06	0.21
12137.00	91.230	326.010	8155.87	3835.20	2297.51	-3470.79	1745639.74	411793.70	39°37'40.4245"N	80°17'28.4846"W	4162.33	303.503	0.16	0.16	-0.04
12233.00	91.420	325.720	8153.65	3931.17	2376.95	-3524.65	1745585.89	411873.14	39°37'41.2049"N	80°17'29.1818"W	4251.24	303.995	0.36	0.20	-0.30
12328.00	90.950	325.970	8151.68	4026.15	2455.55	-3577.97	1745532.57	411951.73	39°37'41.9770"N	80°17'29.8721"W	4339.54	304.462	0.56	-0.49	0.26
12423.00	91.390	326.210	8149.74	4121.13	2534.38	-3630.96	1745479.58	412030.55	39°37'42.7514"N	80°17'30.5582"W	4427.97	304.915	0.53	0.46	0.25
12518.00	91.420	326.130	8147.44	4215.10	2612.44	-3683.28	1745427.27	412108.61	39°37'43.5183"N	80°17'31.2356"W	4515.68	305.347	0.09	0.03	-0.09
12613.00	91.690	326.240	8144.86	4310.06	2691.34	-3736.13	1745374.42	412187.50	39°37'44.2934"N	80°17'31.9199"W	4604.56	305.767	0.31	0.28	0.12
12707.00	91.510	326.010	8142.21	4405.02	2770.18	-3789.06	1745321.49	412266.34	39°37'45.0680"N	80°17'32.6053"W	4693.71	306.171	0.31	-0.19	-0.24
12802.00	90.990	326.430	8140.14	4500.00	2849.12	-3841.87	1745268.69	412345.28	39°37'45.8436"N	80°17'33.2891"W	4783.04	306.561	0.70	-0.55	0.44

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Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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]
12897.00	91.020	326.050	8138.47	4594.99	2928.09	-3894.65	1745215.91	412424.24	39°37'46.6194"N	80°17'33.9726"W	4872.58	306.937	0.40	0.03	-0.40
12991.00	91.290	326.220	8136.58	4688.97	3006.13	-3947.02	1745163.54	412502.28	39°37'47.3860"N	80°17'34.6507"W	4961.43	307.294	0.34	0.29	0.18
13085.00	90.990	325.920	8134.71	4782.95	3084.11	-3999.48	1745111.09	412580.25	39°37'48.1520"N	80°17'35.3299"W	5050.50	307.637	0.45	-0.32	-0.32
13180.00	91.690	325.750	8132.48	4877.92	3162.69	-4052.81	1745057.75	412658.83	39°37'48.9240"N	80°17'36.0204"W	5140.81	307.967	0.76	0.74	-0.18
13275.00	92.150	326.020	8129.30	4972.86	3241.30	-4106.07	1745004.51	412737.43	39°37'49.6962"N	80°17'36.7099"W	5231.23	308.287	0.56	0.48	0.28
13369.00	92.180	326.100	8125.75	5066.79	3319.23	-4158.51	1744952.06	412815.35	39°37'50.4617"N	80°17'37.3890"W	5320.76	308.596	0.09	0.03	0.09
13464.00	91.630	326.200	8122.69	5161.74	3398.08	-4211.40	1744899.18	412894.20	39°37'51.2364"N	80°17'38.0738"W	5411.36	308.899	0.59	-0.58	0.11
13559.00	91.910	326.030	8119.66	5256.69	3476.91	-4264.34	1744846.24	412973.02	39°37'52.0108"N	80°17'38.7593"W	5502.13	309.192	0.34	0.29	-0.18
13654.00	92.190	325.950	8116.26	5351.63	3555.61	-4317.44	1744793.14	413051.72	39°37'52.7839"N	80°17'39.4469"W	5593.09	309.473	0.31	0.29	-0.08
13749.00	92.030	326.190	8112.76	5446.56	3634.38	-4370.43	1744740.16	413130.48	39°37'53.5577"N	80°17'40.1331"W	5684.13	309.746	0.30	-0.17	0.25
13843.00	91.600	325.700	8109.78	5540.51	3712.24	-4423.01	1744687.58	413208.34	39°37'54.3226"N	80°17'40.8138"W	5774.40	310.007	0.65	-0.46	-0.47
13939.00	91.660	325.820	8107.05	5636.47	3791.59	-4476.97	1744633.63	413287.69	39°37'55.1021"N	80°17'41.5125"W	5866.81	310.262	0.10	0.06	0.07
14033.00	91.880	326.370	8104.15	5730.42	3869.57	-4529.38	1744581.22	413365.66	39°37'55.8682"N	80°17'42.1911"W	5957.25	310.508	0.63	0.23	0.59
14128.00	91.690	325.790	8101.19	5825.37	3948.37	-4582.37	1744528.23	413444.45	39°37'56.6422"N	80°17'42.8773"W	6048.77	310.750	0.64	-0.20	-0.61
14223.00	91.690	325.570	8098.39	5920.33	4026.79	-4635.90	1744474.70	413522.88	39°37'57.4126"N	80°17'43.5704"W	6140.58	310.978	0.23	0.00	-0.23
14317.00	91.380	325.700	8095.87	6014.28	4104.36	-4688.95	1744421.66	413600.44	39°37'58.1745"N	80°17'44.2571"W	6231.53	311.197	0.36	-0.33	0.14
14412.00	91.570	325.860	8093.43	6109.25	4182.88	-4742.35	1744368.26	413678.96	39°37'58.9459"N	80°17'44.9486"W	6323.48	311.413	0.26	0.20	0.17
14507.00	91.380	325.780	8090.98	6204.21	4261.45	-4795.71	1744314.91	413757.52	39°37'59.7176"N	80°17'45.6394"W	6415.51	311.624	0.22	-0.20	-0.08
14602.00	91.290	325.650	8088.77	6299.18	4339.92	-4849.21	1744261.41	413835.99	39°38'00.4884"N	80°17'46.3320"W	6507.67	311.828	0.17	-0.09	-0.14
14697.00	91.660	325.950	8086.32	6394.14	4418.47	-4902.59	1744208.03	413914.53	39°38'01.2600"N	80°17'47.0232"W	6599.86	312.027	0.50	0.39	0.32
14791.00	91.660	325.790	8083.60	6488.10	4496.25	-4955.30	1744155.32	413992.30	39°38'02.0240"N	80°17'47.7058"W	6691.13	312.219	0.17	0.00	-0.17
14886.00	91.850	325.940	8080.69	6583.05	4574.84	-5008.59	1744102.04	414070.89	39°38'02.7961"N	80°17'48.3958"W	6783.45	312.409	0.25	0.20	0.16
14981.00	91.170	327.260	8078.19	6678.01	4654.12	-5060.86	1744049.77	414150.17	39°38'03.5750"N	80°17'49.0729"W	6875.55	312.603	1.56	-0.72	1.39
15076.00	91.140	326.820	8076.27	6772.99	4733.82	-5112.54	1743998.09	414229.86	39°38'04.3580"N	80°17'49.7424"W	6967.57	312.797	0.46	-0.03	-0.46
15171.00	91.080	326.490	8074.43	6867.97	4813.16	-5164.75	1743945.89	414309.20	39°38'05.1376"N	80°17'50.4187"W	7059.83	312.982	0.35	-0.06	-0.35
15266.00	91.080	326.660	8072.64	6962.95	4892.44	-5217.07	1743893.57	414388.47	39°38'05.9164"N	80°17'51.0964"W	7152.18	313.161	0.18	0.00	0.18
15360.00	90.980	326.780	8070.95	7056.94	4971.01	-5268.64	1743842.00	414467.03	39°38'06.6884"N	80°17'51.7645"W	7243.58	313.335	0.17	-0.11	0.13
15454.00	90.550	326.970	8069.70	7150.92	5049.72	-5320.00	1743790.64	414545.74	39°38'07.4618"N	80°17'52.4299"W	7334.99	313.507	0.50	-0.46	0.20
15548.00	90.710	326.790	8068.66	7244.91	5128.45	-5371.36	1743739.29	414624.46	39°38'08.2353"N	80°17'53.0953"W	7426.47	313.675	0.26	0.17	-0.19
15643.00	90.580	326.720	8067.59	7339.91	5207.89	-5423.44	1743687.21	414703.90	39°38'09.0158"N	80°17'53.7699"W	7519.03	313.839	0.16	-0.14	-0.07

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Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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]
15739.00	90.120	326.790	8067.01	7435.90	5288.18	-5476.07	1743634.59	414784.18	39°38'9.8046"N	80°17'54.4517"W	7612.63	314.000	0.48	-0.48	0.07
15833.00	90.280	326.640	8066.68	7529.90	5366.76	-5527.66	1743583.00	414882.76	39°38'10.5767"N	80°17'55.1200"W	7704.35	314.154	0.23	0.17	-0.16
15928.00	90.310	326.900	8066.19	7624.89	5446.22	-5579.71	1743530.95	414942.22	39°38'11.3574"N	80°17'55.7945"W	7797.09	314.306	0.28	0.03	0.27
16023.00	90.430	326.630	8065.58	7719.89	5525.68	-5631.78	1743478.88	415021.67	39°38'12.1381"N	80°17'56.4690"W	7889.87	314.455	0.31	0.13	-0.28
16118.00	90.400	326.700	8064.89	7814.89	5605.05	-5683.98	1743426.68	415101.04	39°38'12.9179"N	80°17'57.1453"W	7982.75	314.599	0.08	-0.03	0.07
16213.00	90.280	326.560	8064.32	7909.88	5684.39	-5736.24	1743374.43	415180.37	39°38'13.6973"N	80°17'57.8222"W	8075.68	314.740	0.19	-0.13	-0.15
16307.00	90.430	326.840	8063.74	8003.88	5762.95	-5787.85	1743322.83	415258.93	39°38'14.4892"N	80°17'58.4907"W	8167.66	314.877	0.34	0.16	0.30
16402.00	90.120	326.220	8063.28	8098.88	5842.19	-5840.24	1743270.44	415338.17	39°38'15.2477"N	80°17'59.1694"W	8260.73	315.010	0.73	-0.33	-0.65
16497.00	90.310	327.040	8062.93	8193.88	5921.53	-5892.49	1743218.19	415417.50	39°38'16.0272"N	80°17'59.8463"W	8353.80	315.141	0.89	0.20	0.86
16592.00	90.150	326.840	8062.55	8288.87	6001.15	-5944.31	1743166.37	415497.11	39°38'16.8094"N	80°18'0.5178"W	8446.81	315.273	0.27	-0.17	-0.21
16686.00	90.220	326.960	8062.24	8382.87	6079.90	-5995.65	1743115.04	415575.85	39°38'17.5831"N	80°18'1.1829"W	8538.91	315.400	0.15	0.07	0.13
16781.00	90.310	326.690	8061.94	8477.86	6159.41	-6047.63	1743063.00	415655.36	39°38'18.3644"N	80°18'1.8564"W	8632.04	315.525	0.29	-0.07	-0.28
16875.00	90.310	326.490	8061.56	8571.86	6237.88	-6099.39	1743011.30	415733.82	39°38'19.1352"N	80°18'2.5269"W	8724.31	315.643	0.27	0.17	-0.21
16970.00	90.280	326.780	8061.07	8666.86	6317.22	-6151.64	1742959.06	415813.16	39°38'19.9147"N	80°18'3.2038"W	8817.59	315.761	0.31	-0.03	0.31
17064.00	90.060	326.560	8060.79	8760.86	6395.76	-6203.28	1742907.42	415891.69	39°38'20.6863"N	80°18'3.8729"W	8909.91	315.875	0.33	-0.23	-0.23
17159.00	89.720	326.620	8060.97	8855.86	6475.06	-6255.59	1742855.11	415970.99	39°38'21.4654"N	80°18'4.5506"W	9003.27	315.988	0.36	-0.36	0.06
17253.00	90.060	326.630	8061.15	8949.85	6553.55	-6307.30	1742803.40	416049.48	39°38'22.2366"N	80°18'5.2205"W	9095.67	316.097	0.36	0.36	0.01
17348.00	90.000	326.750	8061.10	9044.85	6632.95	-6359.48	1742751.23	416128.87	39°38'23.0166"N	80°18'5.8964"W	9189.07	316.206	0.14	-0.06	0.13
17442.00	90.180	326.650	8060.96	9138.85	6711.51	-6411.08	1742699.63	416207.43	39°38'23.7885"N	80°18'6.5650"W	9281.51	316.312	0.22	0.19	-0.11
17536.00	90.030	326.580	8060.78	9232.85	6790.00	-6462.81	1742647.91	416285.92	39°38'24.5596"N	80°18'7.2351"W	9374.01	316.414	0.18	-0.16	-0.07
17632.00	89.940	326.770	8060.81	9328.85	6870.22	-6515.55	1742595.17	416366.13	39°38'25.3477"N	80°18'7.9185"W	9468.49	316.518	0.22	-0.09	0.20
17727.00	89.970	326.710	8060.88	9423.85	6949.65	-6567.65	1742543.07	416445.56	39°38'26.1281"N	80°18'8.5935"W	9561.99	316.619	0.07	0.03	-0.06
17821.00	89.910	326.820	8060.98	9517.84	7028.28	-6619.17	1742491.56	416524.18	39°38'26.9006"N	80°18'9.2610"W	9654.54	316.717	0.13	-0.06	0.12
17916.00	90.000	326.730	8061.06	9612.84	7107.75	-6671.22	1742439.51	416603.64	39°38'27.6814"N	80°18'9.9355"W	9748.09	316.815	0.13	0.09	-0.09
18010.00	90.120	326.720	8060.96	9706.84	7186.34	-6722.80	1742387.94	416682.23	39°38'28.4635"N	80°18'10.6037"W	9840.70	316.909	0.13	0.13	-0.01
18105.00	90.060	326.650	8060.81	9801.84	7265.73	-6774.97	1742335.76	416761.61	39°38'29.2334"N	80°18'11.2797"W	9934.34	317.002	0.10	-0.06	-0.07
18201.00	90.220	327.040	8060.58	9897.83	7346.10	-6827.48	1742283.26	416841.98	39°38'30.0230"N	80°18'11.9600"W	10028.94	317.096	0.44	0.17	0.41
18295.00	89.970	326.400	8060.42	9991.83	7424.68	-6879.06	1742231.68	416920.55	39°38'30.7951"N	80°18'12.6283"W	10121.62	317.185	0.73	-0.27	-0.68
18390.00	89.880	326.660	8060.54	10086.83	7503.93	-6931.45	1742179.29	416999.80	39°38'31.5736"N	80°18'13.3071"W	10215.38	317.271	0.29	-0.09	0.27
18485.00	89.910	326.310	8060.72	10182.83	7583.96	-6984.46	1742126.29	417079.83	39°38'32.3599"N	80°18'13.9988"W	10310.15	317.366	0.37	0.03	-0.36

2024



Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH DATA (239 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]
18581.00	89.090	326.900	8060.72	10277.83	7663.28	-7036.75	1742074.01	417159.14	39°38'33.1391"N	80°18'14.6713"W	10403.92	317.441	0.65	0.19	0.62
18675.00	89.820	326.470	8060.79	10371.83	7741.83	-7088.37	1742022.38	417237.69	39°38'33.9108"N	80°18'15.3402"W	10496.71	317.523	0.54	-0.29	-0.46
18770.00	89.910	326.840	8061.02	10466.83	7821.19	-7140.59	1741970.16	417317.04	39°38'34.6905"N	80°18'16.0168"W	10590.52	317.605	0.40	0.09	0.39
18864.00	89.630	326.880	8061.39	10560.82	7899.90	-7191.98	1741918.78	417395.75	39°38'35.4638"N	80°18'16.6827"W	10683.31	317.686	0.30	-0.30	0.04
18959.00	89.540	326.620	8062.08	10655.82	7979.35	-7244.07	1741866.70	417475.19	39°38'36.2443"N	80°18'17.3576"W	10777.13	317.765	0.29	-0.09	-0.27
19054.00	89.540	326.600	8062.85	10750.81	8058.66	-7296.35	1741814.42	417554.50	39°38'37.0235"N	80°18'18.0350"W	10871.00	317.842	0.02	0.00	-0.02
19148.00	89.450	326.150	8063.67	10844.81	8136.93	-7348.40	1741762.37	417632.76	39°38'37.7924"N	80°18'18.7093"W	10963.97	317.915	0.49	-0.10	-0.48
19243.00	89.420	326.530	8064.61	10939.81	8216.00	-7401.05	1741709.72	417711.83	39°38'38.5691"N	80°18'19.3914"W	11057.95	317.987	0.40	-0.03	0.40
19338.00	89.290	326.420	8065.68	11034.80	8295.19	-7453.52	1741657.26	417791.01	39°38'39.3471"N	80°18'20.0712"W	11151.91	318.059	0.18	-0.14	-0.12
19433.00	89.380	326.610	8066.78	11129.79	8374.42	-7505.93	1741604.85	417870.24	39°38'40.1254"N	80°18'20.7502"W	11245.88	318.130	0.22	0.09	0.20
19527.00	88.890	326.160	8068.20	11223.78	8452.69	-7557.96	1741552.82	417948.50	39°38'40.8943"N	80°18'21.4243"W	11338.90	318.199	0.71	-0.52	-0.48
19622.00	89.630	326.570	8069.43	11318.77	8531.86	-7610.45	1741500.34	418027.67	39°38'41.6721"N	80°18'22.1044"W	11432.92	318.267	1.00	0.78	0.62
19716.00	89.420	326.500	8070.21	11412.77	8610.36	-7662.16	1741448.63	418106.16	39°38'42.4432"N	80°18'22.7744"W	11525.92	318.335	0.35	-0.22	-0.27
19812.00	90.180	326.470	8070.54	11508.77	8690.39	-7715.17	1741395.63	418186.19	39°38'43.2295"N	80°18'23.4612"W	11620.96	318.402	0.79	0.79	-0.03
19906.00	90.030	326.470	8070.37	11602.77	8768.75	-7767.09	1741343.71	418264.54	39°38'43.9993"N	80°18'24.1339"W	11714.04	318.466	0.16	-0.16	0.00
20002.00	89.910	326.220	8070.42	11698.77	8848.66	-7820.29	1741290.51	418344.45	39°38'44.7843"N	80°18'24.8232"W	11809.14	318.530	0.29	-0.12	-0.26
20096.00	89.420	325.510	8070.97	11792.76	8926.46	-7873.04	1741237.77	418422.25	39°38'45.5485"N	80°18'25.5064"W	11902.37	318.588	0.92	-0.52	-0.76
20191.00	89.570	325.640	8071.81	11887.75	9004.82	-7926.74	1741184.06	418500.60	39°38'46.3181"N	80°18'26.2019"W	11996.67	318.643	0.21	0.16	0.14
20286.00	89.600	325.950	8072.50	11982.74	9083.39	-7980.14	1741130.66	418579.16	39°38'47.0898"N	80°18'26.8936"W	12090.93	318.699	0.33	0.03	0.33
20379.00	89.510	325.890	8073.22	12075.73	9160.41	-8032.26	1741078.56	418656.18	39°38'47.8464"N	80°18'27.5687"W	12183.20	318.754	0.12	-0.10	-0.06
20474.00	89.600	325.530	8073.96	12170.72	9238.90	-8085.77	1741025.04	418734.67	39°38'48.6172"N	80°18'28.2618"W	12277.50	318.808	0.39	0.09	-0.38
20569.00	89.450	325.550	8074.74	12265.71	9317.23	-8139.53	1740971.29	418812.99	39°38'49.3865"N	80°18'28.9580"W	12371.85	318.860	0.16	-0.16	0.02
20663.00	89.540	325.620	8075.57	12359.70	9394.77	-8192.65	1740918.17	418890.53	39°38'50.1481"N	80°18'29.6460"W	12465.20	318.910	0.12	0.10	0.07
20759.00	89.570	325.770	8076.32	12455.69	9474.07	-8246.76	1740864.07	418969.82	39°38'50.9270"N	80°18'30.3468"W	12560.53	318.962	0.16	0.03	0.16
20854.00	89.510	325.560	8077.08	12550.68	9552.51	-8300.34	1740810.49	419048.26	39°38'51.6975"N	80°18'31.0408"W	12654.89	319.012	0.23	-0.06	-0.22
20949.00	89.570	325.930	8077.84	12645.67	9631.03	-8353.81	1740757.02	419126.77	39°38'52.4687"N	80°18'31.7334"W	12749.23	319.062	0.39	0.06	0.39
21044.00	89.420	325.430	8078.68	12740.66	9709.49	-8407.37	1740703.47	419205.23	39°38'53.2392"N	80°18'32.4271"W	12843.60	319.111	0.55	-0.16	-0.53
21139.00	89.630	326.060	8079.47	12835.65	9788.01	-8460.84	1740650.00	419283.74	39°38'54.0104"N	80°18'33.1197"W	12937.96	319.160	0.70	0.22	0.66
21165.00	89.630	326.060	8079.64	12861.65	9809.58	-8475.36	1740635.48	419305.31	39°38'54.2223"N	80°18'33.3078"W	12963.78	319.173	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: McClellan 1H ST01 AWB Ref Wellpath: McClellan 1H ST01 AWP Proj: 21165'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
17.5in Open Hole	28.00	1498.00	1470.00	28.00	1497.99	0.00	0.00	-1.91	0.27

HOLE & CASING SECTIONS - Ref Wellbore: McClellan 1H ST01 AWB Ref Wellpath: McClellan 1H ST01 AWP Proj: 21165'

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]
13.375in Casing Surface	28.00	1468.00	1440.00	28.00	1467.99	0.00	0.00	-1.74	0.36
12.25in Open Hole	1498.00	2697.00	1199.00	1497.99	2696.34	-1.91	0.27	-29.52	-22.44
9.625in Casing Intermediate	28.00	2667.00	2639.00	28.00	2666.38	0.00	0.00	-28.06	-21.81
8.75in Open Hole	2697.00	7377.00	4680.00	2696.34	7206.74	-29.52	-22.44	-877.48	-874.87
8.5in Open Hole	7377.00	7596.00	219.00	7206.74	7417.78	-877.48	-874.87	-915.90	-917.51
8.5in Open Hole	7596.00	21165.00	13569.00	7417.78	8079.64	-915.90	-917.51	9809.58	-8475.36
5.5in Casing Production	7596.00	21135.00	13539.00	7417.78	8079.44	-915.90	-917.51	9784.69	-8458.61

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
McClellan 1H ST01 BHL Rev-1	8056.28	12330.45	-10145.34	1738965.61	421826.03	39°39'18.9857"N	80°18'54.9489"W	point
McClellan 1H ST01 LP Rev-1	8056.28	-513.24	-1602.31	1747508.11	408983.12	39°37'12.8089"N	80°17'4.2916"W	point
McClellan Hardline #1 (03.15.2022)	8529.00	11935.74	-11005.02	1738105.98	421431.34	39°39'15.0077"N	80°19'5.8940"W	polygon

2D Polygon: dimensions not calculated

REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

WELLPATH COMPOSITION - Ref Wellbore: McClellan 1H ST01 AWB Ref Wellpath: McClellan 1H ST01 AWP Proj: 21165'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	1340.00	BH Generic gyro - northseeking (Standard)	01_ <17.5"> Javins Inertial Gyro [Northseeking] (50'-1340')	McClellan 1H AWB	8/12/2022
1340.00	2636.00	OWSG MWD rev2 - Standard	02_ <12.25"> SDI MWD [OWSG MWD REV.2-Standard] (1340')(1499'-2636')	McClellan 1H AWB	8/12/2022
2636.00	7297.00	OWSG MWD rev2 - Standard	03_ <8.75"> SDI MWD [OWSG MWD REV.2-Standard] (2636')(2741'-7297')	McClellan 1H AWB	8/12/2022
7297.00	7596.00	BH AutoTrak Curve/Express (2019) (HRGM, Short spacing)	04_ <8.5"> BH ATK Curve [HRGM+Short Spacing] (7297')(7317'-23323')	McClellan 1H AWB	8/12/2022
7596.00	21165.00	BH AutoTrak Curve/Express (2019) (HRGM, Short spacing)	05_ <8.5"> BH ATK Curve [HRGM+Short Spacing] (7596')(7690'-21139')	McClellan 1H ST01 AWB	8/26/2022



Actual Wellpath Report

McClellan 1H ST01 AWP Proj: 21165'
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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	McClellan 1H ST01
Field	Monongalia	API	37061018820100
Facility	McClellan Pad	Wellbore	McClellan 1H ST01 AWB
Slot	Slot #01	Sidetrack from	McClellan 1H AWP Proj: 23386' at 7596.00 MD

COMMENTS

Wellpath general comments

API: 37061018820100
BH Job #: 111431583
Rig: Patterson 277
Duration: 8/29/2022 - 9/2/2022

05_<8.5"> BH ATK Curve [HRGM+Short Spacing] (7596')(7690'-21139')

Final Survey MD @ 21139'
Projected MD at TD: 21165'
API: 47061018820000
BH Job #: 111431583
Rig: Patterson 277
Duration: 8/12/2022 - 8/18/2022

01_<17.5"> Javins Inertial Gyro [Northseeking] (50'-1340')
02_<12.25">SDI MWD [OWSG MWD REV.2-Standard] (1340')(1499'-2636')
03_<8.75">SDI MWD [OWSG MWD REV.2-Standard] (2636')(2741'-7297')
04_<8.5"> BH ATK Curve [HRGM+Short Spacing] (7297')(7317'-23323')

Final Survey MD @ 23323'
Projected MD at TD: 23386'

02/23/2024

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/26/2022
Job End Date:	12/13/2022
State:	West Virginia
County:	Monongalia
API Number:	47-061-01882-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	McClellan 1H
Latitude:	39.62167200
Longitude:	-80.27885400
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8,094
Total Base Water Volume (gal):	25,875,402
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	Carrier/Base Fluid	Water	7732-18-5	100.00000	87.92486	None
Sand (100 Mesh Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	10.64866	None
Sand (40/70 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	1.15518	None
Hydrochloric Acid (7.5%)	CNR	Acidizing	Water	7732-18-5	85.00000	0.14569	None
50mSTREAM FR 9800	Chemstream	Friction Reducer	Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.06342	None
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.01735	None
			Butene, homopolymer	9003-29-6	25.00000	0.01735	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00208	None
Staral 268	Chemstream	Biocide	Non-hazardous substances	Proprietary	80.00000	0.01425	None

12/23/2024

				Glutaraldehyde	111-30-8	20.00000	0.00356	None
				Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00053	None
				Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00053	None
				Ethanol	64-17-5	1.50000	0.00027	None
StimSTREAM SC 405	Chemstream	Scale Control						
				Non-Hazardous Substances	Proprietary	70.00000	0.00957	None
				2-Phosphono-1,2,4-butanetricarboxylic acid (PBTC)	37971-36-1	10.00000	0.00137	None
				Citric Acid	77-92-9	10.00000	0.00137	None
				Diethylenetriamine penta (methylene phosphonic acid) (DTPMP)	15827-60-8	10.00000	0.00137	None
ProHib 100	CNR	Acid Inhibitor						
				2-Butoxyethanol	111-76-2	60.00000	0.00034	None
				Proprietary material	Proprietary	30.00000	0.00017	None
				Proprietary non-ionic surfactant	Proprietary	20.00000	0.00011	None
				Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00006	None
				Proprietary corrosion inhibitor	Proprietary	10.00000	0.00006	None
ProFE 105	CNR	Iron Control						
				Citric Acid	77-92-9	20.00000	0.00009	None
				Acetic Acid	64-19-7	5.00000	0.00002	None
Ingredients shown above are subject to 29 CFR 1910.1200(j) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.								
Other Chemical(s)	Listed Above	See Trade Name(s) List						
				Water	7732-18-5	85.00000	0.14569	
				Butene, homopolymer	9003-29-6	25.00000	0.01735	
				Non-hazardous substances	Proprietary	80.00000	0.01425	
				Non-Hazardous Substances	Proprietary	70.00000	0.00957	
				Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00208	
				Diethylenetriamine penta (methylene phosphonic acid) (DTPMP)	15827-60-8	10.00000	0.00137	
				Citric Acid	77-92-9	10.00000	0.00137	
				Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00053	
				Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00053	
				Ethanol	64-17-5	1.50000	0.00027	
				Proprietary material	Proprietary	30.00000	0.00017	
				Proprietary non-ionic surfactant	Proprietary	20.00000	0.00011	
				Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00006	
				Proprietary corrosion inhibitor	Proprietary	10.00000	0.00006	
				Acetic Acid	64-19-7	5.00000	0.00002	