

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

API 47-061-01884 County Monongalia District Battelle
Quad Mannington Pad Name McClellan Field/Pool Name _____
Farm name McClellan Well Number 3H
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 4386021.8 Easting 561893.5
Landing Point of Curve Northing 4385895.9 Easting 561827.6
Bottom Hole Northing 4389795.4 Easting 559121.1

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 8/5/2022
Date completion activities began 11/23/22 Date completion activities ceased 12/14/22
Verbal plugging (Y/N) NA Date permission granted _____ Granted by _____

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug JAN 23 2024

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Freshwater depth(s) ft 726', 1105', 1135' Open mine(s) (Y/N) depths _____
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

APPROVED

Reviewed by: [Signature]
02/23/2024
1/31/2024

API 47-061 - 01884 Farm name McClellan Well number 3H

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"	1,468'	N	54.5	NA	Y, 40 bbl
Coal							
Intermediate 1	12-1/4"	9-5/8"	2,667'	N	40	NA	Y, 21 bbl
Intermediate 2							
Intermediate 3							
Production	8-3/4"	5-1/2"	23,462'	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	4,795	14.5	1.16	5,552	87'	48
Tubing							

Drillers TD (ft) 23,501' Loggers TD (ft) 23,471'

Deepest formation penetrated Marcellus Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) 7,125'

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

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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 _____

API 47- 061 - 01884 Farm name McClellan Well number 3H

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						

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Please insert additional pages as applicable.

API 47- 061 - 01884 Farm name McClellan Well number 3H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
Marcellus	8,081'	TVD	22,959' MD
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole 3590 psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 2631 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 Hollie Medley Title Regulatory Manager Date 1/17/2024

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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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 3H 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	11/23/2022	5,134	9,500	9,122	84	74	7,818	300,000	1,107
2	11/23/2022	5,136	5,882	8,711	77	69	10,528	500,000	566
3	11/23/2022	6,071	6,535	8,912	77	515	13,251	485,200	560
4	11/24/2022	6,445	6,758	8,972	84	524	11,196	502,620	560
5	11/24/2022	5,478	6,493	8,957	81	71	10,938	500,000	539
6	11/24/2022	5,589	6,911	8,916	84	9	10,609	500,000	494
7	11/24/2022	5,995	7,145	8,884	73	101	10,816	502,320	548
8	11/25/2022	6,041	6,696	8,815	76	430	11,088	501,230	543
9	11/25/2022	5,458	7,208	8,944	78	395	11,070	500,000	531
10	11/25/2022	5,897	7,707	9,088	82	62	10,748	500,000	534
11	11/25/2022	5,722	7,997	9,129	84	59	10,840	500,000	530
12	11/25/2022	6,476	7,450	8,858	79	105	9,760	456,160	527
13	11/25/2022	5,885	7,034	8,941	80	140	9,853	456,050	529
14	11/26/2022	5,639	7,140	8,982	83	93	9,935	455,000	489
15	11/26/2022	5,490	7,396	9,012	84	65	9,843	455,000	582
16	11/26/2022	4,904	7,519	8,996	78	62	9,683	460,500	515
17	11/27/2022	6,382	6,085	8,797	80	62	9,894	459,320	513
18	11/27/2022	5,509	7,125	9,141	84	386	10,282	455,000	469
19	11/27/2022	6,626	7,220	8,633	79	22	9,816	457,420	510
20	11/28/2022	5,142	7,455	9,123	84	85	10,021	455,000	541
21	11/28/2022	6,517	8,104	8,744	79	113	9,973	460,060	450
22	11/29/2022	6,188	7,421	8,975	78	450	9,829	457,200	430
23	11/29/2022	6,296	6,936	8,910	80	29	9,810	456,240	427
24	11/30/2022	6,022	6,213	8,647	84	115	11,236	456,059	483
25	11/30/2022	5,358	6,561	8,941	84	65	9,838	459,517	483
26	11/30/2022	6,702	6,505	8,567	80	76	9,754	456,890	415
27	12/1/2022	6,406	7,347	8,829	79	97	9,714	457,420	410
28	12/1/2022	6,519	6,143	8,491	84	61	9,898	458,127	458
29	12/1/2022	6,266	7,118	8,676	78	91	9,832	460,340	400
30	12/1/2022	6,338	7,093	8,751	80	61	9,734	455,760	395
31	12/3/2022	5,680	7,295	8,514	77	66	9,691	455,100	395
32	12/3/2022	5,808	6,776	8,719	85	53	9,699	456,502	429
33	12/3/2022	5,357	7,105	8,790	85	96	9,748	455,277	434
34	12/3/2022	6,071	7,266	8,704	85	80	9,763	454,900	423
35	12/3/2022	5,754	7,035	8,690	79	81	9,305	455,400	390
36	12/4/2022	6,925	6,495	8,396	81	141	9,333	454,860	370
37	12/4/2022	5,852	7,747	8,796	84	178	9,787	455,772	418
38	12/4/2022	5,902	7,262	8,754	78	86	9,178	454,940	365
39	12/5/2022	5,962	7,354	8,688	79	94	9,255	456,330	357
40	12/5/2022	5,378	7,458	8,720	85	78	9,812	453,944	548
41	12/5/2022	5,798	7,310	8,455	84	120	9,904	454,719	487
42	12/5/2022	6,215	8,109	8,714	77	46	9,222	454,840	341
43	12/6/2022	5,671	7,164	8,491	80	90	9,340	454,260	345
44	12/6/2022	5,757	7,719	8,561	84	92	9,736	458,111	458
45	12/6/2022	5,779	6,717	8,427	85	24	9,840	455,809	636

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)
46	12/6/2022	5,560	6,587	8,535	84	48	9,757	455,070	594
47	12/6/2022	5,629	7,647	8,574	85	86	9,281	455,000	325
48	12/7/2022	5,970	6,465	8,224	85	56	9,329	455,000	320
49	12/7/2022	5,811	6,773	8,207	84	67	9,807	454,200	593
50	12/7/2022	5,729	7,564	8,382	85	42	9,218	455,140	315
51	12/8/2022	6,142	7,492	8,340	85	50	9,508	455,907	364
52	12/8/2022	6,495	6,510	8,045	85	28	9,505	453,038	485
53	12/8/2022	5,677	7,668	8,348	84	43	9,275	455,020	300
54	12/8/2022	5,647	6,017	8,436	85	125	9,280	456,960	292
55	12/9/2022	5,919	7,727	8,378	84	75	9,039	456,660	290
56	12/9/2022	5,884	7,030	8,190	85	136	9,750	455,851	360
57	12/9/2022	6,169	6,258	7,858	85	44	9,686	455,964	332
58	12/9/2022	6,262	5,688	7,767	85	64	9,148	455,400	275
59	12/10/2022	6,087	6,910	8,114	85	76	9,172	455,660	282
60	12/10/2022	6,183	5,960	7,996	85	77	9,575	455,204	316
61	12/10/2022	5,531	6,974	8,097	85	21	9,594	458,117	337
62	12/10/2022	6,173	5,929	7,948	85	25	9,497	457,719	255
63	12/10/2022	6,258	8,020	7,985	85	41	9,017	455,040	255
64	12/11/2022	5,526	7,960	7,898	84	44	9,213	456,060	250
65	12/11/2022	5,922	6,903	8,181	85	97	9,941	453,767	291
66	12/11/2022	6,353	6,041	7,965	85	59	9,547	455,585	282
67	12/11/2022	6,116	6,364	7,952	85	343	10,569	456,263	235
68	12/12/2022	5,978	5,938	7,690	85	97	9,201	455,200	232
69	12/12/2022	5,317	6,689	7,781	82	56	9,227	455,340	230
70	12/12/2022	6,353	6,553	7,823	85	35	9,533	455,163	269
71	12/12/2022	5,789	7,646	8,151	85	27	9,626	450,772	258
72	12/12/2022	6,262	7,574	7,802	85	585	9,707	392,956	307
73	12/13/2022	6,180	6,832	7,607	84	177	9,089	390,680	256
74	12/13/2022	7,480	6,986	7,564	83	58	8,589	390,800	254
75	12/13/2022	7,134	6,574	7,309	81	9	8,150	390,600	247
76	12/13/2022	7,008	6,458	7,105	82	25	8,158	396,160	241

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McClellan 3H
Perforation Report

Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
1	11/23/2022	40		23,353
2	11/23/2022	40	23,309	23,152
3	11/23/2022	40	23,110	22,953
4	11/24/2022	40	22,911	22,754
5	11/24/2022	40	22,712	22,555
6	11/24/2022	40	22,513	22,356
7	11/24/2022	40	22,314	22,157
8	11/25/2022	40	22,115	21,958
9	11/25/2022	40	21,916	21,759
10	11/25/2022	40	21,717	21,560
11	11/25/2022	40	21,518	21,361
12	11/25/2022	40	21,319	21,162
13	11/25/2022	40	21,120	20,963
14	11/26/2022	40	20,921	20,764
15	11/26/2022	40	20,722	20,565
16	11/26/2022	40	20,523	20,366
17	11/27/2022	40	20,324	20,167
18	11/27/2022	40	20,125	19,968
19	11/27/2022	40	19,926	19,769
20	11/28/2022	40	19,727	19,570
21	11/28/2022	40	19,528	19,371
22	11/29/2022	40	19,329	19,172
23	11/29/2022	40	19,130	18,973
24	11/30/2022	40	18,931	18,774
25	11/30/2022	40	18,732	18,575
26	11/30/2022	40	18,533	18,376
27	12/1/2022	40	18,334	18,177
28	12/1/2022	40	18,135	17,978
29	12/1/2022	40	17,936	17,779
30	12/1/2022	40	17,737	17,580
31	12/3/2022	40	17,538	17,381
32	12/3/2022	40	17,340	17,182
33	12/3/2022	40	17,141	16,983
34	12/3/2022	40	16,942	16,784
35	12/3/2022	40	16,743	16,585
36	12/4/2022	40	16,544	16,386
37	12/4/2022	40	16,345	16,187
38	12/4/2022	40	16,146	15,988
39	12/5/2022	40	15,947	15,789
40	12/5/2022	40	15,748	15,590
41	12/5/2022	40	15,549	15,391
42	12/5/2022	40	15,350	15,192
43	12/6/2022	40	15,151	14,993
44	12/6/2022	40	14,952	14,794
45	12/6/2022	40	14,753	14,595
46	12/6/2022	40	14,554	14,396
47	12/6/2022	40	14,355	14,197

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Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
48	12/7/2022	40	14,156	13,998
49	12/7/2022	40	13,957	13,799
50	12/7/2022	40	13,758	13,600
51	12/8/2022	40	13,559	13,402
52	12/8/2022	40	13,360	13,203
53	12/8/2022	40	13,161	13,004
54	12/8/2022	40	12,962	12,805
55	12/9/2022	40	12,763	12,606
56	12/9/2022	40	12,564	12,407
57	12/9/2022	40	12,365	12,208
58	12/9/2022	40	12,166	12,009
59	12/10/2022	40	11,967	11,810
60	12/10/2022	40	11,768	11,611
61	12/10/2022	40	11,569	11,412
62	12/10/2022	40	11,370	11,213
63	12/10/2022	40	11,171	11,014
64	12/11/2022	40	10,972	10,815
65	12/11/2022	40	10,773	10,616
66	12/11/2022	40	10,574	10,417
67	12/11/2022	40	10,375	10,218
68	12/12/2022	40	10,176	10,019
69	12/12/2022	40	9,977	9,820
70	12/12/2022	40	9,778	9,621
71	12/12/2022	40	9,579	9,422
72	12/12/2022	40	9,380	9,223
73	12/13/2022	40	9,181	9,024
74	12/13/2022	40	8,982	8,825
75	12/13/2022	40	8,783	8,626
76	12/13/2022	40	8,584	8,427

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Cement Job Log



NexTier Completion Solutions
 2990 Rogerdale Rd., Houston, TX 77042
 (713)325-6000

Customer:	NORTHEAST NATURAL ENERGY LLC	Date:	22-Jul-22	Serv. Supervisor:	ROBERT GIVEN
Cust. Rep.:	TROY	Ticket #:	BPA-2207-0037	Serv. Center:	Black Lick - 1571
Well Name:	McClellan 3H	API Well #:	47-061-01884	County:	Monongalia
Well Type:	NATURAL GAS	Fig.:	PATTERSON 277	State:	WV
			Type of Job:	CM-SURFACE 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 (bbbls)	Fluid Volume (cuft)	Mix Water (bbbls)
5% Gel Spacer	+20.0 PPS NEX-020		8.7		4.62	33.66	25.00		
15.6 lb/gal Cement	100% NCM 910 +1.0% NAC 330+0.25 PPS NLM 600	1240	15.6	30%	1.19	5.21	282.33	1,472.99	154
Fresh Water Displacement			8.33				216.12		
Displacement Chemicals									

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OPEN HOLE DATA				TUBULAR DATA									
17.5 in. O.H. 128 to 1,438 ft				13.375 in. 64.6#, (0 to 1,438 ft)			SIZE	WT	DEPTH	GRADE	ID	BURST	COLLAPSE
Ambient Temp.	Bulk Temp.	Slurry 1 Temp.	Slurry 2 Temp.	Slurry 3 Temp.	Slurry 4 Temp.			(ft)		(in)	(psi)	(psi)	
75.0 °F		82.0 °F				13.375	BTC	1466 B	J-55	12.615		1140	

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	
							1466 B	1434			

WELL FLUID			DISPLACEMENT FLUID			DIFF PRESS	CSG LFT	MAX PRESS	Mix H2O Chlorides (ppm)	Mix H2O pH	Mix H2O Temp	WATER ON LOC (bbl)
TYPE	DENSITY	VOLUME	TYPE	DENSITY		(psi)	(psi)	(psi)				
FRESH WATER	8.3 ppg		FRESH WATER	8.3 ppg		538	569	1000	<300	7.2	74.0 °F	1200

Burped Plug	Final Differential (psi)	Fluats Head (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 Yrs Chugged (hrs)	Casing Resproctool	Rathole Length (ft)
Yes	650.00	Y		40.00		Yes	1,160.00	No	4.00	No	44 FT

Comments/Additional Details:

<i>ROBERT GIVEN</i>		22-Jul-22	
Service Supervisor		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:	24-Jul-22	Serv. Supervisor:	Drew Forsythe
Cust. Rep.:	Pat	Ticket #:	BPA-2207-0039	Serv. Center:	Black Lick - 1571
Well Name:	McClellan 3H	API Well #:	47-061-01884	County:	Monongalia State: WV
Well Type:		Rig:	Patterson 277	Type of Job:	CM-INTER. CASING

Materials Furnished by NexTier

Plugs	Casing Hardware	Physical Slurry Properties							
Top Plug Supplied by	Customer:	Sacks of Cement	Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Fluid Volume (cuft)	Mix Water (bbls)
9.625 Single Plug Container w/ 8 Round Crossover									
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						-		-	
						-		-	
						-		-	
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Displacement Chemicals:									

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.	9.625" 36#	STC	2667.3		8.921	3520	2020	
81.0 °F		87.0 °F											
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		
								2665	2620				
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									
H2O	8.3 ppg	202..5	H2O	8.3 ppg	989	1005	2500		7	81.0 °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)		
No	1,600.00		500.00	21.00	-	Yes	1,600.00	No	-	No	50		

Comments/Additional Details:

Drew Forsythe
 Service Supervisor

24-Jul-22
 Date

Cement Job Log



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

Customer: NORTHEAST NATURAL ENERGY LLC		Date: 4-Aug-22			Serv. Supervisor: Adam Pavelchick										
Cust. Rep.: JOSH		Ticket #: BPA-2208-0009			Serv. Center: Black Lick - 1571										
Well Name: McClellan 3H		API Well #: 47-051-01884			County: Monongalia	State: WV									
Well Type:		Rig: PATTERSON 277			Type of Job: CM-PROD. CASING										
Plugs				Casing Hardware				Physical Slurry Properties							
CUSTOMER SUPPLIED				5.5 HEAD AND BTC BOWL				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					13.5		5.65	26.46	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				4795	14.5		1.16	4.90	988.87	5,552.48	559
Sugar Water Displacement				+5.0 PPB NRT-215									20.00	-	
Fresh Water Displacement													501.67	-	
Displacement Chemicals:															
OPEN HOLE DATA						TUBULAR DATA									
8.76 in. O.H. 2,700 to 7,326 ft			8.5 in. O.H. 7,326 to 23,526 ft			5.5 in. 20#, (0 to 23,526 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.	5.5 20#	BTC	23462	P-110	4.778	12640	11080			
72.0 °F	72.0 °F	81.0 °F													
PREVIOUS CASING DATA					PERFORATED INTERVAL DATA			CASING EQUIPMENT DEPTHS							
9.625 in. 36# (0 to 2,700 ft)					TCP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP			
								23462	23458						
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	3100	(psi)	7500	<300	7.2	73.0 °F	1600				
OBM	12.5 ppg	520.8 bbl	H ₂ O	8.3 ppg											
Bumped Plug	Final Differential (psi)	Floata Held (Y/N)	PSI Left on Casing	Cement to Surface (bu)	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	4,800.00	Y	-	-	87	Yes	7,500.00	No	2.00	No	43				
Comments/Additional Details: ESTIMATED TOP OF CEMENT @ 7800 FEET. LOST RETURNS AND CONTINUED PUMPING AT 45BBL/MIN AT 4700 PSI.															
										<i>Adam Pavelchick</i>		4-Aug-22			
										Service Supervisor		Date			

02/23/2024

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/23/2022
Job End Date:	12/13/2022
State:	West Virginia
County:	Monongalia
API Number:	47-061-01884-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	McClellan 3H
Latitude:	39.62172400
Longitude:	-80.27887800
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8,098
Total Base Water Volume (gal):	31,130,946
Total Base Non Water Volume:	0

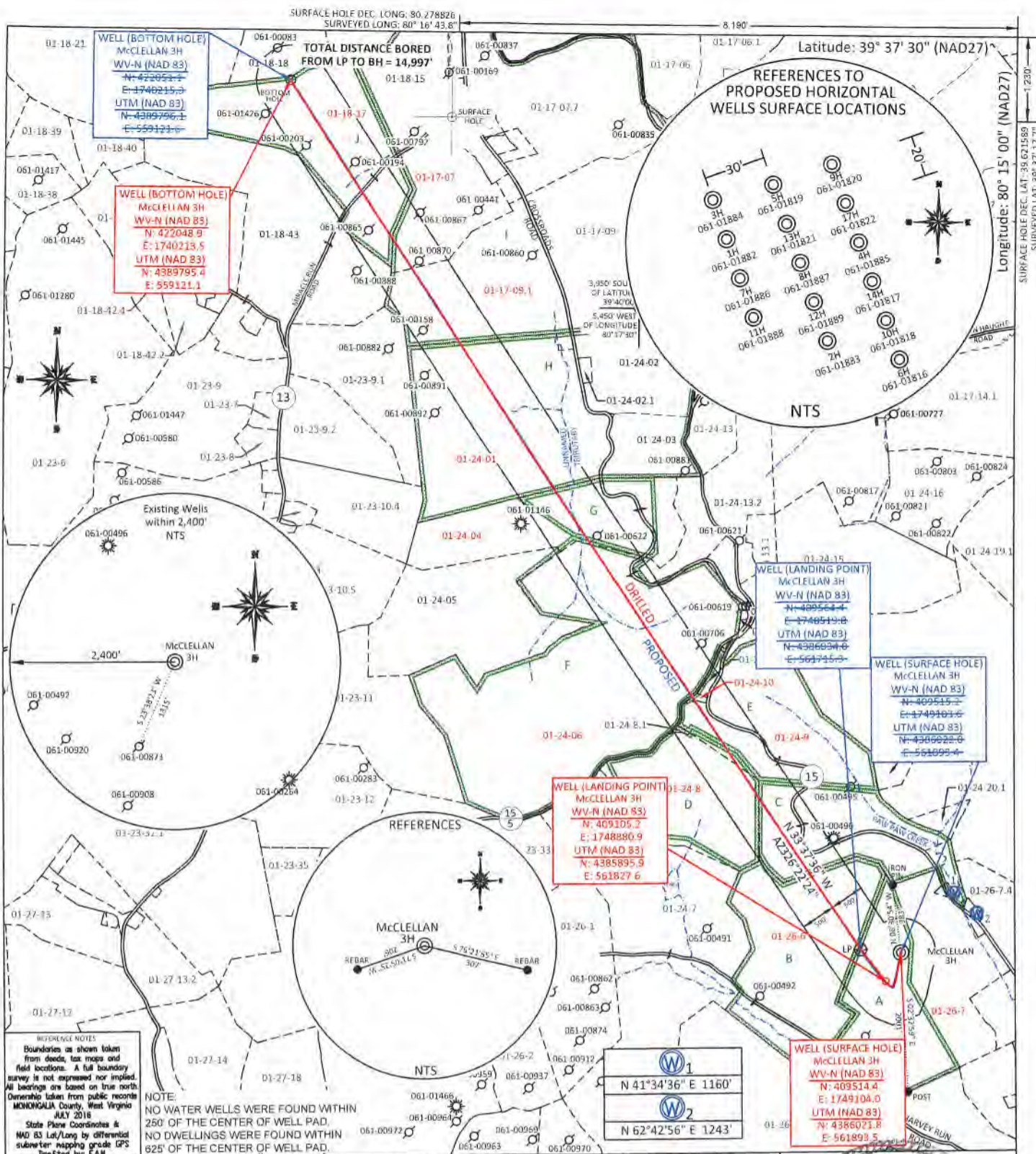


Hydraulic Fracturing Fluid Composition:

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	87.90178	None
Sand (100 Mesh Proppant)	ProFrac	Proppant					
			Silica Substrate	14808-60-7	100.00000	10.54447	None
Sand (40/70 White Proppant)	ProFrac	Proppant					
			Silica Substrate	14808-60-7	100.00000	1.16600	None
Hydrochloric Acid (7.5%)	CNR	Acidizing					
			Water	7732-18-5	85.00000	0.22314	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.09713	None
StimSTREAM FR 9800	Chemstream	Fraction Reducer					
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.02336	None
			Butene, homopolymer	9003-29-6	25.00000	0.02336	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00280	None
Clearal 268	Chemstream	Biocide					
			Non-hazardous substances	Proprietary	80.00000	0.01336	None

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 JAN 23 2024
 OFFICE OF OIL AND GAS

			Glutaraldehyde	111-30-8	20.00000	0.00334	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00050	None
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00050	None
			Ethanol	64-17-5	1.50000	0.00025	None
SlimSTREAM SC 405	Chemstream	Scale Control					
			Non-Hazardous Substances	Proprietary	70.00000	0.00945	None
			Diethylenetriamine penta (methylene phosphonic acid) (DTPMP)	15827-60-8	10.00000	0.00135	None
			2-Phosphono-1,2,4-butanetricarboxylic acid (PBTC)	37971-36-1	10.00000	0.00135	None
			Citric Acid	77-92-9	10.00000	0.00135	None
ProHib 100	CNR	Acid Inhibitor					
			2-Butoxyethanol	111-76-2	60.00000	0.00056	None
			Proprietary material	Proprietary	30.00000	0.00028	None
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00019	None
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00009	None
			Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00009	None
ProFE 105	CNR	Iron Control					
			Citric Acid	77-92-9	20.00000	0.00013	None
			Acetic Acid	64-19-7	5.00000	0.00003	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	85.00000	0.22314	
			Butene, homopolymer	9003-29-6	25.00000	0.02336	
			Non-hazardous substances	Proprietary	80.00000	0.01336	
			Non-Hazardous Substances	Proprietary	70.00000	0.00945	
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00280	
			Diethylenetriamine penta (methylene phosphonic acid) (DTPMP)	15827-60-8	10.00000	0.00135	
			Citric Acid	77-92-9	10.00000	0.00135	
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00050	
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00050	
			Proprietary material	Proprietary	30.00000	0.00028	
			Ethanol	64-17-5	1.50000	0.00025	
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00019	
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00009	
			Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00009	
			Acetic Acid	64-19-7	5.00000	0.00003	



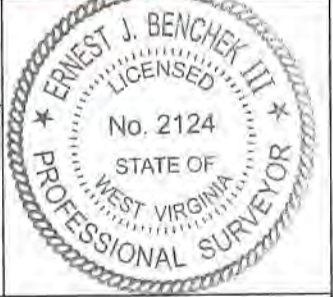
REFERENCE NOTES:
Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records MONONGALIA County, West Virginia JULY 2018. State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS tracked by EAM.

NOTE:
NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD.
NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF WELL PAD.

FILE #: NNE14
 DRAWING #: 2996
 SCALE: PLAT: 1" = 2000'
 TICK: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: [Signature]
 L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

DATE: SEPTEMBER 28, 2023
 OPERATOR'S WELL #: McCLELLAN 3H AS-DRILLED
 API WELL #: 47 61 01884
 STATE COUNTY PERMIT
 AS-BUILT ELEVATION: 1,411.7'

Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow

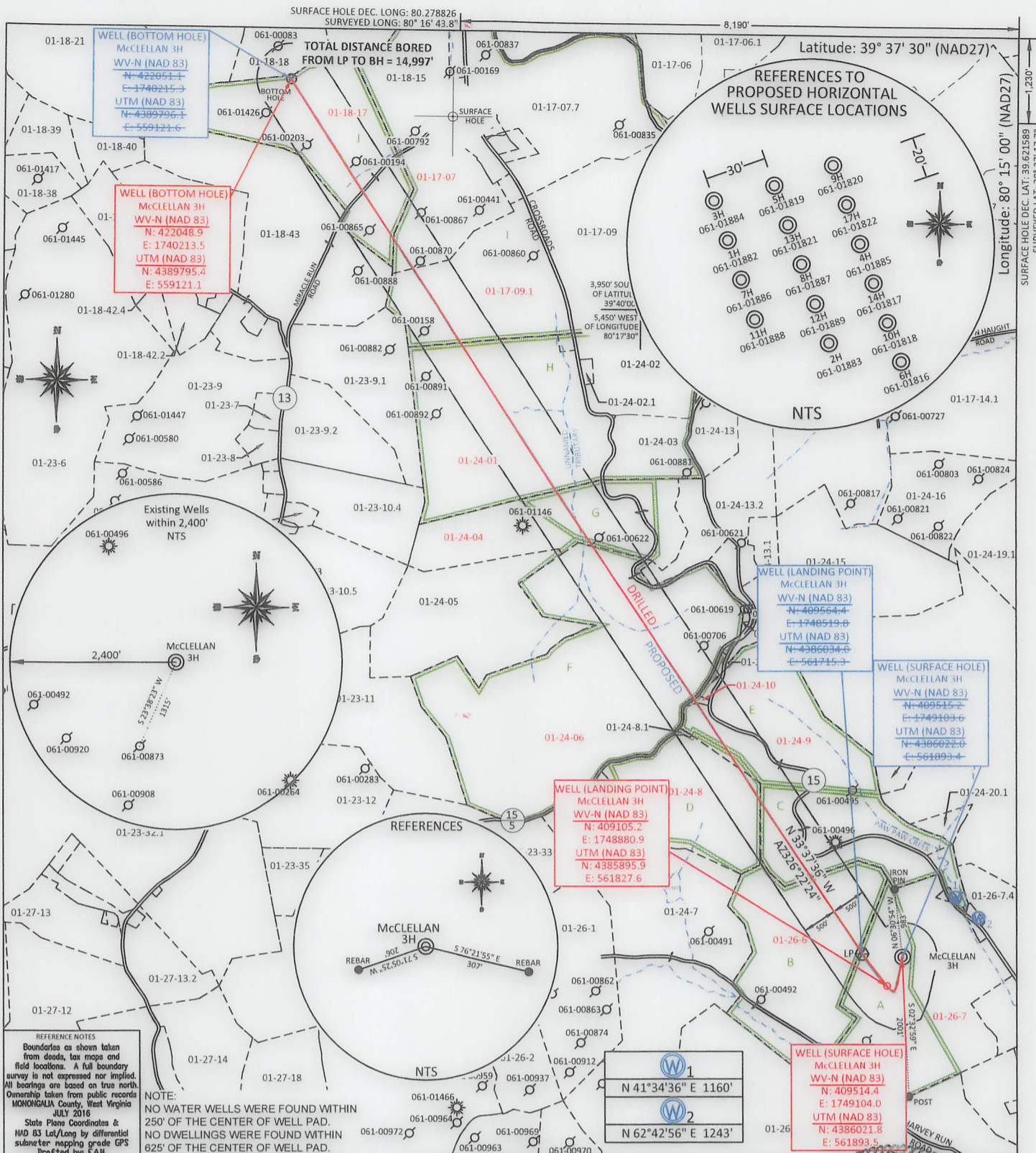
WATERSHED: UPPER MONONGAHELA
 COUNTY/DISTRICT: MONONGALIA / BATTELLE
 SURFACE OWNER: KLONDIKE REAL ESTATE PARTNERSHIP
 OIL & GAS ROYALTY OWNER: Barbara June Sutton, et al
 LEASE NUMBERS: _____

QUADRANGLE: MANNINGTON
 ACREAGE: 1382.3 +/-
 ACREAGE: 129.4 **02/23/2024**

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS
 DRILLED DEPTH: TVD: 8,081' TMD: 22,959'
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301



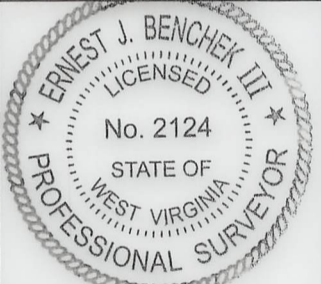
REFERENCE NOTES
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records MONONGALIA County, West Virginia JULY 2016
 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS drafted by EAH.

NOTE:
 NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD.
 NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF WELL PAD.

1
 N 41°34'36" E 1160'
 2
 N 62°42'56" E 1243'

FILE #: NNE14
 DRAWING #: 2996
 SCALE: PLAT: 1" = 2000'
TICK: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 Signed: [Signature]
 L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

DATE: SEPTEMBER 28, 2023
 OPERATOR'S WELL #: McCLELLAN 3H AS-DRILLED
 API WELL #: 47 61 01884
 STATE COUNTY PERMIT
 AS-BUILT ELEVATION: 1,411.7'

WATERSHED: UPPER MONONGAHELA
 COUNTY/DISTRICT: MONONGALIA / BATTLE
 SURFACE OWNER: KLONDIKE REAL ESTATE PARTNERSHIP
 OIL & GAS ROYALTY OWNER: Barbara June Sutton, et al
 LEASE NUMBERS: _____

QUADRANGLE: MANNINGTON
 ACREAGE: 1382.3 +/-
 ACREAGE: 129.4 **02/23/2024**

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS
 DRILLED DEPTH: TVD: 8,081' TMD: 22,959'
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301
 DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

PROPERTY OWNER INDEX	
1-26-7	KLONDIKE REAL ESTATE PARTNERSHIP
1-26-6	ROBERT G SANTEE ESTATE
1-24-8	NIFTY-FIFTY LLC
1-24-9	MARY C. WALLS
1-24-10	ARZIE, CHAS R. & HERMAN HAUGHT
1-24-6	ALLEGHENY FORESTLANDS LLC
1-24-4	FRANCIS G SWISHER & THERESA TUTTLE
1-24-1	NELSON DALE & CHERYL LISBETH GALLAGHER
1-17-9.1	JASON L SHRIVER
1-17-7	RONALD AMMONS
1-18-17	ERP FEDERAL MINING COMPLEX LLC

LEASE INDEX			
A	WV-061-004172-011	F	WV-061-005933-001
B	WV-061-004173-066	G	WV-061-004099-025
C	WV-061-005560-003	H	WV-061-700075-001
D	WV-061-004287-038	I	WV 061 000317 001-LA
E	WV-061-004223-001	J	WV-061-003767-004

RECEIVED
Office of Oil and Gas

JAN 29 2024

WV Department of
Environmental Protection

02/23/2024

FILE #: NEE14

DRAWING #: 2996

SCALE: N/A

DATE: SEPTEMBER 28, 2023

OPERATOR'S WELL #: McCLELLAN 3H AS-DRILLED

API WELL #: 47 61 01884
STATE COUNTY PERMIT