

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) Y Date permission granted 8/26/22 Granted by Bryan Harris/Taylor Brewer

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

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Reviewed by:
Hayne J. Rupp
1/31/2024

APPROVED

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

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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	322
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	458,882	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

02/23/2024

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

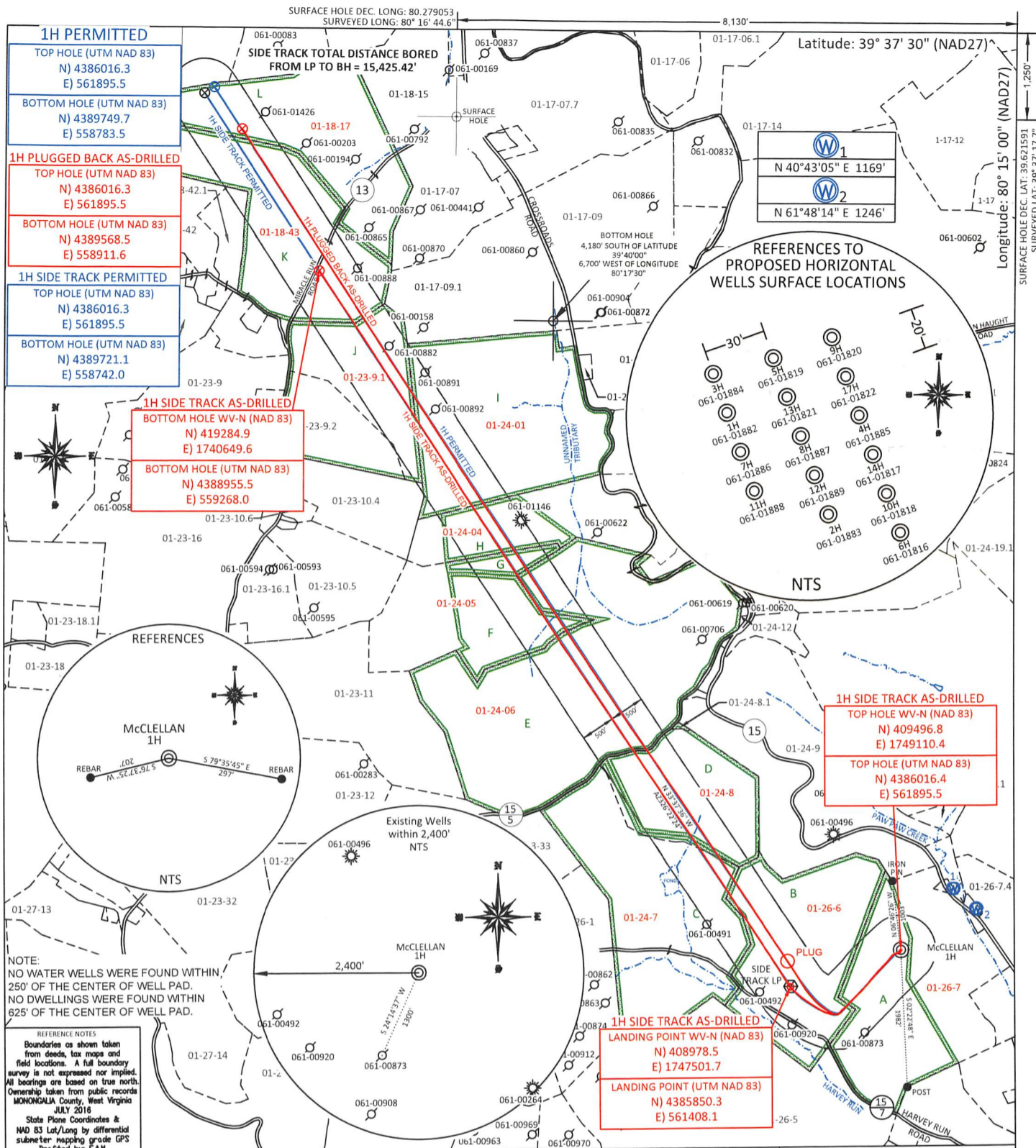
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Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
43	12/9/2022	40	12,718	12,559
44	12/9/2022	40	12,517	12,358
45	12/10/2022	40	12,316	12,157
46	12/10/2022	40	12,115	11,956
47	12/8/2022	40	11,914	11,755
48	12/10/2022	40	11,713	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

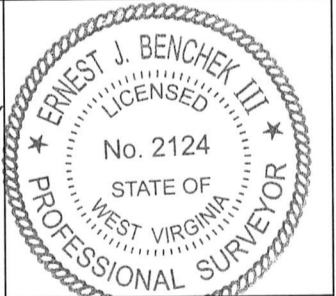
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FILE #: NNE14
 DRAWING #: 2995
 SCALE: PLAT: 1" = 2000'
 TICK: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

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

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: _____

DATE: SEPTEMBER 28, 2023
 OPERATOR'S WELL #: McCLELLAN 1H SIDE TRACK AS-DRILLED
 API WELL #: 47 61 01882
 STATE COUNTY PERMIT
 AS-BUILT ELEVATION: 1,411.7'
 QUADRANGLE: MANNINGTON
 ACREAGE: 1,143.1 +/-
 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
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

DRILLED DEPTH: 1H TVD: 8,076' TMD: 23,323' SIDE TRACK TVD: 8,079' TMD: 21,139'
 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
1-24-7	CNX LAND LLC
1-24-8	NIFTY-FIFTY LLC
1-24-6	ALLEGHENY FORESTLANDS LLC
1-24-5	FRANCIS G SWISHER & THERESA TUTTLE
1-24-4	FRANCIS G SWISHER & THERESA TUTTLE
1-24-1	NELSON DALE & CHERYL LISBETH GALLAGHER
1-24-9.1	MARY C WALLS
1-18-43	BETTY J MARTINO
1-18-17	ERP FEDERAL MINING COMPLEX LLC

LEASE INDEX			
A	WV-061-004172-011	G	WV-061-004860-020
B	WV-061-004173-066	H	WV-061-004227-002
C	WV-061-004002-005	I	WV-061-700075-001
D	WV-061-004287-038	J	WV-061-005769-001
E	WV-061-005933-001	K	WV-061-003729-001
F	WV-061-004332-001	L	WV-061-003767-004

02/23/2024

FILE #: NEE14

DRAWING #: 2995

SCALE: N/A

DATE: SEPTEMBER 28, 2023

OPERATOR'S WELL #: McCLELLAN 1H SIDE TRACK
AS-DRILLED

API WELL #: 47 61 01882
STATE COUNTY PERMIT

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
Well Type:		Rig:	PATTERSON 277	State:	WV
				Type of Job:	CM-SURFACE CASING

Plugs		Casing Hardware		Physical Slurry Properties						
Plugs	Casing Hardware	Sacks of Cement	Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Fluid Volume (cuft)	Mix Water (bbls)	
CUSTOMER SUPPLIED	13 3/8 HEAD AND BOWL									
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	-		
0						-		-		
						-		-		
						-		-		
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Displacement Chemicals: _____ WV Department of Environmental Protection

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	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.	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	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)				
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: _____

Adam Pavelchick
Service Supervisor

7-Aug-22
Date

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	10.64666	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
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.06342	None
StimSTREAM FR 9800	Chemstream	Friction Reducer					
			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
Clearal 268	Chemstream	Biocide					
			Non-hazardous substances	Proprietary	80.00000	0.01425	None

			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(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	0.14569	
			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	