



 west virginia department of environmental protection

Office of Oil and Gas
 601 57th Street, S.E.
 Charleston, WV 25304
 (304) 926-0450
 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, April 3, 2019
 WELL WORK PERMIT
 Horizontal 6A / New Drill

NORTHEAST NATURAL ENERGY LLC
 707 VIRGINIA STREET EAST
 STE 1200
 CHARLESTON, WV 25301


Re: Permit approval for LEMLEY 8H
 47-061-01835-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
 Chief

Operator's Well Number: LEMLEY 8H
 Farm Name: CLARENCE W. LEMLEY JR. 
 U.S. WELL NUMBER: 47-061-01835-00-00
 Horizontal 6A New Drill
 Date Issued: 4/3/2019

PERMIT CONDITIONS 470610/158315

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: _____
04/05/2019

PERMIT CONDITIONS

4706101835

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

WW-6B
(04/15)

API NO. 47- _____ - _____
OPERATOR WELL NO. 8H
Well Pad Name: Lemley

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Northeast Natural Energy | 494498281 | Monongalia | Clay | Blacksville
Operator ID County District Quadrangle

2) Operator's Well Number: 8H Well Pad Name: Lemley

3) Farm Name/Surface Owner: Clarence W Jr & Charlotte E Lemley Public Road Access: State Route 22

4) Elevation, current ground: 1,549' Elevation, proposed post-construction: 1,540'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow Deep _____
Horizontal

6) Existing Pad: Yes or No No *ADK 1/17/2019*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus; 8,206'; 53'; 3,600 psi

8) Proposed Total Vertical Depth: 8,206'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22,194'

11) Proposed Horizontal Leg Length: 12,825'

12) Approximate Fresh Water Strata Depths: 50', 1,471'

13) Method to Determine Fresh Water Depths: Drillers Log from Offset Wells

14) Approximate Saltwater Depths: 2,361', 2,511'

15) Approximate Coal Seam Depths: 501', 1,469'

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

RECEIVED
Office of Oil and Gas

JAN 29 2019

WV Department of
Environmental Protection

04/05/2019

4706101835

WW-6B
(04/15)

API NO. 47- _____ - _____
OPERATOR WELL NO. 8H _____
Well Pad Name: Lemley _____

18)

CASING AND TUBING PROGRAM

| TYPE | Size (in) | New or Used | Grade | Weight per ft. (lb/ft) | FOOTAGE: For Drilling (ft) | INTERVALS: Left in Well (ft) | CEMENT: Fill-up (Cu. Ft.)/CTS |
|--------------|------------------|--------------------|--------------|-------------------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Conductor | 24" | New | NA | 94.71 | 40' | 40' | GTS |
| Fresh Water | 13-3/8" | New | J-55 | 54.5 | 1,551' | 1,521' | CTS |
| Coal | | | | | | | |
| Intermediate | 9-5/8" | New | J-55 | 40 | 2,591' | 2,561' | CTS |
| Production | 5-1/2" | New | P-110 | 20 | 22,194' | 22,164' | 5230 cu ft |
| Tubing | 2-3/8" | New | P-110 | 4.7 | NA | 8,500' | NA |
| Liners | | | | | | | |

MGK 1/17/2019

| TYPE | Size (in) | Wellbore Diameter (in) | Wall Thickness (in) | Burst Pressure (psi) | Anticipated Max. Internal Pressure (psi) | Cement Type | Cement Yield (cu. ft./k) |
|--------------|------------------|-------------------------------|----------------------------|-----------------------------|---|--------------------|---------------------------------|
| Conductor | 24" | 38" | .375" | 415 | | 4,500 psi grout | NA |
| Fresh Water | 13-3/8" | 17-1/2" | .38" | 2,760 | 2,000 | Class A | 1.23 |
| Coal | | | | | | | |
| Intermediate | 9-5/8" | 12-1/4" | .395" | 3,950 | 3,000 | Class A | 1.3 |
| Production | 5-1/2" | 8-3/4" | .361" | 12,530 | 9,700 | 50:50 poz | 1.21 |
| Tubing | 2-7/8" | NA | .217" | 10,570 | 3,600 | NA | NA |
| Liners | | | | | | | |

PACKERS

| | | | | |
|-------------|--|--|--|--|
| Kind: | | | | RECEIVED Office of Oil and Gas |
| Sizes: | | | | JAN 29 2019 |
| Depths Set: | | | | WV Department of Environmental Protection |

WW-6B
(10/14)

API NO. 47- **4706101835**
OPERATOR WELL NO. 8H
Well Pad Name: Lemley

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drilling and completion of a horizontal Marcellus well. The well will be drilled on air to an approximate depth of 6,700 TVD/MD. The well will then be horizontally drilled on synthetic based mud from the KOP to approximately 8,206 TVD/22,194' MD along a 154° azimuth.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Multi-stage / high-rate slickwater fracture treatment using various size sands as proppant. First stage will be initiated via pressurization against a burst disc ran in the production casing string or perforated with coiled tubing. Subsequent stages will be perforated with pumped down guns ran on wireline. Individual stages will be isolated with composite frac plugs. Maximum pump rate during any stage will be 110 BPM with a maximum allowable surface pressure of 9,500 PSI. Composite bridge plugs will be set at the end of the last stage to isolate the treated formation.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 23.73

22) Area to be disturbed for well pad only, less access road (acres): 8.39

23) Describe centralizer placement for each casing string:

Surface and intermediate casing strings will have bow spring centralizers placed every third joint (~120') from the shoe joint to surface. Production casing will have rigid body centralizers placed at a minimum of every fourth joint (~160') from TD to surface.

24) Describe all cement additives associated with each cement type:

Surface string cement will be a Type 1 + Max 3% bwoc Calcium Chloride Fresh Water blend.
Intermediate string cement will be a Type 1 Cement + Max 3% bwoc Calcium Chloride + Fresh Water.
Production string cement will be (50:50) Poz (Fly Ash):Type I Cement with a gas migration additive.

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

25) Proposed borehole conditioning procedures:

Surface string will use a 25.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Intermediate string will use a 25.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Production string will use a 50.0 bbls SealBond 25 + 1 gal/bbl US-40 + 275 lbs/bbl Barite + 1 gal/bbl SS-2 Spacer @ 13.5 ppg prior to cement.

*Note: Attach additional sheets as needed.



NORTHEAST NATURAL ENERGY, LLC

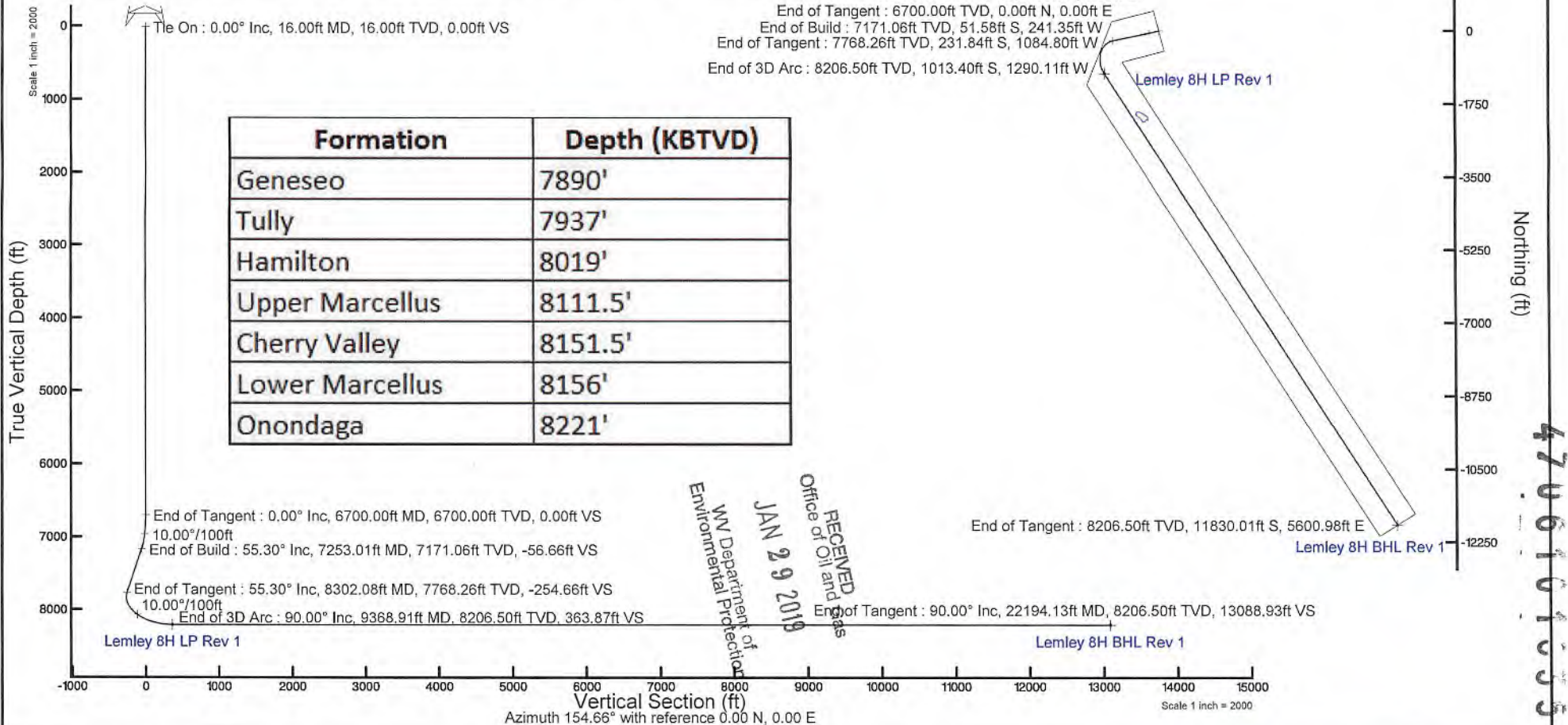
Location: Monongalia County, WV
 Field: Monongalia
 Facility: Lemley Pad

Slot: Slot 8
 Well: Lemley 8H
 Wellbore: Lemley 8H PWB



| | |
|--|--|
| Plot reference wellpath is Lemley 8H PWP Ex-00 | Grid System: NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet |
| True vertical depths are referenced to Rig on Slot 8 (RKB) | North Reference: Grid north |
| Measured depths are referenced to Rig on Slot 8 (RKB) | Scale: True distance |
| Rig on Slot 8 (RKB) to Mean Sea Level: 1550 feet | Depths are in feet |
| Mean Sea Level to Ground level (At Slot: Slot 8): -1534 feet | Created by: atenjen on 2018-11-27 |
| Coordinates are in feet referenced to Slot | Database: WA_MPL_EASTERNUS_Defn |

| Type | Hole Size | Casing Size | Grade | | GL Depth (Csg) |
|--------------|-----------|-------------|-------|------|----------------|
| Conductor | 28" | 24" | NA | | 40' |
| Surface | 17-1/2" | 13-3/8" | J-55 | 54.5 | 1521' |
| Intermediate | 12-1/4" | 9-5/8" | J-55 | 40 | 2561' |



RECEIVED
 Office of Oil and Gas
 JAN 29 2019
 WV Department of Environmental Protection

MSK 1/17/2019

Lemley 8H Area of Review

| API Number | Well Name | Well Number | Operator | Latitude (NAD 27) | Longitude (NAD 27) | TMP | TVD | Notes |
|--------------|---------------------------------------|-------------|--------------------|-------------------|--------------------|-----------|------|------------------|
| 47-061-01002 | Howard S Eddy/C G Dean/B R Matheny | 29 | NNE Resources, LLC | 39.647379 | -80.124721 | 4-15-18 | 2027 | NA |
| 47-061-00988 | Mark Eddy/C P Eddy/C A Tennant | 1 | NNE Resources, LLC | 39.649310 | -80.125412 | 4-15-17.3 | NA | Plugged 11/11/16 |
| 47-061-00991 | Mark/Harry Eddy | 8 | NNE Resources, LLC | 39.652247 | -80.127606 | 4-15-17.3 | NA | NA |

4706101835

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

4706101839 04/05/2019

WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Lemley 8H

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS**

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Northeast Natural Energy LLC OP Code 494498281

Watershed (HUC 10) Dunkard Creek Quadrangle Blacksville

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: NA

Will a synthetic liner be used in the pit? Yes No If so, what ml.? NA

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number unknown at this time, TBD)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes, Please See Attachment "A"

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical - Air/ Curve & Horizontal - Oil Based

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Based Mud

Additives to be used in drilling medium? Organophilic Clay Viscosifiers, Lime, Unsaturated Fatty Acids, CaCl, Barite, Emulsifiers, Mica LCM, Water Loss Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Removed Offsite - Please See Attachment "A"

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? Please See Attachment "A"

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Hollie Medley
Company Official (Typed Name) Hollie Medley
Company Official Title Regulatory Manager

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

Subscribed and sworn before me this 21st day of January 2019, 20____
Kristen Brooks

My commission expires Aug 10, 2023

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Kristen Brooks
Northeast Natural Energy LLC
48 Donley St., Suite 601
Morgantown, WV 26501
My Commission Expires Aug. 10, 2023

Northeast Natural Energy LLC

Proposed Revegetation Treatment: Acres Disturbed 8.36 Prevegetation pH 5-7

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 300 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

| Temporary | | Permanent | |
|--------------------------|----------|--------------------------|----------|
| Seed Type | lbs/acre | Seed Type | lbs/acre |
| Orchard Grass | 46 | Orchard Grass | 46 |
| Red Clover | 8 | Red Clover | 8 |
| Tetraploi Perennial Rye | 16 | Tetraploid Perennial Rye | 16 |
| Timothy 15 Annual Rye 15 | | Timothy 15 Annual Rye | 15 |

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Magne J. Knudsen*

Comments:

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

Title: *Inspector*

Date: *1/17/2019*

Field Reviewed? () Yes () No

Attachment A to WW-9

4706101035

Northeast Natural Energy LLC (“NNE”) plans to utilize a closed loop process for its drilling of the Lemley 8H well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completion process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

Lemley 8H Drill Cuttings will be taken to disposal at one or more of the following disposal/approved waste facilities, unless listed facilities are no longer approved to accept waste at time of disposal:

- Westmoreland Landfill (Tervita) – Belle Vernon, PA (Permit # 100277)
- Meadowfill Landfill (Waste Management) – Bridgeport, WV (Permit # SWF 103298)
- Max Environmental – Yukon, PA (PAD004835146 and 301071)
- Max Environmental – Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal) – Export, PA (Permit # 101421)

NNE plans to reuse and recycle all flowback fluid and/or reach out to other operators in the area who may be able to reuse and recycle such fluid. However, in the event that reuse is not obtainable the fluid will be disposed of at one, or multiple, of the following disposal/approved waste facilities unless listed facilities are no longer approved to accept waste at time of disposal:

- Fairmont Brine Processing (WV NPDES #0116408)
- Green Hunter M. E. Elder 1 Disposal Well (Permit # 47-085-05151)
- Green Hunter Mason 1 Disposal Well (Permit #47-085-09721)
- Green Hunter Warren Disposal Well (Permit #34-121-2-3995)
- Green Hunter Travis Unit Disposal Well (Permit #34-121-2-4086)
- Viking Energy Corporation 20320 Disposal Well (Permit#47-039-02210)
- Ohio Oil Gathering Killbuck Disposal Well (Permit #34-075-24527)
- Ohio Oil Gathering Moran Disposal Well (Permit #34-089-24792)
- Ohio Oil Gathering Bells Run Disposal Well (Permit #34-167-29395)
- Ohio Oil Gathering Long Run Disposal Well (Permit #34-167-29658)
- Ohio Oil Gathering Newell Run Disposal Well (Permit #34-167-29685)
- Appalachian Oil Purchaser Greens Run Disposal Well (Permit #2D0732540)
- Appalachian Oil Purchaser BW#4 Disposal Well (Permit # 2D0732523)

RECEIVED
Office of Oil and Gas

JAN 29 2019

WV Department of
Environmental Protection

04/05/2019

4706101835



northeast
NATURAL ENERGY

Lemley 8H

SITE SAFETY PLAN

January 2019

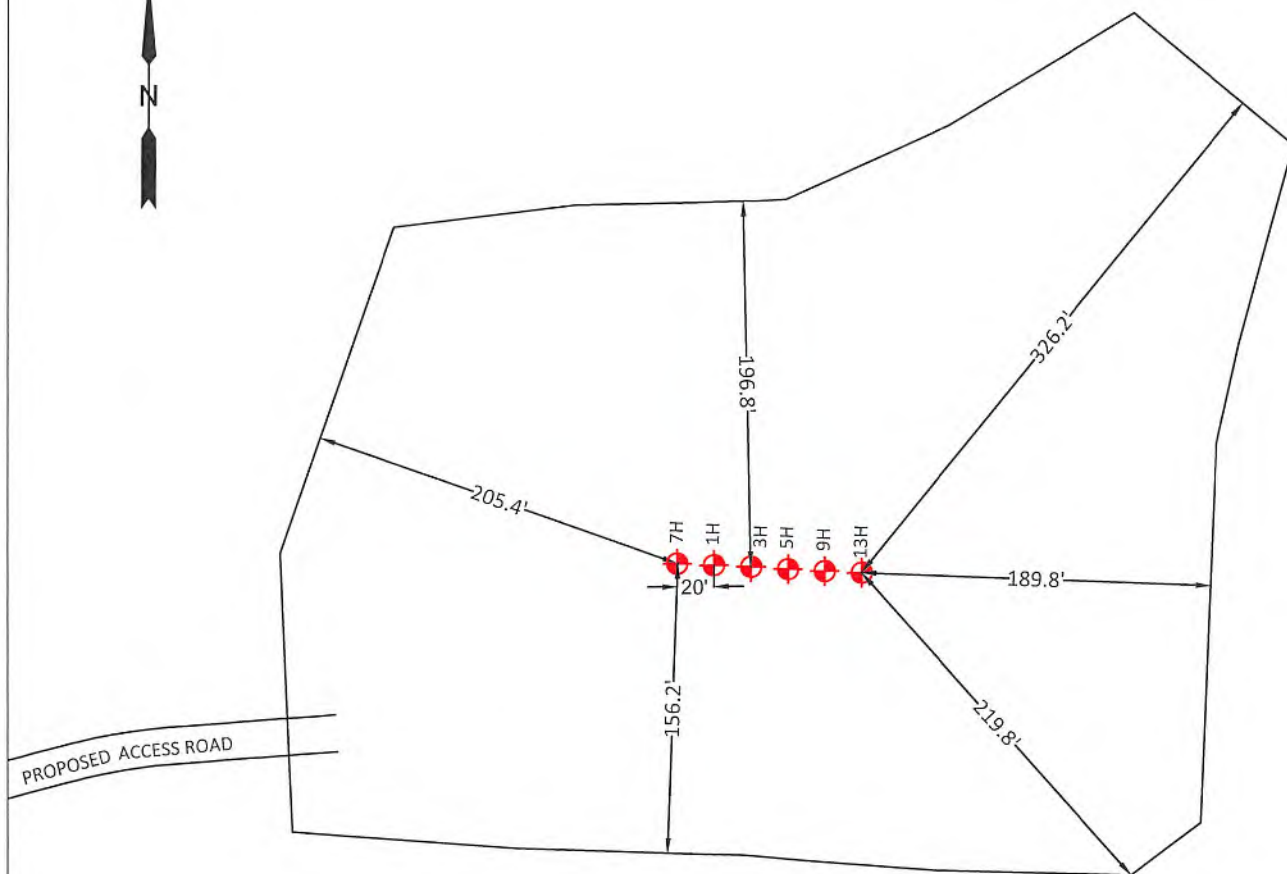
Haynes Kim Law
1/17/2019

RECEIVED
Office of Oil and Gas

JAN 29 2019

WV Department of
Environmental Protection

4706101835

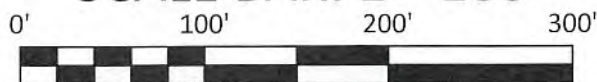


| WELL NUMBER | API NUMBER | STATUS |
|-------------|------------|----------|
| 1H | | PROPOSED |
| 3H | | PROPOSED |
| 5H | | PROPOSED |
| 7H | | PROPOSED |
| 9H | | PROPOSED |
| 13H | | PROPOSED |

PREPARED FOR
NORTHEAST NATURAL ENERGY LLC
 LEMLEY WELL PAD
 CLAY DISTRICT, MONONGALIA COUNTY, WV

PREPARED BY
BOORD BENCHEK & ASSOC., INC.
 ENGINEERING, SURVEYING, CONSTRUCTION AND
 MINING SERVICES
 SOUTHPOINTE, PA 15317 PHONE: 724-746-1055

SCALE BAR: 1"=100'



TOPHOLE DIAGRAM
 LEMLEY WELL PAD
 CLAY DISTRICT, MONONGALIA
 COUNTY, WV
 DATE: 1/14/19

LEGEND

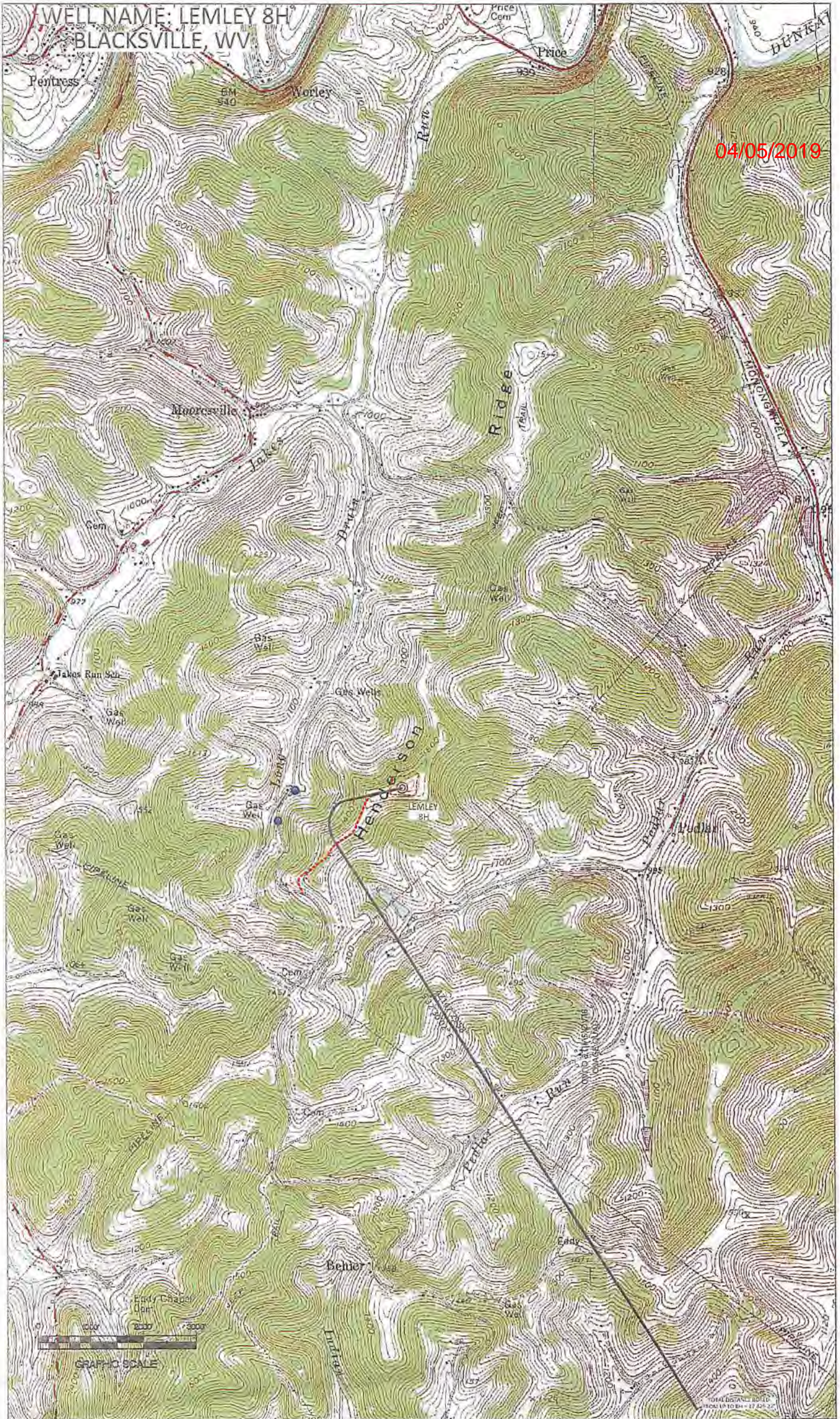
= PROPOSED WELL

RECEIVED
 Office of Oil and Gas
 JAN 29 2019

WV Department of
 Environmental Protection

WELL NAME: LEMLEY 8H
BLACKSVILLE, WV

04/05/2019



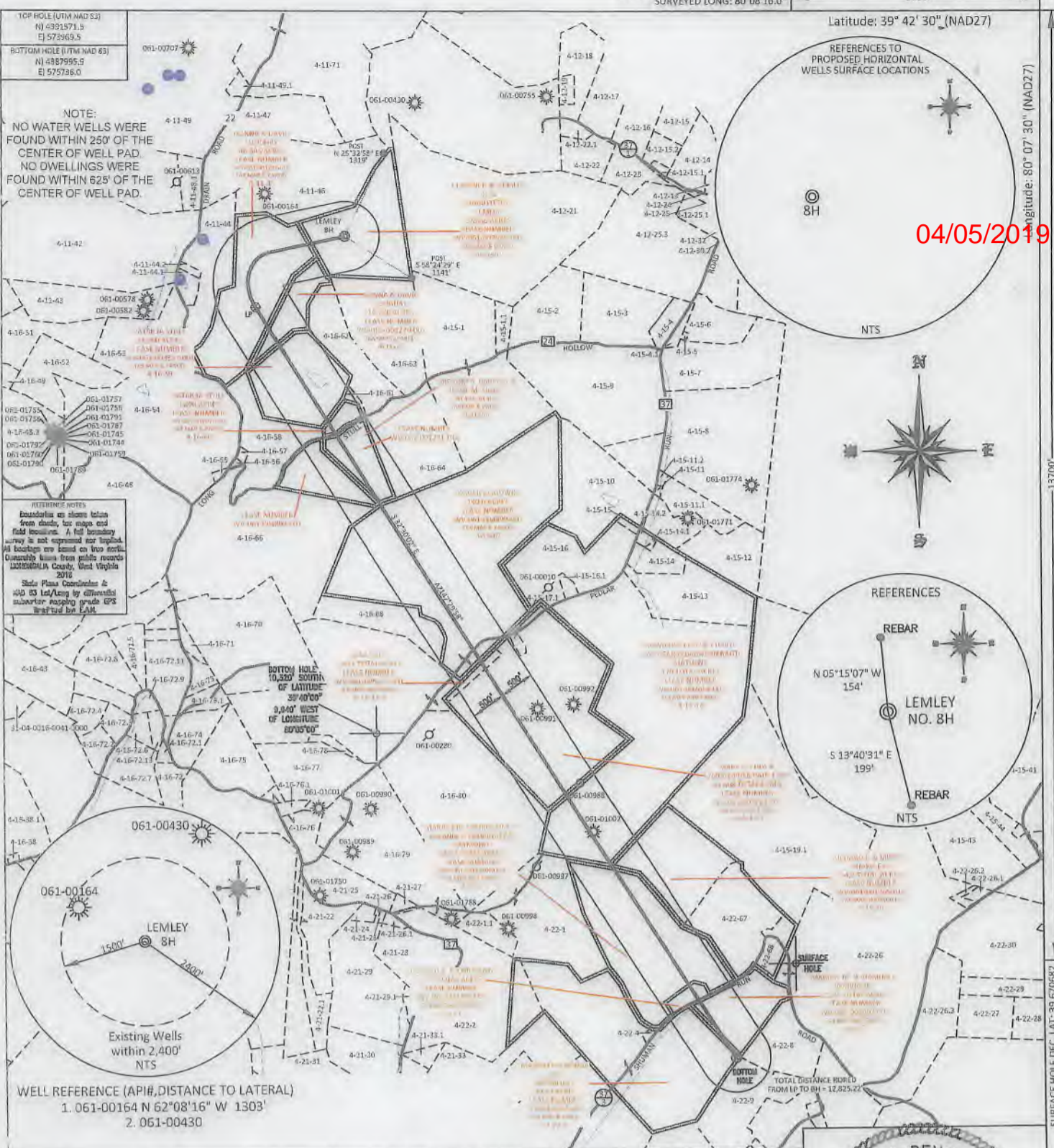
MOK 4/17/2019

SURFACE HOLE DEC. LONG: 80.137780
SURVEYED LONG: 80°08'16.0"

3580'

Latitude: 39° 42' 30" (NAD27)

Longitude: 80° 07' 30" (NAD27)



04/05/2019

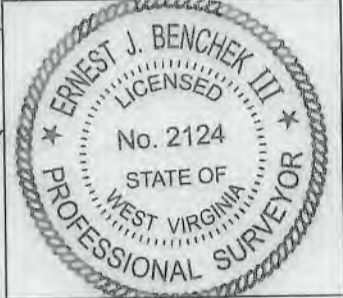
FILE #: NEE14
DRAWING #:
SCALE: PLAT: 1" = 2000'
TICK MARK: 1" = 2000'

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 Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: DUNKARD CREEK
COUNTY/DISTRICT: MONONGALIA / CLAY
SURFACE OWNER: CLARENCE W. LEMLEY JR. & CHARLOTTE E. LEMLEY
OIL & GAS ROYALTY OWNER: LEROY TENNANT, et al
LEASE NUMBERS:

DATE: JANUARY 11, 2019
OPERATOR'S WELL #: LEMLEY 8H
API WELL #: 47 61 01835 H6A
STATE COUNTY PERMIT
CURRENT PROPOSED
ELEVATION: 1,560' ELEVATION: 1,540.56'

WATERSHED: DUNKARD CREEK
COUNTY/DISTRICT: MONONGALIA / CLAY
SURFACE OWNER: CLARENCE W. LEMLEY JR. & CHARLOTTE E. LEMLEY
OIL & GAS ROYALTY OWNER: LEROY TENNANT, et al
LEASE NUMBERS:

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

ESTIMATED DEPTH: TVD: 8,206.50' TMD: 22,194.13
DESIGNATED AGENT: JOHN ADAMS
ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
CITY: CHARLESTON STATE: WV ZIP CODE: 25301

WW-6A1
(5/13)

Operator's Well No. Lemley 8H

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

| Lease Name or Number | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Book/Page |
|----------------------|-----------------------|-----------------------|---------|-----------|
| See attached | | | | |

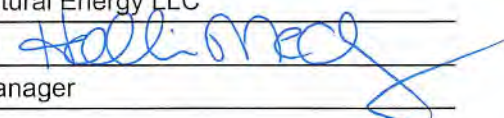
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Northeast Natural Energy LLC
 By: Hollie Medley 
 Its: Regulatory Manager

WW-6A1

Operators Well No. Lemley 8H

WV Department of Environmental Protection

| Lease Number | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Book | Page |
|-------------------|-----------------------|------------------------------|------------------|------|------|
| WV-061-003525-001 | TENNANT, LEROY | Northeast Natural Energy LLC | 0.125 or Greater | 1524 | 449 |
| WV-061-003525-002 | LOHR, LLOYD M | Northeast Natural Energy LLC | 0.125 or Greater | 1526 | 74 |
| WV-061-003525-003 | HICKMAN, LINDA | Northeast Natural Energy LLC | 0.125 or Greater | 1525 | 242 |
| WV-061-003525-004 | MALOTT, ROSE M. | Northeast Natural Energy LLC | 0.125 or Greater | 1525 | 250 |
| WV-061-003525-007 | TENNANT, SHIRLE | Northeast Natural Energy LLC | 0.125 or Greater | 1534 | 88 |
| WV-061-003525-008 | COSNER, SHEILA | Northeast Natural Energy LLC | 0.125 or Greater | 1534 | 86 |
| WV-061-003525-009 | EDDY, RONALD & | Northeast Natural Energy LLC | 0.125 or Greater | 1535 | 107 |
| WV-061-003525-010 | HENDERSON, WILL | Northeast Natural Energy LLC | 0.125 or Greater | 1536 | 622 |
| WV-061-003525-011 | HENDERSON, LARR | Northeast Natural Energy LLC | 0.125 or Greater | 1536 | 599 |
| WV-061-003525-012 | HENDERSON, ALPH | Northeast Natural Energy LLC | 0.125 or Greater | 1536 | 535 |
| WV-061-003525-013 | HENDERSON, JENN | Northeast Natural Energy LLC | 0.125 or Greater | 1566 | 289 |
| WV-061-003525-014 | HENDERSON, JESS | Northeast Natural Energy LLC | 0.125 or Greater | 1568 | 430 |
| WV-061-003525-015 | MCCARVER, STEPH | Northeast Natural Energy LLC | 0.125 or Greater | 1568 | 271 |
| WV-061-003525-016 | CHARVAT, SHAWNA | Northeast Natural Energy LLC | 0.125 or Greater | 1568 | 339 |
| WV-061-003525-017 | STOUT, MARGARET | Northeast Natural Energy LLC | DEED | 1569 | 269 |
| WV-061-003525-018 | TENNANT, DENZIL | Northeast Natural Energy LLC | DEED | 1569 | 244 |
| WV-061-003525-019 | VESELENAK, RONA | Northeast Natural Energy LLC | 0.125 or Greater | 1617 | 742 |
| WV-061-003525-020 | MCJESSY, JUDITH | Northeast Natural Energy LLC | 0.125 or Greater | 1617 | 744 |
| WV-061-003525-021 | CORE, CHARLES L | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 195 |
| WV-061-003715-002 | TYNER, CHRISTOP | Northeast Natural Energy LLC | 0.125 or Greater | 1554 | 828 |
| WV-061-003715-003 | DODD, NORA LOU | Northeast Natural Energy LLC | 0.125 or Greater | 1564 | 400 |
| WV-061-004308-001 | CORE, WILLIAM B | Northeast Natural Energy LLC | 0.125 or Greater | 1644 | 9 |
| WV-061-004263-001 | JENKINS, PAULA | Northeast Natural Energy LLC | 0.125 or Greater | 1645 | 348 |
| WV-061-004264-001 | MYERS, JUNE C. | Northeast Natural Energy LLC | 0.125 or Greater | 1571 | 548 |
| WV-061-004267-001 | CORE, BEVERLY J | Northeast Natural Energy LLC | 0.125 or Greater | 1571 | 578 |
| WV-061-001291-018 | BANE, JANET S. | Northeast Natural Energy LLC | 0.125 or Greater | 1507 | 244 |
| WV-061-001291-020 | VARNER, MARTIN | Northeast Natural Energy LLC | 0.125 or Greater | 1614 | 605 |
| WV-061-001291-021 | KING, RONALD ET | Northeast Natural Energy LLC | DEED | 1634 | 483 |
| WV-061-001291-022 | TENNANT, HARRY | Northeast Natural Energy LLC | 0.125 or Greater | 1633 | 336 |
| WV-061-003682-001 | ASHCRAFT, JAMES | Northeast Natural Energy LLC | DEED | 1547 | 801 |
| WV-061-003682-002 | ASHCRAFT, RICKY | Northeast Natural Energy LLC | DEED | 1548 | 262 |
| WV-061-003682-003 | CRANE, SHIRLEY | Northeast Natural Energy LLC | DEED | 1545 | 778 |
| WV-061-003682-004 | ASHCRAFT, DUSTI | Northeast Natural Energy LLC | DEED | 1548 | 258 |
| WV-061-003682-005 | ASHCRAFT, DAYTO | Northeast Natural Energy LLC | DEED | 1545 | 782 |
| WV-061-003682-006 | ASHCRAFT, JOHN | Northeast Natural Energy LLC | DEED | 1545 | 328 |
| WV-061-003682-007 | ASHCRAFT, CHARL | Northeast Natural Energy LLC | DEED | 1550 | 367 |
| WV-061-004317-001 | KETCHEM, JOYCE | Northeast Natural Energy LLC | DEED | 1576 | 347 |
| WV-061-004317-005 | STULL, DONALD L | Northeast Natural Energy LLC | 0.125 or Greater | 1641 | 346 |
| WV-061-004317-014 | LOUGHRY, DONNA | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 98 |
| WV-061-001291-005 | HANULA TRUST | CHESAPEAKE APPALACHIA, LLC | 0.125 or Greater | 120 | 769 |
| WV-061-004317-002 | WILSON, BARBARA | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 371 |
| WV-061-004317-003 | TENNANT, BRENDA | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 373 |
| WV-061-004317-004 | ARNETT, ROBERT | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 375 |
| WV-061-004317-006 | BROOKOVER, ROBE | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 413 |
| WV-061-004317-007 | STATLER, RONALD | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 416 |
| WV-061-004317-008 | STATLER, NELSON | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 418 |
| WV-061-004317-009 | STATLER, JOSEPH | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 420 |
| WV-061-004317-010 | CHISLER FAMILY | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 422 |
| WV-061-004317-011 | STATLER, GARY A | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 424 |
| WV-061-004317-012 | MORRIS, LINDA S | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 519 |
| WV-061-004317-013 | KING, SHARON | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 442 |
| WV-061-004270-001 | WILLIAMS, LORET | Northeast Natural Energy LLC | DEED | 1571 | 535 |

04/05/2019

4706101835

| | | | | | |
|-------------------|-----------------|------------------------------|------------------|------|-----|
| WV-061-003822-001 | STULL, PATRICIA | Northeast Natural Energy LLC | DEED | 1569 | 28 |
| WV-061-001291-018 | BANE, JANET S. | Northeast Natural Energy LLC | 0.125 or Greater | 1507 | 244 |
| WV-061-001291-020 | VARNER, MARTIN | Northeast Natural Energy LLC | 0.125 or Greater | 1614 | 605 |
| WV-061-001291-021 | KING, RONALD ET | Northeast Natural Energy LLC | DEED | 1634 | 483 |
| WV-061-001291-022 | TENNANT, HARRY | Northeast Natural Energy LLC | 0.125 or Greater | 1633 | 336 |
| WV-061-003682-001 | ASHCRAFT, JAMES | Northeast Natural Energy LLC | DEED | 1547 | 801 |
| WV-061-003682-002 | ASHCRAFT, RICKY | Northeast Natural Energy LLC | DEED | 1548 | 262 |
| WV-061-003682-003 | CRANE, SHIRLEY | Northeast Natural Energy LLC | DEED | 1545 | 778 |
| WV-061-003682-004 | ASHCRAFT, DUSTI | Northeast Natural Energy LLC | DEED | 1548 | 258 |
| WV-061-003682-005 | ASHCRAFT, DAYTO | Northeast Natural Energy LLC | DEED | 1545 | 782 |
| WV-061-003682-006 | ASHCRAFT, JOHN | Northeast Natural Energy LLC | DEED | 1545 | 328 |
| WV-061-003682-007 | ASHCRAFT, CHARL | Northeast Natural Energy LLC | DEED | 1550 | 367 |
| WV-061-003822-001 | STULL, PATRICIA | Northeast Natural Energy LLC | DEED | 1569 | 28 |
| WV-061-004270-001 | WILLIAMS, LORET | Northeast Natural Energy LLC | DEED | 1571 | 535 |
| WV-061-004317-001 | KETCHEM, JOYCE | Northeast Natural Energy LLC | DEED | 1576 | 347 |
| WV-061-004317-005 | STULL, DONALD L | Northeast Natural Energy LLC | 0.125 or Greater | 1641 | 346 |
| WV-061-004317-014 | LOUGHRY, DONNA | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 98 |
| WV-061-001291-005 | HANULA TRUST | CHESAPEAKE APPALACHIA, LLC | 0.125 or Greater | 120 | 769 |
| WV-061-004317-002 | WILSON, BARBARA | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 371 |
| WV-061-004317-003 | TENNANT, BRENDA | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 373 |
| WV-061-004317-004 | ARNETT, ROBERT | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 375 |
| WV-061-004317-006 | BROOKOVER, ROBE | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 413 |
| WV-061-004317-007 | STATLER, RONALD | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 416 |
| WV-061-004317-008 | STATLER, NELSON | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 418 |
| WV-061-004317-009 | STATLER, JOSEPH | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 420 |
| WV-061-004317-010 | CHISLER FAMILY | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 422 |
| WV-061-004317-011 | STATLER, GARY A | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 424 |
| WV-061-004317-012 | MORRIS, LINDA S | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 519 |
| WV-061-004317-013 | KING, SHARON | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 442 |
| WV-061-001291-018 | BANE, JANET S. | Northeast Natural Energy LLC | 0.125 or Greater | 1507 | 244 |
| WV-061-001291-020 | VARNER, MARTIN | Northeast Natural Energy LLC | 0.125 or Greater | 1614 | 605 |
| WV-061-001291-021 | KING, RONALD ET | Northeast Natural Energy LLC | DEED | 1634 | 483 |
| WV-061-001291-022 | TENNANT, HARRY | Northeast Natural Energy LLC | 0.125 or Greater | 1633 | 336 |
| WV-061-003682-001 | ASHCRAFT, JAMES | Northeast Natural Energy LLC | DEED | 1547 | 801 |
| WV-061-003682-002 | ASHCRAFT, RICKY | Northeast Natural Energy LLC | DEED | 1548 | 262 |
| WV-061-003682-003 | CRANE, SHIRLEY | Northeast Natural Energy LLC | DEED | 1545 | 778 |
| WV-061-003682-004 | ASHCRAFT, DUSTI | Northeast Natural Energy LLC | DEED | 1548 | 258 |
| WV-061-003682-005 | ASHCRAFT, DAYTO | Northeast Natural Energy LLC | DEED | 1545 | 782 |
| WV-061-003682-006 | ASHCRAFT, JOHN | Northeast Natural Energy LLC | DEED | 1545 | 328 |
| WV-061-003682-007 | ASHCRAFT, CHARL | Northeast Natural Energy LLC | DEED | 1550 | 367 |
| WV-061-003822-001 | STULL, PATRICIA | Northeast Natural Energy LLC | DEED | 1569 | 28 |
| WV-061-004270-001 | WILLIAMS, LORET | Northeast Natural Energy LLC | DEED | 1571 | 535 |
| WV-061-004317-001 | KETCHEM, JOYCE | Northeast Natural Energy LLC | DEED | 1576 | 347 |
| WV-061-004317-005 | STULL, DONALD L | Northeast Natural Energy LLC | 0.125 or Greater | 1641 | 346 |
| WV-061-004317-014 | LOUGHRY, DONNA | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 98 |
| WV-061-001291-005 | HANULA TRUST | CHESAPEAKE APPALACHIA, LLC | 0.125 or Greater | 120 | 769 |
| WV-061-004317-002 | WILSON, BARBARA | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 371 |
| WV-061-004317-003 | TENNANT, BRENDA | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 373 |
| WV-061-004317-004 | ARNETT, ROBERT | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 375 |
| WV-061-004317-006 | BROOKOVER, ROBE | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 413 |
| WV-061-004317-007 | STATLER, RONALD | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 416 |
| WV-061-004317-008 | STATLER, NELSON | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 418 |
| WV-061-004317-009 | STATLER, JOSEPH | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 420 |
| WV-061-004317-010 | CHISLER FAMILY | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 422 |
| WV-061-004317-011 | STATLER, GARY A | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 424 |

RECEIVED
Office of Oil and Gas
MAR 18 2019
WV Department of
Environmental Protection

| | | | | | |
|-------------------|------------------|-------------------------------|------------------|------|-----|
| WV-061-004317-012 | MORRIS, LINDA S | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 519 |
| WV-061-004317-013 | KING, SHARON | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 442 |
| WV-061-004899-001 | SWIGER, JOSEPH | Reed Energy Services LLC | 0.125 or Greater | 136 | 153 |
| WV-061-005221-001 | HENSEL, JARVIE | Northeast Natural Energy LLC | DEED | 1636 | 559 |
| WV-061-004004-000 | BARRICKMAN, SAN | VANDERGRIFT, T.J. | 0.125 or Greater | 1641 | 221 |
| WV-061-003658-001 | STRAIGHT, MICHA | Northeast Natural Energy LLC | DEED | 1542 | 110 |
| WV-061-003658-002 | BEST, SHARON L. | Northeast Natural Energy LLC | DEED | 1541 | 421 |
| WV-061-003658-003 | KENNETT, DOUGLA | Northeast Natural Energy LLC | DEED | 1547 | 797 |
| WV-061-003658-004 | STRAIGHT, DAVID | Northeast Natural Energy LLC | DEED | 1556 | 552 |
| WV-061-003658-006 | WILDMAN, DONALD | Northeast Natural Energy LLC | DEED | 1588 | 363 |
| WV-061-003658-007 | WILDMAN, DAVID | Northeast Natural Energy LLC | DEED | 1588 | 366 |
| WV-061-003658-008 | RUSH, ELIZABETH | Northeast Natural Energy LLC | 0.125 or Greater | 1615 | 662 |
| WV-061-003658-009 | LANE, NANCY S. | Northeast Natural Energy LLC | 0.125 or Greater | 1625 | 812 |
| WV-061-003658-010 | GAY, WILLIAM ET | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 458 |
| WV-061-003658-011 | VAN LIEW, FREDE | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 460 |
| WV-061-003658-012 | GAY, KELLY K ET | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 197 |
| WV-061-004017-001 | GAY, JAMES ET | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 347 |
| WV-061-004017-002 | WHITSON, CAROL | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 349 |
| WV-061-004017-003 | GAY, THOMAS ETU | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 351 |
| WV-061-004017-004 | GAY, JERRY ETUX | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 353 |
| WV-061-004017-005 | ROLLINS, MILDRE | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 355 |
| WV-061-004017-006 | COOLEY, TERESA | Northeast Natural Energy LLC | 0.125 or Greater | 1630 | 357 |
| WV-061-004017-007 | WHITAKER, SUSAN | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 462 |
| WV-061-004017-009 | GAY, MICHAEL J | Northeast Natural Energy LLC | 0.125 or Greater | 1628 | 335 |
| WV-061-004017-016 | FRANKLIN, RACHE | Northeast Natural Energy LLC | 0.125 or Greater | 1647 | 555 |
| WV-061-004017-017 | BOLEY, SARAH ET | Northeast Natural Energy LLC | 0.125 or Greater | 1647 | 557 |
| WV-061-004017-018 | ROGERS, AMIE ET | Northeast Natural Energy LLC | 0.125 or Greater | 1647 | 560 |
| WV-061-004017-019 | PHILLIPS, JOSPEH | Northeast Natural Energy LLC | 0.125 or Greater | 1647 | 562 |
| WV-061-004020-000 | EDDY, MARK & B | Northeast Natural Energy LLC | DEED | 1505 | 572 |
| WV-061-004017-000 | WILDMAN, JARRET | J.W. Scott | 0.125 or Greater | 1643 | 204 |
| WV-061-003658-005 | SHERMAN, GENE | Northeast Natural Energy LLC | 0.125 or Greater | 1565 | 538 |
| WV-061-001365-013 | YOST, CLARK | Northeast Natural Energy LLC | 0.125 or Greater | 1643 | 784 |
| WV-061-001365-014 | YOST, JON | Northeast Natural Energy LLC | 0.125 or Greater | 1647 | 403 |
| WV-061-001365-015 | YOST, LINDA | Northeast Natural Energy LLC | 0.125 or Greater | 1647 | 405 |
| WV-061-003398-001 | MM-MARCELLUS II | Northeast Natural Energy LLC | 0.125 or Greater | 1518 | 29 |
| WV-061-005303-001 | TENNANT, KEITH | Northeast Natural Energy LLC | 0.125 or Greater | 1631 | 501 |
| WV-061-005303-002 | GLOVER, BETTY T | Northeast Natural Energy LLC | 0.125 or Greater | 1631 | 503 |
| WV-061-005303-003 | YOST, JACKIE L | Northeast Natural Energy LLC | DEED | 1638 | 366 |
| WV-061-005303-004 | YOST, LARRY E. | Northeast Natural Energy LLC | 0.125 or Greater | 1636 | 652 |
| WV-061-005487-001 | TENNANT, SCOTT | Northeast Natural Energy LLC | 0.125 or Greater | 1647 | 796 |
| WV-061-003311-001 | MC MINERAL CO. | CHESAPEAKE APPALACHIA, L.L.C. | 0.125 or Greater | 120 | 769 |
| WV-061-005402-001 | RODRIGUEZ, MARI | Northeast Natural Energy LLC | 0.125 or Greater | 1640 | 407 |
| WV-061-003471-000 | RODRIGUEZ, MARI | Northeast Natural Energy LLC | 0.125 or Greater | 1518 | 31 |

RECEIVED
Office of Oil and Gas

MAR 18 2019

WV Department of
Environmental Protection

KARIN DUBN
CORPORATION SERVICE COMPANY
2711 CENTERVILLE ROAD SUITE 400
WILMINGTON, DE 19808

Carve L. Blaney
MORNINGLIA County 10:18:29 AM
Instrument No 523722
Date Recorded 10/28/2013
Document Type DT
Pages Recorded 9
Recording Fee \$15.00
Additional \$5.00

1972-593

NOV 1972 MAR 593

RECORDING SUPPLEMENT AGREEMENT
and
FINANCING STATEMENT AND FIXTURE FILING TO THAT CERTAIN JOINT
OPERATING AGREEMENT DATED JANUARY 20, 2011,
By and Between
NORTHEAST NATURAL ENERGY LLC ("NNE"), AS OPERATOR,
and
PACHIRA ENERGY LLC ("Pachira"), AS NON-OPERATOR

THIS RECORDING SUPPLEMENT AGREEMENT, FINANCING STATEMENT, AND FIXTURE FILING IS TO BE FILED OF RECORD AS A FINANCING STATEMENT AND FIXTURE FILING IN THE REAL ESTATE RECORDS OF THE COUNTY WHERE THE INTERESTS ARE LOCATED

THIS RECORDING SUPPLEMENT AGREEMENT, FINANCING STATEMENT, AND FIXTURE FILING ("Agreement") entered into by and between Northeast Natural Energy LLC, hereinafter referred to as "NNE" or "Operator," and the signatory party other than Operator, Pachira Energy LLC, hereinafter referred to as "Pachira" or "Non-Operator."

WHEREAS, the parties to this Agreement are owners of oil and gas leases or interests covering tracts of land ("Oil and Gas Leases" or "Leases") and unleased fee and mineral interests in oil and gas tracts of land ("Oil and Gas Interests" or "Interests") with the Leases and/or Interests intended to be developed and operated for oil and gas purposes as described as set forth on Exhibit "A" ("Contract Area"), attached hereto and incorporated herein;

WHEREAS, the parties hereto have executed a Joint Operating Agreement dated January 20, 2011, (the "Operating Agreement"), covering the Contract Area for the purpose of exploring and developing such lands, Leases, and Interests for Oil and Gas; and

WHEREAS, the parties hereto have executed this Agreement for the purpose of imparting notice to all persons of the rights and obligations of the parties under the Operating Agreement and for the further purpose of perfecting those rights capable of perfection.

NOW, THEREFORE, in consideration of the mutual rights and obligations of the parties hereto and intending to be legally bound hereby, it is agreed as follows:

1. The above recitals and the Operating Agreement in its entirety are hereby incorporated by reference. All terms used herein shall have the meaning ascribed to them in the Operating Agreement. In the event of a conflict between the terms and provisions of this Agreement and the terms and provisions of the Operating Agreement, the terms and provisions of the Operating Agreement shall control.
2. The term of the Operating Agreement shall commence on the date of its execution, and shall remain in effect as to the Oil and Gas Leases and/or Oil and Gas Interests subject thereto as follows:

In the event the well described in Article VI.A of the Operating Agreement, or a subsequent well drilled under any provision of the Operating Agreement, results in the Completion of a well as a well capable of production of Oil and/or Gas in paying quantities, then the Operating Agreement shall continue in force so long as any such well is capable of production, and for an additional period of 120 days thereafter provided, however, if, prior to the expiration of such additional period, one or more of the parties are engaged in drilling, Reworking, Deepening, Sidetracking, Plugging Back, testing or attempting to Complete or Re-complete a well or wells, the Operating Agreement shall continue in force until such operations have been completed and if production results therefrom, the Operating Agreement shall continue in force as provided therein before. In the event the well described in Article VI.A of the Operating Agreement, or any subsequent well drilled hereunder, results in a dry hole, and no other well is capable of producing Oil and/or Gas from the Contract Area, the Operating Agreement and this Agreement shall terminate unless drilling, Deepening, Sidetracking, Completing, Re-completing, Plugging Back or Reworking operations are commenced within 120 days from the date of abandonment of said well. "Abandonment" for such purposes shall mean either (i) a decision by all parties not to conduct any further operations on the well or (ii) the elapse of 180 days from the conduct of any operations on the well, whichever first occurs.

3. The parties do hereby agree that:
 - A. The Oil and Gas Leases and/or Oil and Gas Interests of the parties comprising the Contract Area shall be subject to and burdened with the terms and provisions of this Agreement and the Operating Agreement, and the parties do hereby commit such Leases and Interests to the performance thereof.
 - B. The exploration and development of the Contract Area for Oil and Gas shall be governed by the terms and provisions of the Operating Agreement, as supplemented by this Agreement.

RECEIVED
Office of Oil and Gas
MAR 25 2019
WV Department of
Environmental Protection

VOL 1972 PAGE 594

- C. All costs and liabilities incurred in operations under this Agreement and the Operating Agreement shall be borne and paid, and all equipment and materials acquired in operations on the Contract Area shall be owned, by the parties hereto, as provided in the Operating Agreement.
- D. Regardless of the record title ownership to the Oil and Gas Leases and/or Oil and Gas Interests identified on Exhibit "A," all production of Oil and Gas from the Contract Area shall be owned by the parties as provided in the Operating Agreement; provided nothing contained in this Agreement shall be deemed an assignment or cross-assignment of interests covered hereby.
- E. Each party shall pay or deliver, or cause to be paid or delivered, all burdens on its share of the production from the Contract Area as provided in the Operating Agreement.
- F. An overriding royalty, production payment, net profits interest or other burden payable out of production hereafter created, assignments of production given as security for the payment of money and those overriding royalties, production payments and other burdens payable out of production heretofore created and defined as Subsequently Created Interests in the Operating Agreement shall be (i) borne solely by the party whose interest is burdened therewith, (ii) subject to suspension if a party is required to assign or relinquish to another party an interest which is subject to such burden, and (iii) subject to the lien and security interest hereinafter provided if the party subject to such burden fails to pay its share of expenses chargeable hereunder and under the Operating Agreement, all upon the terms and provisions and in the times and manner provided by the Operating Agreement.
- G. The Oil and Gas Leases and/or Oil and Gas Interests which are subject hereto may not be assigned or transferred except in accordance with those terms, provisions and restrictions in the Operating Agreement regulating such transfers.
- H. The parties shall have the right to acquire an interest in renewal, extension and replacement leases, leases proposed to be surrendered, wells proposed to be abandoned, and interests to be relinquished as a result of non-participation in subsequent operations, all in accordance with the terms and provisions of the Operating Agreement.
- I. The rights and obligations of the parties and the adjustment of interests among them in the event of a failure or loss of title, each party's right to propose operations, obligations with respect to participation in operations on the Contract Area and the consequences of a failure to participate in operations, the rights and obligations of the parties regarding the marketing of production, and the rights and remedies of the parties for failure to comply with financial obligations shall be as provided in the Operating Agreement.
- J. Each party's interest under this Agreement and under the Operating Agreement shall be subject to relinquishment for its failure to participate in subsequent operations and each party's share of production and costs shall be reallocated on the basis of such relinquishment, all upon the terms and provisions provided in the Operating Agreement.
- K. All other matters with respect to exploration and development of the Contract Area and the ownership and transfer of the Oil and Gas Leases and/or Oil and Gas Interest therein shall be governed by the terms and provisions of the Operating Agreement.
4. The parties hereby grant reciprocal liens and security interests as follows:
- A. Subject to any limitations or conditions of any agreement between the parties, each party grants to the other party hereto a lien upon any interest it now owns or hereafter acquires in Oil and Gas Leases and Interests in the Contract Area, and a security interest and/or purchase money security interest in any interest it now owns or hereafter acquires in the personal property and fixtures on or used or obtained for use in connection therewith, to secure performance of all of its obligations under this Agreement and the Operating Agreement including but not limited to payment of expense, interest and fees, the proper disbursement of all monies paid under this Agreement and the Operating Agreement, the assignment or relinquishment of interest in Oil and Gas Leases as required under this Agreement and the Operating Agreement, and the proper performance of operations under this Agreement and the Operating Agreement. Such lien and security interest granted by each party hereto shall include such party's leasehold interests, working interests, operating rights, and royalty and overriding royalty interests in the Contract Area now owned or hereafter acquired and in lands pooled or unitized therewith or otherwise becoming subject to this Agreement and the Operating Agreement, the Oil and Gas when extracted therefrom and equipment situated thereon or used or obtained for use in connection therewith (including, without limitation, all wells, tools, and tubular goods), and accounts (including, without limitation, accounts arising from the sale of production at the wellhead), contract rights, inventory and general intangibles relating thereto or arising therefrom, and all proceeds and products of the foregoing. This Agreement covers as extracted collateral. This Agreement is to be filed of record in the county where the Oil and Gas Leases are located as a financing statement and fixture filing to perfect such security interest and covers goods which are or are to become fixtures. Any secured party may also file separate UCC-1 Financing Statements, continuation statements or other instruments to perfect such security interest.

RECEIVED
Office of Oil and Gas

MAR 25 2019

WV Department of
Environmental Protection

- B. The parties acknowledge that NNE has an existing Open-End Mortgage, Line of Credit Mortgage, Leasehold Mortgage, Assignment, Fixture Filing, Security Agreement and Financing Statement for the benefit of Wells Fargo Bank, N.A., dated March 12, 2010, recorded in Greene County, Pennsylvania, at Official Record Book 427, Page 2203, and Official Record Book 460, Page 2020, and NNE has an existing Credit Line Deed of Trust, Assignment, Fixture Filing, Security Agreement, and Financing Statement to Ellen S. Cappellanti, as Trustee, for the benefit of Wells Fargo Bank, N.A., as Administrative Agent and Beneficiary in Monongalia County, West Virginia, at Deeds and Trust Book 1893, Page 729 (both collectively referred to herein as the "Wells Fargo Mortgages"). NNE represents and warrants to Pachira that, with respect to the Contract Area, and the Oil and Gas Leases and Oil and Gas Interests in the Contract Area, the Wells Fargo Mortgages are limited to and include only the following wells: Statler #1H (API No. 47-610625) and Statler #3H (API No. 47-610626), both of which are located in the Statler Pad North Unit (the "Statler Wells"). Each party represents and warrants to the other party hereto that, with the sole exception of the security interests specifically set forth in the Wells Fargo Mortgages regarding the Statler Wells, the lien and security interest granted herein by such party to the other party shall be a first and prior lien, and each party hereby agrees to maintain the priority of said lien and security interest and the lien and security interest granted by this Agreement and the Operating Agreement against all persons acquiring an interest in Oil and Gas Leases and Oil and Gas Interests covered by this Agreement and the Operating Agreement by, through or under such party. All parties acquiring an interest in Oil and Gas Leases and Oil and Gas Interests covered by this Agreement and the Operating Agreement, whether by assignment, merger, mortgage, operation of law, or otherwise, shall be deemed to have taken subject to the lien and security interest granted by the Operating Agreement and this Agreement as to all obligations attributable to such interest under this Agreement and the Operating Agreement whether or not such obligations arise before or after such interest is acquired.
- C. To the extent that acreage owned by third parties (that is, acreage not owned by NNE or Pachira) is reasonably determined by the parties as being necessary for the development of the Contract Area and the Oil and Gas Leases and Oil and Gas Interests by the parties, the parties will enter into operating agreement(s) with such third parties that are not affiliated with NNE or Pachira ("Third Parties") and such agreement ("Third Party JOA"). The Operating Agreement shall automatically be deemed to not cover in any respect whatsoever the Third Party JOA, and such Third Party JOA shall be deemed to govern and control, that portion of the Contract Area that is subject to such Third Party JOA, including, but not limited to, all terms and conditions governing the proposing, drilling and operation of the applicable well(s) thereon. Pachira shall not be charged any amount in addition to the monthly well operating fee set forth in Exhibit C of the Operating Agreement on account of any monthly well operating fee associated with any Third Party JOA, provided however, that Pachira shall continue to be charged the monthly well operating fee set forth in Exhibit C of the Operating Agreement.
- D. To the extent that the parties have a security interest under the Uniform Commercial Code (the "Code") of the state in which the Contract Area is situated, they shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by a party for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any party in the payment of its share of expenses, interest or fees, or upon the improper use of funds by the Operator, the other parties shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such defaulting party's share of Oil and Gas until the amount owed by such party, plus interest, has been received, and shall have the right to offset the amount owed against the proceeds from the sale of such defaulting party's share of Oil and Gas. All purchasers of production may rely on a notification of default from the non-defaulting party or parties stating the amount due as a result of the default, and all parties waive any recourse available against purchasers for releasing production proceeds as provided in this paragraph.
- E. If any party fails to pay its share of expenses within one hundred-twenty (120) days after rendition of a statement therefor by Operator the non-defaulting parties, including Operator, shall, upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. The amount paid by each party so paying its share of the unpaid amount shall be secured by the liens and security rights described in this paragraph 4 and in the Operating Agreement, and each paying party may independently pursue any remedy available under the Operating Agreement or otherwise.
- F. If any party does not perform all of its obligations under this Agreement or the Operating Agreement, and the failure to perform subjects such party to foreclosure or execution proceedings pursuant to the provisions of this Agreement or the Operating Agreement, to the extent allowed by governing law, the defaulting party waives any available right of redemption from and after the date of judgment, any required valuation or appraisal of the mortgaged or secured property prior to sale, any available right to stay execution or to require a marshalling of assets and any required bond in the event a receiver is appointed. In addition, to the extent permitted by applicable law, each party hereby grants to the other parties a power of sale as to any property that is subject to the lien and security rights granted hereunder or under the Operating Agreement, such power to be exercised in the manner provided by applicable law or otherwise in a commercially reasonable manner and upon reasonable notice.
- G. The lien and security interest granted in this Section 4 supplements the rights granted under the Operating Agreement.

REC-1972 596

- H. To the extent permitted by applicable law, Non-Operator agrees that Operator may invoke or utilize the mechanics' or materialmen's lien law of the state in which the Contract Area is situated in order to secure the payment to Operator of any sum due under this Agreement and the Operating Agreement for services performed or materials supplied by Operator.
- I. The above described security will be financed at the wellhead of the well or wells located on the Contract Area and this Recording Supplement may be filed in the land records in the County in which the Contract Area is located, and as a financing statement in all recording offices required under the Code or other applicable state statutes to perfect the above-described security interest, and any party hereto may file a continuation statement as necessary under the Code, or other state laws.
- J. This Agreement secures an obligation that may increase and/or decrease from time to time.
- 5. This Agreement and the Operating Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, devisees, legal representatives, successors and assigns. No sale, encumbrance, transfer or other disposition shall be made by any party of any interest in the Leases or Interests subject hereto except as expressly permitted under the Operating Agreement and, if permitted, shall be made expressly subject to this Agreement and the Operating Agreement and without prejudice to the rights of the other parties. If the transfer is permitted, the assignee of an ownership interest in any Oil and Gas Lease shall be deemed a party to this Agreement and the Operating Agreement as to the interest assigned from and after the effective date of the transfer of ownership; provided, however, that the other parties shall not be required to recognize any such sale, encumbrance, transfer or other disposition for any purpose hereunder until thirty (30) days after they have received a copy of the instrument of transfer or other satisfactory evidence thereof in writing from the transferor or transferee. No assignment or other disposition of interest by a party shall relieve such party of obligations previously incurred by such party under this Agreement or the Operating Agreement with respect to the interest transferred, including without limitation the obligation of a party to pay all costs attributable to an operation conducted under this Agreement and the Operating Agreement in which such party has agreed to participate prior to making such assignment, and the lien and security interest granted by Article VII.B. of the Operating Agreement and hereby shall continue to burden the interest transferred to secure payment of any such obligations.
- 6. This Agreement and the Operating Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, devisees, legal representatives, and assigns, and the terms hereof shall be deemed to run with the leases or interests, including the Oil and Gas Leases or Interests, within the Contract Area.
- 7. This Agreement shall be effective as of the date of the Operating Agreement as above recited. Upon termination of this Agreement and the Operating Agreement and the satisfaction of all obligations thereunder, Operator is authorized to file of record in all necessary recording offices a notice of termination, and each party hereto agrees to execute such a notice of termination as to Operator's interest, upon the request of Operator, if Operator has complied with all of its financial obligations.
- 8. The parties entered into an Area of Mutual Interest and Exploration Agreement ("Blacksville AMI") dated January 20, 2011, setting forth other terms and conditions pertaining to the Contract Area.

[Signature page follows.]

RECEIVED
Office of Oil and Gas
MAR 25 2019
WV Department Of
Environmental Protection

4706101835

WV. 1972 PAGE 597

IN WITNESS WHEREOF, this Recording Supplement Agreement, Financing Statement, And Fixture Filing shall be effective as of the 22nd day of October, 2013.

OPERATOR

ATTEST OR WITNESS

Northeast Natural Energy, LLC

Christopher Mullen
By: Christopher Mullen
Title: Vice President of Land

Date: 10/22/13
Address: 707 Virginia Street East
Suite 1200, Chase Tower
Charleston, WV 25301

NON-OPERATOR

ATTEST OR WITNESS

Pechira Energy, LLC

Benjamin M. Statler
By: Benjamin M. Statler
Title: Managing Member

Date: 10/22/2013
Address: 5150 Tamiami Trail,
Suite 504, Newgate Tower
Naples, Florida 34103

[Acknowledgements follow.]

This instrument was prepared by:
Stepco & Johnson PLLC
P. O. Box 1588
Charleston, WV 25326-1588

RECEIVED
Office of Oil and Gas
MAR 25 2019
WV Department of
Environmental Protection

WOL 1972 PAGE 598

ACKNOWLEDGMENTS

STATE OF WEST VIRGINIA :
: SS
COUNTY OF KANAWHA :

ON THIS, the 22nd day of October, 2013, before me, the undersigned officer, personally appeared Christopher Mullen, who acknowledged himself to be the Vice-President of Land, Northeast Natural Energy, LLC, and that he as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the limited liability company by him/herself as said officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Brandi J. Fleisher
Notary Public
My Commission expires: February 7, 2020

(Notarial Seal)



STATE OF FLORIDA :
: SS
COUNTY OF COLLIER :

ON THIS, the 23rd day of October, 2013, before me, the undersigned officer, personally appeared Benjamin M. Statler, who acknowledged himself to be the Managing Member of Pachira Energy, LLC, and that he as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the limited liability company by him/herself as said officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

T. Adams
Notary Public
My Commission expires: JUNE 21, 2014

(Notarial Seal)



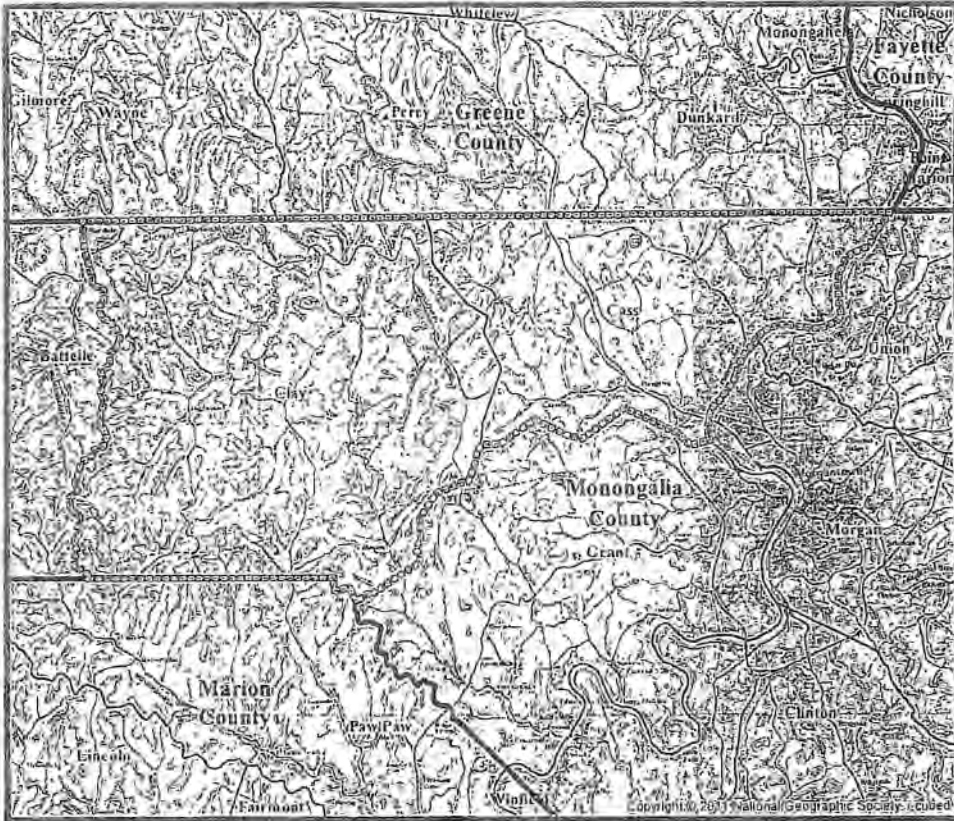
This instrument was prepared by:
Stephoe & Johnson PLLC
P. O. Box 1588
Charleston, WV 25326-1588

RECEIVED
Office of Oil and Gas
MAR 25 2019
WV Department of Environmental Protection

VOL. 1972 PAGE 599 470 6101835

Exhibit "A"

The Contract Area being all lands located in Clay and Cass Districts of Monongalia County, West Virginia



RECEIVED
Office of Oil and Gas
MAR 25 2019
WV Department of Environmental Protection

BOOK 1972 PAGE 600

4706101835

EXHIBIT "A"
Monongalia County, West Virginia

| LEASE AGREEMENT | LESSOR | LEASE TYPE | LEASE DATE | RECORDING BK/PG | TAX MAP AND PARCEL |
|-------------------|-------------------|------------|------------|-----------------|---|
| | | | | | 2-31, 31.1, 31.2, 31.3, 31.4, 31.5, 31.6, 31.7, 31.8, 31.9, 31.10, 7-71, 71.1, 26, 26.2, |
| WV 061 000179 001 | HEIMSATH, CHRIST | LEASE | 9/7/2010 | 1428/872 | " |
| WV 061 000179 002 | PUGH, MARGARET | LEASE | 3/10/2011 | 1438/568 | " |
| WV 061 000179 003 | SPENCER, WILLIAM | LEASE | 3/10/2011 | 1438/564 | " |
| WV 061 000179 004 | JOHNSTON, MONTO | LEASE | 3/15/2011 | 1441/638 | " |
| WV 061 000179 005 | HEADLEY, DWIGHT | LEASE | 3/16/2011 | 1441/634 | " |
| WV 061 000179 006 | KINSEY, WILLIS | LEASE | 3/11/2011 | 1441/630 | " |
| WV 061 000179 007 | HEADLEY, CHARLES | LEASE | 3/14/2011 | 1441/601 | " |
| WV 061 000179 008 | JOHNSTON, DONALD | LEASE | 3/18/2011 | 1441/643 | " |
| WV 061 000179 009 | FOLTZ, CYNTHIA | LEASE | 3/30/2011 | 1441/626 | " |
| WV 061 000179 010 | JOHNSTON, CHARLES | LEASE | 4/14/2011 | 1441/622 | " |
| WV 061 000179 011 | BENNER, BARBARA | LEASE | 3/22/2011 | 1441/618 | " |
| WV 061 000179 012 | COEN, EARL L | LEASE | 3/23/2011 | 1441/614 | " |
| WV 061 000179 013 | TROTTER, GEORGE | LEASE | 3/22/2011 | 1441/605 | " |
| WV 061 000179 014 | CLOVIS, JAMES JR | LEASE | 5/9/2011 | 1441/609 | " |
| WV 061 000179 015 | MATTHEWS, ANNA | LEASE | 3/18/2011 | 1444/48 | " |
| WV 061 000179 016 | COEN, FLORENCE | LEASE | 4/14/2011 | 1444/52 | " |
| WV 061 000179 017 | LEMLEY, RAYMOND | LEASE | 4/7/2011 | 1444/44 | " |
| WV 061 000179 018 | SEAMAN, EDGAR | LEASE | 3/17/2011 | 1444/36 | " |
| WV 061 000179 019 | VARNER, WILLA | LEASE | 3/21/2011 | 1444/56 | " |
| WV 061 000179 020 | GLENN, MARY ANN | LEASE | 3/22/2011 | 1444/27 | " |
| WV 061 000179 021 | LEMLEY, SOLOMON | DEED | 3/21/2011 | 1447/366 | " |
| WV 061 000179 022 | LEMLEY, BETTY J | DEED | 4/15/2011 | 1447/381 | " |
| WV 061 000179 023 | LEMLEY, CHARLES | DEED | 3/21/2011 | 1447/371 | " |
| WV 061 000179 024 | LEMLEY, JOSEPHINE | DEED | 3/25/2011 | 1447/376 | " |
| WV 061 000179 025 | ANDERSON, NANCY | LEASE | 3/16/2011 | 1441/236 | " |
| WV 061 000179 026 | HARKER, DARRELL | LEASE | 7/13/2011 | 1442/618 | " |
| WV 061 000179 027 | SEAMAN, FRANCES | LEASE | 7/13/2011 | 1442/616 | " |
| WV 061 000179 028 | LEMLEY, ROMELLE | LEASE | 7/28/2011 | 1445/797 | " |
| WV 061 000179 029 | KENNEDY, JOHN | LEASE | 7/28/2011 | 1447/822 | " |
| WV 061 000179 030 | JOHNSTON, BERNICE | LEASE | 4/30/2011 | 1444/40 | " |
| WV 061 000179 031 | MOORE, SHIRLEY | LEASE | 7/5/2011 | 1445/799 | " |
| WV 061 000179 032 | MEANS, MARY JANE | LEASE | 8/23/2011 | 1446/353 | " |
| WV 061 000179 033 | ELLIOTT, ROBERT | LEASE | 8/23/2011 | 1446/351 | " |
| WV 061 000179 034 | WHYTE, PATRICIA | LEASE | 8/22/2011 | 1446/355 | " |
| WV 061 000179 035 | WHITE, DAVID | LEASE | 8/23/2011 | 1447/843 | " |
| WV 061 000179 036 | SCHRUM, CHRISTI | LEASE | 8/31/2011 | 1447/824 | " |
| WV 061 000179 037 | COPELAND, KENNETH | LEASE | 7/21/2011 | 1448/216 | " |
| WV 061 000179 038 | GABBERT, ANNA | LEASE | 8/23/2011 | 1447/841 | " |

RECEIVED
Office of Oil and Gas
MAR 25 2019
WV Department of
Environmental Protection

VOL 1972 PAGE 601

| LEASE/AGREEMENT | LESSOR | LEASE TYPE | LEASE DATE | RECORDING | |
|-------------------|-------------------|------------|------------|-----------|--|
| | | | | BK/PG | TAX MAP AND PARCEL |
| WV 061 000179 039 | BESS, CLAYTON | LEASE | 12/9/2011 | 1450/6 | " |
| WV 061 000179 040 | HEADLEY, BETTY | LEASE | 12/19/2011 | 1454/421 | " |
| WV 061 000179 041 | HOWARD, PATRICIA | LEASE | 11/03/2011 | 1456/43 | " |
| WV 061 000179 042 | RICHARDSON, BETTY | LEASE | 5/28/2013 | 1483/817 | " |
| | | | | | 2-32, 2-27, 2-28, 2-29, 2-30, 7-25, 7-26.5, 7-67 |
| WV 061 000180 000 | MOORE, REBECCA | LEASE | 1/27/2011 | 1428/594 | 7-26.1 |
| WV 061 000181 001 | RABER, BERNARD | LEASE | 2/26/2011 | 1435/724 | 7-26.2, 26.4 |
| WV 061 000319 001 | BROOKOVER, ROBERT | LEASE | 3/24/2011 | 1438/572 | 2-32, 7-26.1, 26.4 |
| WV 061 000637 000 | THOMAS, CHARLES | LEASE | 7/29/2011 | 1442/620 | 2-32, 7-26.1, 26.4 |
| WV 061 000638 000 | THOMAS, JAMES H | LEASE | 7/29/2011 | 1442/622 | 2-32, 7-26.1, 26.4 |

RECEIVED
Office of Oil and Gas

MAR 25 2019

WV Department
Environmental Protection

4706101835

Sanford Barrickman and A.M. Barrickman, h/w

Lease

DB 26/125

T.J. Vandergrift

|

T.J. Vandergrift

Assignment

DB 26/129

J.I. Buchanan

|

J.I. Buchanan

Assignment

DB 29/165

Jacob J. Vandergrift and W.J. Young

|

Jacob J. Vandergrift

Assignment

DB 26/452

W.J. Young

|

W.J. Young

Assignment

DB 26/457

South Penn Oil Company

|

South Penn Oil Company

Assignment

DB 304/457

South Penn Natural Gas Company

|

South Penn Natural Gas Company

Assignment

DB 580/311

South Penn Oil Company

|

RECEIVED
Office of Oil and Gas

MAR 18 2019

WV Department of
Environmental Protection

4706101835

South Penn Oil Company merged with and into Pennzoil Company. Corp. Record 50/573. Pennzoil Company and United Gas Corporation(South Penn Oil Company changed it's name to Pennzoil Company effective 7/31/1963 per Conveyance, Assignment and Transfer

DB 672/665

Pennzoil United, Inc.

Pennzoil Company

Pennzoil United, Inc.

Assignment

DB 695/557

W.H. Allen

W.H. Allen

Assignment

DB 695/556

Union Trust and Deposit Company

W.H. Allen and James A. Allen

Bill of Sale and Agreement

DB 754/594

Edwin Associates, Inc.

Union Trust National Bank, successor by conversion of

Union Trust and Deposit Company

Assignment

DB 754/598

Edwin Associates, Inc.

Edwin Associates, Inc.

Assignment and Bill of Sale

DB 754/600

J.T. Carson

RECEIVED
Office of Oil and Gas

MAR 18 2019

WV Department of
Environmental Protection

4706101835

J.T. Carson
Assignment and Bill of Sale
DB 754/606

Thompson/Texas Associates Partnership

|

Thompson/Texas Associates Partnership, Thompson Pipe
and Supply Company, Jack O. Thompson, Harold J.
Arnsteen, Equidyne Investment Associates, Inc.,
individually in their own right and as partners and/or joint
venturers in that entity known as Thompson/Texas
Associates Partnership

Assignment
AR 21/22

Mark Eddy

|

Thompson/Texas Associates Partnership, Thompson Pipe
and Supply Company, Jack O. Thompson, Harold J.
Arnsteen, Equidyne Investment Associates, Inc.,
individually in their own right and as partners and/or joint
venturers in that entity known as Thompson/Texas
Associates Partnership

Assignment
AR 21/582

Beth Eddy, Debbie Eddy and Melissa Eddy

|

Beth Stewart, Debbie Morris and Melissa Matheny
(formerly Beth Eddy, Debbie Eddy and Melissa Eddy)

Assignment
AR 102/275

Mark V. Eddy

|

RECEIVED
Office of Oil and Gas

MAR 18 2019

WV Dept. of Environmental Protection

04/05/2019

4706101835

Mark V. Eddy and Betty A. Eddy, h/w, and Eddy Brothers
Assignment and Bill of Sale
AR 123/363

Northeast Natural Energy, LLC and Pachira Energy, LLC



Northeast Natural Energy, LLC and Pachira Energy, LLC
Joint Operating Agreement
Book 1972/ PG 593

RECEIVED
Office of Oil and Gas

MAR 18 2019

BY: [Signature] /
Environmental Protection

4706101835

J.W. Scott

Assignment

DB 28/447

William Munhall and George P. Hukill



George P. Hukill, William Munhall and J.W. Scott, d/b/a
Mountain State Oil Company

Assignment

DB 32/240

South Penn Oil Company



South Penn Oil Company

Assignment

DB 304/457

South Penn Natural Gas Company



South Penn Natural Gas Company

Assignment

DB 580/311

South Penn Oil Company



South Penn Oil Company merged with and into Pennzoil
Company. Corp. Record 50/573. Pennzoil Company and
United Gas Corporation(South Penn Oil Company changed
it's name to Pennzoil Company effective 7/31/1963 per
Conveyance, Assignment and Transfer

DB 672/665

Pennzoil United, Inc.

Pennzoil Company



RECEIVED
Office of Oil and Gas

MAR 18 2019

WV Department of
Environmental Protection

Pennzoil United, Inc.

Assignment

DB 695/557

W.H. Allen



W.H. Allen

Assignment

DB 695/556

Union Trust and Deposit Company



W.H. Allen and James A. Allen

Bill of Sale and Agreement

DB 754/594

Edwin Associates, Inc.



Union Trust National Bank, successor by conversion of

Union Trust and Deposit Company

Assignment

DB 754/598

Edwin Associates, Inc.



Edwin Associates, Inc.

Assignment and Bill of Sale

DB 754/600

J.T. Carson



J.T. Carson

Assignment and Bill of Sale

DB 754/606

Thompson/Texas Associates Partnership



RECEIVED
Office of Oil and Gas

MAR 18 2019

WV Department of
Environmental Protection

4706101835

Thompson/Texas Associates Partnership, Thompson Pipe
and Supply Company, Jack O. Thompson, Harold J.
Arnsteen, Equidyne Investment Associates, Inc.,
individually in their own right and as partners and/or joint
venturers in that entity known as Thompson/Texas
Associates Partnership
Assignment
AR 21/22

Mark Eddy



Thompson/Texas Associates Partnership, Thompson Pipe
and Supply Company, Jack O. Thompson, Harold J.
Arnsteen, Equidyne Investment Associates, Inc.,
individually in their own right and as partners and/or joint
venturers in that entity known as Thompson/Texas
Associates Partnership
Assignment
AR 21/582

Beth Eddy, Debbie Eddy and
Melissa Eddy



Beth Stewart, Debbie Morris and Melissa Matheny
(formerly Beth Eddy, Debbie Eddy and Melissa Eddy)
Assignment
AR 102/275

Mark V. Eddy



Mark V. Eddy and Betty A. Eddy, h/w, and Eddy Brothers
Assignment and Bill of Sale
AR 123/363

Northeast Natural Energy, LLC and Pachira Energy, LLC



Northeast Natural Energy, LLC and Pachira Energy, LLC
Joint Operating Agreement
Book 1972, PG 593

RECEIVED
Office of Oil and Gas
MAR 18 2019
WV Department of
Environmental Protection

04/05/2019

4706101835

Chesapeake Appalachia, LLC.



Northeast Natural Energy
Assignment
BK 120/769

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

04/05/2019

4706101835

Joseph E. Swiger
Lease
DB 1618/458
Reed Energy Services, LLC



Reed Energy Services, LLC

Assignment

AB 136/153
Northeast Natural Energy, LLC

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

04/05/2019

4706101835



northeast
NATURAL ENERGY

December 5, 2018

WV Department of Environmental Protection
Office of Oil and Gas Management
601 57th Street SE
Charleston, WV 25304

Re: Lemley 8H

Dear Permit Reviewer:

Please be advised that Northeast Natural Energy LLC has the right to drill, extract, and produce the minerals beneath the roads identified as Stull Hollow Road (Route 24), Pedlar Run Road (Route 37), and Shuman Run Rd (Route 37/3) on the enclosed survey plats.

Sincerely,

Christa A. Dotson

Supervisor – Land Operations Development

Enclosure

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 01/21/2019

API No. 47- _____ - _____
Operator's Well No. 8H _____
Well Pad Name: Lemley _____

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

| | | | | |
|-------------|-----------------|---------------------------|----------------|-----------|
| State: | West Virginia | UTM NAD 83 | Easting: | 573969.5 |
| County: | Monongalia | | Northing: | 4391571.5 |
| District: | Clay | Public Road Access: | State Route 22 | |
| Quadrangle: | Blacksville, WV | Generally used farm name: | Lemley | |
| Watershed: | Dunkard Creek | | | |

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

| | |
|--|--|
| <p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p> | <p style="text-align: center;">OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> |
|--|--|

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

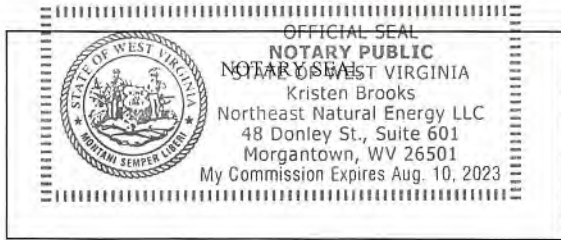
Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

Certification of Notice is hereby given:

THEREFORE, I _____, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

| | | | |
|----------------|------------------------------------|------------|--------------------------------|
| Well Operator: | Northeast Natural Energy LLC | Address: | 707 Virginia St. E, Suite 1200 |
| By: | Hollie Medley <i>Hollie Medley</i> | | Charleston, WV 25301 |
| Its: | Regulatory Manager | Facsimile: | 304-241-5972 |
| Telephone: | 304-212-0422 | Email: | hmedley@nne-llc.com |



Subscribed and sworn before me this 21st day of January, 2019
Kristen Brooks Notary Public
 My Commission Expires August 10, 2023

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

RECEIVED
 Office of Oil and Gas
 JAN 29 2019
 WV Department of
 Environmental Protection

WW-6A
(9-13)

API NO. 47- _____ - _____ **04/05/2019**
OPERATOR WELL NO. 8H
Well Pad Name: Lemley

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 1/11/2019 **Date Permit Application Filed:** 1/18/2019

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s) ✓
 Name: Clarence W. Jr. & Charlotte E. Lemley
 Address: 239 Lemley Hollow
Core, WV 26529

Name: _____
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance) ✓
 Name: Donald Stull et al
 Address: 162 Stull Hollow Road
Core, WV 26541

Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

COAL OWNER OR LESSEE ✓
 Name: Consol Mining Company LLC
 Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) ✓
 Name: William D. Stalter
 Address: 578 Long Drain Rd.
Core, WV 26529

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: _____
 Address: _____

*Please attach additional forms if necessary

RECEIVED
 Office of Oil and Gas
 JAN 29 2019
 WV Department of
 Environmental Protection

4703101835

WW-6A
(8-13)

API NO. 47- - 04/05/2019
OPERATOR WELL NO. BH
Well Pad Name: Lemley

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A
(8-13)

API NO. 47- 4706101895
OPERATOR WELL NO. 8H
Well Pad Name: Lemley

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

4706101835

WW-6A
(8-13)

API NO. 47- _____ - 04/05/2019
OPERATOR WELL NO. 8H
Well Pad Name: Lemley

Notice is hereby given by:

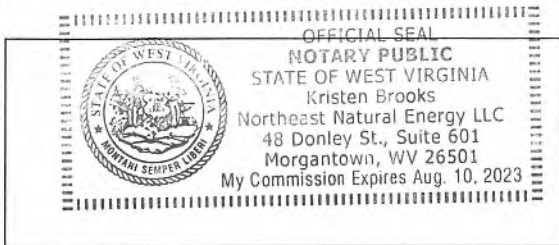
Well Operator: Northeast Natural Energy LLC
Telephone: 304-414-7060
Email: hmedley@nne-llc.com

Address: 707 Virginia St. E., Suite 1200
Charleston, WV 25301
Facsimile: 304-241-5972

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

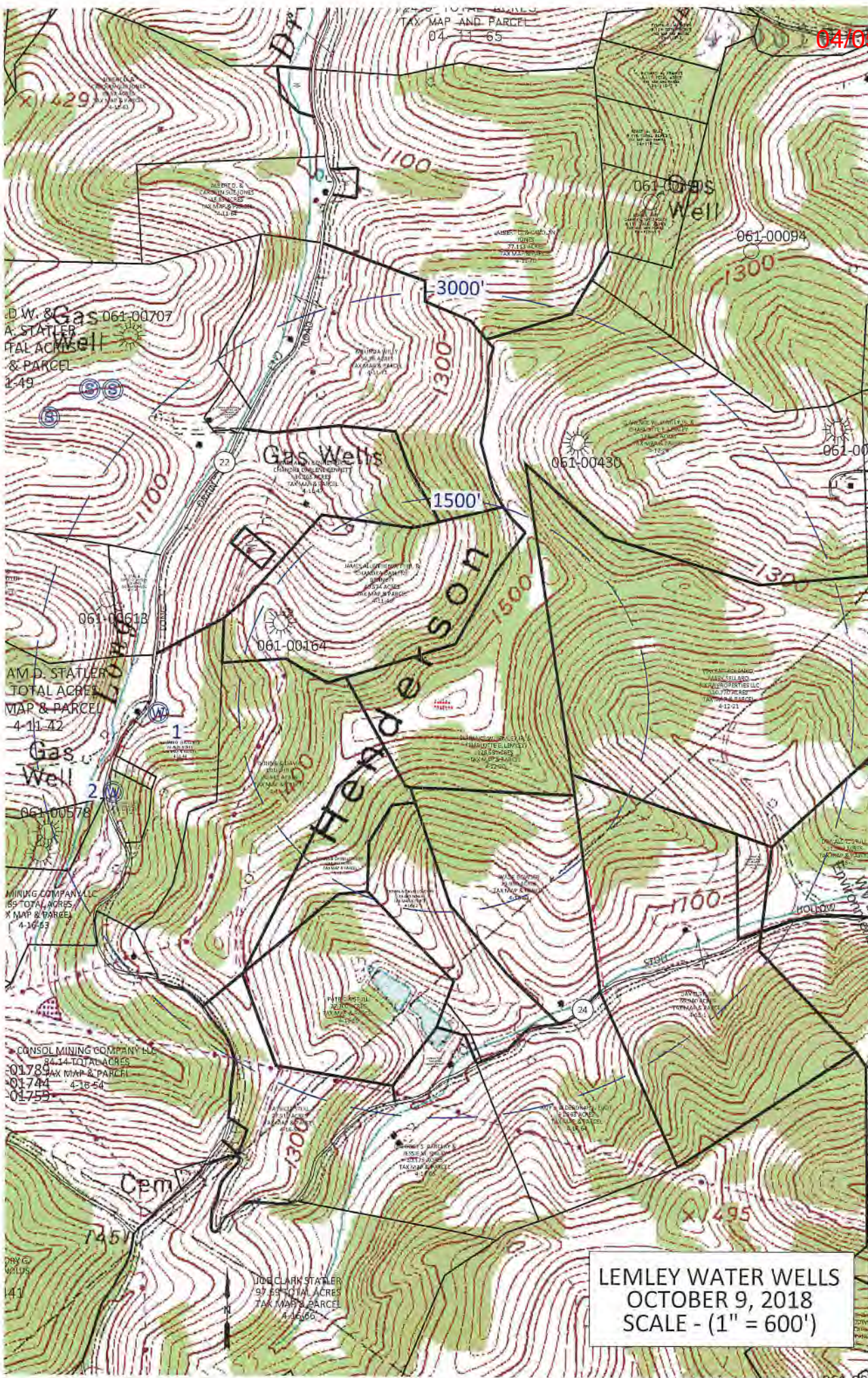
Hollie M Medley



Subscribed and sworn before me this 21st day of January, 2019
Kristen Brooks Notary Public
My Commission Expires Aug. 10, 2023

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

04/05/2019



D.W. & Gas Well
 A. STATLER
 TOTAL ACRES
 & PARCEL
 1-49

AM.D. STATLER
 TOTAL ACRES
 MAP & PARCEL
 4-11-72

MIRING COMPANY LLC
 85 TOTAL ACRES
 X MAP & PARCEL
 4-16-83

CONSOL MINING COMPANY LLC
 84.14 TOTAL ACRES
 01789 TAX MAP & PARCEL
 01744 4-18-54
 01755

JOE CLARK STATLER
 99.89 TOTAL ACRES
 TAX MAP & PARCEL
 4-16-85

LEMLEY WATER WELLS
 OCTOBER 9, 2018
 SCALE - (1" = 600')

RECEIVED
 Office of Oil and Gas
 JAN 29 2019
 Environmental Protection
 NY Department of

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: July 2, 2018 **Date of Planned Entry:** July 13, 2018

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
 REGISTERED MAIL
 METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(S)

Name: see attached

Address: _____

Name: _____

Address: _____

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: see attached

Address: _____

MINERAL OWNER(S)

Name: see attached

Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

| | |
|--------------------------------|--|
| State: <u>West Virginia</u> | Approx. Latitude & Longitude: <u>39.670947, -80.137361</u> |
| County: <u>Monongalia</u> | Public Road Access: <u>Long Drain Road (CR 22)</u> |
| District: <u>Clay</u> | Watershed: <u>Dunkard Creek</u> |
| Quadrangle: <u>Blacksville</u> | Generally used farm name: <u>Lemley</u> |

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC

Telephone: 304.212.0422

Email: hmedley@nne-llc.com

Address: 707 Virginia Street East, Suite 1200

Charleston, WV 25301

Facsimile: 304.241.5972

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

| Ownership Type | Name | Address | | | |
|----------------|--|--|-----------------|----|---------|
| Surface Owner | ✓ Clarence W. Lemley Jr. and Charlotte E. Lemley | 239 Lemley Hollow | Core | WV | 26541 ✓ |
| Coal Owner | ✓ CNX RCPC LLC | CNX Center, 1000 Consol Energy Drive | Canonsburg | PA | 15317 ✓ |
| Coal Owner | ✓ Murray American Energy Inc. | 46226 National Road | St. Clairsville | OH | 43950 ✓ |
| Mineral Owner | ✓ William Henderson | P.O. Box 73 | Pursglove | WV | 26546 |
| Mineral Owner | ✓ William B. Core | 626 Lakes Drive | Tahlequah | OK | 74464 |
| Mineral Owner | ✓ Stephanie Ann McCarver | 915 West Broad Street | Griffin | GA | 30223 |
| Mineral Owner | ✓ Sheila Cosner | 19 Terrace View Drive | Morgantown | WV | 26508 |
| Mineral Owner | ✓ Shawna Charvat | 67 West 14th Street | Ashland | OH | 44805 |
| Mineral Owner | ✓ Rose Marie Stewart Malott | 2942 Little Indian Creek Road | Core | WV | 26570 |
| Mineral Owner | ✓ Ronald Lee Veselenak | 61642 Patton Hollow Road | Cambridge | OH | 43725 |
| Mineral Owner | ✓ Ronald L. Eddy | 447 NE Canoe Park Circle | Port St. Lucie | FL | 34983 |
| Mineral Owner | ✓ Paula Kay Jenkins | 3890 Mason Dixon Highway | Core | WV | 26541 |
| Mineral Owner | ✓ Pachira Energy, LLC | 5150 North Tamiami Trail; Newgate Tower, Suite 205 | Naples | FL | 34103 |
| Mineral Owner | ✓ Lloyd M. Lohr | 243 Haines Ridge Road | Mount Morris | PA | 15349 |
| Mineral Owner | ✓ Linda Lou Hinebaugh Hickman | P.O. Box 344 | Waynesburg | PA | 15370 |
| Mineral Owner | ✓ Leroy Tennant | 2960 Little Indian Creek Road | Core | WV | 26541 |
| Mineral Owner | ✓ Larry Henderson | 419 Henderson Hollow Road | Core | WV | 26541 |
| Mineral Owner | ✓ Larry and Nora Lou Dodd | P.O. Box 186 | Colliers | WV | 26035 |
| Mineral Owner | ✓ Keith A. Tennant | 131 West First Street | Westover | WV | 26501 |
| Mineral Owner | ✓ June Core Myers Living Trust | 332 Oakland Street | Morgantown | WV | 26505 |
| Mineral Owner | ✓ Judith McJessey | P.O. Box 133 | Buffalo | OH | 43722 |
| Mineral Owner | ✓ Jesse James Henderson | 5583 Treetop Court | Parma | OH | 44134 |
| Mineral Owner | ✓ Jennifer Lee Henderson | 67 West 14th Street | Ashland | OH | 44805 |
| Mineral Owner | ✓ Christopher Allen Tyner | 1810 Nichols Road | Akron | OH | 44312 |
| Mineral Owner | ✓ Charles Lawrence Core | 3450 N. Commerce Street; Apt. 604 | Ardmore | OK | 73401 |
| Mineral Owner | ✓ Beverly J. Core | 1159 Smokey Drain Road | Core | WV | 26541 |
| Mineral Owner | ✓ Alpheus M. Henderson | 260 Henderson Hollow Road | Core | WV | 26541 |

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.
Date of Notice: 01/11/2019 **Date Permit Application Filed:** 01/18/2019

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner; *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Clarence W Jr & Charlotte E Lemley
Address: 239 Lemley Hollow
Core WV 26529

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 573969.5
County: Monongalia Northing: 4391571.5
District: Clay Public Road Access: County Route 22/Long Drain Road
Quadrangle: Blacksville Generally used farm name: Lemley
Watershed: Dunkard Creek

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC
Address: 707 Virginia St. E., Suite 1200
Charleston, WV 25301
Telephone: 304-414-7060
Email: hmedley@nne-llc.com
Facsimile: 304-241-5972

Authorized Representative: _____
Address: _____
Telephone: _____
Email: _____
Facsimile: _____

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 01/11/2019 **Date Permit Application Filed:** 01/18/2019

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

| | |
|---|----------------|
| Name: Clarence W Jr & Charlotte E Lemley | Name: _____ |
| Address: 239 Lemley Hollow Core WV 26529 | Address: _____ |

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

| | | |
|--------------------------|---------------------------|---------------------------------|
| State: West Virginia | UTM NAD 83 | Easting: 573969.5 |
| County: Monongalia | | Northing: 4391571.5 |
| District: Clay | Public Road Access: | County Route 22/Long Drain Road |
| Quadrangle: Blacksville | Generally used farm name: | Lemley |
| Watershed: Dunkard Creek | | |

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Northeast Natural Energy LLC
 Telephone: 304-414-7060
 Email: hmedley@nne-llc.com

Address: 707 Virginia St. E., Suite 1200
 Charleston, WV 25301
 Facsimile: 304-241-5972

RECEIVED
Office of Oil and Gas

JAN 29 2019

WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

January 28, 2019

Jill M. Newman
Deputy Commissioner

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Lemley Pad, Monongalia County

Lemley 8H

Dear Mr. Martin,

This well site will be accessed from a permit #04-2018-1373 issued to Northeast Natural Energy Corporation for access to the State Road for a well site located off of Monongalia Route 22 SLS.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY revised October 1, 2018.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

RECEIVED
Office of Oil and Gas

JAN 29 2019

WV Department of
Environmental Protection

Cc: Kristen Brooks
Northeast Natural Energy Corporation
CH, OM, D-4
File

Planned Additives to be used in Fracturing Stimulations

| Trade Name | Purpose | Ingredients | Cemical Abstract Service Numner (CAS#) |
|-----------------------|---------------------|--|---|
| Water | Carrier | Water | 7732-18-5 |
| HCl, 10.1-15% | Acidizing | Hydrochloric Acid Water | 7647-01-0 7732-18-5 |
| Alpha 1427 | Biocide | Alkyl Dimethyl Benzyl Ammonium Chloride (C12-16) Ethanol Glutaraldehyde Quaternary Ammonium Chloride Water | 68424-85-1 64-17-5 111-30-8 7173-51-5 7732-18-5 |
| Enzyme G-NE | Breaker | Hemicellulase Enzyme Concentrate Water | 9025-56-3 7732-18-5 |
| CI-14 | Corrosion Inhibitor | Fatty Acids Methanol Olefin Polyozyalkylenes Propargyl Alcohol | NA 67-56-1 NA NA 107-19-7 |
| GW-3LDF | Gelling Agent | Guar Gum Petroleum Distillate Blend | 9000-30-0 CBI |
| FRW-18 | Friction Reducer | Hydrotreated Light Distillate | 64742-47-8 |
| Ferrotrol 300L | Iron Crontrol | Citric Acid | 77-92-9 |
| Sand, White, 40/70 | Proppant | Cystalline Silica (Quartz) | 14808-60-7 |
| Sand, White, 100 mesh | Proppant | Cystalline Silica (Quartz) | 14808-60-7 |
| Scaletrol 720 | Scale Inhibitor | Diethylene Glycol | 111-46-6 |

RECEIVED
Office of Oil and Gas
JAN 29 2019
WV Department of
Environmental Protection

APPROVED WVDEP OOG
3/26/2019

LEMLEY WELL PAD SITE PLAN NORTHEAST NATURAL ENERGY

LAT./LONG: N 39.669956° W -80.139113°
(APPROXIMATE CENTER OF PROJECT)

SHEET INDEX

| | | |
|------------------------|---------------------------|----------------------|
| 1. COVER SHEET | 16. SITE PLAN | 18. DETAILS |
| 2. GENERAL NOTES | 17. SITE PLAN | 20. DETAILS |
| 3. MATERIAL QUANTITIES | 18. WATER OPERATIONS | 21. DETAILS |
| 4. MASTER LEGEND | 19. PROFILES AND SECTIONS | 22. RECLAMATION PLAN |
| 5. EXISTING CONDITIONS | 20. PROFILES AND SECTIONS | 23. RECLAMATION PLAN |
| 6. BENCHMARK | 21. PROFILES AND SECTIONS | 24. RECLAMATION PLAN |
| 7. SITE PLAN | 22. PROFILES AND SECTIONS | 25. RECLAMATION PLAN |
| 8. SITE PLAN | 23. PROFILES AND SECTIONS | 26. RECLAMATION PLAN |
| 9. SITE PLAN | 24. DETAILS | |

| LOCAL EMERGENCY SERVICES | | |
|--------------------------|-----------------------------|----------------|
| AMBULANCE | NAME | TELEPHONE NO. |
| HOSPITAL EMERGENCY ROOM | OHIO VALLEY MEDICAL CENTER | (304) 234-0123 |
| FIRE DEPARTMENT | | 911 |
| POLICE DEPARTMENT | | 911 |
| POISON CONTROL CENTER | WEST VIRGINIA POISON CENTER | (800) 222-1222 |

| FLOOD PLAIN CONDITIONS | |
|---|------------|
| DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN: | NO |
| PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR: | NO |
| HEC-RAS STUDY COMPLETED: | N/A |
| FLOODPLAIN SHOWN ON DRAWINGS: | N/A |
| FIRM MAP NUMBER(S) FOR SITE: | 540610075E |
| ACREAGE OF CONSTRUCTION IN FLOODPLAIN: | 0.00 AC |

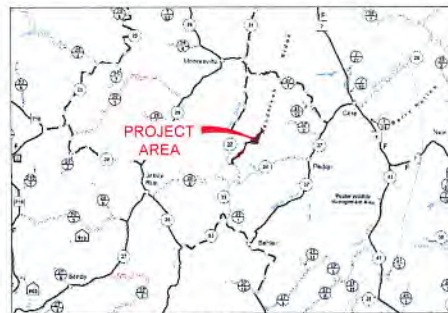


| SITE LOCATIONS | LOCATION COORDINATES | | | | | |
|------------------------------|----------------------|----------|-----------|------------|-------------|------------|
| | W83-NF (NORTH ZONE) | UTM83-17 | LATITUDE | LONGITUDE | NORTHING | EASTING |
| MAIN ACCESS ROAD ENTRANCE | | | 39.665146 | -80.134798 | 4390242.597 | 573398.547 |
| CENTROID OF WELL PAD | | | 39.670940 | -80.137403 | 4391591.317 | 573983.769 |
| CENTER OF CONTAINMENT TANK 1 | | | 39.671320 | -80.137111 | 4391633.797 | 574009.366 |
| CENTER OF CONTAINMENT TANK 2 | | | 39.671483 | -80.136786 | 4391652.157 | 574036.099 |
| CENTER OF CONTAINMENT TANK 3 | | | 39.671201 | -80.136749 | 4391620.848 | 574039.566 |

| GRADING VOLUMES | | | |
|---|---------------|---------------|-------------|
| DESCRIPTION | CUT (CY) | FILL (CY) | NET (CY) |
| MAIN ACCESS ROAD | 18.033 | 21.562 | -3.529 |
| WELL PAD | 48.910 | 42.810 | 6.100 |
| SPOIL-1 | 0 | 1.918 | -1.918 |
| SPOIL-2 | 0 | 953 | -953 |
| TOTAL | 67.943 | 67.943 | 0 |
| TOPSOIL / STRIPPING (10% SWELL - 17,014 C.Y.) | | | 14,178 C.Y. |

| L.O.D. AREAS | |
|----------------------------|--------------|
| DESCRIPTION | ACRES |
| MAIN ACCESS ROAD | 9.94 |
| WELL PAD | 8.21 |
| TOPSOIL/STRIPPING PILE 1 | 1.71 |
| SPOIL PILE 1 | 0.45 |
| SPOIL PILE 2 | 0.32 |
| CLEARING AND GRUBBING AREA | 3.19 |
| TOTAL | 23.73 |

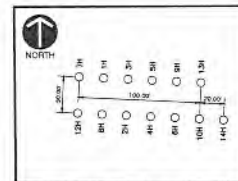
LOCATION MAP
BLACKSVILLE USGS 7.5 QUAD
SCALE IN FEET
1:2,000
1 INCH = 1,000 FEET



VICINITY MAP
MONONGALIA COUNTY ROAD MAP
SCALE IN FEET
1:100,000
1 INCH = 1 MILE



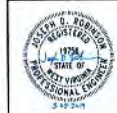
| LIMITS OF DISTURBANCE PARCEL BREAK UPS - LEMLEY WELL PAD | | | | | |
|--|-----------|-----------|-------------|----------------------------|--------------|
| MONONGALIA COUNTY, WEST VIRGINIA | | | | | |
| OWNER | TM-PARCEL | DEED-PAGE | TOTAL ACRES | TYPE OF DISTURBANCE | ACERAGE |
| STULL DONALD ET AL | 11-45 | 1018-499 | 46.85 | MAIN ACCESS ROAD | 9.91 |
| | | | | PARCEL TOTAL | 9.91 |
| LEMLEY CLARENCE W JR & CHARLOTTE E | 11-72 | 710-311 | 77.68 | MAIN ACCESS ROAD | 0.23 |
| | | | | WELL PAD | 8.21 |
| | | | | TOPSOIL/STRIPPING PILE 1 | 1.71 |
| | | | | SPOIL PILE 1 | 0.45 |
| | | | | SPOIL PILE 2 | 0.32 |
| | | | | CLEARING AND GRUBBING AREA | 3.19 |
| | | | | PARCEL TOTAL | 14.02 |



WELL HEAD LAYOUTS
NOT TO SCALE

| MINE INFORMATION | |
|------------------|--------------------|
| MINE ID: | 38184-A |
| MINE NAME: | DISAGE No. 3 |
| COMPANY: | CONSOLIDATION COAL |

| WELL RESTRICTIONS CHECKLIST (HORIZONTAL 6A WELLS) | |
|---|-----|
| AT LEAST 100 FEET FROM PAD AND L20 INCLUDING ANY EAR CONTROL FEATURE TO ANY PERMANENT STREAM LAKE, POND, RESERVOIR OR WETLAND | YES |
| AT LEAST 300 FEET FROM PAD AND L20 INCLUDING ANY EAR CONTROL FEATURE TO ANY NATURALLY OCCURRING TRIBUTARY STREAM | YES |
| AT LEAST 1000 FEET FROM PAD AND L20 INCLUDING ANY EAR CONTROL FEATURE TO ANY GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY | YES |
| AT LEAST 500 FEET FROM AN EXISTING WATER WELL OR DEVELOPED SPRING TO WELL BEING DRILLED | YES |
| AT LEAST 400 FEET FROM AN OCCUPIED DWELLING STRUCTURE TO CENTER OF PAD | YES |
| AT LEAST 400 FEET FROM AGRICULTURAL BUILDINGS LARGER THAN 1500 SQUARE FEET TO THE CENTER OF THE PAD | YES |



PROJECT CONTACTS:

ENGINEER/SURVEYOR:
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
JOSEPH D. ROBINSON, P.E., PRINCIPAL ENGINEER
OFFICE: (304) 953-3114 FAX: (304) 453-3127 CELL: (412) 364-2046

ENVIRONMENTAL:
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
JACQUELYN KESTER, SENIOR PROJECT MANAGER
OFFICE: (304) 953-3113 FAX: (304) 453-3127 CELL: (304) 558-8009

GEOTECHNICAL:
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
KON ESMAN, PROJECT MANAGER
OFFICE: (304) 953-3116 FAX: (304) 453-3127 CELL: (310) 774-1714

OPERATOR:
NORTHEAST NATURAL ENERGY LLC
41 DONLEY STREET, STE 601
MORGANTOWN, WV 26501

DAVE MCCOUGHLIN - CIVIL ENGINEERING MANAGER
OFFICE: (304) 241-3752 CELL: (304) 341-6233

WEST VIRGINIA CALL BEFORE YOU DIG!
WEST VIRGINIA STATE LAW REQUIRES THAT YOU CALL TWO BUSINESS DAYS BEFORE YOU DIG IN THE STATE OF WEST VIRGINIA. IT'S THE LAW!



PLAN REPRODUCTION WARNING
THE PLANS HAVE BEEN CREATED ON ANSI D (22" x 34") SHEETS. FOR REDUCTIONS REFER TO GRAPHIC SCALE.
THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOT/PRINT. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.
WARNING INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING.

| REVISION RECORD | | |
|-----------------|------|----------------------|
| NO. | DATE | DESCRIPTION |
| 1 | | ISSUE FOR PERMITTING |
| 2 | | ISSUE FOR PERMITTING |
| 3 | | ISSUE FOR PERMITTING |
| 4 | | ISSUE FOR PERMITTING |
| 5 | | ISSUE FOR PERMITTING |
| 6 | | ISSUE FOR PERMITTING |
| 7 | | ISSUE FOR PERMITTING |
| 8 | | ISSUE FOR PERMITTING |
| 9 | | ISSUE FOR PERMITTING |
| 10 | | ISSUE FOR PERMITTING |
| 11 | | ISSUE FOR PERMITTING |
| 12 | | ISSUE FOR PERMITTING |
| 13 | | ISSUE FOR PERMITTING |
| 14 | | ISSUE FOR PERMITTING |
| 15 | | ISSUE FOR PERMITTING |
| 16 | | ISSUE FOR PERMITTING |
| 17 | | ISSUE FOR PERMITTING |
| 18 | | ISSUE FOR PERMITTING |
| 19 | | ISSUE FOR PERMITTING |
| 20 | | ISSUE FOR PERMITTING |
| 21 | | ISSUE FOR PERMITTING |
| 22 | | ISSUE FOR PERMITTING |
| 23 | | ISSUE FOR PERMITTING |
| 24 | | ISSUE FOR PERMITTING |
| 25 | | ISSUE FOR PERMITTING |
| 26 | | ISSUE FOR PERMITTING |

Civil & Environmental Consultants, Inc.
600 Marketplace Ave - Suite 200 - Bridgeport, WV 26309
PH: 304.953.3119 Fax: 304.953.3327
www.civil.com

**NORTHEAST NATURAL ENERGY
LEMLEY WELL PAD
CLAY DISTRICT
MONONGALIA CO., WEST VIRGINIA**

COVER SHEET

DATE: AUGUST 2018 DRAWN BY: JDR
DATE: JUNE 2018 CHECKED BY: JDR
DATE: APRIL 2018 PROJECT NO: 181-000
DATE: APRIL 2018 PREPARED BY: JDR

DRAWING NO: **C000**

1 OF 26

