



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

Friday, July 26, 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 CUMMINS 3H
47-061-01855-00-00

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: CUMMINS 3H
Farm Name: JERRY L. YOST
U.S. WELL NUMBER: 47-061-01855-00-00
Horizontal 6A New Drill
Date Issued: 7/26/2019

PERMIT CONDITIONS

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: _____

PERMIT CONDITIONS

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.

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

1) Well Operator: Northeast Natural Energy

<u>494498281</u>	<u>Monongalia</u>	<u>Clay</u>	<u>Blacksville, WV</u>
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Operator ID County District Quadrangle

2) Operator's Well Number: 3H Well Pad Name: Cummins

3) Farm Name/Surface Owner: Jerry L Yost et al Public Road Access: CR 25/3 (Yank Hollow Rd.)

4) Elevation, current ground: 1360' Elevation, proposed post-construction: 1358'

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

Other _____

(b) If Gas Shallow Deep _____

Horizontal

6) Existing Pad: Yes or No No MDK 6/13/2019

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus; 8,073', 101', 3,600 psi

8) Proposed Total Vertical Depth: 8,070'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 15,818'

11) Proposed Horizontal Leg Length: 7,387'

12) Approximate Fresh Water Strata Depths: 50'; 1,250'

13) Method to Determine Fresh Water Depths: Drillers Log from offset wells

14) Approximate Saltwater Depths: 1,648'; 2,408'

15) Approximate Coal Seam Depths: 1,248'

16) Approximate Depth to Possible Void (coal mine, karst, other): NA

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: _____

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JUN 21 2019

WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47-**4706101855**
 OPERATOR WELL NO. 3H
 Well Pad Name: Cummins

18)

CASING AND TUBING PROGRAM

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	24"	New	NA	94.71	40'	40'	GTS
Fresh Water	13-3/8"	New	J-55	54.5	1,330'	1,300'	CTS
Coal							
Intermediate	9-5/8"	New	J-55	40	2,488'	2,458'	CTS
Production	5-1/2"	New	P-110	20	15,818'	15,788'	3619 cu. ft.
Tubing	2-7/8"	New	N-80	6.5			NA
Liners							

MDK 6/13/2019

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	24"	30"	.375	415		4,500 pst grout	NA
Fresh Water	13-3/8"	17 1/2"	.38"	2,760	2,000	Type 1	1.18
Coal							
Intermediate	9-5/8"	12 1/4"	.395"	3,950	3,000	Type 1	1.18
Production	5-1/2"	8-3/4"	.361"	12,530	9,700	50:50 Poz	1.21
Tubing	2-7/8"	NA	.271"	10,570	3,600	NA	NA
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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WW-6B
(10/14)

47 06 101855
API NO. 47-_____
OPERATOR WELL NO. 3H
Well Pad Name: Cummins

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 6,400' TVD/MD. The well will then be horizontally drilled on synthetic based mud from the KOP to approximately 8,070' TVD/15,818' MD along a 323° 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): 40.42 ac

22) Area to be disturbed for well pad only, less access road (acres): 11.99 ac

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.

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 Bentonite + 1 gal/bbl SS-2 Spacer @ 13.5 ppg prior to cement.

Office of Oil and Gas

JUN 21 2019

*Note: Attach additional sheets as needed.

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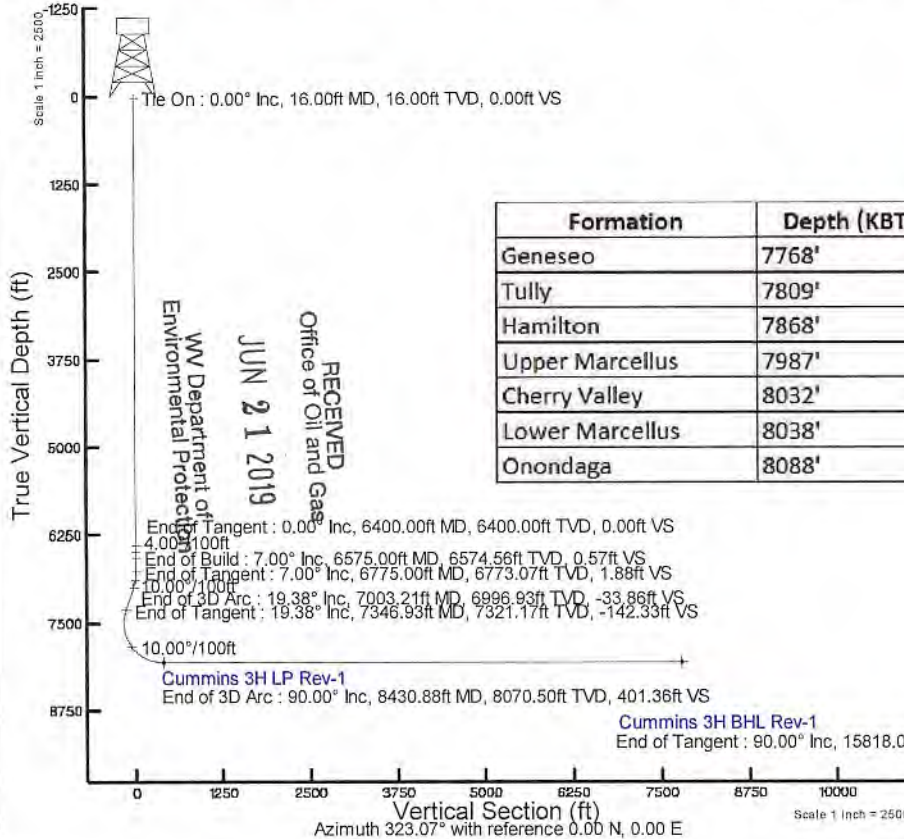
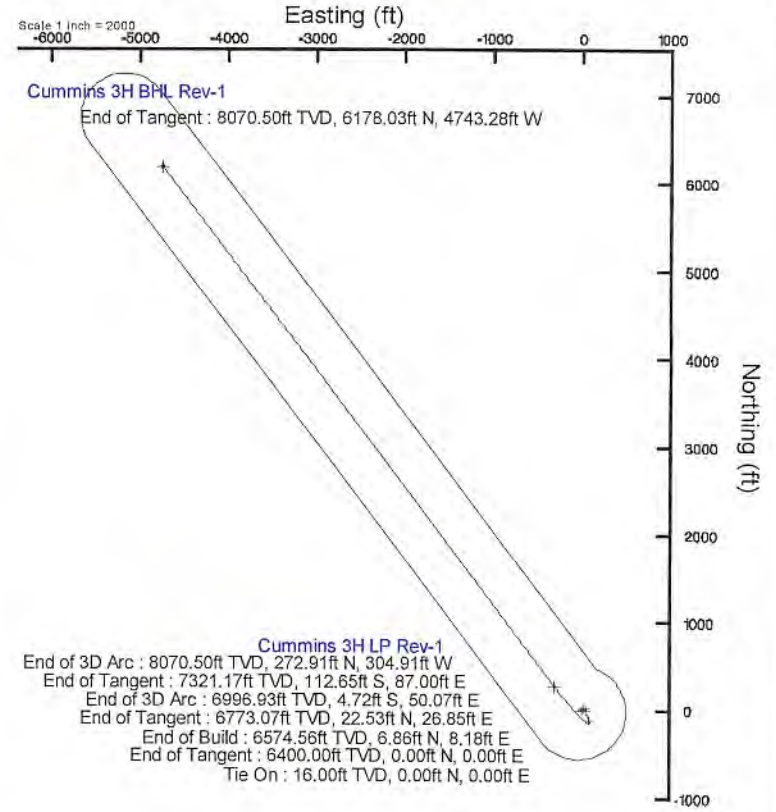
NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV Slot: Slot 3H
 Field: Monongalia Well: Cummins 3H
 Facility: Cummins Pad Wellbore: Cummins 3H PWB



Plot reference wellpath is Cummins 3H PWB Ex-00	Grid System: NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet
True vertical depths are referenced to Rig on Slot 3H (KB)	North Reference: Grid north
Measured depths are referenced to Rig on Slot 3H (KB)	Scale: True distance
Rig on Slot 3H (KB) to Mean Sea Level: 1374 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot 3H) -1358 feet	Created by: atenj on 2019-05-06
Coordinates are in feet referenced to Slot	Database: WA_MPL_EASTERNUS_Defn

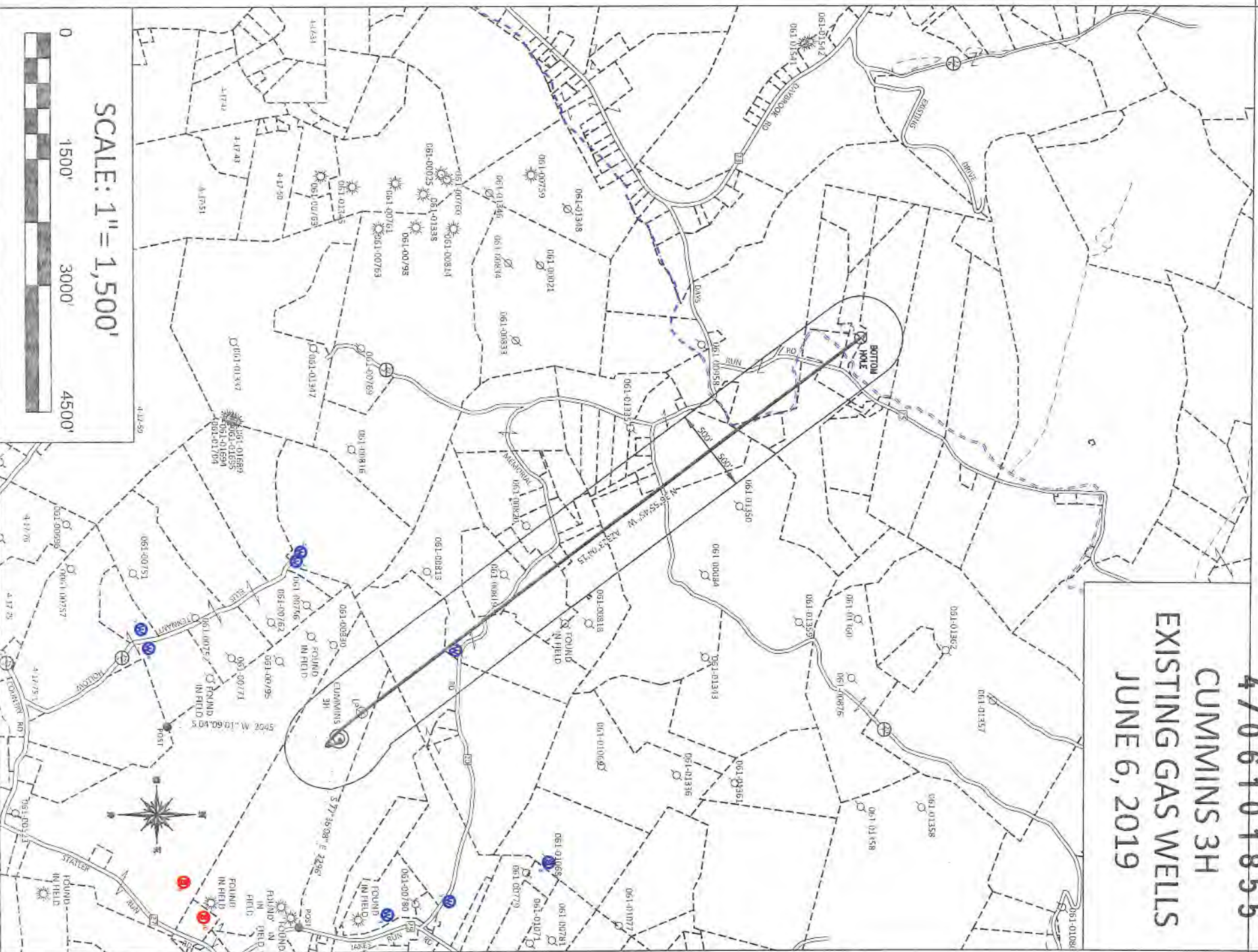
Type	Hole Size	Casing Size	Grade		GL Depth (Csg)
Conductor	28"	24"	NA		40'
Surface	17-1/2"	13-3/8"	J-55	54.5	1300'
Intermediate	12-1/4"	9-5/8"	J-55	40	2458'



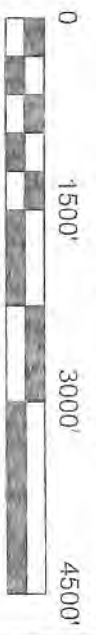
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4706101855

4706101855
CUMMINS 3H
EXISTING GAS WELLS
JUNE 6, 2019



SCALE: 1" = 1,500'



Cummins 3H Area of Review

API Number	Well Name	Well Number	Operator	Latitude (NAD 27)	Longitude (NAD 27)	TMP	TVD	Comments
47-061-00819	J & R Brummage	NA	Consolidation Coal Co.	39.667377	-80.18785	4-17-67	NA	Plugged 10/7/86

4706101855

WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Cummins 3H

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: N/A

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

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

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JUN 21 2019

Subscribed and sworn before me this 16th day of June, 2019, 20
Kristen Brooks
My commission expires Aug 10, 2023

Notary Public

 WV Department of Environmental Protection
 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 54.52 Prevegetation pH _____

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 10-20-20

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
Perennial Rye	16	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: *Harvey J. Kintner*

Comments: _____

Title: Inspector

Date: 6/13/2019

Field Reviewed? () Yes () No

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Attachment A to WW-9

Northeast Natural Energy LLC (“NNE”) plans to utilize a closed loop process for its drilling of the Cummins 3H 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.

The 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)

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northeast
NATURAL ENERGY

Cummins 3H
SITE SAFETY PLAN

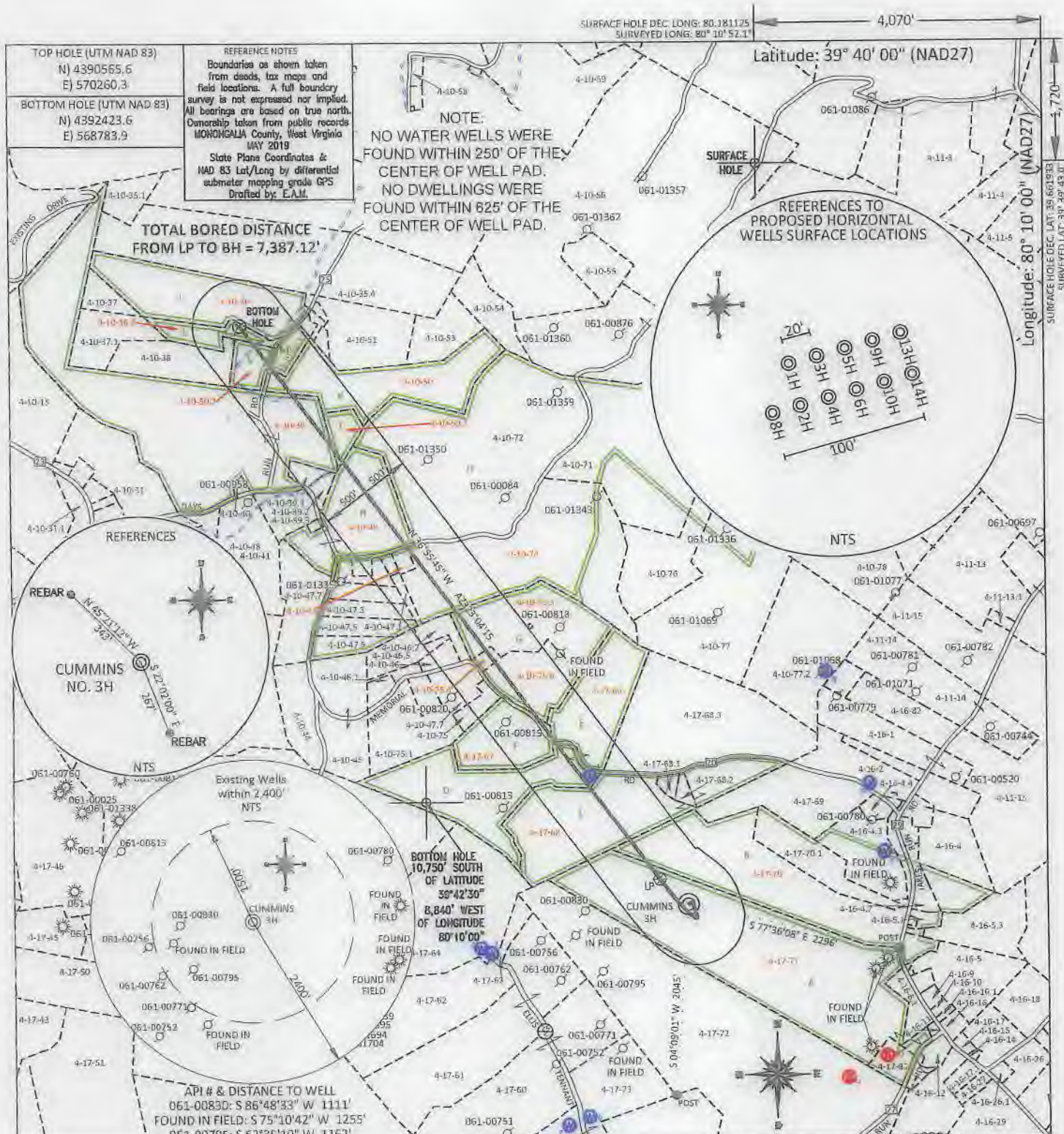
June 2019

Hayme J. Kintawa
6/13/2018

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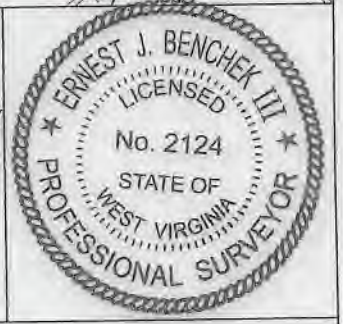
WV Department of
Environmental Protection



FILE #: NNE15
DRAWING #: 2918
SCALE: PLAT: 1" = 1500'
TICK: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

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

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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WYDEP
OFFICE OF OIL & GAS
601 5TH STREET
CHARLESTON, WY 25304
Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow
WATERSHED: DUNKARD CREEK
COUNTY/DISTRICT: MONONGALIA / CLAY
SURFACE OWNER: JERRY L. YOST ET AL
OIL & GAS ROYALTY OWNER: NNE LLC, et al
LEASE NUMBERS:

DATE: JUNE 6, 2019
OPERATOR'S WELL #: CUMMINS 3H
API WELL #: 47 61 01855 H6A
STATE COUNTY PERMIT
CURRENT ELEVATION: 1,374'
PROPOSED ELEVATION: 1,358.25'
QUADRANGLE: BLACKSVILLE
ACREAGE: 81.472 +/-
ACREAGE: 655.600 +/-
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
ESTIMATED DEPTH: TVD: 8,070.5' TMD: 15,818.00'
WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
DESIGNATED AGENT: JOHN ADAMS
ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
CITY: CHARLESTON STATE: WV ZIP CODE: 25301

PROPERTY OWNER INDEX	
4-17-71	JERRY L. YOST ET AL
4-17-70	ROB & JOYCE BENNETT
4-17-68	LEONARD MICHAEL YOHO
4-17-67	LISA D. & STEVEN E. WHITE
4-17-66	BILLY JO EDDY ET AL
4-10-75.4	M3 APPALACHIA GATHERING, LLC
4-10-75.6	M3 APPALACHIA GATHERING LLC
4-10-75.3	EDWARD PAUL & AVA MARIE & KEVIN P TENNANT
4-10-74	RACHEL B. BAYS
4-10-73	RACHEL B. BAYS
4-10-49	BILLY JO & JANET EDDY
4-10-50.3	BILLY D. & LINDA G. BARR
4-10-50	MARK MYERS
4-10-39	MARY LOU VERBOSKY
4-10-50.2	JASON G. STOUT
4-10-50.1	BRANDY JEAN WILMOTH, JAMES C. & SANDRA J. NICHOLS
4-10-36.2	JASON G. STOUT
4-10-36	JASON G. STOUT

LEASE INDEX			
A	WV-061-003499-001	H	WV-061-003693-002
B	WV-061-004599-060	I	WV-061-000127-001-LA
C	WV-061-000127-001-LA	J	WV-061-004387-087
D	WV-061-003023-014	K	WV-061-00127-001-LA
E	WV-061-003023-014	L	WV-061-005332-001
F	WV-061-001620-008	M	WV-061-003221-001
G	WV-061-005563-001		

FILE #: NEE15

DRAWING #: 2918

SCALE: N/A

DATE: JUNE 6, 2019

OPERATOR'S WELL #: CUMMINS 3H

API WELL #: 47 61 01855 H6A
STATE COUNTY PERMIT

WW-6A1
(5/13)

Operator's Well No. Cummins 3H

**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
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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

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JUN 21 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 *Hollie Medley*
 Its: Regulatory Manager

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
A	WV-061-003499-001	LORING, GARY G.	Northeast Natural Energy LLC	12.5% or Greater	1545	764
A	WV-061-004591-002	MICHAEL, A. KEIT	Northeast Natural Energy LLC	12.5% or Greater	1594	66
A	WV-061-004591-001	REYNOLDS, JANE	Northeast Natural Energy LLC	12.5% or Greater	1595	384
A	WV-061-003676-001	SWIGER, JOSEPH	Northeast Natural Energy LLC	12.5% or Greater	1561	101
B	WV-061-004599-060	ADAMSON, DIANA	Northeast Natural Energy LLC	12.5% or Greater	1636	163
B	WV-061-003674-017	ARNETT, KENNETH	Northeast Natural Energy LLC	12.5% or Greater	1562	199
B	WV-061-003674-006	ARNETT, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1550	487
B	WV-061-003674-020	ARNETT, W. KEIT	Northeast Natural Energy LLC	12.5% or Greater	1564	673
B	WV-061-004599-037	BACK, DOROTHY R	Northeast Natural Energy LLC	12.5% or Greater	1608	22
B	WV-061-003708-006	BANE, EILEEN	Northeast Natural Energy LLC	12.5% or Greater	1541	303
B	WV-061-003708-007	BROOKOVER, RUBY	Northeast Natural Energy LLC	12.5% or Greater	1545	774
B	WV-061-003856-076	BROOKS, CONNIE	Northeast Natural Energy LLC	12.5% or Greater	1593	600
B	WV-061-003674-007	BURKE, ARLEEN	Northeast Natural Energy LLC	12.5% or Greater	1550	491
B	WV-061-004599-023	CHEEK, DOROTHY	Northeast Natural Energy LLC	12.5% or Greater	1610	584
B	WV-061-003856-078	CHISHOLM, BONNI	Northeast Natural Energy LLC	12.5% or Greater	1593	644
B	WV-061-003856-075	CHISLER, JACKI	Northeast Natural Energy LLC	12.5% or Greater	1593	588
B	WV-061-003856-066	CONNER, CINDY	Northeast Natural Energy LLC	12.5% or Greater	1589	141
B	WV-061-003856-009	CONNER, FREDERI	Northeast Natural Energy LLC	12.5% or Greater	1565	626
B	WV-061-003856-072	CONNER, JAMES	Northeast Natural Energy LLC	12.5% or Greater	1590	323
B	WV-061-003856-008	CONNER, JOHN C.	Northeast Natural Energy LLC	12.5% or Greater	1564	665
B	WV-061-003856-036	COOK, LORETTA	Northeast Natural Energy LLC	12.5% or Greater	1579	803
B	WV-061-003856-038	COOK, PAUL	Northeast Natural Energy LLC	12.5% or Greater	1579	815
B	WV-061-003856-024	COPELAND, CHERL	Northeast Natural Energy LLC	12.5% or Greater	1577	825
B	WV-061-004599-017	COPELAND, CONNI	Northeast Natural Energy LLC	12.5% or Greater	1606	750
B	WV-061-004599-041	CORDER, LEOR ET	Northeast Natural Energy LLC	12.5% or Greater	1610	368
B	WV-061-003856-044	COX, GLORIA I	Northeast Natural Energy LLC	12.5% or Greater	1580	182
B	WV-061-003856-074	CROWLEY, PATRIC	Northeast Natural Energy LLC	12.5% or Greater	1593	668
B	WV-061-004599-044	DAILEY, VIRGINI	Northeast Natural Energy LLC	12.5% or Greater	1614	791
B	WV-061-003674-031	EBERHART, TERRY	Northeast Natural Energy LLC	12.5% or Greater	1563	206
B	WV-061-003856-054	EDDY, MARGUERIT	Northeast Natural Energy LLC	12.5% or Greater	1588	397
B	WV-061-003708-013	EDDY, VADA	Northeast Natural Energy LLC	12.5% or Greater	1565	556
B	WV-061-003708-011	EDDY, VANESSA	Northeast Natural Energy LLC	12.5% or Greater	1564	327
B	WV-061-003843-001	ELDER, NELLIE	Northeast Natural Energy LLC	12.5% or Greater	1564	669
B	WV-061-003843-002	ELKINS, NANCY R	Northeast Natural Energy LLC	12.5% or Greater	1564	374
B	WV-061-004599-061	EMORY, JEAN	Northeast Natural Energy LLC	12.5% or Greater	1636	739
B	WV-061-004599-064	FLYNN, TINA M.	Northeast Natural Energy LLC	12.5% or Greater	1643	820
B	WV-061-004599-021	FRAZIER, SHERRY	Northeast Natural Energy LLC	12.5% or Greater	1613	38
B	WV-061-004599-065	FREDERICK, LORI	Northeast Natural Energy LLC	12.5% or Greater	1646	45
B	WV-061-003856-023	FULTON, CAROLYN	Northeast Natural Energy LLC	12.5% or Greater	1577	789
B	WV-061-003856-011	GATWOOD, SANDY	Northeast Natural Energy LLC	12.5% or Greater	1557	435
B	WV-061-003856-063	GILL, TAMMY S.	Northeast Natural Energy LLC	12.5% or Greater	1589	467
B	WV-061-003856-034	GRIBBLE, BRENDA	Northeast Natural Energy LLC	12.5% or Greater	1576	845
B	WV-061-003856-079	HAINES, ELLEN J	Northeast Natural Energy LLC	12.5% or Greater	1594	600
B	WV-061-004599-053	HALL, EARL ET U	Northeast Natural Energy LLC	12.5% or Greater	1619	409
B	WV-061-003856-045	HAMILTON, RICHA	Northeast Natural Energy LLC	12.5% or Greater	1580	185
B	WV-061-003856-016	HARRELL, CURTIS	Northeast Natural Energy LLC	12.5% or Greater	1562	373
B	WV-061-004599-039	HAUGHT, BILLY C	Northeast Natural Energy LLC	12.5% or Greater	1619	403
B	WV-061-003856-027	HAUGHT, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1576	831
B	WV-061-003856-028	HENDERSON, ALDE	Northeast Natural Energy LLC	12.5% or Greater	1576	833
B	WV-061-003674-010	HIGGINS, WILMA	Northeast Natural Energy LLC	12.5% or Greater	1542	91
B	WV-061-003856-084	HUFFMAN, DONNA	Northeast Natural Energy LLC	12.5% or Greater	1607	58
B	WV-061-004599-056	HULL, HELEN I.	Northeast Natural Energy LLC	12.5% or Greater	1642	57
B	WV-061-004599-038	HULL, LARRY D.	Northeast Natural Energy LLC	12.5% or Greater	1614	788
B	WV-061-003856-013	HUNNEL, JOHN W	Northeast Natural Energy LLC	12.5% or Greater	1565	307
B	WV-061-003674-030	HUNNELL, DIANNE	Northeast Natural Energy LLC	12.5% or Greater	1565	620
B	WV-061-004599-043	JACOBS, JANET D	Northeast Natural Energy LLC	12.5% or Greater	1613	76
B	WV-061-003856-004	JOLLIFF, BRIAN	Northeast Natural Energy LLC	12.5% or Greater	1565	612
B	WV-061-003856-007	JOLLIFF, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1568	281
B	WV-061-003856-048	KACSMAR, DEBRA	Northeast Natural Energy LLC	12.5% or Greater	1582	64
B	WV-061-003856-032	KELLEY, THOMAS	Northeast Natural Energy LLC	12.5% or Greater	1576	841
B	WV-061-004599-067	KELLEY, WILLIAM	Northeast Natural Energy LLC	12.5% or Greater	135	462
B	WV-061-004599-028	KELLY, BARBARA	Northeast Natural Energy LLC	12.5% or Greater	1607	270
B	WV-061-003674-024	KENNEDY, HELEN	Northeast Natural Energy LLC	12.5% or Greater	1557	365
B	WV-061-004599-005	KIGER, KENNETH	Northeast Natural Energy LLC	12.5% or Greater	1597	605
B	WV-061-004599-004	KIGER, WILLIAM	Northeast Natural Energy LLC	12.5% or Greater	1597	603
B	WV-061-004599-032	KING, JUDY E.	Northeast Natural Energy LLC	12.5% or Greater	1607	624
B	WV-061-003856-081	KISNER, DONLEY	Northeast Natural Energy LLC	12.5% or Greater	1593	450
B	WV-061-003856-082	KISNER, VICKIE	Northeast Natural Energy LLC	12.5% or Greater	1593	452
B	WV-061-003856-056	LASH, DAVID A.	Northeast Natural Energy LLC	12.5% or Greater	1588	578
B	WV-061-003856-059	LASH, FRANK JR.	Northeast Natural Energy LLC	12.5% or Greater	1588	601
B	WV-061-003856-068	LASH, JOSEPH W.	Northeast Natural Energy LLC	12.5% or Greater	1589	479
B	WV-061-003856-057	LASH, STEVEN M.	Northeast Natural Energy LLC	12.5% or Greater	1588	585
B	WV-061-003856-067	LASH, TIMOTHY S	Northeast Natural Energy LLC	12.5% or Greater	1589	476
B	WV-061-004599-001	LEMLEY, ELLEN E	Northeast Natural Energy LLC	12.5% or Greater	1595	506
B	WV-061-004599-029	LEMLEY, MARY FL	Northeast Natural Energy LLC	12.5% or Greater	1607	618
B	WV-061-003674-012	LEMLEY, MARY LO	Northeast Natural Energy LLC	12.5% or Greater	1550	473
B	WV-061-004599-006	MARAN, LINDA	Northeast Natural Energy LLC	12.5% or Greater	1602	37
B	WV-061-003856-050	MASSIE, GINA	Northeast Natural Energy LLC	12.5% or Greater	1586	18

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
B	WV-061-003856-080	MAY, LOLA E.	Northeast Natural Energy LLC	12.5% or Greater	1593	448
B	WV-061-003856-026	MCCARDLE, ALLEN	Northeast Natural Energy LLC	12.5% or Greater	1577	804
B	WV-061-003674-004	MCCULLOUGH, MAR	Northeast Natural Energy LLC	12.5% or Greater	1541	834
B	WV-061-003856-077	MICHAEL, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1593	603
B	WV-061-003856-041	MILLER, SHIRLEY	Northeast Natural Energy LLC	12.5% or Greater	1578	345
B	WV-061-003856-006	MOFFA, DEBRA G	Northeast Natural Energy LLC	12.5% or Greater	1566	21
B	WV-061-003674-018	MOORE, ETHAN D	Northeast Natural Energy LLC	12.5% or Greater	1566	295
B	WV-061-003708-015	MOORE, HAROLD W	Northeast Natural Energy LLC	12.5% or Greater	1564	380
B	WV-061-004599-022	MOORE, JEFF ET	Northeast Natural Energy LLC	12.5% or Greater	1615	779
B	WV-061-003856-035	MOORE, PAULINE	Northeast Natural Energy LLC	12.5% or Greater	1576	847
B	WV-061-003856-014	MOORE, VELDA E	Northeast Natural Energy LLC	12.5% or Greater	1565	676
B	WV-061-004599-066	MURPHY, JOYCE C	Northeast Natural Energy LLC	12.5% or Greater	1648	241
B	WV-061-003674-008	MYERS, NICHOLAS	Northeast Natural Energy LLC	12.5% or Greater	1550	584
B	WV-061-003674-033	NETZEL, DEBORAH	Northeast Natural Energy LLC	12.5% or Greater	1568	146
B	WV-061-004599-012	NICHOLSON, GLEN	Northeast Natural Energy LLC	12.5% or Greater	1606	744
B	WV-061-003708-002	OWEN, LOLA T.	Northeast Natural Energy LLC	12.5% or Greater	1550	481
B	WV-061-003674-028	PANRELL, NORMA	Northeast Natural Energy LLC	12.5% or Greater	1564	717
B	WV-061-004599-054	PAPESH, LEA ANN	Northeast Natural Energy LLC	12.5% or Greater	1627	325
B	WV-061-003856-037	PATTERSON, ALYS	Northeast Natural Energy LLC	12.5% or Greater	1579	809
B	WV-061-003856-039	PATTERSON, JARE	Northeast Natural Energy LLC	12.5% or Greater	1579	818
B	WV-061-003856-040	PATTERSON, RYAN	Northeast Natural Energy LLC	12.5% or Greater	1579	824
B	WV-061-003856-053	PHARES, WILLIAM	Northeast Natural Energy LLC	12.5% or Greater	1588	394
B	WV-061-004599-055	PHARES, WILLIAM	Northeast Natural Energy LLC	12.5% or Greater	1634	384
B	WV-061-003674-013	PIFER, DONNA IR	Northeast Natural Energy LLC	12.5% or Greater	1554	480
B	WV-061-003856-052	PRICE, VIVIAN	Northeast Natural Energy LLC	12.5% or Greater	1586	24
B	WV-061-004599-046	RAMSEY, GLENDA	Northeast Natural Energy LLC	12.5% or Greater	1613	82
B	WV-061-003674-002	RAMSEY, KATHY J	Northeast Natural Energy LLC	12.5% or Greater	1554	482
B	WV-061-003856-083	ROGERS, R BRUCE	Northeast Natural Energy LLC	12.5% or Greater	1607	56
B	WV-061-003674-016	ROSE, ELLEN MAR	Northeast Natural Energy LLC	12.5% or Greater	1554	422
B	WV-061-004599-007	ROSS, NANCY	Northeast Natural Energy LLC	12.5% or Greater	1605	280
B	WV-061-003856-002	SAGO, ANTHONY G	Northeast Natural Energy LLC	12.5% or Greater	1557	367
B	WV-061-005119-001	SAGO, APRIL DAW	Northeast Natural Energy LLC	12.5% or Greater	1618	781
B	WV-061-003856-003	SAGO, DAVID K.	Northeast Natural Energy LLC	12.5% or Greater	1564	378
B	WV-061-003856-005	SAGO, JEFFREY	Northeast Natural Energy LLC	12.5% or Greater	1567	840
B	WV-061-003856-001	SAGO, KAREN E	Northeast Natural Energy LLC	12.5% or Greater	1553	220
B	WV-061-003856-049	SCRIPP, ZEVA C.	Northeast Natural Energy LLC	12.5% or Greater	1584	774
B	WV-061-004599-010	SHRIVER, LINDA	Northeast Natural Energy LLC	12.5% or Greater	1605	299
B	WV-061-003856-071	SLAMPAK, CHERYL	Northeast Natural Energy LLC	12.5% or Greater	1590	321
B	WV-061-004599-002	SLIFKO, JANICE	Northeast Natural Energy LLC	12.5% or Greater	1597	599
B	WV-061-004599-026	SMITH, JUDY T	Northeast Natural Energy LLC	12.5% or Greater	1607	266
B	WV-061-004599-058	SPEARS, KYLIE	Northeast Natural Energy LLC	12.5% or Greater	1638	311
B	WV-061-003708-010	STATLER, VANETA	Northeast Natural Energy LLC	12.5% or Greater	1562	215
B	WV-061-003674-014	STEELE, REBECCA	Northeast Natural Energy LLC	12.5% or Greater	1550	475
B	WV-061-004599-009	STEVENSON, DONN	Northeast Natural Energy LLC	12.5% or Greater	1605	296
B	WV-061-003856-020	STIERINGER, SHI	Northeast Natural Energy LLC	12.5% or Greater	1575	439
B	WV-061-003856-022	STILES, DEBORAH	Northeast Natural Energy LLC	12.5% or Greater	1577	783
B	WV-061-003674-022	STILES, GERALD	Northeast Natural Energy LLC	12.5% or Greater	1564	376
B	WV-061-003674-023	STILES, HAROLD	Northeast Natural Energy LLC	12.5% or Greater	1563	121
B	WV-061-003674-027	STILES, JANICE	Northeast Natural Energy LLC	12.5% or Greater	1566	27
B	WV-061-004599-040	SUMNER, JASON	Northeast Natural Energy LLC	12.5% or Greater	1610	366
B	WV-061-003676-001	SWIGER, JOSEPH	Northeast Natural Energy LLC	12.5% or Greater	1561	101
B	WV-061-004599-034	TEAL, JAMY D.	Northeast Natural Energy LLC	12.5% or Greater	1608	18
B	WV-061-003856-065	TEMPLE, JODY L.	Northeast Natural Energy LLC	12.5% or Greater	1589	473
B	WV-061-004599-057	TEMPLE, JOSHUA	Northeast Natural Energy LLC	12.5% or Greater	1638	308
B	WV-061-003856-064	TEMPLE, KEVIN A	Northeast Natural Energy LLC	12.5% or Greater	1589	470
B	WV-061-004599-059	TEMPLE, MEGAN	Northeast Natural Energy LLC	12.5% or Greater	1638	316
B	WV-061-003708-004	TENNANT, ALLEN	Northeast Natural Energy LLC	12.5% or Greater	1557	778
B	WV-061-004599-063	TENNANT, BILLY	Northeast Natural Energy LLC	12.5% or Greater	1640	592
B	WV-061-003674-005	TENNANT, BRENDA	Northeast Natural Energy LLC	12.5% or Greater	1541	842
B	WV-061-004599-014	TENNANT, BURL A	Northeast Natural Energy LLC	12.5% or Greater	1604	236
B	WV-061-004599-019	TENNANT, CARL F	Northeast Natural Energy LLC	12.5% or Greater	1611	491
B	WV-061-003674-015	TENNANT, CECIL	Northeast Natural Energy LLC	12.5% or Greater	1550	477
B	WV-061-004599-047	TENNANT, CLYDE	Northeast Natural Energy LLC	12.5% or Greater	1613	85
B	WV-061-003708-003	TENNANT, DANNY	Northeast Natural Energy LLC	12.5% or Greater	1550	483
B	WV-061-004599-068	TENNANT, DIANA	Northeast Natural Energy LLC	12.5% or Greater	135	466
B	WV-061-003856-046	TENNANT, DONALD	Northeast Natural Energy LLC	12.5% or Greater	1580	188
B	WV-061-004599-051	TENNANT, FRANCI	Northeast Natural Energy LLC	12.5% or Greater	1611	686
B	WV-061-003856-043	TENNANT, FREDDI	Northeast Natural Energy LLC	12.5% or Greater	1580	179
B	WV-061-003674-037	TENNANT, GLENDA	Northeast Natural Energy LLC	12.5% or Greater	1577	4
B	WV-061-003674-032	TENNANT, HELEN	Northeast Natural Energy LLC	12.5% or Greater	1568	319
B	WV-061-004599-049	TENNANT, HERBER	Northeast Natural Energy LLC	12.5% or Greater	1613	91
B	WV-061-004599-045	TENNANT, JAMES	Northeast Natural Energy LLC	12.5% or Greater	1613	79
B	WV-061-003856-025	TENNANT, JEAN	Northeast Natural Energy LLC	12.5% or Greater	1577	798
B	WV-061-003856-033	TENNANT, JEFF	Northeast Natural Energy LLC	12.5% or Greater	1577	528
B	WV-061-004599-035	TENNANT, JEFFER	Northeast Natural Energy LLC	12.5% or Greater	1608	20
B	WV-061-004599-025	TENNANT, JEFFRE	Northeast Natural Energy LLC	12.5% or Greater	1607	264
B	WV-061-003856-060	TENNANT, JOSEPH	Northeast Natural Energy LLC	12.5% or Greater	1588	610
B	WV-061-004599-016	TENNANT, KEITH	Northeast Natural Energy LLC	12.5% or Greater	1606	747
B	WV-061-003708-001	TENNANT, LARRY	Northeast Natural Energy LLC	12.5% or Greater	1550	479
B	WV-061-003856-015	TENNANT, MARTHA	Northeast Natural Energy LLC	12.5% or Greater	1557	752
B	WV-061-003856-031	TENNANT, MELODY	Northeast Natural Energy LLC	12.5% or Greater	1576	839

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B	WV-061-003856-012	TENNANT, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1557	447
B	WV-061-004599-052	TENNANT, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1611	688
B	WV-061-003856-021	TENNANT, NELSON	Northeast Natural Energy LLC	12.5% or Greater	1576	277
B	WV-061-003856-055	TENNANT, RALPH	Northeast Natural Energy LLC	12.5% or Greater	1588	570
B	WV-061-004599-008	TENNANT, RANDY	Northeast Natural Energy LLC	12.5% or Greater	1605	287
B	WV-061-003674-019	TENNANT, RICHARD	Northeast Natural Energy LLC	12.5% or Greater	1562	201
B	WV-061-004599-050	TENNANT, RITA	Northeast Natural Energy LLC	12.5% or Greater	1610	836
B	WV-061-003674-034	TENNANT, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1573	456
B	WV-061-003856-047	TENNANT, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1582	61
B	WV-061-004599-048	TENNANT, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1613	88
B	WV-061-003856-029	TENNANT, SCOTT	Northeast Natural Energy LLC	12.5% or Greater	1577	530
B	WV-061-003856-061	TENNANT, SHELIA	Northeast Natural Energy LLC	12.5% or Greater	1588	646
B	WV-061-004599-013	TENNANT, SHIRL	Northeast Natural Energy LLC	12.5% or Greater	1604	234
B	WV-061-003674-021	TENNANT, SYLVIA	Northeast Natural Energy LLC	12.5% or Greater	1564	715
B	WV-061-003856-010	TENNANT, VIRGIN	Northeast Natural Energy LLC	12.5% or Greater	1557	439
B	WV-061-003708-005	TENNANT, WILBUR	Northeast Natural Energy LLC	12.5% or Greater	1550	485
B	WV-061-003674-009	TENNANT, WM R.	Northeast Natural Energy LLC	12.5% or Greater	1550	577
B	WV-061-003674-029	THOMAS FAMILY	Northeast Natural Energy LLC	12.5% or Greater	1565	594
B	WV-061-004599-024	THOMAS, SANDRA	Northeast Natural Energy LLC	12.5% or Greater	1606	480
B	WV-061-004599-033	TRUITT, TENISHA	Northeast Natural Energy LLC	12.5% or Greater	1608	16
B	WV-061-003856-058	TUTTLE, ALBERT	Northeast Natural Energy LLC	12.5% or Greater	1588	598
B	WV-061-004599-020	TUTTLE, CHARLES	Northeast Natural Energy LLC	12.5% or Greater	1610	574
B	WV-061-004599-031	TUTTLE, CHARLES	Northeast Natural Energy LLC	12.5% or Greater	1607	622
B	WV-061-004599-018	TUTTLE, PAUL ET	Northeast Natural Energy LLC	12.5% or Greater	1604	371
B	WV-061-004599-030	TUTTLE, RONALD	Northeast Natural Energy LLC	12.5% or Greater	1607	620
B	WV-061-004599-011	TUTTLE, SHARON	Northeast Natural Energy LLC	12.5% or Greater	1606	696
B	WV-061-004599-036	TUTTLE, SUNG JA	Northeast Natural Energy LLC	12.5% or Greater	1613	836
B	WV-061-004599-003	VALENTINE, JOYCE	Northeast Natural Energy LLC	12.5% or Greater	1597	601
B	WV-061-003856-070	VENEZIA, MARY J	Northeast Natural Energy LLC	12.5% or Greater	1589	561
B	WV-061-003674-003	WALKER, CHARLEN	Northeast Natural Energy LLC	12.5% or Greater	1550	573
B	WV-061-003674-001	WALKER, MARTHA	Northeast Natural Energy LLC	12.5% or Greater	1550	489
B	WV-061-003856-019	WALKER, NEVA R	Northeast Natural Energy LLC	12.5% or Greater	1575	272
B	WV-061-003856-018	WALKER, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1575	270
B	WV-061-003856-017	WALKER, RUBY G	Northeast Natural Energy LLC	12.5% or Greater	1575	268
B	WV-061-004599-042	WALLS, ROBIN ET	Northeast Natural Energy LLC	12.5% or Greater	1610	370
B	WV-061-004599-027	WALSH, SHARON T	Northeast Natural Energy LLC	12.5% or Greater	1607	268
B	WV-061-003856-042	WALTERS, RUSSEL	Northeast Natural Energy LLC	12.5% or Greater	1578	156
B	WV-061-003856-051	WEAVER, DOROTHY	Northeast Natural Energy LLC	12.5% or Greater	1586	21
B	WV-061-003856-069	WHITE, DEBORAH	Northeast Natural Energy LLC	12.5% or Greater	1589	143
B	WV-061-003856-073	WILFONG, LINDA	Northeast Natural Energy LLC	12.5% or Greater	1590	329
B	WV-061-003674-011	WILSON, BARBARA	Northeast Natural Energy LLC	12.5% or Greater	1542	96
B	WV-061-003708-008	WILSON, BERTHA	Northeast Natural Energy LLC	12.5% or Greater	1550	525
B	WV-061-003708-009	WILSON, LEONARD	Northeast Natural Energy LLC	12.5% or Greater	1552	424
B	WV-061-004599-062	WOODHAM, KIMBER	Northeast Natural Energy LLC	12.5% or Greater	1639	811
B	WV-061-003856-062	WRIGHT, FLOYD W	Northeast Natural Energy LLC	12.5% or Greater	1589	253
B	WV-061-003674-035	WRIGHT, MARY A	Northeast Natural Energy LLC	12.5% or Greater	1574	526
B	WV-061-003708-014	YOST, JARROD	Northeast Natural Energy LLC	12.5% or Greater	1556	471
B	WV-061-003674-036	YOST, JASON G	Northeast Natural Energy LLC	12.5% or Greater	1574	524
B	WV-061-003674-025	YOST, VERL LOYE	Northeast Natural Energy LLC	12.5% or Greater	1557	451
B	WV-061-003708-012	YOST, VINCENT	Northeast Natural Energy LLC	12.5% or Greater	1564	323
C	WV-061-000127-001-LA	EDDY	Northeast Natural Energy LLC	12.5% or Greater	1660	538
D	WV-061-003023-014	EDDY, BILLY JOE	Northeast Natural Energy LLC	12.5% or Greater	1518	25
D	WV-061-003739-006	EDDY, DAVID W	Northeast Natural Energy LLC	12.5% or Greater	1562	197
D	WV-061-003023-015	EDDY, DENZIL	Northeast Natural Energy LLC	12.5% or Greater	1517	374
D	WV-061-003023-019	EDDY, MELVIN L.	Northeast Natural Energy LLC	12.5% or Greater	1534	118
D	WV-061-003023-016	EDDY, ORA	Northeast Natural Energy LLC	12.5% or Greater	1517	387
D	WV-061-003739-011	EDDY, TIMOTHY C	Northeast Natural Energy LLC	12.5% or Greater	1555	312
D	WV-061-003739-004	EDDY, WALTER R	Northeast Natural Energy LLC	12.5% or Greater	1550	517
D	WV-061-003739-001	GONZALES, ANITA	Northeast Natural Energy LLC	12.5% or Greater	1557	449
D	WV-061-003739-007	HALL, WILLIAM D	Northeast Natural Energy LLC	12.5% or Greater	1557	371
D	WV-061-003023-006	HARRIS, JULIA M	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
D	WV-061-003023-006	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
D	WV-061-003023-013	LEMMON, DONNA E	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
D	WV-061-003023-013	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
D	WV-061-003023-020	LIPSCOMB, JUDY	Northeast Natural Energy LLC	12.5% or Greater	1535	693
D	WV-061-003739-010	MEADE, DEBORAH	Northeast Natural Energy LLC	12.5% or Greater	1562	203
D	WV-061-003023-021	PHILLIPS, REBEC	Northeast Natural Energy LLC	12.5% or Greater	1535	695
D	WV-061-003023-018	POLANSKY, EMELI	Northeast Natural Energy LLC	12.5% or Greater	1521	692
D	WV-061-003739-002	RAMSEY, KATHY J	Northeast Natural Energy LLC	12.5% or Greater	1557	377
D	WV-061-003023-002	ROUPE, LARRY L.	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
D	WV-061-003023-002	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
D	WV-061-003739-009	SHACKELFORD, SA	Northeast Natural Energy LLC	12.5% or Greater	1557	361
D	WV-061-003739-008	TENNANT, DOLLY	Northeast Natural Energy LLC	12.5% or Greater	1563	422
D	WV-061-003739-013	TROTTO, EDWINA	Northeast Natural Energy LLC	12.5% or Greater	1634	796
D	WV-061-003739-003	WALKER, CHARLEN	Northeast Natural Energy LLC	12.5% or Greater	1562	375
D	WV-061-003739-005	WHITE, DELORES	Northeast Natural Energy LLC	12.5% or Greater	1563	123
D	WV-061-003023-022	WHITE, TERRY	Northeast Natural Energy LLC	12.5% or Greater	1554	442
D	WV-061-003023-003	WOOD, NINA J.	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
D	WV-061-003023-003	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
D	WV-061-003023-017	WRIGHT, LENA A.	Northeast Natural Energy LLC	12.5% or Greater	1521	728
E	WV-061-003023-014	EDDY, BILLY JOE	Northeast Natural Energy LLC	12.5% or Greater	1518	25

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Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
E	WV-061-003023-015	EDDY, DENZIL	Northeast Natural Energy LLC	12.5% or Greater	1517	374
E	WV-061-003023-019	EDDY, MELVIN L	Northeast Natural Energy LLC	12.5% or Greater	1534	118
E	WV-061-003023-016	EDDY, ORA	Northeast Natural Energy LLC	12.5% or Greater	1517	387
E	WV-061-003023-006	HARRIS, JULIA M	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
E	WV-061-003023-006	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
E	WV-061-003023-013	LEMMON, DONNA E	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
E	WV-061-003023-013	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
E	WV-061-003023-020	LIPSCOMB, JUDY	Northeast Natural Energy LLC	12.5% or Greater	1535	693
E	WV-061-003023-021	PHILLIPS, REBEC	Northeast Natural Energy LLC	12.5% or Greater	1535	695
E	WV-061-003023-018	POLANSKY, EMELI	Northeast Natural Energy LLC	12.5% or Greater	1521	692
E	WV-061-003023-002	ROUPE, LARRY L.	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
E	WV-061-003023-002	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
E	WV-061-003023-022	WHITE, TERRY	Northeast Natural Energy LLC	12.5% or Greater	1554	442
E	WV-061-003023-003	WOOD, NINA J.	Chesapeake Appalachia, L.L.C.	12.5% or Greater	120	769
E	WV-061-003023-003	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
E	WV-061-003023-017	WRIGHT, LENA A.	Northeast Natural Energy LLC	12.5% or Greater	1521	728
F	WV-061-001620-008	BROUVEC, STEVEN	Northeast Natural Energy LLC	12.5% or Greater	1514	47
F	WV-061-001620-005	BROOKOVER, BARB	Northeast Natural Energy LLC	12.5% or Greater	1516	126
F	WV-061-001620-007	BURKE, KRISTA	Northeast Natural Energy LLC	12.5% or Greater	1576	646
F	WV-061-001620-023	BUTCHER, GEORGI	Northeast Natural Energy LLC	12.5% or Greater	1550	569
F	WV-061-001620-024	DILLE, NANCY JO	Northeast Natural Energy LLC	12.5% or Greater	1550	571
F	WV-061-001620-020	HAMILTON, HERBE	Northeast Natural Energy LLC	12.5% or Greater	1545	449
F	WV-061-001620-018	KAVLIJK, AMBER	Northeast Natural Energy LLC	12.5% or Greater	1542	106
F	WV-061-001620-014	KERNS, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1541	357
F	WV-061-001620-009	MARKO, DAVID	Northeast Natural Energy LLC	12.5% or Greater	1524	327
F	WV-061-001620-017	NUZUM, DONNA LO	Northeast Natural Energy LLC	12.5% or Greater	1550	565
F	WV-061-001620-022	PRICE, SUSAN R	Northeast Natural Energy LLC	12.5% or Greater	1550	567
F	WV-061-001620-006	RALEY, MARY ANN	Northeast Natural Energy LLC	12.5% or Greater	1514	832
F	WV-061-001620-028	RUSH, JAMES PAU	Northeast Natural Energy LLC	12.5% or Greater	1565	303
F	WV-061-001620-029	SANCHEZ, BRANDI	Northeast Natural Energy LLC	12.5% or Greater	1611	260
F	WV-061-004631-002	SANTEE, BETTY S	Northeast Natural Energy LLC	12.5% or Greater	1600	376
F	WV-061-001620-016	SAUNDERS, ROSEM	Northeast Natural Energy LLC	12.5% or Greater	1550	563
F	WV-061-001620-012	TENNANT, BETTY	Northeast Natural Energy LLC	12.5% or Greater	1535	91
F	WV-061-001620-025	TENNANT, JESSE	Northeast Natural Energy LLC	12.5% or Greater	1566	31
F	WV-061-001620-026	TENNANT, JESSE	Northeast Natural Energy LLC	12.5% or Greater	1565	562
F	WV-061-001620-015	TENNANT, LINDSA	Northeast Natural Energy LLC	12.5% or Greater	1550	561
F	WV-061-004631-001	TENNANT, MATTHE	Northeast Natural Energy LLC	12.5% or Greater	1600	373
F	WV-061-001620-011	TENNANT, MOSES	Northeast Natural Energy LLC	12.5% or Greater	1535	643
F	WV-061-001620-027	TENNANT, WILLIA	Northeast Natural Energy LLC	12.5% or Greater	1565	286
F	WV-061-001620-019	WILSON, AMANDA	Northeast Natural Energy LLC	12.5% or Greater	1542	822
G	WV-061-005563-001	NOUMENON CORP.	Northeast Natural Energy LLC	12.5% or Greater		
H	WV-061-003693-002	ASKEW, CELIA P	Northeast Natural Energy LLC	12.5% or Greater	1557	441
H	WV-061-003693-001	BROOKOVER, CARM	Northeast Natural Energy LLC	12.5% or Greater	1535	847
H	WV-061-004428-001	CAMPBELL, JEFF	Northeast Natural Energy LLC	12.5% or Greater	1580	254
H	WV-061-004564-002	CANNATA, DEANNA	Northeast Natural Energy LLC	12.5% or Greater	1604	846
H	WV-061-003693-007	FARRINGER, HELE	Northeast Natural Energy LLC	12.5% or Greater	1553	280
H	WV-061-003693-005	FLEMING, PATRIC	Northeast Natural Energy LLC	12.5% or Greater	1557	497
H	WV-061-003758-002	FLOWERS, PAULET	Northeast Natural Energy LLC	12.5% or Greater	1550	209
H	WV-061-004479-001	HOPKINS, BARBAR	Northeast Natural Energy LLC	12.5% or Greater	1586	424
H	WV-061-003693-004	KING, BETTY JO	Northeast Natural Energy LLC	12.5% or Greater	1544	112
H	WV-061-004564-001	KING, ROBERTA M	Northeast Natural Energy LLC	12.5% or Greater	1591	730
H	WV-061-003758-004	KRAUS, RHONDA	Northeast Natural Energy LLC	12.5% or Greater	1549	606
H	WV-061-003693-010	LOTH, JOHN L.	Northeast Natural Energy LLC	12.5% or Greater	1564	804
H	WV-061-003693-008	MCLARTY, DEBBIE	Northeast Natural Energy LLC	12.5% or Greater	1554	438
H	WV-061-003693-009	MCLARTY, JOHN M	Northeast Natural Energy LLC	12.5% or Greater	1551	239
H	WV-061-003758-005	MILLER, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1559	584
H	WV-061-003758-001	NEYLON, MYRA J	Northeast Natural Energy LLC	12.5% or Greater	1552	422
H	WV-061-003693-003	PRICE, DORIS	Northeast Natural Energy LLC	12.5% or Greater	1553	309
H	WV-061-003758-003	PRICE, GARY M	Northeast Natural Energy LLC	12.5% or Greater	1548	11
H	WV-061-003693-006	ROY, BETTY EILE	Northeast Natural Energy LLC	12.5% or Greater	1554	440
H	WV-061-004132-001	WACO OIL AND GAS	Northeast Natural Energy LLC	12.5% or Greater	1564	219
J	WV-061-000127-001-LA	EQI	Northeast Natural Energy LLC	12.5% or Greater	1660	538
J	WV-061-004387-087	ADAMS, KENNETH	Northeast Natural Energy LLC	12.5% or Greater	1639	803
J	WV-061-004387-016	BARRITT, PATRIC	Northeast Natural Energy LLC	12.5% or Greater	1612	773
J	WV-061-004387-056	BOWDEN, JAMES B	Northeast Natural Energy LLC	12.5% or Greater	1619	814
J	WV-061-004387-061	BOWDEN, ROY LEL	Northeast Natural Energy LLC	12.5% or Greater	1634	631
J	WV-061-004387-002	BRIGGS, DAN BRU	Northeast Natural Energy LLC	12.5% or Greater	1578	523
J	WV-061-004387-078	BROWN, DAVID J	Northeast Natural Energy LLC	12.5% or Greater	1633	453
J	WV-061-004387-085	CARDSONE, DELI	Northeast Natural Energy LLC	12.5% or Greater	1639	807
J	WV-061-004387-070	CARTER, LAURIE	Northeast Natural Energy LLC	12.5% or Greater	1634	296
J	WV-061-001943-006	CASPER, JODI M.	Northeast Natural Energy LLC	12.5% or Greater	1541	788
J	WV-061-004387-077	CHEROKEE, MARY	Northeast Natural Energy LLC	12.5% or Greater	1630	255
J	WV-061-004387-058	COFFMAN, PAULIN	Northeast Natural Energy LLC	12.5% or Greater	1621	593
J	WV-061-004387-066	COFFMAN, STEWAR	Northeast Natural Energy LLC	12.5% or Greater	1627	286
J	WV-061-001943-023	COPESTICK, FLOR	Northeast Natural Energy LLC	12.5% or Greater	1564	770
J	WV-061-001943-003	CORLEY, BONNIE	Northeast Natural Energy LLC	12.5% or Greater	1529	59
J	WV-061-004387-067	DAWSON, JANICE	Northeast Natural Energy LLC	12.5% or Greater	1638	235
J	WV-061-004387-018	DEAL, DONNA	Northeast Natural Energy LLC	12.5% or Greater	1613	466
J	WV-061-004387-052	DENNIS, RUTHIE	Northeast Natural Energy LLC	12.5% or Greater	1618	573
J	WV-061-004387-021	DICKENSON, CHRI	Northeast Natural Energy LLC	12.5% or Greater	1612	782
J	WV-061-004387-014	DICKENSON, ERNE	Northeast Natural Energy LLC	12.5% or Greater	1612	767

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Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
J	WV-061-004387-074	DONAHUE, BRUCE	Northeast Natural Energy LLC	12.5% or Greater	1630	13
J	WV-061-004387-076	DONAHUE, JACK W	Northeast Natural Energy LLC	12.5% or Greater	1631	265
J	WV-061-004387-082	DONAHUE, JEANA	Northeast Natural Energy LLC	12.5% or Greater	1638	248
J	WV-061-004387-083	DONAHUE, LEE	Northeast Natural Energy LLC	12.5% or Greater	1638	255
J	WV-061-004387-081	DONAHUE, LORRAI	Northeast Natural Energy LLC	12.5% or Greater	1638	241
J	WV-061-001943-019	DULANEY, BARBAR	Northeast Natural Energy LLC	12.5% or Greater	1557	399
J	WV-061-004292-002	FLETCHER, MONA	Northeast Natural Energy LLC	12.5% or Greater	1578	413
J	WV-061-004387-004	FONTANA, LESSIE	Northeast Natural Energy LLC	12.5% or Greater	1604	785
J	WV-061-004387-011	FOX, HARRY JR.	Northeast Natural Energy LLC	12.5% or Greater	1612	687
J	WV-061-003881-001	GEE, BRENDA K	Northeast Natural Energy LLC	12.5% or Greater	1553	637
J	WV-061-001943-027	GOFF, CINDY A	Northeast Natural Energy LLC	12.5% or Greater	1562	447
J	WV-061-004387-039	GOURLEY, SAMMY	Northeast Natural Energy LLC	12.5% or Greater	1613	3
J	WV-061-004387-086	GRUDEVICH, SAND	Northeast Natural Energy LLC	12.5% or Greater	1639	805
J	WV-061-004387-071	HALL, BRENDA SU	Northeast Natural Energy LLC	12.5% or Greater	1628	228
J	WV-061-004387-055	HALVERSON, LUAN	Northeast Natural Energy LLC	12.5% or Greater	1620	306
J	WV-061-004387-092	HARDCASTLE, JUD	Northeast Natural Energy LLC	12.5% or Greater	1642	174
J	WV-061-001943-024	HAYTHORN, RICHA	Northeast Natural Energy LLC	12.5% or Greater	1564	772
J	WV-061-004387-010	HENSLEY, VICKI	Northeast Natural Energy LLC	12.5% or Greater	1607	770
J	WV-061-004387-069	HIXENBAUGH, REB	Northeast Natural Energy LLC	12.5% or Greater	1627	288
J	WV-061-004387-043	HOGAN, CHRISTIN	Northeast Natural Energy LLC	12.5% or Greater	1616	450
J	WV-061-004387-027	HOLT, SHERRY FO	Northeast Natural Energy LLC	12.5% or Greater	1612	794
J	WV-061-004387-003	HOMEPORT, CHURC	Northeast Natural Energy LLC	12.5% or Greater	1586	626
J	WV-061-001943-011	HUDNALL, VIRGIN	Northeast Natural Energy LLC	12.5% or Greater	1557	391
J	WV-061-004387-008	HUFFMAN, GARY E	Northeast Natural Energy LLC	12.5% or Greater	1607	766
J	WV-061-004387-079	IANNACO, MERLA	Northeast Natural Energy LLC	12.5% or Greater	1636	104
J	WV-061-004387-041	KEELE, FLORENCE	Northeast Natural Energy LLC	12.5% or Greater	1613	28
J	WV-061-004387-037	KENNIE, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1614	772
J	WV-061-004387-089	KIRBY, CONNIE	Northeast Natural Energy LLC	12.5% or Greater	1646	37
J	WV-061-001943-009	KNOOP, CAROLYN	Northeast Natural Energy LLC	12.5% or Greater	1562	365
J	WV-061-001943-026	KOERBER, BARRY	Northeast Natural Energy LLC	12.5% or Greater	1562	9
J	WV-061-001943-032	KOERBER, GERALD	Northeast Natural Energy LLC	12.5% or Greater	1569	772
J	WV-061-001943-013	KOERBER, JEFFRE	Northeast Natural Energy LLC	12.5% or Greater	1553	122
J	WV-061-001943-008	KOERBER, JERRY	Northeast Natural Energy LLC	12.5% or Greater	1553	183
J	WV-061-004387-031	LEDERER, CATHY	Northeast Natural Energy LLC	12.5% or Greater	1613	59
J	WV-061-004387-001	LESEM, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1578	527
J	WV-061-004387-006	LIGHTNER, CHARM	Northeast Natural Energy LLC	12.5% or Greater	1607	762
J	WV-061-004387-064	LOOMIS, KRIS E	Northeast Natural Energy LLC	12.5% or Greater	1626	64
J	WV-061-004387-044	MALONE, CAROL	Northeast Natural Energy LLC	12.5% or Greater	1619	106
J	WV-061-004387-080	MALONE, DEBRA A	Northeast Natural Energy LLC	12.5% or Greater	1636	114
J	WV-061-004387-091	MARZICH, SHEILA	Northeast Natural Energy LLC	12.5% or Greater	1643	521
J	WV-061-001943-025	MCDONALD, TERES	Northeast Natural Energy LLC	12.5% or Greater	1566	438
J	WV-061-004387-059	MCNUTT, JANET	Northeast Natural Energy LLC	12.5% or Greater	1621	595
J	WV-061-004387-084	MCNUTT, PATRICI	Northeast Natural Energy LLC	12.5% or Greater	1638	510
J	WV-061-004387-040	MELTON, JOANNE	Northeast Natural Energy LLC	12.5% or Greater	1613	26
J	WV-061-004387-042	MILLER, DAWN	Northeast Natural Energy LLC	12.5% or Greater	1613	787
J	WV-061-004387-060	MOCK, DEBORAH L	Northeast Natural Energy LLC	12.5% or Greater	1634	628
J	WV-061-001943-028	MOORE, RANDALL	Northeast Natural Energy LLC	12.5% or Greater	1562	7
J	WV-061-001943-007	MYERS, HOLLY G.	Northeast Natural Energy LLC	12.5% or Greater	1554	791
J	WV-061-004387-075	NAYPAVER, LINDA	Northeast Natural Energy LLC	12.5% or Greater	1630	15
J	WV-061-004387-050	NOVAK, ANTOINET	Northeast Natural Energy LLC	12.5% or Greater	1620	299
J	WV-061-004387-005	OLDHAM, ANGELA	Northeast Natural Energy LLC	12.5% or Greater	1610	429
J	WV-061-004387-038	PARKER, PATRIC	Northeast Natural Energy LLC	12.5% or Greater	1613	1
J	WV-061-004387-022	PATTERSON, CHRI	Northeast Natural Energy LLC	12.5% or Greater	1612	785
J	WV-061-004387-033	PATTERSON, HEAT	Northeast Natural Energy LLC	12.5% or Greater	1613	65
J	WV-061-004387-032	PATTERSON, JOHN	Northeast Natural Energy LLC	12.5% or Greater	1613	62
J	WV-061-004387-036	PATTERSON, LEAN	Northeast Natural Energy LLC	12.5% or Greater	1614	769
J	WV-061-004387-020	PATTERSON, MAUR	Northeast Natural Energy LLC	12.5% or Greater	1612	779
J	WV-061-004387-030	PATTERSON, STEV	Northeast Natural Energy LLC	12.5% or Greater	1613	56
J	WV-061-004387-007	PEARSON, CONSTA	Northeast Natural Energy LLC	12.5% or Greater	1607	764
J	WV-061-001943-030	PIATT, MARTHA	Northeast Natural Energy LLC	12.5% or Greater	1562	5
J	WV-061-004387-024	PIERCE, ROBIN W	Northeast Natural Energy LLC	12.5% or Greater	1613	472
J	WV-061-001943-022	POSTLETHWAIT, M	Northeast Natural Energy LLC	12.5% or Greater	1557	405
J	WV-061-004387-026	ROBBINS, CHARLE	Northeast Natural Energy LLC	12.5% or Greater	1612	791
J	WV-061-004387-047	ROBBINS, MICHEL	Northeast Natural Energy LLC	12.5% or Greater	1619	378
J	WV-061-004387-062	SALISBURY, LEST	Northeast Natural Energy LLC	12.5% or Greater	1623	517
J	WV-061-004387-088	SANCHEZ, KENNET	Northeast Natural Energy LLC	12.5% or Greater	1647	423
J	WV-061-001943-012	SHEETS, BENJAMI	Northeast Natural Energy LLC	12.5% or Greater	1562	367
J	WV-061-004387-048	SHEETS, EUGENE	Northeast Natural Energy LLC	12.5% or Greater	1617	772
J	WV-061-001943-021	SHEETS, JEFFREY	Northeast Natural Energy LLC	12.5% or Greater	1557	387
J	WV-061-001943-010	SHEETS, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1562	371
J	WV-061-001943-015	SHEETS, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1557	403
J	WV-061-004387-068	SILLIMAN, RICHD	Northeast Natural Energy LLC	12.5% or Greater	1636	521
J	WV-061-001943-017	SIMMONS, ETHEL	Northeast Natural Energy LLC	12.5% or Greater	1552	456
J	WV-061-001943-016	SIMMONS, VIRGIL	Northeast Natural Energy LLC	12.5% or Greater	1551	276
J	WV-061-004387-065	SMITH, KAREN DE	Northeast Natural Energy LLC	12.5% or Greater	1626	66
J	WV-061-004387-053	STEWART, JOHN W	Northeast Natural Energy LLC	12.5% or Greater	1618	609
J	WV-061-004387-009	STRAIT, DON CAR	Northeast Natural Energy LLC	12.5% or Greater	1607	768
J	WV-061-004387-093	SWARTZ, WILLIAM	Northeast Natural Energy LLC	12.5% or Greater		
J	WV-061-004387-072	TAYLOR, RALANA	Northeast Natural Energy LLC	12.5% or Greater	1634	299
J	WV-061-001943-004	TENNANT, REX II	Northeast Natural Energy LLC	12.5% or Greater	1538	548
J	WV-061-001943-005	TENNANT, SHERRI	Northeast Natural Energy LLC	12.5% or Greater	1538	336

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J	WV-061-004387-073	THOUHSAENT, CYN	Northeast Natural Energy LLC	12.5% or Greater	1629	130
J	WV-061-004387-063	TOUHSAENT, CYNT	Northeast Natural Energy LLC	12.5% or Greater	1626	56
J	WV-061-004387-090	TOUHSAENT, R ET	Northeast Natural Energy LLC	12.5% or Greater	1641	348
J	WV-061-004387-046	TOUHSAENT, THOM	Northeast Natural Energy LLC	12.5% or Greater	1615	492
J	WV-061-003684-001	VERBOSKY, MARY	Northeast Natural Energy LLC	12.5% or Greater	1557	501
J	WV-061-001943-018	VOGEL, JACK D.	Northeast Natural Energy LLC	12.5% or Greater	1557	401
J	WV-061-001943-014	VOGEL, JOE A ET	Northeast Natural Energy LLC	12.5% or Greater	1557	389
J	WV-061-004387-034	VOORHEIS, G ET	Northeast Natural Energy LLC	12.5% or Greater	1611	668
J	WV-061-004387-035	VOORHEIS, TERI	Northeast Natural Energy LLC	12.5% or Greater	1611	670
J	WV-061-001943-029	WARNER, CHARLOT	Northeast Natural Energy LLC	12.5% or Greater	1559	422
J	WV-061-004387-028	WARRINGTON, ERN	Northeast Natural Energy LLC	12.5% or Greater	1612	817
J	WV-061-004387-025	WARRINGTON, FRA	Northeast Natural Energy LLC	12.5% or Greater	1619	391
J	WV-061-001943-031	WELCH, SHANNON	Northeast Natural Energy LLC	12.5% or Greater	1561	828
J	WV-061-004387-051	WELLS, MICHAEL	Northeast Natural Energy LLC	12.5% or Greater	1617	774
J	WV-061-004430-001	WILLARD, CLAREN	Northeast Natural Energy LLC	12.5% or Greater	1591	828
J	WV-061-004387-054	WILLIS, NANCY J	Northeast Natural Energy LLC	12.5% or Greater	1620	302
J	WV-061-004387-057	WOLFE, CAROL AN	Northeast Natural Energy LLC	12.5% or Greater	1622	12
J	WV-061-004387-013	WOOD, HENRI	Northeast Natural Energy LLC	12.5% or Greater	1612	764
J	WV-061-004387-017	WOOD, WALTER	Northeast Natural Energy LLC	12.5% or Greater	1612	776
J	WV-061-004387-012	WOOD, WILLIAM	Northeast Natural Energy LLC	12.5% or Greater	1612	761
J	WV-061-004387-049	WRIGHT, BRAD	Northeast Natural Energy LLC	12.5% or Greater	1622	474
J	WV-061-004387-023	WRIGHT, IRA ROS	Northeast Natural Energy LLC	12.5% or Greater	1612	788
J	WV-061-004387-045	WRIGHT, JAMES C	Northeast Natural Energy LLC	12.5% or Greater	1619	99
J	WV-061-004387-015	WRIGHT, JOHN W	Northeast Natural Energy LLC	12.5% or Greater	1612	770
J	WV-061-004387-019	WRIGHT, LYNETTE	Northeast Natural Energy LLC	12.5% or Greater	1612	110
J	WV-061-004387-029	WRIGHT, SUSAN I	Northeast Natural Energy LLC	12.5% or Greater	1612	820
K	WV-061-000127-001-LA	EQI	Northeast Natural Energy LLC	12.5% or Greater	1660	538
L	WV-061-005332-001	CNX GAS COMPANY	Northeast Natural Energy LLC	12.5% or Greater	1632	789
M	WV-061-003221-001	WILMOTH, BRANDY JEAN	Northeast Natural Energy LLC	12.5% or Greater	1449	350

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WV Department of
Environmental Protection



northeast
NATURAL ENERGY

June 14, 2019

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

Re: Cummins North – 1H, 3H, 5H, 9H, and 13H

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 Days Run Rd (State Route 25), Tennant Memorial Rd (State Route 20), and Dooley Run Road (State Route 20/1) on the enclosed survey plats.

Sincerely,

Christa A. Dotson

Manager – Land Operations Development

Enclosure

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JUN 21 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: 06/17/2019

API No. 47- _____

Operator's Well No. 3H

Well Pad Name: Cummins

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:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>570260.3</u>
County:	<u>Monongalia</u>		Northing:	<u>4390565.6</u>
District:	<u>Clay</u>	Public Road Access:	<u>CR 25/3 (Yank Hollow Road)</u>	
Quadrangle:	<u>Blacksville</u>	Generally used farm name:	<u>Cummins</u>	
Watershed:	<u>Dunkard Creek</u>			

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>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>
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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.

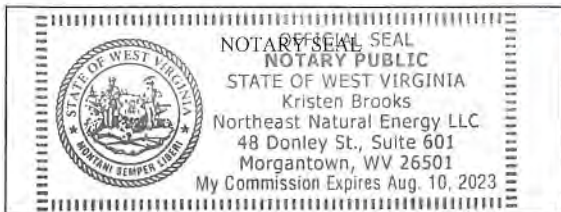
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WW-6AC
(1/12)

Certification of Notice is hereby given:

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



Hollie Medley
 Subscribed and sworn before me this 17th day of June, 2019.
Kristen Brooks Notary Public
 My Commission Expires Aug. 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 depprivacyofficer@wv.gov.

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 Environmental Protection

WW-6A
(9-13)

API NO. 47- -
OPERATOR WELL NO. 3H
Well Pad Name: Cummins

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: 6/6/2019 Date Permit Application Filed: 6/17/2019

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: Jerry L Yost et al
Address: 74 Statter Run Road
Fairview, WV 26570

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: see attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: see attached
Address: _____

COAL OPERATOR

Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: see attached
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- _____
OPERATOR WELL NO. 3H _____
Well Pad Name: Cummins _____

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.

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

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API NO. 47- -
OPERATOR WELL NO. 3H
Well Pad Name: Cummins

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 as 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

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.**

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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.

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WW-6A
(8-13)

47 06 + 01855

API NO. 47- -
OPERATOR WELL NO. 3H
Well Pad Name: Cummins

Notice is hereby given by:

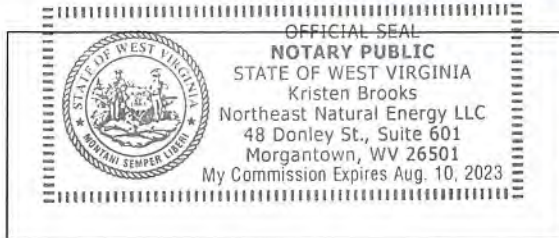
Well Operator: Northeast Natural Energy LLC
Telephone: 304-212-0422
Email: hmedley@nne-llc.com

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 depprivacyofficer@wv.gov.

Hollie Medley



Subscribed and sworn before me this 6th day of June 2019.

Kristen Brooks Notary Public

My Commission Expires Aug 10, 2023

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Cummins 3HSurface Owner(s) – Road and/or Other
Disturbance:

Samuel W. & Stacey L. Matteo
404 Country Road
Fairview, WV 26570

Patty Ann Kassay
1991 Daybrook Road
Fairview, WV 26570

Bernice Tennant
299 Ellis Tennant Hollow
Fairview, WV 26570

Precision Oil & Gas Inc.
PO Box 884
Bridgeport, WV 26330

Surface Owner of Water Well and/or Water
Purveyor(s)

Melvin Luther Eddy et al
528 Memorial Road
Fairview, WV 26570

Bernice Tennant
299 Ellis Tennant Hollow
Fairview, WV 26570

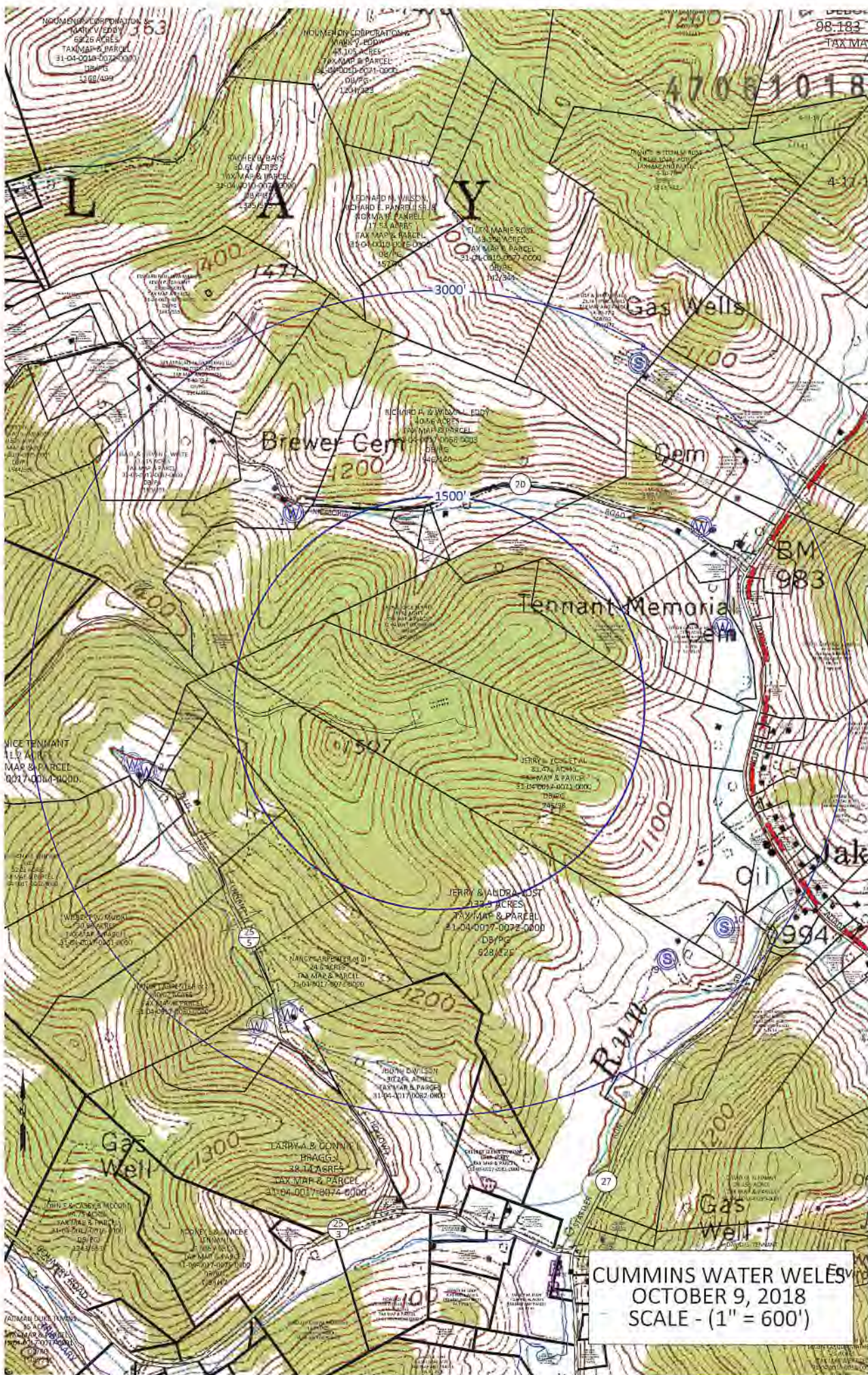
Todd J. & Carlene S. Moore
800 Memorial Rd
Fairview, WV 26570

Coal Owner(s) or Lessee(s):

CONSOL Mining Company LLC
1000 Consol Energy Drive
Canonsburg, PA 15317

Gary G. Loring, et al
1176 Sands Drive
Fairmont, WV 26554

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WW-6A3
(1/12)

Operator Well No. Cummins Pad

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: 10/25/2017 **Date of Planned Entry:** 11/1/2017

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: Bernice Tennant
Address: 299 Ellis Tennant Hollow
Fairview, WV 26570
Name: Jerry L. & Audra Errol Yost
Address: 74 Stalller Run Road
Fairview, WV 26570
Name: Precision Oil & Gas, Inc.
Address: P.O. Box 884
Bridgeport, WV 26330

COAL OWNER OR LESSEE

Name: CONSOL Mining Company, LLC
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

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>570274.51,4390561.22</u>
County: <u>Monongalia</u>	Public Road Access: <u>CR 25/3 (Yank Hollow Road)</u>
District: <u>Clay</u>	Watershed: <u>Dunkard Creek</u>
Quadrangle: <u>Blacksville</u>	Generally used farm name: <u>Cummins</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 St. E, Suite 1200
Charleston, WV 25301
Facsimile: 304-241-5972

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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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

**Cummins Pad
Notice of Entry for Plat Survey
(WW-6A3) Attachment**

Mineral Owners

A Keith Michael
241 Jefferson Street
Bridgeport, WV 26330

Jane Ann Reynolds
2 West Hill Drive
Fairmont, WV 26554

Gregory G. Michael
1176 Sands Drive
Fairmont, WV 26554

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: 06/06/2019 **Date Permit Application Filed:** 06/17/2019

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: Jerry L Yost et al
Address: 74 Statler Run Road
Fairview, WV 26570

Name: see attached
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: 570260.3
County: Monongalia Northing: 4390565.6
District: Clay Public Road Access: SR 15/7 (Harvey Run Rd)
Quadrangle: Blacksville, WV Generally used farm name: Cummins
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 Street E., Suite 1200
Charleston, WV 25301
Telephone: 304-414-7060
Email: hmedley@nne-llc.com
Facsimile: 304-241-5972

Authorized Representative: Hollie Medley, Regulatory Manager
Address: 48 Donley Street, Suite 601
Morgantown, WV 26501
Telephone: 304-414-7060
Email: hmedley@nne-llc.com
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 depprivacyofficer@wv.gov.

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CUMMINS 3H – WW-6A4 Attachment

Surface Owner(s) – Road and/or Other Disturbance:

Samuel W. & Stacey L. Matteo
404 Country Road
Fairview, WV 26570

Patty Ann Kassay
1991 Daybrook Road
Fairview, WV 26570

Bernice Tennant
299 Ellis Tennant Hollow
Fairview, WV 26570

Precision Oil & Gas Inc.
PO Box 884
Bridgeport, WV 26330

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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: 06/06/2019 **Date Permit Application Filed:** 06/17/2019

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: Jerry L Yost et al
Address: 74 Statler Run Road
Fairview, WV 26570

Name: see attached
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:	570260.3
County:	Monongalia		Northing:	4390565.6
District:	Clay	Public Road Access:	CR 25/3 (Yank Hollow Road)	
Quadrangle:	Blacksville	Generally used farm name:	Cummins	
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

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.

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CUMMINS 3H – WW-6A5 Attachment

Surface Owner(s) – Road and/or Other Disturbance:

Samuel W. & Stacey L. Matteo
404 Country Road
Fairview, WV 26570

Patty Ann Kassay
1991 Daybrook Road
Fairview, WV 26570

Bernice Tennant
299 Ellis Tennant Hollow
Fairview, WV 26570

Precision Oil & Gas Inc.
PO Box 884
Bridgeport, WV 26330

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

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.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, _____, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83 Easting:	<u>570260.3</u>
County:	<u>Monongalia</u>	UTM NAD 83 Northing:	<u>4390565.6</u>
District:	<u>Clay</u>	Public Road Access:	<u>CR 25/3 (Yank Hollow Road)</u>
Quadrangle:	<u>Blacksville</u>	Generally used farm name:	<u>Cummins</u>
Watershed:	<u>Dunkard Creek</u>		

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

- *Please check the box that applies
- SURFACE OWNER
 - SURFACE OWNER (Road and/or Other Disturbance)
 - SURFACE OWNER (Impoundments/Pits)
 - COAL OWNER OR LESSEE
 - COAL OPERATOR
 - WATER PURVEYOR
 - OPERATOR OF ANY NATURAL GAS STORAGE FIELD

FOR EXECUTION BY A NATURAL PERSON

Signature: *Paul Smith*
Print Name: Paul Smith
Date: 6/13/19

FOR EXECUTION BY A CORPORATION, ETC.

Company: _____
By: _____
Its: _____

Signature: _____
Date: _____

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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

February 15, 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 Cummins Pad, Monongalia County

Cummins 3H

Dear Mr. Martin,

This well site will be accessed from a permit #04-2014-0914 issued to Northeast Natural Energy Corporation for access to the State Road for a well site located off of Monongalia Route 25/3 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,

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

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

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Planned Additives to be used in Fracturing Stimulations

Trade Name	Purpose	Ingredients	Chemical Abstract Service Nummer (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
Cl-14	Corrosion Inhibitor	Fatty Acids Methanol Olefin Polyoxyalkylenes 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 Control	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

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CUMMINS WELL PAD CLAY DISTRICT, MONONGALIA COUNTY, WV OCTOBER 2018

WEST VIRGINIA 811

TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE WV ONE CALL SYSTEM, INC., 1-800-245-4848 (WV ONE CALL TICKET#1731378158)

OWNER



northeast
NATURAL ENERGY, LLC
NORTHEAST NATURAL ENERGY, LLC
707 VIRGINIA STREET SUITE 1200
CHARLESTON, WV 253 01

APPROVED
WVDEP OOG

WES 1/24/2019

- SHEET INDEX
1. TITLE SHEET
 - 2-3. EVACUATION ROUTE/PREVAILING WIND
 4. E&S CONTROL LAYOUT OVERVIEW
 - 5-11. E&S CONTROL LAYOUT
 12. E&S CONTROL AND SITE PLAN OVERVIEW
 - 13-19. E&S CONTROL AND SITE PLAN
 20. WELL PAD CROSS-SECTIONS AND UNDER DRAIN PROFILES
 21. KASSAY ACCESS ROAD PROFILE
 22. CUMMINS ACCESS ROAD PROFILE
 - 23-24. KASSAY ACCESS ROAD CROSS-SECTIONS
 - 25-31. CUMMINS ACCESS ROAD CROSS-SECTIONS
 - 32-34. DETAILS
 35. RECLAMATION PLAN OVERVIEW
 - 36-42. RECLAMATION PLAN

TOTAL PROJECT BOUNDARY: 54.47 AC.
TOTAL LIMITS OF DISTURBANCE: 40.42 AC.
ACCESS ROAD DISTURBANCE AREA: 28.43 AC.
WELL PAD DISTURBANCE AREA: 11.99 AC.

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



Andrew Benchek 10-22-18
ANDREW BENCHEK
P.E.

PROPERTY PROJECT BOUNDARY ACREAGE
GEORGE F. MCCOY & PATRICIA EDDY (TAX MAP AND PARCEL 04-17-55): 0.06 AC.
SAMUEL W & STACEY L MATTED (TAX MAP AND PARCEL 04-17-59): 6.71 AC.
PATTY ANN KASSAY (TAX MAP AND PARCEL 04-17-48): 8.24 AC.
PRECISION OIL AND GAS INC. (TAX MAP AND PARCEL 04-17-62): 5.63 AC.
BERNICE TENNANT (TAX MAP AND PARCEL 04-17-64): 15.50 AC.
BERNICE TENNANT (TAX MAP AND PARCEL 04-17-63): 0.04 AC.
JERRY LAND AUBRA ERROL YOST (TAX MAP AND PARCEL 04-17-72): 6.07 AC.
JERRY L YOST ET AL (TAX MAP AND PARCEL 04-17-71): 12.22 AC.

IN ACCORDANCE WITH WV 35 CSR 8 THE FOLLOWING EROSION & SEDIMENT CONTROL PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES ESTABLISHED BY THE CHIEF AND PROVIDED IN THE OFFICE'S EROSION AND SEDIMENT CONTROL FIELD MANUAL. A GENERAL CONSTRUCTION SEQUENCE, DESCRIPTION OF STABILIZATION METHODS, AND DETAILS & SPECIFICATIONS FOR EROSION & SEDIMENT BEST MANAGEMENT PRACTICES HAVE BEEN INCLUDED IN THE PROVIDED DETAIL SHEETS.



COORDINATES

CENTER OF WELLS
(NAD 83)
LAT: 39° 39' 43.15"
LONG: 80° 10' 51.01"
(NAD 27)
LAT: 39° 39' 42.86"
LONG: 80° 10' 51.74"

SITE ENTRANCE
(NAD 83)
LAT: 39° 39' 06.92"
LONG: 80° 11' 57.82"
(NAD 27)
LAT: 39° 39' 06.63"
LONG: 80° 11' 58.55"



1"=2000'
0 2000' 4000' 6000'

NO	DATE	REVISIONS DESCRIPTION

TITLE SHEET
CUMMINS WELL PAD
CLAY DISTRICT, MONONGALIA COUNTY, WV

SHEET
1
OF
42

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JUN 21 2019
WV Department of Environmental Protection

47 06 01855

- LEGEND**
- 48" CMP WOODPILE PROTECTION
 - 36" CMP WOODPILE PROTECTION
 - 30" CONCRETE FLEX JACK (CFS)
 - EXISTING FLOWWAYS
 - EXISTING 24" CONDUITS
 - PROPOSED 24" CONDUITS
 - PROPOSED 36" CONDUITS
 - PROJECT BOUNDARY
 - CASUAL PROJECT BOUNDARY
 - LIMITS OF DISTURBANCE
 - TRAIL LINE
 - PROPERTY LINE
 - UNSATURATED ZONE
 - WATER TABLE
 - EXISTING WATER LINE
 - PROPOSED WATER LINE
 - EXISTING WATER LINE
 - DRAINAGE SAFETY FENCE
 - STREAM
 - PROPOSED WELLS WITH ZONE
 - WELL BLANK
 - FLOW ARROWS
- GENERAL NOTES FOR WWP**
1. SEE DETAIL SHEET FOR WWP TO BE INSTALLED TO PROTECT OVERHEAD/UNDERGROUND UTILITY LINES, AS REQUIRED FOR CLEARANCE.
 2. SEE DETAIL SHEET #12 FOR TO BE REMOVED.
 3. SEE DETAIL SHEET #12 FOR SIF AND CTS.
 4. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AND MAINTAINED PER DETAIL SHEET #14.
 5. CONTRACTOR TO CHIP ALL LOGS AND UNUSABLE TIMBER AND LOGS.
 6. CHIP PILES AND TIMBER PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
 7. BRUSHING AS SHOWN TAKEN FROM DETAIL SHEET MAPS AND THIS LOCAL AREA. A FULL BOUNDARY CONVEYANCE NOT APPLICABLE FOR THIS PROJECT.
 8. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
 9. UTILITIES SHOWN ARE BEING PROVIDED BY INFORMATIONAL PURPOSES ONLY AND ARE BASED ON 2018 LIMITED FIELD SURVEYS AND LOCATIONS ARE APPROXIMATE.
 10. ALL TOPSOIL PILES DESIGNED AT A 2:1 SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE RE-SPREAD WITH TOPSOIL. PILES ARE TO BE RE-SPREAD AT A 2:5 SLOPE OVERLAPPED.

**APPROVED
WVDEP OOG**
10/24/2018

BOORD, BENCHEK and ASSOC., INC.
Engineering, Surveying, Construction, and Mining Services
Southpole, PA 15117 Phone: 724-746-1055

E&S CONTROL AND SITE PLAN

THIS DOCUMENT WAS PREPARED BY:
BOORD, BENCHEK AND ASSOC., INC.
FOR: **NORTHEAST NATURAL ENERGY, LLC.**

DATE: OCTOBER 2018
CUMMINS, WELLS PAD
CLAY DISTRICT, MONONGALIA COUNTY, WV

REVISIONS	
NO.	DESCRIPTION



SCALE BAR: 1"=50'
0' 50' 100' 150'

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