

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

Tuesday, June 18, 2019 WELL WORK PERMIT Horizontal 6A / New Drill

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

Re:

Permit approval for LEMLEY 2H 47-061-01850-00-00

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 easing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

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

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

James A. Martin

Chief

Operator's Well Number: LEMLEY 2H

Farm Name: CLARENCE W. LEMLEY JR.

U.S. WELL NUMBER: 47-061-01850-00-00

Horizontal 6A New Drill Date Issued: 6/18/2019

Promoting a healthy environment.

API Number:	

4706101850

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

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:	
API Number:	

PERMIT CONDITIONS

4706101850

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

WW-6B (04/15)

API NO. 47	_
OPERATOR WELL NO. 2H	_
Well Pad Name: Lemley	

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

1) Well Operator: Northea	ast Natural	Energy L	494498281	Monongalia	Clay	Blacksville, WV
-			Operator ID	County	District	Quadrangle
2) Operator's Well Number	: 2H		Well	Pad Name: Len	nley	
3) Farm Name/Surface Own	ner: Clarence W	Jr & Charlotte	E Lemley Public	Road Access: St	ate Route 2	22
4) Eleyation, current ground	i: <u>1,560'</u>	E	levation, propo	sed post-construc	tion: 1540'	
5) Well Type (a) Gas Other	X	_ Oil	J	Inderground Stor	age	
(b)If Gas	Shallow	Χ	Deep	*		
,	Horizontal	X	·			-
6) Existing Pad: Yes or No	No			M	JK 4/2	6/2019
7) Proposed Target Formati Marcellus; 8,206'; 53'; 3,	. , ,	(s), Antic	ipated Thickne	· · · · · · · · · · · · · · · · · · ·		
8) Proposed Total Vertical I	Depth: 8,20	06'				
9) Formation at Total Vertic		Marcellus	3			
10) Proposed Total Measure	ed Depth:	21,104'				
11) Proposed Horizontal Le	g Length:	12,363'				
12) Approximate Fresh Wat	ter Strata De	pths:	50', 1,471'			
13) Method to Determine Fi	resh Water D	epths:	Orillers Log fro	om Offset Wells		
14) Approximate Saltwater		-	1'			
15) Approximate Coal Sean	n Depths: 5	01', 1,46	9'			
16) Approximate Depth to F	<u>-</u>			r): <u>N/A</u>		
17) Does Proposed well local directly overlying or adjacer			ms Yes	N	o X	
(a) If Yes, provide Mine In	nfo: Name	;				
	Depth					
	Seam:				RECEIVED	
	Owner	r:		Offic	e of Oil and Ga	RECEIVED Office of Oil and Gas
				M	AY 17 2019	MAY 9 2019

WV Department of WV Department of Environmental Protection Environmental Protection

WW-6B (04/15)

API NO. 47	
OPERATOR WELL NO.	2H
Well Pad Name: Lemle	у

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24"	New	NA	94.71	40'	40'	GTS
Fresh Water	13-3/8"	New	J-55	54.5	1,551'	1,521'	CTS
Coal							
Intermediate	9-5/8"	New	J-55	40	2,591'	2,561'	CTS
Production	5-1/2"	New	P-110	20	21,104'	21,074"	4,955 cu ft.
Tubing							
Liners							

MDK 4/26/2019

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

PACKERS

Kind:		
Sizes:		
Depths Set:		

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MAY 9 2019

WV Department of Environmental Protection

WW-6B	
(10/14)	

47 06 101850

API NO. 47	
OPERATOR WELL	NO. 2H
Well Pad Name:	Lemley

19) Describe	proposed	well v	vork.	including	the	drilling	and r	olugging	back	of anv	pilot h	iole:
	, ~ • • • • • •	P. 0 P 0 D 0				,	~~~~~		~~~~~	Cuer	01 411	PILOUI	

Drilling and completion of a horizontal Marcellus well. The well will be drilled on air to an approximate depth of 6,100 TVD/MD. The well will then be horizontally drilled on synthetic based mud from the KOP to approximately 8,206 TVD/21,104' MD along a 147.50° azimuth.

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

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

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 23.73
- 22) Area to be disturbed for well pad only, less access road (acres): 8.39

23) Describe centralizer placement for each casing string:

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

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

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

25) Proposed borehole conditioning procedures:

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

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MAY 9 2019

^{*}Note: Attach additional sheets as needed.

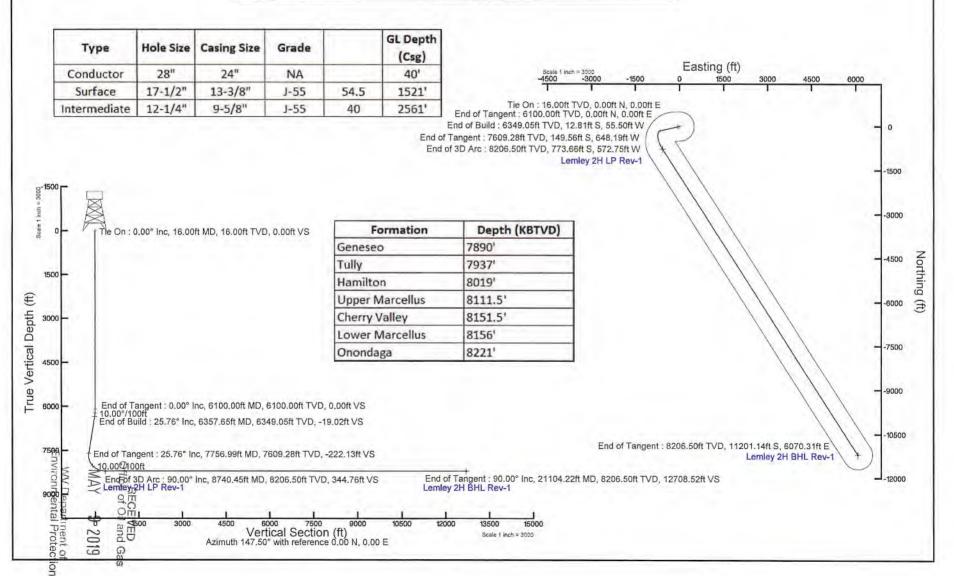


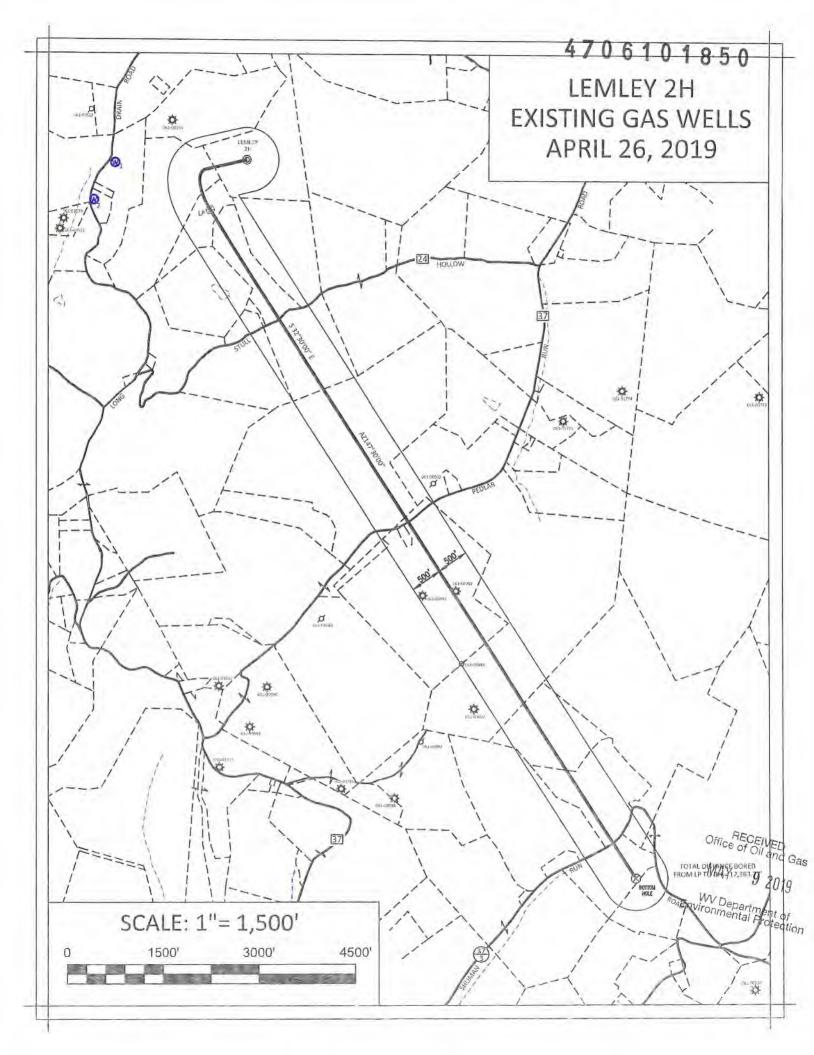


NORTHEAST NATURAL ENERGY, LLC Location: Monongalia County, WV Field: Monongalia Facility: Lemley Pod Well: Lemley 2H

Facility: Lemiey Pad	vvelibore: Lemiey 2H PVVB
Plot reference wellpath is Lemley 2H PWP Ex-00	Grid System: NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet
True vertical depths are referenced to Rig on Slot 2H (RKB)	North Reference: Grid north
Measured depths are referenced to Rig on Slot 2H (RKB)	Scale: True distance
Rig on Slot 2H (RKB) to Mean Sea Level: 1550 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot 2H): -1534 feet	Created by: atenjen on 2019-03-29
Coordinates are In feet referenced to Slot	Database: WA_MPL_EASTERNUS_Defn







			Lemley 2H A	ea of Review				
API Number	Well Name	Well Number	Operator	Latitude (NAD 27)	Longitude (NAD 27)	TMP	TVD	Comments
47-061-00988	Wildman	1	NNE Resources LLC	39.649310	-80.125412	4-15-17.3	2,000'	Plugged 11/11/16
47-061-00991	Barrackman	8	NNE Resources LLC	39.652247	-80.127606	4-15-17.3	2,000'	Big Injun
47-061-00992	Barrackman	9	NNE Resources LLC	39.652427	-80.125752	4-15-17.3	2,000'	Big Injun



WW-9 (4/16)

API	Number	47	-	

Operator's Well No. Lemley 2H

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

ELLIDS / CUTTINGS DISDOSAL & DECLAMATION DUAN

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PL	AIN
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 No
Will a pit be used? Yes No V	
If so, please describe anticipated pit waste: NA	
Will a synthetic liner be used in the pit? Yes No If so, what ml.?	NA
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	
Underground Injection (UIC Permit Number)
Reuse (at API Number unknown at this time, TBD)
Off Site Disposal (Supply form WW-9 for disposal location) Other (Explain	
Will closed loop system be used? If so, describe: Yes, Please See Attachment "A"	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based,	otc. Vertical - Air/ Curve & Herizental - Oli 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, Barit	e, Emulsifiers, Mica LCM, Water Loss Agents
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Removed Offsite - Ple	ease 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 of West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and where it was properly disposed.	
I certify that I understand and agree to the terms and conditions of the GENERAL W. on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environme provisions of the permit are enforceable by law. Violations of any term or condition of the glaw or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar wi application form and all attachments thereto and that, based on my inquiry of those indi obtaining the information, I believe that the information is true, accurate, and complete. I penalties for submitting false information, including the possibility of fine or imprisonment.	ental Protection. I understand that the eneral permit and/or other applicable th the information submitted on this viduals immediately responsible for
Company Official Signature	MAY 9 2019
Company Official (Typed Name) Hollie Medley	WV Department of
Company Official Title Regulatory Manager	Environmental Protection
Warten Boardes	O 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

Field Reviewed?

Northeast Natural Energy LLC Proposed Revegetation Treatment: Acres Disturbed 8.36	Form WW-9		Operator's Well No	o. Lemley 2H
Lime 2 Tons/acre or to correct to pH 7 Fertilizer type 19-19-19 Fertilizer amount 300 Jbs/acre Mulch 2 Tons/acre Seed Mixtures Temporary Permanent Seed Type Ibs/acre Seed Type Ibs/acre Orchard Grass 46 Orchard Grass 46 Red Clover 8 Red Clover 8 Tetraploi Perennial Rye 16 Tetraploid Perennial Rye 16 Timothy 15 Annual Rye 15 Timothy 15 Annual Rye 15 Attach: Attach: Attach: Attach: Aps(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 accreage, of the land application area. Photocopied section of involved 7.5' topographic sheet.	Northeast Natural E	nergy LLC		
Fertilizer type 19-19-19 Fertilizer amount 300 lbs/acre Mulch 2 Tons/acre Seed Mixtures Temporary Permanent Seed Type lbs/acre Orchard Grass 46 Orchard Grass 46 Red Clover 8 Red Clover 8 Tetraploi Perennial Rye 16 Timothy 15 Annual Rye 15 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 rovided). 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 excrege, of the land application area. Photocopied section of involved 7.5' topographic sheet.	Proposed Revegetation Treats	ment: Acres Disturbed 8.36	Prevegetation pH 5-7	
Fertilizer amount 300 Ibs/acre Mulch 2 Tons/acre Seed Mixtures	Lime 2	Tons/acre or to correct to pH _	7	
Nulch 2 Tons/acre Seed Mixtures	Fertilizer type 19-1	19-19		
Seed Type lbs/acre Seed Type lbs/acre Seed Type lbs/acre Orchard Grass 46 Orchard Grass 46 Red Clover 8 Red Clover 8 Tetraploi Perennial Rye 16 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 carcage, of the land application of involved 7.5' topographic sheet. Plan Approved by:	Fertilizer amount 30	00lbs/	acre	
Temporary Seed Type Ibs/acre Orchard Grass 46 Red Clover 8 Tetraploi Perennial Rye 16 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 acceage, of the land application area. Photocopied section of involved 7.5' topographic sheet.	Mulch_2	Tons/acc	re	
Seed Type lbs/acre Seed Type lbs/acre Orchard Grass 46 Red Clover 8 Red Clover 8 Tetraploi Perennial Rye 16 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 accreage, of the land application area. Photocopied section of involved 7.5' topographic sheet.		Seed 1	<u>Mixtures</u>	
Orchard Grass 46 Red Clover 8 Red Clover 8 Tetraploi Perennial Rye 16 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 acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet.	Тег	mporary	Permanent	
Red Clover 8 Tetraploi Perennial Rye 16 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 acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Section 16 Timothy 15 Annual Rye 15			• •	
Tetraploid Perennial Rye 16 Timothy 15 Annual Rye 15 Timothy 15 Annual Rye 15 Attach: Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Section 16 Tetraploid Perennial Rye 16 Timothy 15 Annual Rye 15 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 acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments:			Red Clover	8
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 acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments:	Tetraploi Perenni	al Rye 16	Tetraploid Perennial Rye	16
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 acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments:	Timothy 15 Annu	ual Rye 15	Timothy 15 Annual Rye	15
REC	Plan Approved by:	on area. ved 7.5' topographic sheet.	ensions (L x W x D) of the pit, and dimen	nsions (L x W), and
REC.				
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Title: TUSPCOTO Date: 426/2019 Office of				

WV Department of Environmental Protection

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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 Lemley 2H well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completion process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

Lemley 2H 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:

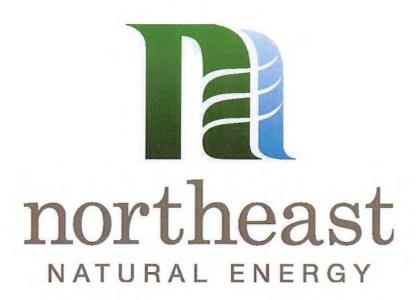
- Westmoreland Landfill (Tervita) Belle Vernon, PA (Permit # 100277)
- Meadowfill Landfill (Waste Management) Bridgeport, WV (Permit # SWF 103298)
- Max Environmental Yukon, PA (PAD004835146 and 301071)
- Max Environmental Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal) 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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Lemley 2H SITE SAFETY PLAN

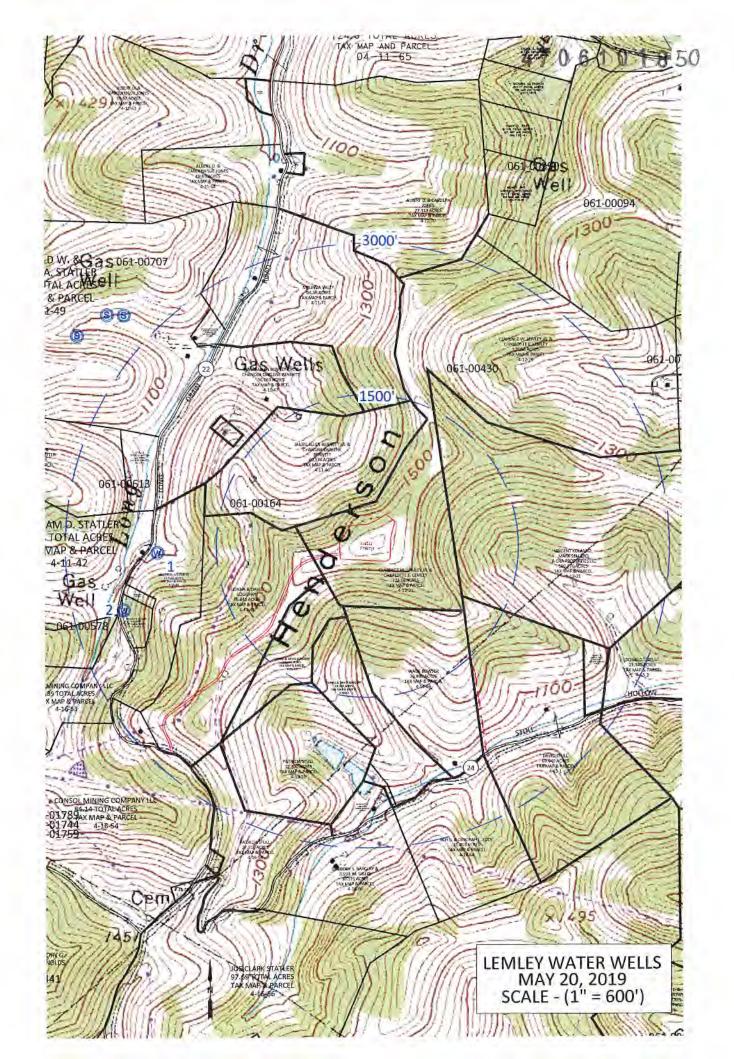
April 2019

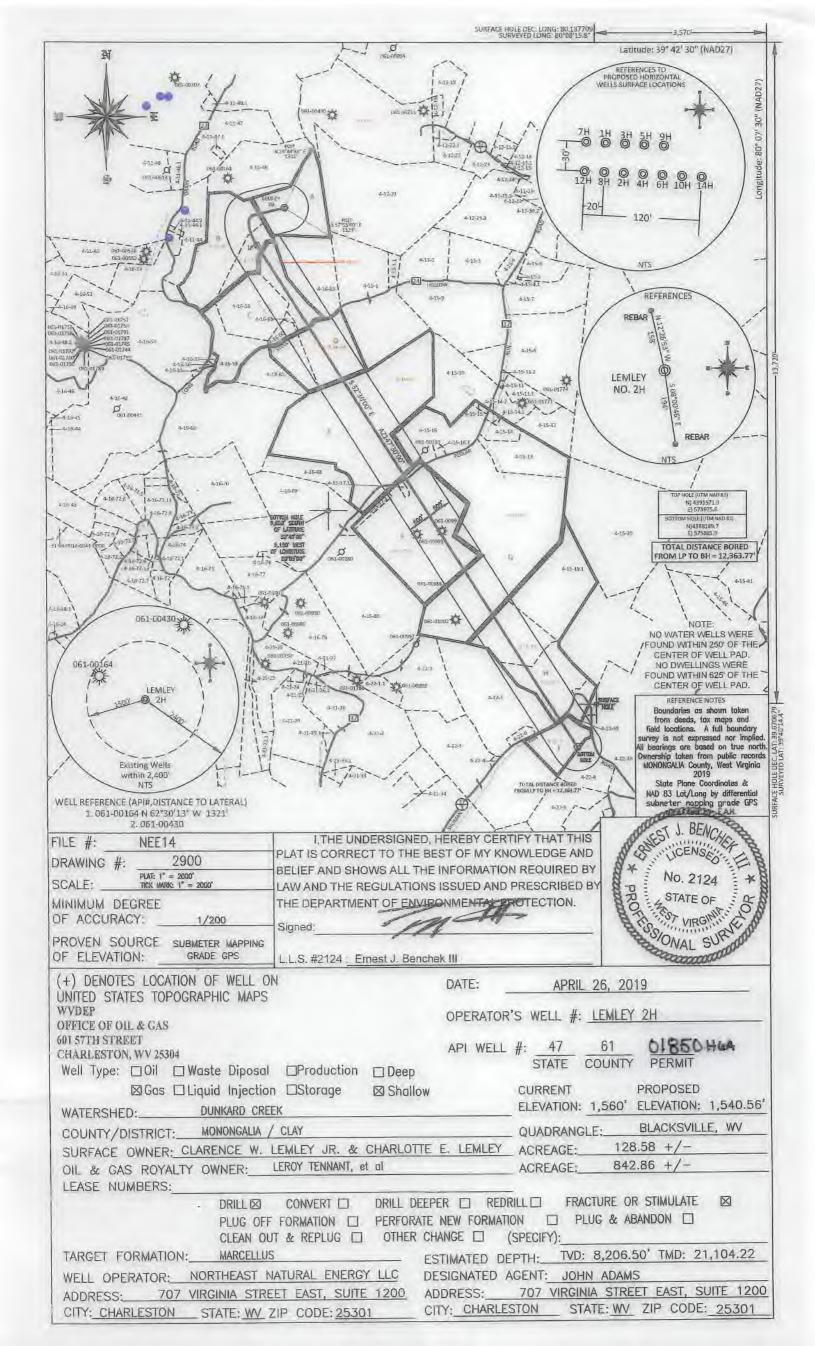
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WW-6A1 (5/13)

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	and the same of th	Part of the Wilder of the Control of	La company	
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

Please 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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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

By: Hollie Medley Hollie Medley

Regulatory Manager

4706101850

WW-6A1

Operators Well No. Lemley 2H

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
A	WV-061-003525-001	TENNANT, LEROY	Northeast Natural Energy LLC	12.5% or Greater	1524	449
Α	WV-061-003525-002	LOHR, LLOYD M	Northeast Natural Energy LLC	12.5% or Greater	1526	74
Α	WV-061-003525-003	HICKMAN, LINDA	Northeast Natural Energy LLC	12.5% or Greater	1525	242
Α	WV-061-003525-004	MALOTT, ROSE M.	Northeast Natural Energy LLC	12.5% or Greater	1525	250
Α	WV-061-003525-007	TENNANT, SHIRLE	Northeast Natural Energy LLC	12.5% or Greater	1534	88
Α	WV-061-003525-008	COSNER, SHEILA	Northeast Natural Energy LLC	12.5% or Greater	1534	86
Α	WV-061-003525-009	EDDY, RONALD &	Northeast Natural Energy LLC	12.5% or Greater	1535	107
Α	WV-061-003525-010	HENDERSON, WILL	Northeast Natural Energy LLC	12.5% or Greater	1536	622
Α	WV-061-003525-011	HENDERSON, LARR	Northeast Natural Energy LLC	12,5% or Greater	1536	599
Α	WV-061-003525-012	HENDERSON, ALPH	Northeast Natural Energy LLC	12.5% or Greater	1536	535
Α	WV-061-003525-013	HENDERSON, JENN	Northeast Natural Energy LLC	12.5% or Greater	1566	289
Α	WV-061-003525-014	HENDERSON, JESS	Northeast Natural Energy LLC	12.5% or Greater	1568	430
A	WV-061-003525-015	MCCARVER, STEPH	Northeast Natural Energy LLC	12.5% or Greater	1568	271
Α	WV-061-003525-016	CHARVAT, SHAWNA	Northeast Natural Energy LLC	12.5% or Greater	1568	339
Α	WV-061-003525-017	STOUT, MARGARET	Northeast Natural Energy LLC	12.5% or Greater	1569	269
Α	WV-061-003525-018	TENNANT, DENZIL	Northeast Natural Energy LLC	12.5% or Greater	1569	244
Α	WV-061-003525-019	VESELENAK, RONA	Northeast Natural Energy LLC	12.5% or Greater	1617	742
Α	WV-061-003525-020	MCJESSY, JUDITH	Northeast Natural Energy LLC	12.5% or Greater	1617	744
Α	WV-061-003525-021	CORE, CHARLES L	Northeast Natural Energy LLC	12.5% or Greater	1630	195
Α	WV-061-003715-002	TYNER, CHRISTOP	Northeast Natural Energy LLC	12.5% or Greater	1554	828
Α	WV-061-003715-003	DODD, NORA LOU	Northeast Natural Energy LLC	12.5% or Greater	1564	400
Α	WV-061-004263-001	JENKINS, PAULA	Northeast Natural Energy LLC	12.5% or Greater	1645	348
Α	WV-061-004264-001	MYERS, JUNE C.	Northeast Natural Energy LLC	12,5% or Greater	1571	548
Α	WV-061-004267-001	CORE, BEVERLY J	Northeast Natural Energy LLC	12.5% or Greater	1571	578
A	WV-061-004308-001	CORE, WILLIAM B	Northeast Natural Energy LLC	12.5% or Greater	1644	9
B, C, D	WV-061-001291-003	STATLER, DORIS	Chesapeake Appalachia, L.L.C.	12.5% or Greater	1376	107
B, C, D	WV-061-001291-003	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
B, C, D	WV-061-001291-005	HANULA TRUST	Chesapeake Appalachia, L.L.C.	12.5% or Greater	1407	298
B, C, D	WV-061-001291-005	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
B, C, D	WV-061-001291-018	BANE, JANET S.	Northeast Natural Energy LLC	12.5% or Greater	1507	244
B, C, D	WV-061-001291-020	VARNER, MARTIN	Northeast Natural Energy LLC	12.5% or Greater	1614	605
B, C, D	WV-061-001291-021	KING, RONALD ET	Northeast Natural Energy LLC	12.5% or Greater	1634	483
B, C, D	WV-061-001291-022	TENNANT, HARRY	Northeast Natural Energy LLC	12.5% or Greater	1633	336
B, C, D	WV-061-003682-001	ASHCRAFT, JAMES	Northeast Natural Energy LLC	12.5% or Greater	1547	801
B, C, D	WV-061-003682-002	ASHCRAFT, RICKY	Northeast Natural Energy LLC	12.5% or Greater	1548	262
B, C, D	WV-061-003682-003	CRANE, SHIRLEY	Northeast Natural Energy LLC	12.5% or Greater	1545	778
B, C, D	WV-061-003682-004	ASHCRAFT, DUSTI	Northeast Natural Energy LLC	12.5% or Greater	1548	258
B, C, D	WV-061-003682-005	ASHCRAFT, DAYTO	Northeast Natural Energy LLC	12.5% or Greater	1545	782
B, C, D	WV-061-003682-006	ASHCRAFT, JOHN	Northeast Natural Energy LLC	12.5% or Greater	1545	328
B, C, D	WV-061-003682-007	ASHCRAFT, CHARL	Northeast Natural Energy LLC	12.5% or Greater	1550	367
B, C, D	WV-061-004317-001	KETCHEM, JOYCE	Northeast Natural Energy LLC	12.5% or Greater	1576	347
B, C, D	WV-061-004317-002	WILSON, BARBARA	Northeast Natural Energy LLC	12.5% or Greater	1640	371
B, C, D	WV-061-004317-003	TENNANT, BRENDA	Northeast Natural Energy LLC	12.5% or Greater	1640	373
B, C, D	WV-061-004317-004	ARNETT, ROBERT	Northeast Natural Energy LLC	12.5% or Greater	1640	375
B, C, D	WV-061-004317-005	STULL, DONALD L	Northeast Natural Energy LLC	12.5% or Greater	1641	346
B, C, D	WV-061-004317-006	BROOKOVER, ROBE	Northeast Natural Energy LLC	12.5% or Greater	1643	413
B, C, D	WV-061-004317-007	STATLER, RONALD	Northeast Natural Energy LLC	12.5% or Greater	1643	416
B, C, D	WV-061-004317-008	STATLER, NELSON	Northeast Natural Energy LLC	12.5% or Greater	1643	418
B, C, D	WV-061-004317-009	STATLER, JOSEPH	Northeast Natural Energy LLC	12.5% or Greater	1643	420
B, C, D	WV-061-004317-010	CHISLER FAMILY	Northeast Natural Energy LLC	12.5% or Greater	1643	422
B, C, D	WV-061-004317-011	STATLER, GARY A	Northeast Natural Energy LLC	12.5% or Greater	1643	424
B, C, D	WV-061-004317-012	MORRIS, LINDA S	Northeast Natural Energy LLC	12.5% or Greater	Office 5450E	E/VED 519
B, C, D	WV-061-004317-013	KING, SHARON	Northeast Natural Energy LLC	12.5% or Greater	1643	" and 442
B, C, D	WV-061-004317-014	LOUGHRY, DONNA	Northeast Natural Energy LLC	12.5% or Greater	MA 1643 g	98

Environmental Protection

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Operators Well No. Lemley 2H

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
E	WV-061-004899-001	SWIGER, JOSEPH	Reed Energy Services LLC	12.5% or Greater	1618	458
E	WV-061-004899-001	Reed Energy Services LLC	Northeast Natural Energy LLC	12.5% or Greater	136	153
F	WV-061-004004-000	BARRICKMAN, SANFORD	VANDERGRIFT, T.J.	12.5% or Greater	See Lease Ch	hain
G	WV-061-004017-000	WILDMAN, JARRET	J.W. Scott	12.5% or Greater	See Lease Ch	nain
H	WV-061-001365-013	YOST, CLARK	Northeast Natural Energy LLC	12.5% or Greater	1643	784
Н	WV-061-001365-014	YOST, JON	Northeast Natural Energy LLC	12.5% or Greater	1647	403
Н	WV-061-001365-015	YOST, LINDA	Northeast Natural Energy LLC	12.5% or Greater	1647	405
I	WV-061-003398-001	MM-MARCELLUS II	Northeast Natural Energy LLC	12.5% or Greater	1518	29
J	WV-061-005303-001	TENNANT, KEITH	Northeast Natural Energy LLC	12.5% or Greater	1631	501
1	WV-061-005303-002	GLOVER, BETTY T	Northeast Natural Energy LLC	12.5% or Greater	1631	503
1	WV-061-005303-003	YOST, JACKIE L	Northeast Natural Energy LLC	12.5% or Greater	1638	366
1	WV-061-005303-004	YOST, LARRY E.	Northeast Natural Energy LLC	12.5% or Greater	1636	652
	WV-061-005303-005	MASSEY, PATRICI	Northeast Natural Energy LLC	12.5% or Greater	1650	271
4	WV-061-005487-001	TENNANT, SCOTT	Northeast Natural Energy LLC	12.5% or Greater	1647	796
1	WV-061-003311-001	MC MINERAL CO.	Chesapeake Appalachia, L.L.C.	12.5% or Greater	1487	213
1	WV-061-003311-001	Chesapeake Appalachia, L.L.C.	Northeast Natural Energy LLC	12.5% or Greater	120	769
1	WV-061-005332-001	CNX GAS COMPANY	Northeast Natural Energy LLC	12.5% or Greater	1632	789

Office of Oil and Gas

MAY 9 2019

WW Department of Environmental Protection

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Book Type	Book No.	Page No.
Sanford Barrickman	T.J. Vandergrift	Deed	26	125
T.J. Vandergrift	J.I. Buchanan	Deed	26	129
J.I. Buchanan	Jacob J. Vandergrift	Deed	26	165
Jacob J. Vandergrift	W. J. Young	Deed	26	452
W. J. Young	South Penn Oil Co.	Deed	26	457
South Penn Oil Co.	South Penn Nat. Gas Co.	Deed	304	457
South Penn Nat. Gas Co.	South Penn Oil Co.	Deed	580	311
South Penn Oil Co.	Pennzoil Co.	Corp Record	50	573
Pennzoil Co.	Pennzoil United, Inc.	Deed	672	665
Pennzoil United, Inc.	W. H. Allen	Deed	695	557
W. H. Allen	Edwin Associates, Inc.	Deed	754	594
Edwin Associates, Inc.	J. T. Carson	Deed	754	600
J. T. Carson	Thompson/Texas Assoc.	Deed	754	606
Thompson/Texas Assoc.	Mark Eddy	Assignment	21	22
Mark Eddy	Northeast Natural Energy, LLC	Assignment	123	363



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Grantor, Lessor, etc.	Grantee, Lessee, etc.	Book Type	Book No.	Page No.
Jarrett Wildman	J. W. Scott	Deed	27	145
J. W. Scott	William Munhall/George P. Hukill	Deed	28	447
William Munhall/George P.	South Penn Oil Co.	Deed	32	240
South Penn Oil Co.	South Penn Nat. Gas Co.	Deed	304	457
South Penn Nat. Gas Co.	South Penn Oil Co.	Deed	580	311
South Penn Oil Co.	Pennzoil Co.	Corp Record	50	573
Pennzoil Co.	Pennzoil United, Inc.	Deed	672	665
Pennzoil United, Inc.	W. H. Allen	Deed	695	557
W. H. Allen	Edwin Associates, Inc.	Deed	754	594
Edwin Associates, Inc.	J. T. Carson	Deed	754	600
J. T. Carson	Thompson/Texas Assoc.	Deed	754	606
Thompson/Texas Assoc.	Mark Eddy	Assignment	21	22
Mark Eddy	Northeast Natural Energy, LLC	Assignment	123	363

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

			API No. 47	
			Operator's Well No. 2	
			Well Pad Name: Len	ley
Notice has l	een given:			
Pursuant to th	e provisions in West Virginia Co	de §	22-6A, the Operator has provided the required partie	s with the Notice Forms listed
	tract of land as follows:			
State:	West Virginia		UTM NAD 83 Easting: 573975.6	
County:	Monongalia		Norming; 43915/1.3	
District:	Clay		Public Road Access; State Route:	22
Quadrangle:	Blacksville, WV		Generally used farm name: Lemley	
Watershed:	Dunkard Creek			
prescribed by it has provid information r of giving the requirements Virginia Cod of this article	the secretary, shall be verified an ed the owners of the surface desequired by subsections (b) and (c surface owner notice of entry to of subsection (b), section sixtee a § 22-6A-11(b), the applicant she have been completed by the applicant of the subsection (c).	nd sl scrib), sec o suc en of all te lican		ation from the operator that (section ten of this article, the vas deemed satisfied as a resu article six-a; or (iii) the notic owner; and Pursuant to We
Pursuant to that the Ope	West Virgima Code § 22-6A, the rator has properly served the req	e Op uirec	erator has attached proof to this Notice Certification d parties with the following.	20 2 200 25 VAL
TOWN THE WAY	and the same and the same and			OOG OFFICE USE
*PLEASE CH	ECK ALL THAT APPLY			ONLY
	And A to the second of the second second	or	■ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	
□ 1. NO	FICE OF SEISMIC ACTIVITY			ONLY RECEIVED/ NOT REQUIRED
☐ 1. NO	FICE OF SEISMIC ACTIVITY		SEISMIC ACTIVITY WAS CONDUCTED EY or NO PLAT SURVEY WAS CONDUCTE	ONLY RECEIVED/ NOT REQUIRED
☐ 1. NO	FICE OF SEISMIC ACTIVITY	JRV	SEISMIC ACTIVITY WAS CONDUCTED EY or NO PLAT SURVEY WAS CONDUCTE NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY	ONLY RECEIVED/ NOT REQUIRED RECEIVED/ NOT REQUIRED
☐ 1. NO	FICE OF SEISMIC ACTIVITY	URV ør	SEISMIC ACTIVITY WAS CONDUCTED EY or NO PLAT SURVEY WAS CONDUCTE NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED of WRITTEN WAIVER BY SURFACE OWNER	ONLY RECEIVED/ NOT REQUIRED RECEIVED/ NOT REQUIRED
☐ 1. NO	FICE OF SEISMIC ACTIVITY FICE OF ENTRY FOR PLAT SI FICE OF INTENT TO DRILL	URV ør	SEISMIC ACTIVITY WAS CONDUCTED EY or NO PLAT SURVEY WAS CONDUCTE NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED of WRITTEN WAIVER BY SURFACE OWNER	ONLY RECEIVED/ NOT REQUIRED RECEIVED/ RECEIVED/ NOT REQUIRED

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.

Environmental Protection



April 17, 2019

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

Re: Lemley South (2H, 4H, 6H, 10H, 12H, 14H)

Dear Permit Reviewer:

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

Sincerely,

Christa A Dotson

Supervisor - Land Operations Development

Enclosure

Office of Oil and Gas

MAY 9 2019

Environmental Protection

Notary Public

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: Northeast Natural Energy LLC

By: Hollie Medley

Charleston, WV 25301

Its: Regulatory Manager

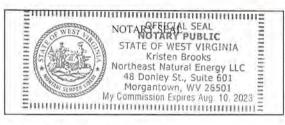
Telephone: 304-212-0422

Address: 707 Virginia St. E, Suite 1200

Charleston, WV 25301

Facsimile: 304-241-5972

Email: hmedley@nne-llc.com



Subscribed and sworn before me this 2nd day of May 2019

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 deprivacyofficer@wv.gov.

Office of Oil and Gas

MAY 9 2019

Environmental Protection

WW-6A (9-13) 4706101850
API NO. 47OPERATOR WELL NO. 2H.
Well Pad Name: Lemley

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

Notice Time Requirement: notice shall be provided no later than	the filing date of permit application.
Date of Notice: 4/29/2019 Date Permit Application Filed: 5/9/20 Notice of:	019
PERMIT FOR ANY WELL WORK CONSTRUCTION OF A	ROVAL FOR THE IN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10((b)
	DD OF DELIVERY THAT REQUIRES A PT OR SIGNATURE CONFIRMATION
the surface of the tract on which the well is or is proposed to be located oil and gas leasehold being developed by the proposed well work, if described in the erosion and sediment control plan submitted pursuar operator or lessee, in the event the tract of land on which the well promore coal seams; (4) The owners of record of the surface tract or trace well work, if the surface tract is to be used for the placement, construint impoundment or pit as described in section nine of this article; (5) As have a water well, spring or water supply source located within one to provide water for consumption by humans or domestic animals; and proposed well work activity is to take place. (c)(1) If more than three subsection (b) of this section hold interests in the lands, the applicant records of the sheriff required to be maintained pursuant to section of provision of this article to the contrary, notice to a lien holder is not a	r signature confirmation, copies of the application, the erosion and he well plat to each of the following persons: (1) The owners of record of ted; (2) The owners of record of the surface tract or tracts overlying the the surface tract is to be used for roads or other land disturbance as not to subsection (c), section seven of this article; (3) The coal owner, apposed to be drilled is located [sic] is known to be underlain by one or coal overlying the oil and gas leasehold being developed by the proposed action, enlargement, alteration, repair, removal or abandonment of any my surface owner or water purveyor who is known to the applicant to housand five hundred feet of the center of the well pad which is used to (6) The operator of any natural gas storage field within which the etenants in common or other co-owners of interests described in the transfer and the documents required upon the person described in the ight, article one, chapter eleven-a of this code. (2) Notwithstanding any notice to a landowner, unless the lien holder is the landowner. W. Va. ovide the Well Site Safety Plan ("WSSP") to the surface owner and any as provided in section 15 of this rule.
☑ SURFACE OWNER(s)	M COAL OWNER OR LESSEE
Name: Clarence W. Jr. & Charlotte E. Lemley	Name: Consol Mining Company LLC
Address: 239 Lemley Hollow	Address: 1000 Consol Energy Drive
Core, WV 26529	Canonsburg, PA 15317
	COAL OPERATOR
Address:	Name:
☑ SURFACE OWNER(s) (Road and/or Other Disturbance)	Address:
Name: Donald Stull et al	SURFACE OWNER OF WATER WELL
Address: 162 Stull Hollow Road	AND/OR WATER PURVEYOR(s)
Core, WV 26541	Name: William D. Statler
Name:	Address: 578 Long Drain Rd.
Address:	Core, WV 26529
- OUR LACE OWN IERA A A LACE NO.	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
☐ SURFACE OWNER(s) (Impoundments or Pits)	Name: Address: Office RECEIVE
Name: Address:	of Oil SED
	Name: Address: Address: *Please attach additional forms if necessary * $\frac{Offic_e \ Off \ Oil \ and \ Ga}{Oil \ and \ Ga}$ * $\frac{Offic_e \ Off \ Oil \ and \ Ga}{Oil \ and \ Ga}$
	Environmental Protection

WW-6A (8-13)

API NO. 470610185 OPERATOR WELL NO. 2H. Well Pad Name: Lemley

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oiland-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 English and the States Army Corps of English and States Army Corps of English an other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced Legislature on the noise, light, dust and volatile organic compounds generated by the secretary that well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items to the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items to the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items to the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items to the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items to the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items to the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items to the province of the province o

Well Pad Name: Lemley

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

WV Department of Environmental Protection

WW-6A (8-13) API NO. 47-47-06101850
OPERATOR WELL NO. 2H,
Well Pad Name: Lemley

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.

Office of Oil and Gas

MAY 9 2019

W. Department of
Environmental Protection

WW-6A (8-13)

OPERATOR WELL NO. 2H, Well Pad Name: Lemley

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC

Telephone: 304-414-7060

Email: hmedley@nne-llc.com

Address: 707 Virginia St. E., Suite 1200

Charleston, WV 25301

Facsimile: 304-241-5972

Oil and Gas Privacy Notice:

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

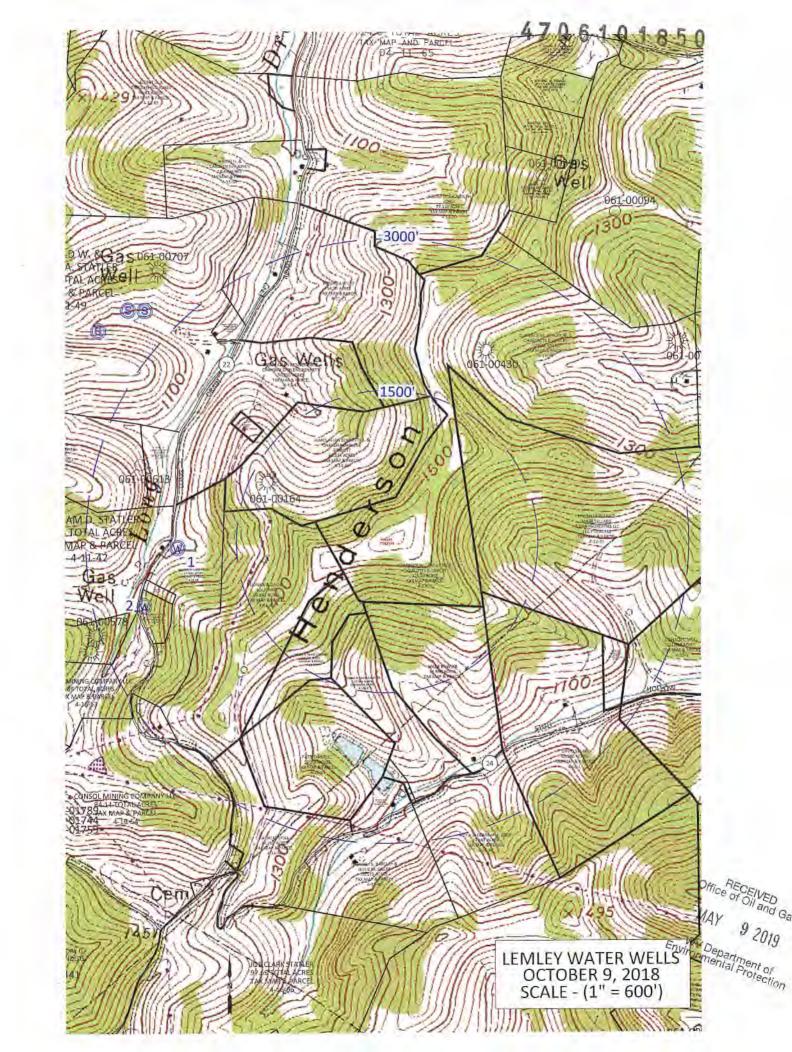
OFFICIAL SEAL NOTARY PUBLIC NOTARY PUBLIC
STATE OF WEST VIRGINIA
Kristen Brooks
Northeast Natural Energy LLC
48 Donley St., Suite 601
Morgantown, WV 26501
My Commission Expires Aug. 10, 2023

Subscribed and sworn before me this 2nd day of May, 2019

Notary Public

My Commission Expires

Office of Oil and Gas Environmental Protection



WW-6A3 (1/12)

Operator Well No. Len	iley
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STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

	Requirement:	Notice shall be prov	vided at least SEVEN (7) da	ys but no more tha	n FORTY-FIVE (45) days prior	to	
Date of Noti	ice: July 2, 2018	Date of Plan	nned Entry: July 13, 2018					
Delivery me	thod pursuant t	o West Virginia C	ode § 22-6A-10a					
☐ PERSO	NIAI III	REGISTERED	☐ METHOD OF DEI	IVEDVTUATOR	COLUDES A			
SERVIO	The second second	MAIL	RECEIPT OR SIGN			7. March 1981 (1981)		
on to the surl but no more beneath such owner of mir and Sedimen Secretary, when enable the su	face tract to cond than forty-five da tract that has file terals underlying t Control Manual hich statement sh rface owner to ol	uct any plat surveys mys prior to such ent ed a declaration pur- such tract in the co I and the statutes an all include contact in btain copies from the	Prior to filing a permit applis required pursuant to this a try to: (1) The surface owner suant to section thirty-six, a purty tax records. The notice of rules related to oil and gain formation, including the age secretary.	rticle. Such notice s r of such tract; (2) rticle six, chapter t e shall include a sta s exploration and p	shall be provided at to any owner or less wenty-two of this contement that copies roduction may be o	least seven da see of coal sea ode; and (3) a of the state Er btained from t	ays ams ny rosion the	
	reby provided to	•	■ co.:	OUR IED OR LE	oore			
Name: see alta	CE OWNER(s)			L OWNER OR LE				
-						7		
Name:			■ MINI	ERAL OWNER(s)				
Name:			Address:					
Address:			-			=)		
			_ *please attac	h additional forms if ne	cessary			
Pursuant to V	on the tract of la		Public Road	ude & Longitude:	operator is planning 39.670947, -80.137361 Long Drain Road (CR 22) Dunkard Creek		duct	
District: Quadrangle:	Clay Blacksville		Generally use	d farm name:	Lemley			
District: Quadrangle: Copies of the may be obtain Charleston, V obtained from	state Erosion an ned from the Sec VV 25304 (304- n the Secretary by	retary, at the WV D 926-0450). Copies y visiting <u>www.dep</u>	Generally use Manual and the statutes an Department of Environmenta of such documents or addit .wv.gov/oil-and-gas/pages/o	d rules related to oi I Protection headq onal information r lefault.aspx.	Lemley If and gas exploration parters, located at 6 delated to horizontal	01 57 th Street, drilling may b	SE, oe ECEIVED of Oil and Ga	
District: Quadrangle: Copies of the may be obtain Charleston, V obtained from Notice is he Well Operato	state Erosion anned from the Sec VV 25304 (304-4) in the Secretary by ereby given by: Northeast Natural	retary, at the WV D 926-0450). Copies y visiting <u>www.dep</u>	Generally use Manual and the statutes an Department of Environmenta of such documents or addit	d rules related to oi I Protection headquonal information re lefault.aspx.	Lemley If and gas exploration parters, located at 6 delated to horizontal	01 57 th Street, drilling may b	SE,	
District: Quadrangle: Copies of the may be obtain Charleston, V obtained fron	state Erosion an ned from the Sec VV 25304 (304- n the Secretary by	retary, at the WV D 926-0450). Copies y visiting <u>www.dep</u> Energy LLC	Generally use Manual and the statutes an Department of Environmenta of such documents or addit .wv.gov/oil-and-gas/pages/o	d rules related to oi I Protection headq onal information r lefault.aspx.	Lemley If and gas exploration parters, located at 6 delated to horizontal	01 57th Street, drilling may b Office o	SE, oe ECEIVED of Oil and Ga	

Oil and Gas Privacy Notice:

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Ownership Type	Name	Address				
Surface Owner	Clarence W. Lemley Jr. and Charlotte E. Lemley	239 Lemley Hollow	Core	WV	26541	
Coal Owner	CNX RCPC LLC	CNX Center, 1000 Consol Energy Drive	Canonsburg	PA	15317	
Coal Owner /	Murray American Energy Inc.	46226 National Road	St. Clairsville	ОН	43950	
Mineral Owner	William Henderson	P.O. Box 73	Pursglove	WV	26546	
Mineral Owner	William B. Core	626 Lakes Drive	Tahlequah	ОК	74464	
Mineral Owner	Stephanie Ann McCarver	915 West Broad Street	Griffin	GA	30223	
Mineral Owner	Sheila Cosner	19 Terrace View Drive	Morgantown	WV	26508	
Mineral Owner /	Shawna Charvat	67 West 14th Street	Ashland	ОН	44805	
Mineral Owner	Rose Marie Stewart Malott	2942 Little Indian Creek Road	Core	WV	26570	
Mineral Owner	Ronald Lee Veselenak	61642 Patton Hollow Road	Cambridge	ОН	43725	
Mineral Owner	Ronald L. Eddy	447 NE Canoe Park Circle	Port St. Lucie	FL	34983	
Mineral Owner	Paula Kay Jenkins	3890 Mason Dixon Highway	Core	WV	26543	
Mineral Owner	Pachira Energy, LLC	5150 North Tamiami Trail; Newgate Tower, Suite 205	Naples	FL	34103	
Mineral Owner	Lloyd M. Lohr	243 Haines Ridge Road	Mount Morris	PA	15349	
Mineral Owner	Linda Lou Hinebaugh Hickman	P.O. Box 344	Waynesburg	PA	15370	
Mineral Owner	Leroy Tennant	2960 Little Indian Creek Road	Core	WV	26543	
Mineral Owner	Larry Henderson	419 Henderson Hollow Road	Core	WV	26543	
Mineral Owner	Larry and Nora Lou Dodd	P.O. Box 186	Colliers	WV	26035	
Mineral Owner	Keith A. Tennant	131 West First Street	Westover	WV	26501	
Mineral Owner	June Core Myers Living Trust	332 Oakland Street	Morgantown	WV	26505	
Mineral Owner	Judith McJessy	P.O. Box 133	Buffalo	ОН	43722	
Mineral Owner	Jesse James Henderson	5583 Treetop Court	Parma	ОН	44134	
Mineral Owner	Jennifer Lee Henderson	67 West 14th Street	Ashland	ОН	44805	
Mineral Owner	Christopher Allen Tyner	1810 Nichols Road	Akron	ОН	44312	
Mineral Owner	Charles Lawrence Core	3450 N. Commerce Street; Apt. 604	Ardmore	ОК	73401	
Mineral Owner	Beverly J. Core	1159 Smokey Drain Road	Core	WV	26543	
Mineral Owner	Alpheus M. Henderson	260 Henderson Hollow Road	Core	wv	26541	

WW-6A4 (1/12)

Operator Well No. Lemley 2H

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.

	ce: 04/29/2019 Date I	Permit Application Filed: 05/09/2019	a permit application.
Delivery me	thod pursuant to West Virginia Code	§ 22-6A-16(b)	
☐ HAND	CERTIFIED MAIL		
DELIVI		EQUESTED	
receipt reque drilling a hor of this subsection mand if availab Notice is he	sted or hand delivery, give the surface of izontal well: <i>Provided</i> , That notice give tion as of the date the notice was provided.	owner notice of its intent to enter upon yen pursuant to subsection (a), section to ded to the surface owner: <i>Provided, ha</i> owner. The notice, if required, shall included address of the operator and the operator	n, an operator shall, by certified mail return the surface owner's land for the purpose of ten of this article satisfies the requirements owever, That the notice requirements of this clude the name, address, telephone number, for's authorized representative.
Address: 239	Lemley Hollow	Address:	
Core	WV 26529		
the surface of State: County: District:	wner's land for the purpose of drilling a West Virginia Monongalia Clay	UTM NAD 83 Easting: Northing: Public Road Access:	573975.6 4391571.3 County Route 22/Long Drain Road
Quadrangle:	Blacksville	Generally used farm name:	Lemley
Quadrangle: Watershed:	Blacksville Dunkard Creek	Generally used farm name:	Lemley
Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho	Shall Include: West Virginia Code § 22-6A-16(b), the other and electronic mail address of the fizontal drilling may be obtained from	nis notice shall include the name, add the operator and the operator's authorize the Secretary, at the WV Department	dress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho located at 60	Shall Include: West Virginia Code § 22-6A-16(b), the other and electronic mail address of the fizontal drilling may be obtained from	nis notice shall include the name, add the operator and the operator's authorize the Secretary, at the WV Department 4 (304-926-0450) or by visiting www.c	dress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to hor located at 60 Notice is he	Shall Include: West Virginia Code § 22-6A-16(b), the observation of the cizontal drilling may be obtained from 157th Street, SE, Charleston, WV 2530 reby given by:	nis notice shall include the name, add the operator and the operator's authorize the Secretary, at the WV Department	dress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to hor located at 60 Notice is he	Shall Include: West Virginia Code § 22-6A-16(b), the observation of the cizontal drilling may be obtained from 157th Street, SE, Charleston, WV 2530 reby given by:	nis notice shall include the name, add the operator and the operator's authorize the Secretary, at the WV Department 4 (304-926-0450) or by visiting www.c	dress, telephone number, and if available, and representative. Additional information of Environmental Protection headquarters, hep.wv.gov/oil-and-gas/pages/default.aspx.
Quadrangle: Watershed: This Notice Pursuant to facsimile nurrelated to holocated at 60 Notice is he Well Operator	Dunkard Creek Shall Include: West Virginia Code § 22-6A-16(b), the observance of the cizontal drilling may be obtained from 157th Street, SE, Charleston, WV 2530 reby given by: r: Northeast Natural Energy LLC	nis notice shall include the name, addition to operator and the operator's authorize the Secretary, at the WV Department 4 (304-926-0450) or by visiting www.c. Authorized Representative Address:	dress, telephone number, and if available, and representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Quadrangle: Watershed: This Notice Pursuant to facsimile nurrelated to holocated at 60 Notice is he Well Operator	Shall Include: West Virginia Code § 22-6A-16(b), the standard delectronic mail address of the sizontal drilling may be obtained from 57th Street, SE, Charleston, WV 2530 reby given by: Northeast Natural Energy LLC 707 Virginia St. E., Suite 1200	nis notice shall include the name, add the operator and the operator's authorize the Secretary, at the WV Department 4 (304-926-0450) or by visiting www.c	lress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
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Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to hos located at 60 Notice is he Well Operato Address: Telephone:	Shall Include: West Virginia Code § 22-6A-16(b), the standard drilling may be obtained from 57th Street, SE, Charleston, WV 2530 reby given by: Northeast Natural Energy LLC 707 Virginia St. E., Suite 1200 Charleston, WV 25301 304-414-7060	nis notice shall include the name, addite operator and the operator's authorize the Secretary, at the WV Department 4 (304-926-0450) or by visiting www.c Authorized Representative Address: Telephone:	dress, telephone number, and if available, wed representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.

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47 06 01850 Operator Well No. Lemley 2H

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

Notice Time Date of Noti	Requirement: notice sh	all be provided no later Date Permit Applica			application.		
Delivery me	thod pursuant to West	Virginia Code § 22-6A	-16(c)				
CERTI	FIED MAIL	□ на	ND				
	RN RECEIPT REQUES		LIVERY				
return receipthe planned required to be drilling of a damages to the damages to the following of notice. Notice is her (at the address Clare Address: 239 Core	WV 26541	ery, give the surface overquired by this subsect (b), section ten of this A proposed surface us and gas operations to the shall be given to the RFACE OWNER(s) the sheriff at the time of the sheriff at the sheriff at the time of the sheriff at the time of the sheriff at	wher whose land tion shall inclu- article to a surfi- se and compens he extent the da surface owner a of notice): Name: Address by given that the	will be used for de: (1) A copy ace owner whose ation agreement anages are computed the address list considerable with the address list core, WV 26541 are undersigned to the core and the core are the core and the core are the core ar	or the drilling of a hor of this code section are land will be used in the containing an offer pensable under articles and in the records of the code	orizontal well as (2) The information of compensive six-b of this the sheriff at overloped a plan	notice of formation with the ation for schapter. the time
State:	West Virginia		UTM NAD 8	Easting:	573975.6		
County:	Monongalia			Nortning:	4391571.3		
District:	Clay		Public Road		County Route 22/Long Dra	ain Road	
Quadrangle:	Blacksville		Generally use	ed farm name:	Lemley		
Pursuant to V to be provide horizontal we surface affectinformation is		2-6A-10(b) to a surface urface use and compentions to the extent the ling may be obtained ereet, SE, Charleston.	e owner whose sation agreement damages are confrom the Secret	land will be un nt containing ar ompensable und ary, at the WV	used in conjunction to offer of compensation of er article six-b of the Department of Envolution or by visiting www.	with the drill ion for damag is chapter. A vironmental Provided to the con- widep.wv.gov	ling of a ges to the dditional rotection
Telephone:	304-414-7060			Charleston, WV 253		MAY	200
Email:	hmedley@nne-llc.com		Facsimile:	304-241-5972		WHI	9 2019
	Privacy Notice:					WV Dep Environmer	artment ntal Prote

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



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

January 30, 2019

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

Jill M. Newman Deputy Commissioner

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

Subject: DOH Permit for the Lemley Pad, Monongalia County

Lemley 2H

Dear Mr. Martin,

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

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

RECEIVED

Office of Oil and Gas

Very Truly Yours,

MAY 17 2019

Gary K. Clayton, P.E.

V/V Department of Environmental Protection

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Kristen Brooks

Northeast Natural Energy Corporation

CH, OM, D-4

File

Planned Additives to be used in Fracturing Stimulations

Trade Name	Purpose	Ingredients	Cemical Abstract Service Number (CASH)
Water	Carrier	Water	7732-18-5 Ö Ü
HCI, 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 Polyozyalkylenes Propargyl Alcohol	NA 67-56-1 NA NA 107-19-7
GW-3LDF	Gelling Agent	Guar Gum Petroleum Distillate Blend	9000-30-0 CBI
FRW-18	Friction Reducer	Hydrotreated Light Distillate	64742-47-8
Ferrotrol 300L	Iron Crontrol	Citric Acid	77-92-9
Sand, White, 40/70	Proppant	Cystalline Silica (Quartz)	14808-60-7
Sand, White, 100 mesh	Proppant	Cystalline Silica (Quartz)	14808-60-7
Scaletrol 720	Scale Inhibitor	Diethylene Glycol	111-46-6



LEMLEY WELL PAD SITE PLAN NORTHEAST NATURAL ENERGY

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

LOGAL	EMERGENCY SERVICES	
	NAME	TELEPHONE NO
AMBULANCE		911
HOSPITAL EMERGENCY ROOM	OHO VALLEY MEDICAL CENTER	(904) 234-0123
FIRE DEPARTMENT		911
POLICE DEPARTMENT		D11
FORSON CONTROL GENTLE	WEST VIRGINIA POISON DENTER	(800) 222-1252

FLOOD P	LAIN CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIE		AlC:
PERMIT MEEDED FROM COUNTY FLOODPLAIN COORDINATOR:		140
HEC-PAS STUDY COMPLETED:		NIA
FLOODPLAIN SHOWN ON DRAWIN	GS:	NA
FIRM MAP NUMBERISH FOR SITE:	£4061G0075C	
ACREAGE OF CONSTRUCTION IN F	SLOODPLAIN: I B OU AC	

PROJECT CONTACTS:

OPERATOR, NORTHEAST NATURAL ENERGY LLC 40 DOWLEY STINET, STE 801 NORGASTOWN, WY 18821

ENGINEER/SURVEYOR:

ENVIRONMENTAL
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

GEOTECHNICAL

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.,
KOW CERLIN-PROJECT MANAGER
OTTEC: 1031-1032-115 Fact. 1031-1031-115

PENNSYLVANIA PROJECT



LOCATION MAP BLACKSVILLE USGS 7.5 QUAD

1 BUCH = 1,000 FEET



PLAN REPRODUCTION WARNING THE PLANS HAVE BEEN GREATED ON ANSI D (22" X 34") SHEETS, FOR REDUCTIONS, REFER TO GRAPHIC SCALE.

Eastern Panhandle

L	DEATION CO	DORDINATES			
SITE LOCATIONS	WV83-NF (4	ORTH ZONE 1	UTM	UTM83-17	
SHE LOCATIONS	LATITUDE	LONGITUDE	NORTHING	EASTING	
MAIN ACCESS ROAD ENTRANCE	39.665146	-80,144298	4390942.597	573398.547	
CENTROID OF WELL PAD	39.570940	-80.137403	4391591.317	573983.769	
CENTER OF CONTAINMENT TANK I	39.671320	-80.137111	4391633,797	574008,366	
CENTER OF CONTAINMENT TANK 2	39.671483	-80.136785	4391652.157	574036.099	
CENTER OF CONTAINMENT TANK 3	39.571201	80.136749	4391620.848	574039,565	

SITE PLAN
SITE PLAN
SITE PLAN
WATER OPERATIONS
PROPILES AND SECTIONS
DETAILS

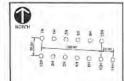
19. DETAILS
20. DETAILS
21. DETAILS
22. REGLAMATION PLAN
23. REGLAMATION PLAN
24. REGLAMATION PLAN
25. PEGLAMATION PLAN
26. PEGLAMATION PLAN
27. REGLAMATION PLAN
28. REGLAMATION PLAN
29. REGLAMATION PLAN
20. REGLAMATION

SHEET INDEX
1. COVERSHEET
2. GENERAL MOTES
2. MATERAL QUANTITIES
4. MATERAL QUANTITIES
5. EQISTING COMMITIONS
6. EQUANTIONS
7. SITE PLAN
8. SITE PLAN
9. SITE PLAN

GRADING VC	LUMES -		
DESCRIPTION	DUT (CY)	FILL (CY)	MET (CY)
MAIN ACCESS ROAD	18,093	21,682	-3,629
WEIL PAO	49,910	43,610	5,100
SPOIL/I	0	1,918	-1,010
3POL-Z	0	553	-663
TOTAL	67,943	67,843	0
TOPSOIL / STRIPPING (20% SWELL - 17,014 C.V.)		14.178 C/Y	

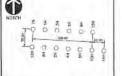
LO.D. AREAS	
DESCRIPTION	ACRES
MWN ACCESS ROAD	9.94
WELL PAD	5.71
TOPSOIL/STRIPPING PILE 1	1.71
SPOIL PILE :	0.45
SPOIL PILE 2	0.23
CLEARING AND GRUBBING AREA	3.19
TOTAL	23.73

		ALIA COUNTY, V	K DPS LEMLEY V VEST VIRGINIA	TAKETON.	
OWNER	TM-PARCEL	DEED-PAGE	TOTAL ACRES	TYPE OF DISTURBANCE	ACERAGE
STULL DONALD ET AL	21-45	1016-499	46-85	MAIN ACCESS ROAD	9.71
				PARCEL TOTAL	9.71
LEMILEY CLARENCE WIR & CHARLOTTE E	31-72	7.10 311	77.68	MAIN ACCESS ROAD	0.25
				WELLPAD	8.71
	7 - 70			TOPSOIL/STRIPPING FILE 1	1.71
				SPOIL PLE 1	11.45
				SPOLPLE 2	0,23
	-			CLEARING AND GRUSSING AREA	3.19
				PARCEL TOTAL	14.62



WELL RESTRICTIONS CHECKLIST (HDRIZONTAL 6A WELL)	
AT LEAST 100 FERT FROM PAD ANT LOD (INCLUDING ANY EAS CONTROL FEATURE) TO ANY FERENNIAL STREAM, LANC, POND, RESERVOIR OR WETLAND:	YES
AT LEAST 500 FEET FROM PAD AND LOD (INCLUDING ANY EAS CONTROL PEATURE) TO ANY NATURALLY PRODUCING TROUT STREAM	YES
AT LEAST 1000 FROM PAD AND LOD (INCLUDING ANY EAS-CONTROL FEATURE) TO ANY GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY:	YES
AT LEAST 235 FEET FROM AN EXISTING WATER WELL OR DEVELOPED SPRING TO WELL BEING DRILLED.	YES
AT LEAST 625 FEET FROM AN OCCUPYED DWELLING STYLIGTURE TO CENTER OF PAD:	YES
AT LEAST 825 FEET FROM AGRICULTURAL BUILDINGS LARGER THAN 2500 SQUARE FEET TO THE CENTER OF THE PAID.	YES

351641A DSAGE No. 3 MSOLIDATION C



WELL HEAD LAYOUTS

COVER SHEET

0

00 UT 0

Civil & Enviro

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

C000

VIRGINIA Capitol

