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west virginia department of environmental protection

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

Jim Justice , Governor  
Austin Caperton , Cabinet Secretary  
www.dep.wv.gov

Friday, August 25, 2017  
WELL WORK PERMIT  
Horizontal 6A / New Drill

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

Re: Permit approval for COASTAL 4H  
47-061-01782-00-00

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: COASTAL 4H  
Farm Name: COASTAL FOREST RESOURCES COMPANY  
U.S. WELL NUMBER: 47-061-01782-00-00  
Horizontal 6A / New Drill  
Date Issued: 8/25/2017

Promoting a healthy environment.

08/25/2017

# 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

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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.

## 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](mailto: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 LLC 494498281 Monongalia Clay Blacksville  
Operator ID County District Quadrangle

2) Operator's Well Number: Coastal 4H Well Pad Name: Coastal

3) Farm Name/Surface Owner: Coastal Forest Resources Company Public Road Access: State Route 218 (Daybrook Road)

4) Elevation, current ground: 1,420' Elevation, proposed post-construction: 1,420'

5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus; 8,204'; 100'; 3,600psi

8) Proposed Total Vertical Depth: 8,204'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18,031.85'

11) Proposed Horizontal Leg Length: 9,425'

12) Approximate Fresh Water Strata Depths: 300' ; 1,243'

13) Method to Determine Fresh Water Depths: Driller's log from offset wells

14) Approximate Saltwater Depths: 1,500' ; 2,510'

15) Approximate Coal Seam Depths: 600' ; 900' ; 1,200'

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: Adjacent Mine - Federal No. 2

Depth: 900' - 1,200'

Seam: Pittsburgh

Owner: ERP Federal Mining Complex, LLC

WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_ - Pending  
 OPERATOR WELL NO. Coastal 4H  
 Well Pad Name: Coastal

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	52.78	40'	40'	GTS
Fresh Water	13 3/8"	New	J-55	54.5	1,370'	1,340'	CTS
Coal							
Intermediate	9 5/8"	New	J-55	40	2,790'	2,760'	CTS
Production	5 1/2"	New	P-110	20	18,031.85'	18,001.85'	4228
Tubing	2 3/8"	New	P-110	4.7	NA	8,300'	NA
Liners							

*MSK 8/15/2017*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24"	30"	.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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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 5,506.96' TVD/MD. Well will be horizontally drilled on fluid from KOP to approximately 8,204' TVD / 18,031.85' MD along a combination of 143, 153 and 137 degree azimuths.

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. After fracture treatment,

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

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

23) Describe centralizer placement for each casing string:

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

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

Surface string cement will be a Class A + 3% bwoc Calcium Chloride Fresh Water blend. Intermediate string cement will be a Class A Cement + 0.3% 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 35.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite + 80 lbs Fed Seal @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Intermediate string will use a 35.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite + 80 lbs Fed Seal @ 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, Bulk + 1 gal/bbl SS-2 @ 13.5 ppg spacer prior to cement.

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\*Note: Attach additional sheets as needed.

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COASTAL 4H  
EXISTING GAS WELLS  
AUGUST 15, 2017



470010173

A211431214" 3-35  
53656135"E 2,000'

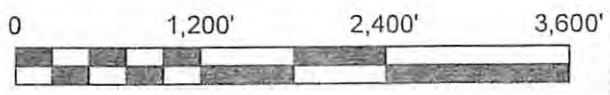
500'  
500'

A211531038" 5-25  
52656902"E 1,627'

A211370818" 5-25  
54255115"E 2,298'

A211431438" 5-36  
54655506"E 2,920'

SCALE: 1" = 1,200'



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08/25/2017

### Coastal 4H Area of Review

API Number	Well Name	Well Number	Operator	Latitude (NAD 27)	Longitude (NAD 27)	TVD	Producing Formation
47-061-01688	Coastal	13H	Northeast Natural Energy LLC	39.70572	-80.204667	8201	MARCELLUS
47-061-01674	Coastal	1H	Northeast Natural Energy LLC	39.705431	-80.204689	8207	MARCELLUS
47-061-01684	Coastal	3H	Northeast Natural Energy LLC	39.705534	-80.20464	8203	MARCELLUS
47-061-01686	Coastal	5H	Northeast Natural Energy LLC	39.705637	-80.204591	8203	MARCELLUS
47-061-01675	Coastal	7H	Northeast Natural Energy LLC	39.70538	-80.204713	8217	MARCELLUS
47-061-01680	Coastal	8H	Northeast Natural Energy LLC	39.705408	-80.204813	8242	MARCELLUS
47-061-01676	Coastal	9H	Northeast Natural Energy LLC	39.705741	-80.204542	8198	MARCELLUS

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**JUN 27 2017**

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WW-9  
(4/16)

API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. Coastal 4H

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 \_\_\_\_\_)

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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 M. Medley

Company Official (Typed Name) Hollie M. Medley

Company Official Title Regulatory Coordinator

Subscribed and sworn before me this 15 day of June, 2017

Michael Eisenhauer / Michael Eisenhauer

My commission expires 9/25/2020



Northeast Natural Energy LLC

Proposed Revegetation Treatment: Acres Disturbed 47.5 Prevegetation pH TBD

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 300 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

4700101/02

Temporary

Permanent

Seed Type	lbs/acre
Orchard Grass	46
Red Clover	8
Tetraploid Perennial Rye	16
Timothy	15
Annual Rye	15

Seed Type	lbs/acre
Orchard Grass	46
Red Clover	8
Tetraploid 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 area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: \_\_\_\_\_

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Title: Inspector

Date: 6/15/2017

Field Reviewed? (  ) Yes (  ) No

## Attachment A to WW-9

Northeast Natural Energy LLC (“NNE”) plans to utilize a closed loop process for its drilling of the Coastal 4H 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.

Coastal 4H 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:

- 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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4706101782

# northeast

NATURAL ENERGY

## Coastal 4H

### SITE SAFETY PLAN

August 15, 2017

*David K...  
8/15/2017*

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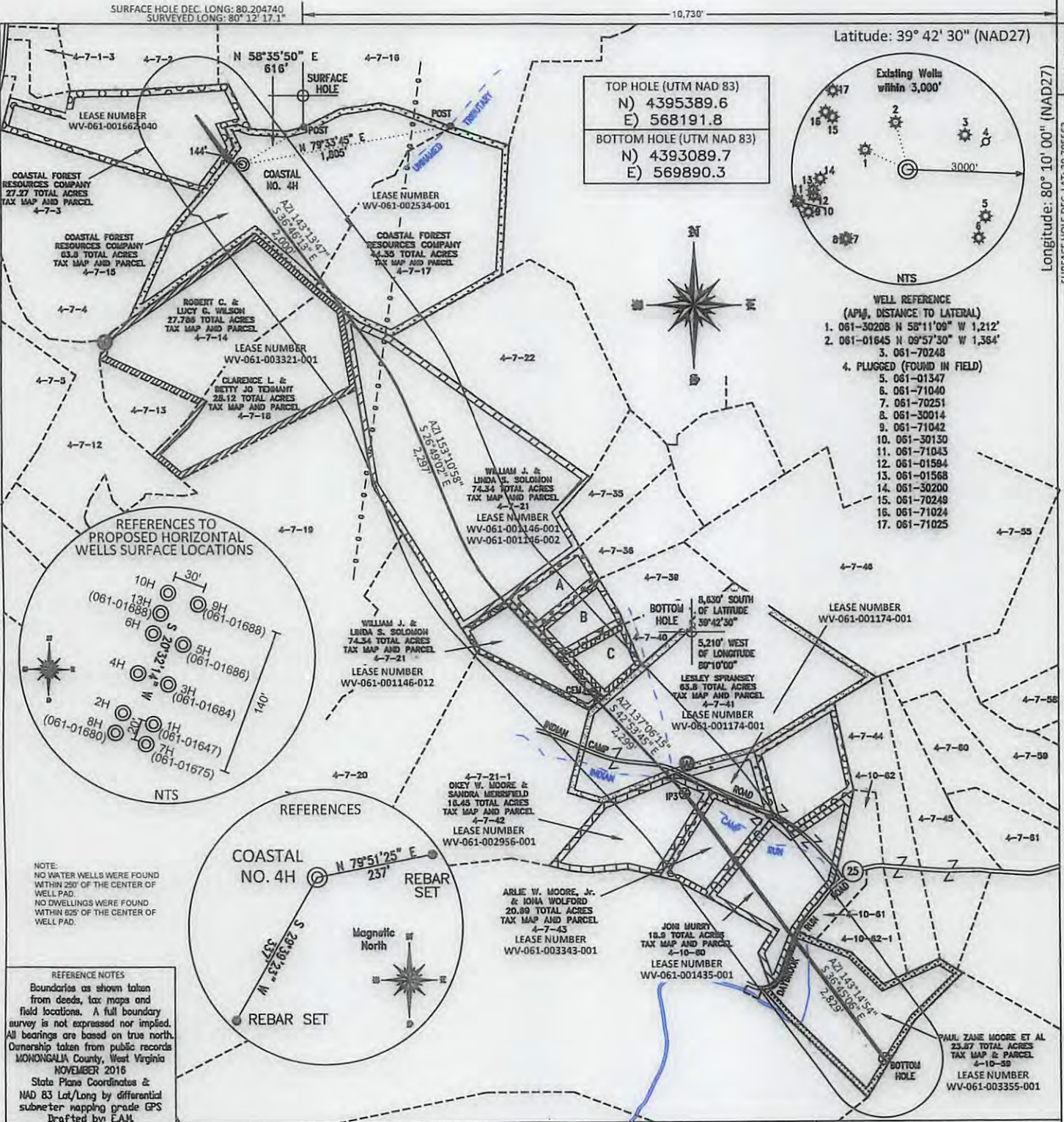
SURFACE HOLE DEC. LONG: 80.204740  
SURVEYED LONG: 80° 12' 17.1"

10,730'

Latitude: 39° 42' 30" (NAD27)

Longitude: 80° 10' 00" (NAD27)

SURFACE HOLE DEC. LAT: 39.705563  
SURVEYED LAT: 39° 42' 20.0"



FILE #: NNE12

DRAWING #: 2349

SCALE: PLAT: 1" = 1200'  
TICK MARK: 1" = 2000'

MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

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

Signed: [Signature]

L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WYDEP

OFFICE OF OIL & GAS  
601 57TH STREET  
CHARLESTON, WV 25304

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

WATERSHED: DUNKARD CREEK ELEVATION: 1,420'

COUNTY/DISTRICT: MONONGALIA / CLAY QUADRANGLE: BLACKSVILLE, WV

SURFACE OWNER: COASTAL FOREST RESOURCES COMPANY ACREAGE: 63.8 +/-

OIL & GAS ROYALTY OWNER: WACO OIL AND GAS, ET AL ACREAGE: 374.24 +/-

LEASE NUMBERS: \_\_\_\_\_

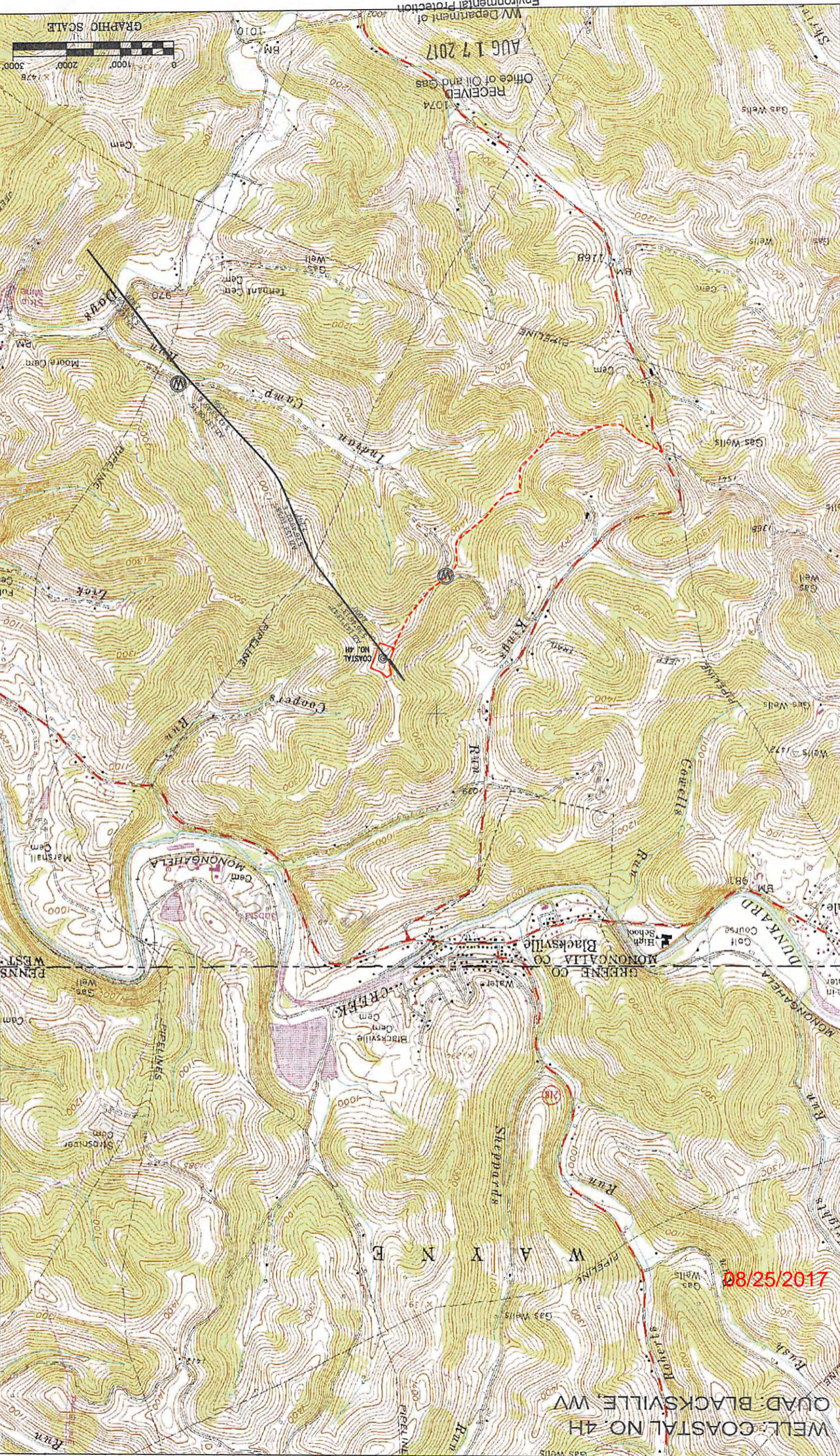
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 8,204' TMD: 18,031.85'

WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC DESIGNATED AGENT: JOHN ADAMS

ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200

CITY: CHARLESTON STATE: WV ZIP CODE: 25301 CITY: CHARLESTON STATE: WV ZIP CODE: 25301



GRAPHIC SCALE  
0 1000 2000 3000  
X 1/428

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PENNS WEST

WELL COASTAL NO. 4H  
QUAD BLACKSVILLE WV

7/02/5/80

**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 Attachment

4704161702

**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

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

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WW-6A1	Operator's Well No.	Coastal 4H		
NNE LEASE NUMBER	LESSOR NAME	LESSEE NAME	ROYALTY	BOOK/PG
WV-061-001662-039	MARIE EDDY MCCLURE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1428/460
WV-061-001662-040	RICHARD STEPHEN MICHAEL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/563
WV-061-001662-041	SALLY ANN MICHAEL REILY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/567
WV-061-001662-042	ERIC JAMES	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1502/614
WV-061-001662-043	CHARLENE MAAS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1505/127
WV-061-001662-044	SHARON WOODALL AND WAYNE WOODALL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1505/169
WV-061-001662-045	BRAD MIKOLAJCZYK AND SUZANNE MIKOLAJCZYK	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1537/670
WV-061-001662-046	BARBARA FOSTER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1505/381
WV-061-001662-047	STEPHEN FOSTER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1535/808
WV-061-001662-048	CECIL EDWARD OSBORNE AND MARION OSBORNE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1510/617
WV-061-001662-049	LOVELA BEEL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1506/673
WV-061-001662-050	MILDRED MATLICK	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/824
WV-061-001662-051	SANDRA J START	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/578
WV-061-001662-052	CAROLE S GERKE AND DENNIS J GERKE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/533
WV-061-001662-053	DIANE K TALKINGTON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/576
WV-061-001662-054	JAMES E TALKINGTON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/560
WV-061-001662-055	FLOSSIE BLANEY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1514/19
WV-061-001662-056	JUDITH K BOWKER AND MARK BOWKER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/798
WV-061-001662-057	JAMES EDWARD TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1531/70
WV-061-001662-058	JUDITH ANN HARRIS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1535/633
WV-061-001662-059	LINDA KAY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/269
WV-061-002933-001	IL MORRIS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1438/611
WV-061-002933-002	MIKE ROSS, INC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1438/611
WV-061-003010-001	ARTHUR ALLEN DUNCIL	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1439/192
WV-061-003010-002	SALLY SUE DUNCIL	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1455/513
WV-061-003280-001	CHESAPEAKE APPALACHIA LLC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1487/252
WV-061-003280-002	STATOIL USA ONSHORE PORPERTIES INC	*STATOIL USA ONSHORE PROPERTIES	0.125 OR GREATER	1488/756
WV-061-003289-001	ADRIAN L HAUGHT AND LORETTA B HAUGHT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1493/880
WV-061-003289-002	COLLEEN GROVES	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1495/892
WV-061-003289-003	BETTY KELLEY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1495/90
WV-061-003289-004	SHARON DINUNNO AND DAVIDE DINUNNO	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1494/899
WV-061-003289-005	LYNN ANN COCHRAN AND WILLIAM R COCHRAN	NORTHEAST NATURAL ENERGY LLC	DEED	1505/198
WV-061-003289-006	NICHOLAS WEBER AND STEFANI WEBER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1498/201
WV-061-003289-008	JOSEPH A MARKLEY AND DORIS H MARKLEY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/444
WV-061-003289-009	RALPH GLENN LIBERTY AND LINDA LIBERTY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/450
WV-061-003289-010	THOMAS S LIBERTY AND SHIRLEY LIBERTY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1505/414
WV-061-003289-011	DANIEL R LIBERTY AND CAROLYN D LIBERTY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1502/742
WV-061-003289-012	NANCY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1507/259
WV-061-003289-013	DONNA JEAN SHELTON AND THOMAS C SHELTON II	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1511/761
WV-061-003289-014	DIANE SUE RUDASH AND WILLIAM G RUDASH	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1510/13
WV-061-003289-015	PATRICIA T NANNI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/633
WV-061-003289-016	JANET DEAN DUNN AND LAWRENCE M DUNN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/746
WV-061-003289-017	ROBIN W KELLEY AND DEBRA KELLEY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/269
WV-061-003289-018	ROGER TALKINGTON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/517
WV-061-003289-019	DONNA MACE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/125
WV-061-003289-020	BETTY A SURFACE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/596
WV-061-003289-021	CHERYL M HAUSMAN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1516/146
WV-061-003289-022	PATRICIA A SWIGER AND RONALD SWIGER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/281
WV-061-003289-023	GARY W TALKINGTON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1516/144
WV-061-003289-024	THE EARL TALKINGTON REVOCABLE LIVING TRUST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/541
WV-061-003289-025	RICKEY A GREEN AND LEILA F GREEN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/279
WV-061-003289-026	FREDA B SCOTT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/275
WV-061-003289-027	DONALD J CORRICK	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/293
WV-061-003289-028	RICHARD L CORRICK	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/543
WV-061-003289-029	BERNARD M CANTONI JR AND LANA K CANTONI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/537
WV-061-003289-030	TAMMY L STARNES	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1513/617
WV-061-003289-031	JANE M REYNOLDS AND GREGORY MICHAEL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1514/94
WV-061-003289-032	THE WILLIAM D MCKINNEY TESTAMENTARY TRUST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1514/98
WV-061-003289-033	JAMES PAUL MCCOY AND ROBERTA R MCCOY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/59
WV-061-003289-034	RODNEY GREEN AND SUSAN GREEN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/61
WV-061-003289-035	PATRICIA M BENNETT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1516/219
WV-061-003289-036	PAUL HALLIER AND SUSAN HALLIER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/51
WV-061-003289-037	ELMA JEAN MORRIS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/383
WV-061-003289-038	JAMES C COLLINS SR AND PAMELA R COLLINS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/344
WV-061-003289-039	RYAN L CORRICK AND CRYSTAL KESSINGER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/800
WV-061-003289-040	CECILE M CORRICK	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/822
WV-061-003289-041	MARGARET BOWEN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/389
WV-061-003289-042	CHERYL MONAK	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1521/159

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WV-061-003289-043	THE WILL E MORRIS TRUST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/273
WV-061-003289-044	BETTY C HILLIARD	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1520/675
WV-061-003289-045	JANET LEA HAYES	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1537/670
WV-061-003289-046	ROBERT ARLIE VANCE	NORTHEAST NATURAL ENERGY LLC	DEED	1533/685
WV-061-003289-047	LINDA A TENNANT	NORTHEAST NATURAL ENERGY LLC	DEED	1529/774
WV-061-003289-048	CHERI A COX AND GREGORY M COX	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1531/43
WV-061-003289-049	FRANK RENICK	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1531/49
WV-061-003289-050	CLEAR FORK ROYALTY II LP	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1487/883
WV-061-003289-051	ARDEN DOBSON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1537/188
WV-061-003294-001	WILLIAM DALE WALKER JR	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1496/379
WV-061-003294-002	KATHRYN P SPROUSE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1496/354
WV-061-003294-003	EDITH P YEAGER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1496/350
WV-061-003294-004	DONNA JOYCE MICHAEL MORRIS AND ROBERT MORRIS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1496/352
WV-061-003294-005	JOHN LUTHER MICHAEL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1496/29
WV-061-003294-006	JACKIE WILSON MICHAEL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1497/888
WV-061-003294-007	LOUELLA PEARL CARR MICHAEL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1498/203
WV-061-003294-008	BONNIE JEAN MICHAEL HOOD	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1497/886
WV-061-003294-009	BILLY OSBORNE AND VIRGINIA OSBORNE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1498/205
WV-061-003294-010	ROBERT LAVERE WHITE AND PENNY D WHITE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1498/617
WV-061-003294-011	SANDRA SUE SAGO AND DAVID SAGO	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/270
WV-061-003294-012	JACQUELINE G LANKFORD	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/434
WV-061-003294-013	BONNIE AUSTIN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1503/213
WV-061-003294-014	JOHN P FOSTER III	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1510/171
WV-061-003294-015	MARGARET COLLINS WILSON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1504/756
WV-061-003418-001	MICHEL L KELLEY AND KATRINA KELLEY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1512/558
WV-061-003576-001	DWG OIL AND GAS ACQUISITIONS LLC	*NNE PROPERTIES LLC	DEED	1498/195
WV-061-003601-001	DEMA LOUISE VARNER PARROTTA	NORTHEAST NATURAL ENERGY LLC	DEED	1536/251
WV-061-003601-002	DANIEL WEBSTER VARNER	NORTHEAST NATURAL ENERGY LLC	DEED	1537/670
WV-061-003601-003	DELMAS EARL VARNER AND DEBRA L CARNER	NORTHEAST NATURAL ENERGY LLC	DEED	1533/662
WV-061-003601-004	DAVID MOSS VERNER	NORTHEAST NATURAL ENERGY LLC	DEED	1533/658
WV-061-003601-005	DONNA D VARNER	NORTHEAST NATURAL ENERGY LLC	DEED	1533/735
WV-061-003668-001	ADRIAN L HAUGHT AND LORETTA B HAUGHT	NORTHEAST NATURAL ENERGY LLC	DEED	1537/277
WV-061-003710-001	ONONDAGA HOLDING COMPANY LLC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1535/828
WV-061-003743-001	JANET L POULIMAS AND MICHAEL J POULIMAS	NORTHEAST NATURAL ENERGY LLC	DEED	1537/670
WV-061-003743-002	KATHERINE A SMITH	NORTHEAST NATURAL ENERGY LLC	DEED	1552/334
WV-061-002534-001	SHUMAN, INC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1429/366
WV-061-002589-001	WACO OIL & GAS, INC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1441/0001
WV-061-002534-001	SHUMAN, INC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1429/366
WV-061-002589-001	WACO OIL & GAS, INC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1441/0001
WV-061-001567-001	JUDY A HESTON	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1383/610
WV-061-001567-002	DONNIE HIBBS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1383/613
WV-061-001567-003	DENZIL HIBBS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1385/312
WV-061-001567-004	MARY SPRAGG DAWSON	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1384/369
WV-061-001942-001	JANIE LOUISE GRAM	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1391/769
WV-061-002589-001	WACO OIL & GAS, INC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1441/0001
WV-061-002621-001	REVOCABLE TRUST OF ROBERT M SPRAGG	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1441/411
WV-061-003321-001	CLARENCE WILLARD	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/428
WV-061-003321-002	AMIR H MOHAMMADI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/561
WV-061-003321-003	ALIAKBAR AFSHARI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1501/506
WV-061-003638-001	MARY LOU VERBOSKY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1537/670
WV-061-001567-001	JUDY A HESTON	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1383/610
WV-061-001567-002	DONNIE HIBBS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1383/613
WV-061-001567-003	DENZIL HIBBS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1385/312
WV-061-001567-004	MARY SPRAGG DAWSON	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1384/369
WV-061-001942-001	JANIE LOUISE GRAM	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1391/769
WV-061-002589-001	WACO OIL & GAS, INC	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1441/0001
WV-061-002621-001	REVOCABLE TRUST OF ROBERT M SPRAGG	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1441/411
WV-061-003321-001	CLARENCE WILLARD	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/428
WV-061-003321-002	AMIR H MOHAMMADI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1500/561
WV-061-003321-003	ALIAKBAR AFSHARI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1501/506
WV-061-003638-001	MARY LOU VERBOSKY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1537/670
WV-061-001143-001	WAYNE TENNANT JR	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1376/131
WV-061-001143-013	HERBERT N MOORE AND LISA T MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1376/119
WV-061-001146-001	VIRGINIA RUTH HAWKINS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1363/755
WV-061-001146-002	ELOISE WILLIAMS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1424/146
WV-061-001146-005	DONNA M MARTIN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1370/478
WV-061-001146-009	MARY L LINDERMAN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1378/27
WV-061-001146-012	WILLIAM J SOLOMON AND LINDA S SOLOMON	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1427/206
WV-061-001146-013	HERBERT N MOORE AND LISA T MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/724
WV-061-001146-014	SONYA LYNN QUAINANCE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/724
WV-061-001146-015	FRED H. MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1785/734

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WV-061-001146-016	SHELIA P KOCHIS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1486/171
WV-061-001146-017	NANCY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1509/248
WV-061-001146-018	PATRICIA T NANNI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1509/258
WV-061-001146-019	JANET T DUNN AND LAWRENCE M DUNN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1510/623
WV-061-001146-020	DONNA JEAN SHELTON AND THOMAS C SHELTON II	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1516/136
WV-061-001146-025	DIANE SUE RUDASH AND WILLIAM G RUDASH	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/740
WV-061-001146-026	CHARLES A RAIKES	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1526/772
WV-061-001146-028	DAVID M MOORE AND CYNTHIA WELCH	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1529/74
WV-061-001146-029	LINDA KAY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/273
WV-061-001146-030	MARGARET I MADDEN	NORTHEAST NATURAL ENERGY LLC	DEED	1560/583
WV-061-001146-031	DOROTHY JEAN JOHNS	NORTHEAST NATURAL ENERGY LLC	DEED	1557/728
WV-061-001174-017	JACK HAWKINS	NORTHEAST NATURAL ENERGY LLC	DEED	1514/118
WV-061-001174-018	ONEDA WISE	NORTHEAST NATURAL ENERGY LLC	DEED	1514/114
WV-061-002939-001	ROBERT G YOST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1425/242
WV-061-002944-001	JANICE A GREINERT	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1435/213
WV-061-002944-003	ELOISE MAE WILLIAMS AND MINER R WILLIAMS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1437/50
WV-061-002944-004	FRED E WEST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1437/55
WV-061-002944-005	JAMES H WEST AND WILMA M WEST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1438/598
WV-061-002944-006	DAVID S BRACKEN AND JANE A BRACKEN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1439/328
WV-061-002944-007	VIRGINIA ELLEN STILES	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1443/427
WV-061-002944-008	MARY MARGARET HEADLEE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1445/125
WV-061-002944-009	HELEN G BROOKS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1445/454
WV-061-002944-010	ROBERT B WEST AND JO CLAIRE WEST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1446/242
WV-061-002944-011	MARY M LIGHTNER	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1447/511
WV-061-002944-012	GWENDOLYN L CAMPBELL AND BYRON L CAMPBELL	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1449/121
WV-061-002944-013	DELORES J MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1431/411
WV-061-003508-001	TED K MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1529/110
WV-061-003559-001	JUNE LEMLEY MINOR AND FRANCES M MINOR	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/242
WV-061-003559-002	ROSE ELLEN SATTERFIELD AND SANDERS SATTERFIELD	NORTHEAST NATURAL ENERGY LLC	DEED	1530/112
WV-061-003559-003	LAURA E LEMLEY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/244
WV-061-003559-004	DAVID H WIGAL AND RITA A WIGAL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/92
WV-061-003559-005	LINDA KAY ARBOGAST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/117
WV-061-003559-006	HOLLY ARBOGAST WATSON AND DARRELL R WATSON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/96
WV-061-003559-007	MERRILL RODGER ARBOGAST AND VICKI IVY ARBOGAST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/109
WV-061-003559-008	MICHAEL D WIGAL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1537/834
WV-061-003559-009	GINNY R TATE AND JOSH TATE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1538/170
WV-061-003559-010	MARK C ARBOGAST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1536/312
WV-061-003559-011	MARTHA T PRICE	NORTHEAST NATURAL ENERGY LLC	DEED	1563/298
WV-061-001146-012	WILLIAM J SOLOMON AND LINDA S SOLOMON	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1427/206
WV-061-001174-001	MARY L LINDERMAN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/729
WV-061-001174-002	MARGARET I MADDEN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/732
WV-061-001174-003	E SCOTT HENKINS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/735
WV-061-001174-004	ROBERT C HENKINS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/738
WV-061-001174-005	JACK HAWKINS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1369/618
WV-061-001174-007	ONEDA WISE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1369/630
WV-061-001174-008	SUSAN H KING	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1369/633
WV-061-001174-009	DONNA MARTIN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1370/481
WV-061-001174-015	MARTHA T PRICE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1376/116
WV-061-001174-016	WAYNE TENNANT JR	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1377/214
WV-061-001174-017	JACK HAWKINS	NORTHEAST NATURAL ENERGY LLC	DEED	1514/118
WV-061-001174-018	ONEDA WISE	NORTHEAST NATURAL ENERGY LLC	DEED	1514/114
WV-061-001174-019	PATRICIA T NANNI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1506/77
WV-061-001174-020	HERBERT N MOORE AND LISA T MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/730
WV-061-001174-021	SONYA LYNN QUAINANCE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/751
WV-061-001174-022	FRED MOORE IV	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/738
WV-061-001174-023	SHELIA P KOCHIS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1486/179
WV-061-001174-024	NANCY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1509/250
WV-061-001174-025	JANET T DUNN AND LAWRENCE M DUNN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1510/625
WV-061-001174-026	DONNA JEAN SHELTON AND THOMAS C SHELTON II	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1516/755
WV-061-001174-027	NELLIE ELDER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1520/92
WV-061-001174-028	TREVOR S SUTHERLAND AND SABRINA D SUTHERLAND	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/794
WV-061-001174-029	LINDA K MORGAN AND J MICHAEL MORGAN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/716
WV-061-001174-030	LESLIE A LAYTON AND ROBERT LAYTON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/445
WV-061-001174-031	NANCY R ELKINS AND EMORY L ELKINS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1520/338
WV-061-001174-032	DIANE SUE RUDASH AND WILLIAM G RUDASH	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1526/124
WV-061-001174-033	PINEY HOLDINGS INC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/482
WV-061-001174-034	LESLIE SPRANSEY	NORTHEAST NATURAL ENERGY LLC	DEED	1553/785
WV-061-001174-035	LINDA KAY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/166
WV-061-001174-036	MARGARET I MADDEN	NORTHEAST NATURAL ENERGY LLC	DEED	1561/590
WV-061-001185-010	CHAD T SUTHERLAND AND LESLIE D SUTHERLAND	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/792
WV-061-002940-001	ROBERT G YOST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1425/250

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WV-061-002944-001	JANICE A GREINERT	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1435/213
WV-061-002944-003	ELOISE MAE WILLIAMS AND MINER R WILLIAMS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1437/050
WV-061-002944-004	FRED E WEST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1438/055
WV-061-002944-005	JAMES H WEST AND WILMA M WEST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1438/598
WV-061-002944-006	DAVID S BRACKEN AND JANE A BRACKEN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1443/328
WV-061-002944-007	VIRGINIA ELLEN STILES	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1443/427
WV-061-002944-008	MARY MARGARET HEADLEE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1445/125
WV-061-002944-009	HELEN G BROOKS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1445/454
WV-061-002944-010	ROBERT B WEST AND JO CLAIRE WEST	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1446/242
WV-061-002944-011	MARY M LIGHTNER	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1447/511
WV-061-002944-012	GWENDOLYN L CAMPBELL AND BYRON L CAMPBELL	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1449/121
WV-061-002944-013	DELORES J MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1431/411
WV-061-003508-001	TED K MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1529/110
WV-061-003545-001	CHARLES A RAIKES	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/300
WV-061-003545-002	DAVID M MOORE AND CYNTHIA WELCH	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/176
WV-061-003545-003	DOROTHY JEAN JOHNS	NORTHEAST NATURAL ENERGY LLC	DEED	1557/717
WV-061-003559-001	JUNE LEMLEY MINOR AND FRANCES M MINOR	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/242
WV-061-003559-002	ROSE ELLEN SATTERFIELD AND SANDERS SATTERFIELD	NORTHEAST NATURAL ENERGY LLC	DEED	1530/112
WV-061-003559-003	LAURA E LEMLEY	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/244
WV-061-003559-004	DAVID H WIGAL AND RITA A WIGAL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/92
WV-061-003559-005	LINDA KAY ARBOGAST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/117
WV-061-003559-006	HOLLY ARBOGAST WATSON AND DARRELL R WATSON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/96
WV-061-003559-007	MERRILL RODGER ARBOGAST AND VICKI IVY ARBOGAST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/109
WV-061-003559-008	MICHAEL D WIGAL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1537/834
WV-061-003559-009	GINNY R TATE AND JOSH TATE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1538/170
WV-061-003559-010	MARK C ARBOGAST	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1536/312
WV-061-003559-011	MARTHA T PRICE	NORTHEAST NATURAL ENERGY LLC	DEED	1563/298
WV-061-001174-001	MARY L LINDERMAN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/729
WV-061-001174-002	MARGARET I MADDEN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/732
WV-061-001174-003	E SCOTT HENKINS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/735
WV-061-001174-004	ROBERT C HENKINS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1367/738
WV-061-001174-005	JACK HAWKINS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1369/618
WV-061-001174-006	ROSE SATTERFIELD	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1369/627
WV-061-001174-007	ONEDA WISE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1369/630
WV-061-001174-008	SUSAN H KING	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1369/633
WV-061-001174-009	DONNA MARTIN	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1370/481
WV-061-001174-015	MARTHA T PRICE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1376/116
WV-061-001174-016	WAYNE TENNANT JR	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1377/214
WV-061-001174-017	JACK HAWKINS	NORTHEAST NATURAL ENERGY LLC	DEED	1514/118
WV-061-001174-018	ONEDA WISE	NORTHEAST NATURAL ENERGY LLC	DEED	1514/114
WV-061-001174-019	PATRICIA T NANNI	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1506/77
WV-061-001174-020	HERBERT N MOORE AND LISA T MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/730
WV-061-001174-021	SONYA LYNN QUAINANCE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/751
WV-061-001174-022	FRED MOORE IV	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1485/738
WV-061-001174-023	SHELIA P KOCHIS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1486/179
WV-061-001174-024	NANCY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1509/250
WV-061-001174-025	JANET T DUNN AND LAWRENCE M DUNN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1510/625
WV-061-001174-026	DONNA JEAN SHELTON AND THOMAS C SHELTON II	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1516/755
WV-061-001174-027	NELLIE ELDER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1520/92
WV-061-001174-028	TREVOR S SUTHERLAND AND SABRINA D SUTHERLAND	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/794
WV-061-001174-029	LINDA K MORGAN AND J MICHAEL MORGAN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1532/716
WV-061-001174-030	LESLIE A LAYTON AND ROBERT LAYTON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/445
WV-061-001174-031	NANCY R ELKINS AND EMORY L ELKINS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1520/338
WV-061-001174-032	DIANE SUE RUDASH AND WILLIAM G RUDASH	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1526/124
WV-061-001174-033	PINEY HOLDINGS INC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/482
WV-061-001174-034	PINEY HOLDINGS INC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1553/785
WV-061-001174-035	LINDA KAY TENNANT	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/265
WV-061-001174-036	MARGARET I MADDEN	NORTHEAST NATURAL ENERGY LLC	DEED	1561/550
WV-061-001185-010	CHAD T SUTHERLAND AND LESLIE D SUTHERLAND	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/792
WV-061-002940-002	LESLIE SPANSEY	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1433/537
WV-061-003508-001	TED K MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1529/110
WV-061-002956-001	RODNEY S MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1426/350
WV-061-002956-002	CHERYL RENEE WHITE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1426/730
WV-061-002956-003	MELANIE J RICHARDS	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1428/166
WV-061-002956-004	RUTH A PRATT	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1425/466
WV-061-002956-005	SANDRA J MERRIFIELD AND EDWIN L MERRIFIELD	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1445/48
WV-061-002956-006	CLARENCE W MOORE II AND DELORES J MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1438/592
WV-061-002956-007	GREGG STEPHEN MOORE AND BARBARA MARIE MOORE	*CHESAPEAKE APPALACHIA LLC	0.125 OR GREATER	1439/220
WV-061-002956-008	GARY S MOORE AND TANIA MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/826
WV-061-002956-009	KAREN A KATCHUR	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1517/342
WV-061-002956-010	SUSAN JAN GREEN	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1519/828

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WV-061-002956-011	ROGER L MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1520/96
WV-061-003343-001	DONALD LOREN MOORE SR AND ROBERTA KAY MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1501/425
WV-061-003526-001	BEATRICE JOANN MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/441
WV-061-003526-002	JOHN CLAYTON MOORE AND PAMELA R MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1527/842
WV-061-003526-003	BETTY JEAN CLAPP	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1526/98
WV-061-003526-004	BEVERLY JOAN CATE AND MARC SHELDON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1526/84
WV-061-003526-005	STEVEN CARL MOORE AND CORINA S MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/302
WV-061-003526-006	PAUL ZANE MOORE AND LINDA MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1529/576
WV-061-003526-007	PATRICIA ELAINE MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1536/531
WV-061-001435-001	WAYNE L WILSON AND SANDRA WILSON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1377/797
WV-061-001435-002	MARY MARTHA WILSON COTTRELL AND HAMPTON COTTRELL	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1377/794
WV-061-001435-003	DOTTIE MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1378/448
WV-061-001435-004	EVERETT DEAN WILSON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1378/454
WV-061-001435-005	LEONARD D WILSON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1378/451
WV-061-003355-001	DONALD LOREN MOORE SR AND ROBERTA KAY MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1501/425
WV-061-003526-001	BEATRICE JOANN MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/441
WV-061-003526-002	JOHN CLAYTON MOORE AND PAMELA R MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1527/842
WV-061-003526-003	BETTY JEAN CLAPP	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1526/98
WV-061-003526-004	BEVERLY JOAN CATE AND MARC SHELDON	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1526/84
WV-061-003526-005	STEVEN CARL MOORE AND CORINA S MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1530/302
WV-061-003526-006	PAUL ZANE MOORE AND LINDA MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1529/576
WV-061-003526-007	PATRICIA ELAINE MOORE	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1536/531

\* SEE ATTACHMENT

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Chesapeake Appalachia, LLC.  
And  
Statoil USA Onshore Properties Inc.

Northeast Natural Energy  
Assignment  
BK 120/769

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**northeast**  
NATURAL ENERGY

May 22, 2017

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

RE: Coastal 2H & 4H

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 Indian Camp Road and Daybrook Run Road (State Route 25) on the enclosed survey plat.

Sincerely,

  
Jeannie Morgan Johnson, CPL  
Vice President – Land Operations

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

Date of Notice Certification: 06/14/2017

API No. 47- \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. Coastal 4H  
Well Pad Name: Coastal

**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>568191.8</u>
County:	<u>Monongalia</u>		Northing:	<u>4395389.6</u>
District:	<u>Clay</u>	Public Road Access:	<u>State Route 218 (Daybrook Road)</u>	
Quadrangle:	<u>Blacksville</u>	Generally used farm name:	<u>Coastal</u>	
Watershed:	<u>Dunkard</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><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p style="text-align: center;"><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p style="text-align: center;">02</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input 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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**Certification of Notice is hereby given:**

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

Well Operator:	<u>NORTHEAST NATURAL ENERGY LLC</u>	Address:	<u>707 VIRGINIA STREET EAST, SUITE 1200</u>
By:	<u>HOLLIE MEDLEY</u>		<u>CHARLESTON, WV 25301</u>
Its:	<u>REGULATORY COORDINATOR</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 26 day of June, 2017  
*Michael Eisenhauer* Notary Public  
 My Commission Expires 9-25-2020

**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](mailto:deprivacyofficer@wv.gov).

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**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:** 6/14/2017    **Date Permit Application Filed:** 6/24/2017

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: Please See Attached  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: Please See Attached  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: Please See Attached  
Address: \_\_\_\_\_

COAL OPERATOR  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: Please See Attached  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

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**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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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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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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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)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Coastal 4H  
Well Pad Name: Coastal

**Notice is hereby given by:**

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

Address: 707 Virginia Street 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](mailto:depprivacyofficer@wv.gov).

*Hale Medley*



Subscribed and sworn before me this 26 day of June, 2017.

*Michael Eisenhauer* Notary Public

My Commission Expires 9-25-2020

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**Surface Owner(S)**

Coastal Forest Resources Company /  
P.O. Box 709  
Buckhannon, WV 26201

**Surface Owner(s) (Road and/or Other Disturbance)**

Donnie E. Simpson and Sharon K. Simpson /  
993 Daybrook Road  
Fairview, WV 26570

Aaron K. Aaron Fisher & the Janet Elaine Fisher and Aaron Konrad Fisher Living Trust /  
2524 Paxton Street  
Woodbridge, VA 22192

Richard Price /  
1047 Daybrook Road  
Fairview, WV 26570

Coastal Forest Resources Company  
P.O. Box 709  
Buckhannon, WV 26201

David Allen Simpson  
~~657~~ Daybrook Road 993  
Fairview, WV 26570

Edna F. Simpson (life estate), ✓  
Mr. & Mrs. Donnie E. Simpson  
993 Daybrook Road  
Fairview, WV 26570

Gary E. Simpson /  
67 McCoy Road  
Fairview, WV 26570

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Kenneth W. Dean and Clara M. Dean /  
PO Box 27  
Blacksville, WV 26521

John Basile /  
P.O. Box 194  
Blacksville, WV 26521

Kenneth W. & Clara M. Dean  
P.O. Box 27  
Blacksville, WV 26521

Alex Wilson /  
2344 Daybrook Road  
Fairview, WV 26570

Clarence Willard /  
1912 London Carriage Grove  
Colorado Spring, CO 80920

Robert and Lucy Wilson /  
P.O. Box 678  
Buckeye, OH 43008

**Coal Owner or Lessee** /  
Consolidated Coal Company  
CNX Center  
1000 Consol Energy Drive  
Canonsburg, PA 15317

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

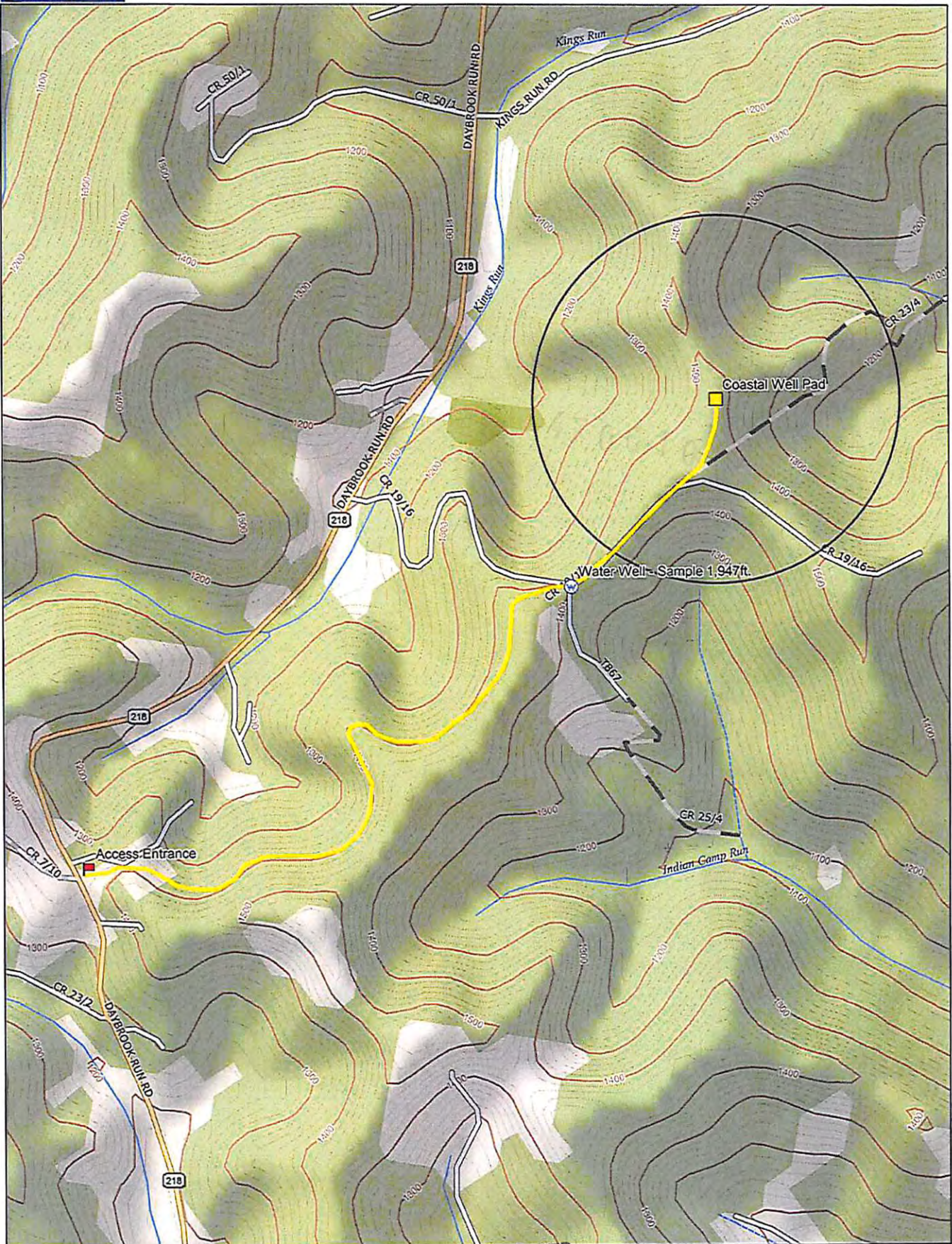
Robert and Lucy Wilson /  
P.O. Box 678  
Buckeye, OH 43008

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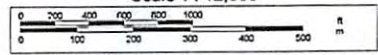


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Scale 1 : 12,800



1" = 1,066.7 ft

Data Zoom 14-0

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**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:** 10/18/2013      **Date of Planned Entry:** 10/28/2013

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

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

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

**Notice is hereby provided to:**

SURFACE OWNER(s)

Name: See Attachment  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: See Attachment  
Address: \_\_\_\_\_

MINERAL OWNER(s)

Name: See Attachment  
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: West Virginia  
County: Monongalia  
District: Clay  
Quadrangle: Blacksville 7.5'

Approx. Latitude & Longitude: 0568193.0, 4395333.0 (UTM 83)  
Public Road Access: State Route 23/4  
Watershed: Dunkard Creek  
Generally used farm name: Coastal

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 57<sup>th</sup> 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](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

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**Notice is hereby given by:**

Well Operator: Northeast Natural Energy LLC  
Telephone: 304.414.7060  
Email: hmedley@nne-llc.com

Address: 707 Virginia Street East, Suite 1200  
Charleston, WV 25301  
Facsimile: 304.414.7061

**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](mailto:depprivacyofficer@wv.gov).

Coastal Well Pad

**Surface Owner(S)**

Coastal Forest Resources Company /  
P.O. Box 709  
Buckhannon, WV 26201

**Coal Owner or Lessee**

Consolidated Coal Company /  
CNX Center  
1000 Consol Energy Drive  
Canonsburg, PA 15317

**Mineral Owner(s)**

Shuman, Inc. /  
P.O. Box 842  
Morgantown, WV 26507

XTO Energy, Inc. /  
810 Houston Street  
Fort Worth, Texas 76102

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**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:** 06/14/2017      **Date Permit Application Filed:** 06/24/2017

**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: Coastal Forest Resources Company  
Address: P.O. Box 709  
Buckhannon, WV 26201

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
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**JUN 27 2017**

**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:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>568191.8</u>
County:	<u>Monongalia</u>		Northing:	<u>4395389.6</u>
District:	<u>Clay</u>	Public Road Access:	<u>State Route 218 (Daybrook Road)</u>	
Quadrangle:	<u>Blacksville</u>	Generally used farm name:	<u>Coastal</u>	
Watershed:	<u>Dunkard Creek</u>			

**WV Department of Environmental Protection**  
**intent to enter upon**

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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 East, Suite 1200  
Charleston, WV 25301  
Telephone: 304-414-7060  
Email: hmedley@nne-llc.com  
Facsimile: 304-414-7061

Authorized Representative: Hollie Medley, Regulatory Coordinator  
Address: 48 Donley Street, Suite 601  
Morgantown, WV 26508  
Telephone: 304-212-0422  
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](mailto:depprivacyofficer@wv.gov).

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

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

**Date of Notice:** 06/14/2017      **Date Permit Application Filed:** 06/24/2017

**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: See Attachment                                      Name: \_\_\_\_\_  
Address: \_\_\_\_\_                                      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: <u>West Virginia</u>	UTM NAD 83	Easting: <u>538191.8</u>
County: <u>Monongalia</u>		Northing: <u>4395389.6</u>
District: <u>Clay</u>	Public Road Access: <u>State Route 218 (Daybrook Road)</u>	
Quadrangle: <u>Blacksville</u>	Generally used farm name: <u>Coastal</u>	
Watershed: <u>Dunkard Creek</u>		

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: <u>Northeast Natural Energy LLC</u>	Address: <u>707 Virginia Street East, Suite 1200</u>
Telephone: <u>304-212-0422</u>	<u>Charleston, WV 25301</u>
Email: <u>hmedley@nne-llc.com</u>	Facsimile: <u>304-241-5972</u>

**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](mailto:depprivacyofficer@wv.gov).

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08/25/2017

**Surface Owner(S)**

Coastal Forest Resources Company /  
P.O. Box 709  
Buckhannon, WV 26201

**Surface Owner(s) (Road and/or Other Disturbance)** /

Donnie E. Simpson and Sharon K. Simpson  
993 Daybrook Road  
Fairview, WV 26570

Aaron K. Aaron Fisher & the Janet Elaine Fisher and Aaron Konrad Fisher Living Trust /  
2524 Paxton Street  
Woodbridge, VA 22192

Richard Price  
1047 Daybrook Road  
Fairview, WV 26570

Coastal Forest Resources Company  
P.O. Box 709  
Buckhannon, WV 26201

<sup>E.</sup>  
David ~~Allen~~ Simpson  
<sup>993</sup>  
~~657~~ Daybrook Road  
Fairview, WV 26570 ✓

Edna F. Simpson (life estate), /  
Mr. & Mrs. Donnie E. Simpson  
993 Daybrook Road  
Fairview, WV 26570

Gary E. Simpson  
67 McCoy Road  
Fairview, WV 26570 /

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Kenneth W. Dean and Clara M. Dean  
PO Box 27  
Blacksville, WV 26521

John Basile  
P.O. Box 194  
Blacksville, WV 26521  
Kenneth W. & Clara M. Dean  
P.O. Box 27  
Blacksville, WV 26521

✓

Alex Wilson  
2344 Daybrook Road  
Fairview, WV 26570

Clarence Willard  
1912 London Carriage Grove  
Colorado Spring, CO 80920

Robert and Lucy Wilson  
P.O. Box 678  
Buckeye, OH 43008

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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 5, 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>568191.8</u>
County: <u>Monongalia</u>	Northing: <u>4395389.6</u>
District: <u>Clay</u>	Public Road Access: <u>State Route 218 (Daybrook Road)</u>
Quadrangle: <u>Blacksville</u>	Generally used farm name: <u>Coastal</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: Gary E. Simpson  
Print Name: Gary E. Simpson  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: \_\_\_\_\_  
By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**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](mailto:depprivacyofficer@wv.gov).

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

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

Earl Ray Tomblin  
Governor

Paul A. Mattox, Jr., P. E.  
Secretary of Transportation/  
Commissioner of Highways

June 18, 2014

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

Subject: DOH Permit for the Coastal Pad, Monongalia County  
Coastal 4H

47-061-01982

Dear Dr. Martin,

Northeast Natural Energy LLC has applied for permits #04-2014-0505 & 04-2014-0507 to access the State Road for a well site located off of West Virginia Route 218.

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 dated January 3, 2012.

Very Truly Yours,

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

Cc: Hollie Medley  
Northeast Natural Energy Corporation  
CH, OM, D-4  
File

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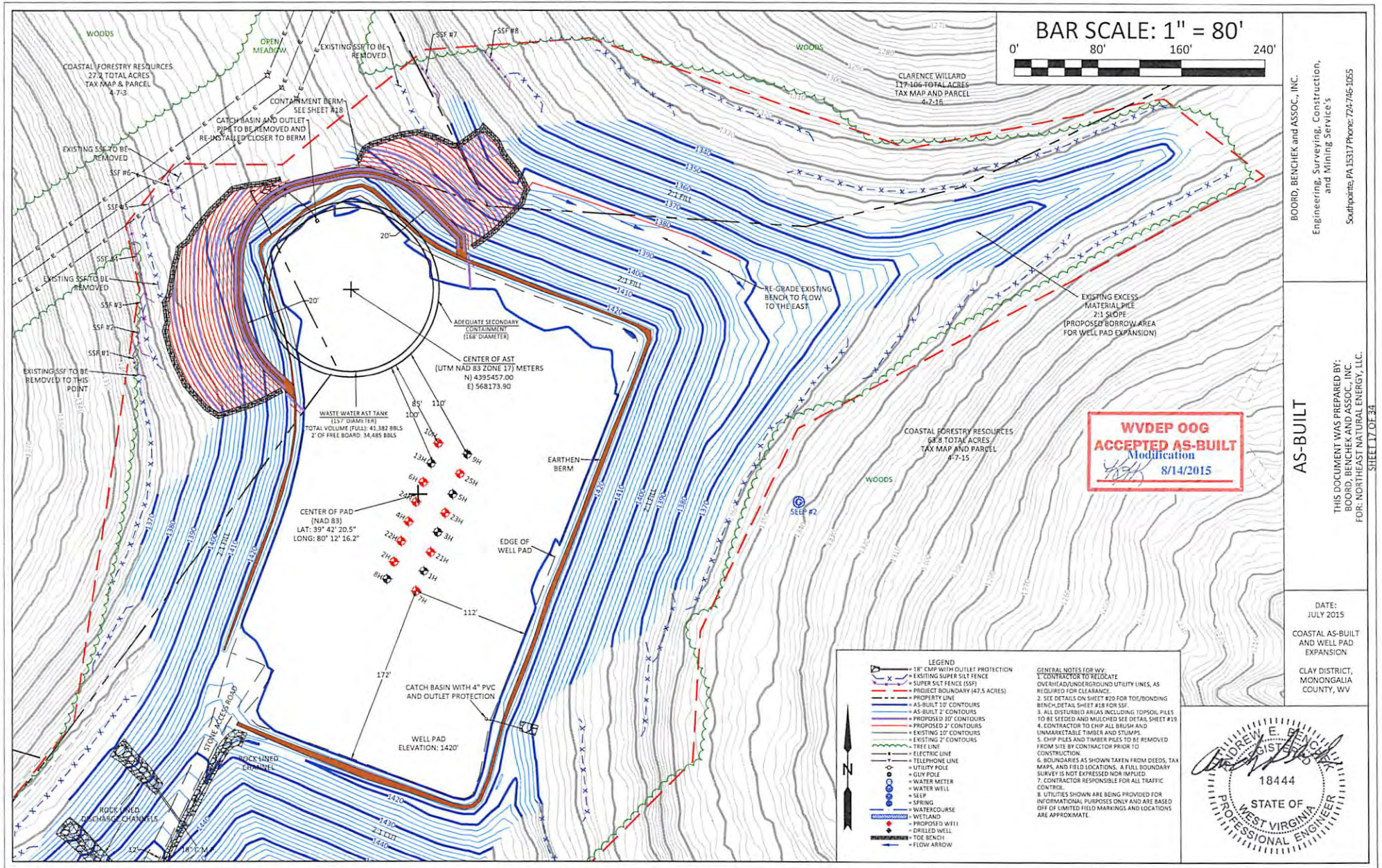


### Planned Additives to be used in Fracturing Stimulations

Trade Name	Purpose	Ingredients	Cemical Abstract Service Numner (CAS#)
Water	Carrier	Water	7732-18-5
HCl, 10.1-15%	Acidizing	Hydrochloric Acid Water	7647-01-0 7732-18-5
Alpha 1427	Biocide	Alkyl Dimethyl Benzyl Ammonium Chloride (C12-16) Ethanol Glutaraldehyde Quaternary Ammonium Chloride Water	68424-85-1 64-17-5 111-30-8 7173-51-5 7732-18-5
Enzyme G-NE	Breaker	Hemicellulase Enzyme Concentrate Water	9025-56-3 7732-18-5
CI-14	Corrosion Inhibitor	Fatty Acids Methanol Olefin Polyozyalkylenes Propargyl Alcohol	NA 67-56-1 NA NA 107-19-7
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)	14808-50-7
Sand, White, 100 mesh	Proppant	Cystalline Silica (Quartz)	14808-50-7
Scaletrol 720	Scale Inhibitor	Siethylene Glycol	111-46-6

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BAR SCALE: 1" = 80'

0' 80' 160' 240'

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**ACCEPTED AS-BUILT**  
 Modification  
 8/14/2015

- LEGEND**
- 18" CAP WITH OUTLET PROTECTION
  - EXISTING SUPER SILT FENCE
  - SUPER SILT FENCE (SSF)
  - PROJECT BOUNDARY (47.5 ACRES)
  - PROPERTY LINE
  - AS-BUILT 10' CONTOURS
  - AS-BUILT 2' CONTOURS
  - PROPOSED 10' CONTOURS
  - PROPOSED 2' CONTOURS
  - EXISTING 10' CONTOURS
  - EXISTING 2' CONTOURS
  - TREE LINE
  - ELECTRIC LINE
  - TELEPHONE LINE
  - UTILITY POLE
  - GLY POLE
  - WATER METER
  - WATER WELL
  - SEEP
  - WATERCOURSE
  - WETLAND
  - PROPOSED WFTI
  - DRILLED WELL
  - TDE BENCH
  - FLOW ARROW

**GENERAL NOTES FOR WV:**

1. CONTRACTOR TO RELOCATE OVERHEAD/UNDERGROUND UTILITY LINES, AS REQUIRED FOR CLEARANCE.
2. SEE DETAILS ON SHEET #20 FOR TOP/BONDING BENCH-DETAIL SHEET #18 FOR SSF.
3. ALL DISTURBED AREAS INCLUDING TOPSOIL PILES TO BE SEEDED AND MULCHED SEE DETAIL SHEET #19.
4. CONTRACTOR TO CHIP ALL BRUSH AND UNMARKETABLE TIMBER AND STUMPS.
5. CHIP PILES AND TIMBER PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
6. BOUNDARIES AS SHOWN TAKEN FROM DEEDS, TAX MAPS, AND FIELD LOCATIONS. A FULL BOUNDARY SURVEY IS NOT EXPRESSED NOR IMPLIED.
7. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
8. UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED OFF OF LIMITED FIELD MARKINGS AND LOCATIONS ARE APPROXIMATE.



BOARD, BENCHEK and ASSOC., INC.  
 Engineering, Surveying, Construction,  
 and Mining Services  
 Southpointe, PA 15317 Phone: 724/745-1055

AS-BUILT  
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 FOR: NORTHWEST NATURAL ENERGY, LLC.  
 SHEET 17 OF 34

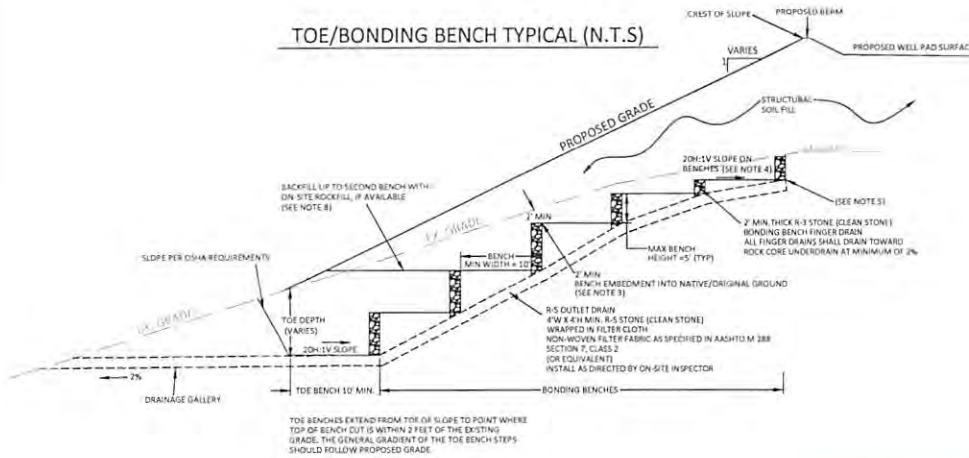
DATE:  
 JULY 2015  
 COASTAL AS-BUILT  
 AND WELL PAD  
 EXPANSION  
 CLAY DISTRICT,  
 MONONGALIA  
 COUNTY, WV

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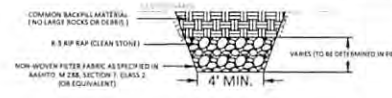
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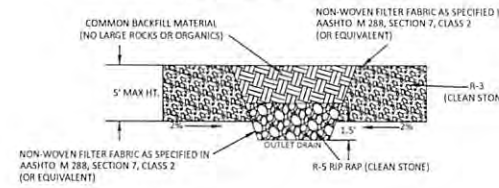
**TOE/BONDING BENCH TYPICAL (N.T.S)**



**STONE DRAINAGE GALLERY (NTS)**

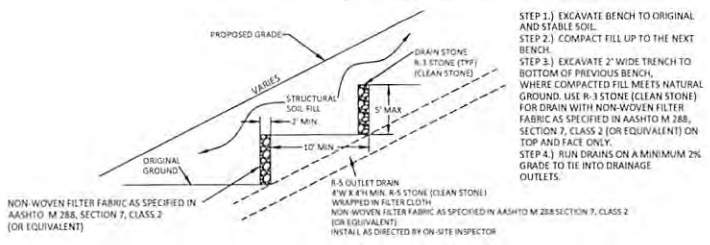


**R-5 OUTLET DRAIN DETAIL (NTS)**



**WVDEP OOG**  
**ACCEPTED AS-BUILT**  
 Modification  
*[Signature]*  
 8/14/2015

**BENCH DRAIN DETAIL (NTS)**



**TOE/BONDING BENCH NOTES**

- 1) TOE BENCHES SHALL BE CONSTRUCTED TO ROCK OR COMPETENT MATERIAL DEPTH TO BE DETERMINED IN FIELD AS PER ON-SITE INSPECTOR. ADDITIONAL DEPTHS MAY BE REQUIRED IN FIELD DEPENDING UPON THE STABILITY OF SUBGRADE MATERIAL. AT THE REQUEST OF THE FIELD ENGINEER, PERFORM TEST PITS AND PRODDROLLING OF THE BENCH SUBGRADE TO EVALUATE THE SUBGRADE CONDITIONS. REMOVE UNSTABLE SOILS AND EXTEND THE DEPTH OF THE TOE BENCH AS REQUESTED BY ON-SITE INSPECTOR. PROVIDE A HORIZONTAL (ALONG THE LENGTH OF THE TOE BENCH) GRADE OF AT LEAST 2% TO ALLOW WATER TO DRAIN TO LOW POINTS FOR OUTLET.
- 2) AFTER FILLING TO TOP OF BENCH, EXCAVATE TRENCH AND INSTALL R-5 OUTLET DRAINS AND DRAINAGE GALLERIES AS DIRECTED BY ON-SITE INSPECTOR.
- 3) BONDING BENCHES SHALL BE EMBEDDED A MINIMUM OF 2 FEET BELOW THE NATIVE/ORIGINAL GROUND SURFACE EXCEPT WHERE NOTED. ADJUST THE HEIGHT OF THE BONDING BENCH TO ACCOMMODATE THE 2 FOOT MINIMUM EMBEDMENT DEPTH. EXCAVATION OF COAL AND/OR CARBONACEOUS SHALE IN THE TOE OR BONDING BENCHES MAY ENCOUNTER PERCHED WATER TABLES. PLANS TO CONTROL, DRAIN, AND TREAT IF NECESSARY ARE RECOMMENDED.
- 4) PROVIDE A 20%:1V SLOPE ON ALL BENCH BOTTOMS IN THE DIRECTION SHOWN TO DIRECT SEEPAGE INTO BENCH DRAINS PLACED AT THE REAR OF THE BENCH.
- 5) TERMINATE BONDING BENCHES WHEN THE NATIVE SLOPES ARE FLATTER THAN 5H:1V OR A MINIMUM OF 10 FEET BEHIND THE CREST OF SLOPE.
- 6) THE CONTRACTOR IS RESPONSIBLE FOR SAFETY OF EXCAVATIONS, INCLUDING SEQUENCING OF BENCHING OPERATIONS, AND SLOPES PER OSHA 29CFR 1926.650 REQUIREMENTS, TO ALLOW THE APPROPRIATE ENGINEERING EVALUATIONS. THIS MAY REQUIRE STARTING EXCAVATION AT THE MID-HEIGHT OF THE BONDING BENCHES TO REMOVE THE SLOPE OVERBURDEN THAT COULD SLIDE INTO THE SUBSEQUENT TOE BENCH EXCAVATION.
- 7) PLACE STRUCTURAL SOIL FILL IN 8 INCH LOOSE LIFTS. COMPACT TO A MINIMUM OF 96% OF THE MAXIMUM DRY DENSITY AND WITHIN 3 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR (ASTM D 698). IN THE UPPER 2 FEET OF FILL, COMPACT TO A MINIMUM OF 98% OF THE MAXIMUM DRY DENSITY AND WITHIN 2 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR (ASTM D 698).
- 8) UNDERDRAIN SHALL BE EXTENDED UP THE CENTER OF THE HOLLOW FROM BELOW THE TOE OR THE FILL TO THE TOP OF THE ORIGINAL GROUND SLOPE OR WHERE THE FILL SLOPE INTERSECTS THE CUT LINE.

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**DETAILS**

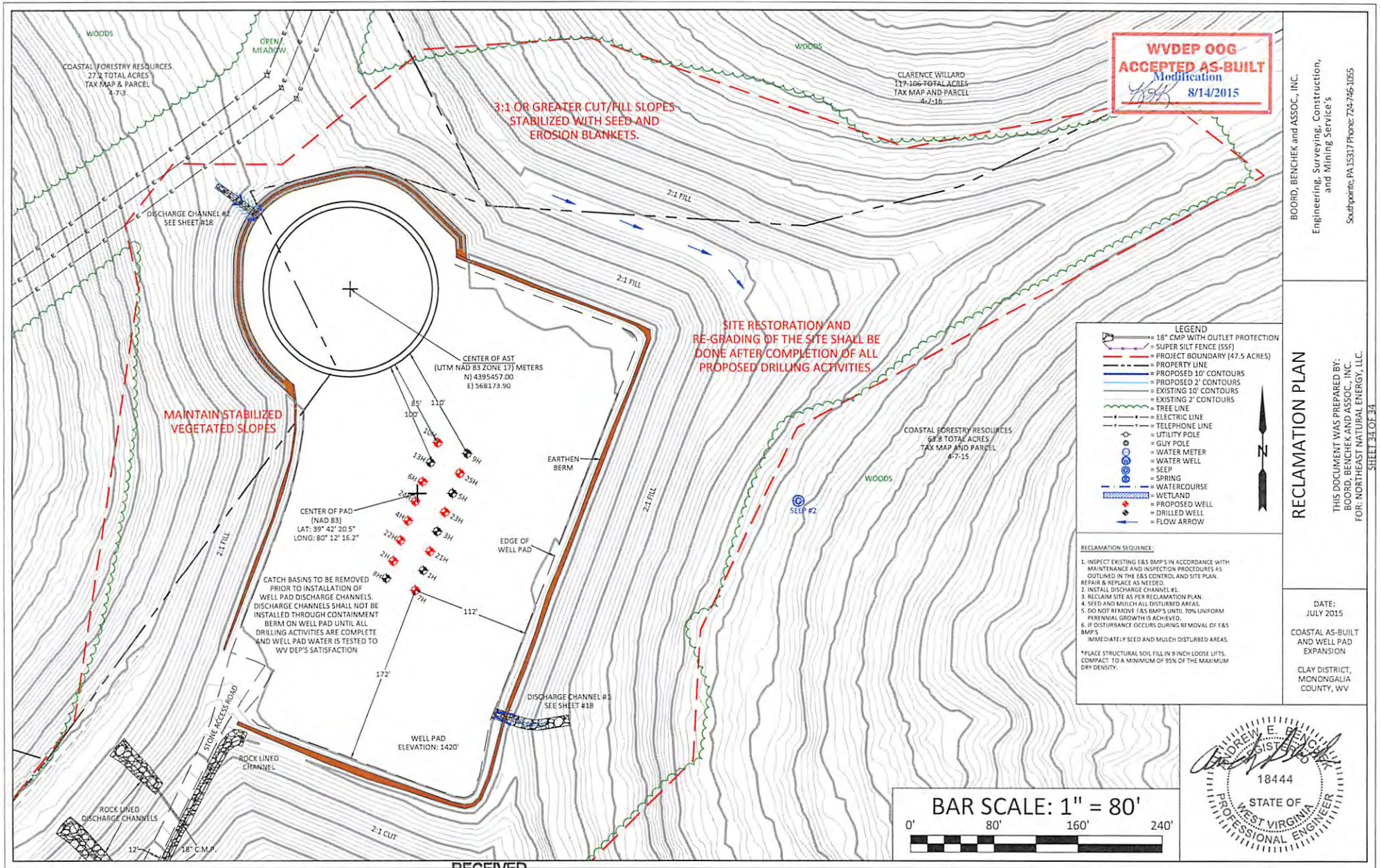
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 FOR: NORTHEAST NATURAL ENERGY, LLC.

SHEET 20 OF 34

DATE: JULY 2015  
 COASTAL AS-BUILT AND WELL PAD EXPANSION  
 CLAY DISTRICT, MONONGALIA COUNTY, WV



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 Modification  
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3:1 OR GREATER CUT/FILL SLOPES  
 STABILIZED WITH SEED AND  
 EROSION BLANKETS.

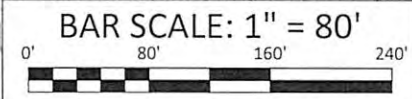
SITE RESTORATION AND  
 RE-GRADING OF THE SITE SHALL BE  
 DONE AFTER COMPLETION OF ALL  
 PROPOSED DRILLING ACTIVITIES

MAINTAIN STABILIZED  
 VEGETATED SLOPES

**LEGEND**

- 18" CMP WITH OUTLET PROTECTION
- SUPER SILT FENCE (SSF)
- PROJECT BOUNDARY (47.5 ACRES)
- PROPERTY LINE
- PROPOSED 10' CONTOURS
- PROPOSED 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING 2' CONTOURS
- TREE LINE
- ELECTRIC LINE
- TELEPHONE LINE
- UTILITY POLE
- GUY POLE
- WATER METER
- WATER WELL
- SEEP
- SPRING
- WATERCOURSE
- WETLAND
- PROPOSED WELL
- DRILLED WELL
- FLOW ARROW

- RECLAMATION REQUIREMENTS:**
1. INSPECT EXISTING EAS BMP'S IN ACCORDANCE WITH MAINTENANCE AND INSPECTION PROCEDURES AS OUTLINED IN THE EAS CONTROL AND SITE PLAN. REPAIR & REPLACE AS NEEDED.
  2. INSTALL DISCHARGE CHANNELS.
  3. RECLAIM SITE AS PER RECLAMATION PLAN.
  4. SEED AND MULCH ALL DISTURBED AREAS.
  5. DO NOT REMOVE EAS BMP'S UNTIL 70% UNIFORM PERENNIAL GROWTH IS ACHIEVED.
  6. IF DISTURBANCE OCCURS DURING REMOVAL OF EAS BMP'S IMMEDIATELY SEED AND MULCH DISTURBED AREAS.
- \*PLACE STRUCTURAL SOIL FILL IN 8" INCH LOOSE LIFTS. COMPACT TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY.



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**RECLAMATION PLAN**  
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 SHEET 38 OF 34

DATE:  
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