



west virginia department of environmental protection

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

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

Thursday, March 29, 2018
WELL WORK PERMIT
Horizontal 6A / New Drill

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

Re: Permit approval for KASSAY 4H
47-061-01795-00-00

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

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a faint blue line.

Operator's Well Number: KASSAY 4H
Farm Name: PATTY A KASSAY
U.S. WELL NUMBER: 47-061-01795-00-00
Horizontal 6A New Drill
Date Issued: 3/28/2018

PERMIT CONDITIONS 4706101795

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

CONDITIONS

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

PERMIT CONDITIONS 4706101795

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.

4706101795

WW-6B
(04/15)

API NO. 47- _____ - _____
OPERATOR WELL NO. 4H _____
Well Pad Name: Kassay

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: 4H Well Pad Name: Kassay

3) Farm Name/Surface Owner: Patty Kassay Public Road Access: County Route 25/3 (Yank Hollow Road)

4) Elevation, current ground: 1,534' Elevation, proposed post-construction: 1,534'

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

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

6) Existing Pad: Yes or No Yes *MDK 3/8/2018*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus; 8,288'; 103'; 3,600 PSI

8) Proposed Total Vertical Depth: 8,288'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 20,239.61'

11) Proposed Horizontal Leg Length: 11,504'

12) Approximate Fresh Water Strata Depths: 50' ; 1,120'

13) Method to Determine Fresh Water Depths: DRILLERS LOG FROM OFFSET WELLS

14) Approximate Saltwater Depths: 1,946' ; 2,320'

15) Approximate Coal Seam Depths: 125' ; 1,098'

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

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

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

Depth: _____

Seam: _____

Owner: _____

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Page 1 of 3

MAR 16 2018

WW-6B
(04/15)

API NO. 47- _____
 OPERATOR WELL NO. 4H _____
 Well Pad Name: Kassay _____

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24"	New	NA	94.71	40'	40'	GTS
Fresh Water	13-3/8"	New	J-55	54.5	1,220'	1,190'	CTS
Coal							
Intermediate	9-5/8"	New	J-55	40	2,780'	2,750'	CTS
Production	5-1/2"	New	P-110	20	20,239.61'	20,209.61'	4,796 Cu. Ft.
Tubing	2-7/8"	New	N-80	6.5	N/A	8,500'	N/A
Liners							

MOK 3/8/2018

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	N/A
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"	N/A	.217"	10,570	3,600	N/A	N/A
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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WV Department of
Environmental Protection

WW-6B
(10/14)

API NO. 47-_____-_____
OPERATOR WELL NO. 4H_____
Well Pad Name: Kassay

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

Drilling and completion of a horizontal Marcellus well. The well will be drilled on air to an approximate depth of 6,500,' TVD/MD. The well will then be horizontally drilled on fluid from KOP to approximately 8,288' TVD / 20,239.61' MD along a 143° azimuth.

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

Multi-stage / high-rate slickwater fracture treatment using various size sands as proppant. First stage will be initiated via pressurization against a burst disc ran in the production casing string or perforated with coiled tubing. Subsequent stages will be perforated with pumped down guns ran on wireline. Individual stages will be isolated with composite frac plugs. Maximum pump rate during any stage will be 100 BPM with a maximum allowable surface pressure of 9,500 PSI. Composite bridge plugs will be set at the end of the last stage to isolate the treated formation.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 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 the shoe joint to surface. Production casing will have rigid body centralizers placed at a minimum of every other joint (~160') from TD to surface.

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

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

25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

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WV Department of
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NORTHEAST NATURAL ENERGY, LLC

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

Slot: Slot #04
 Well: Kassay 4H
 Wellbore: Kassay 4H PWB

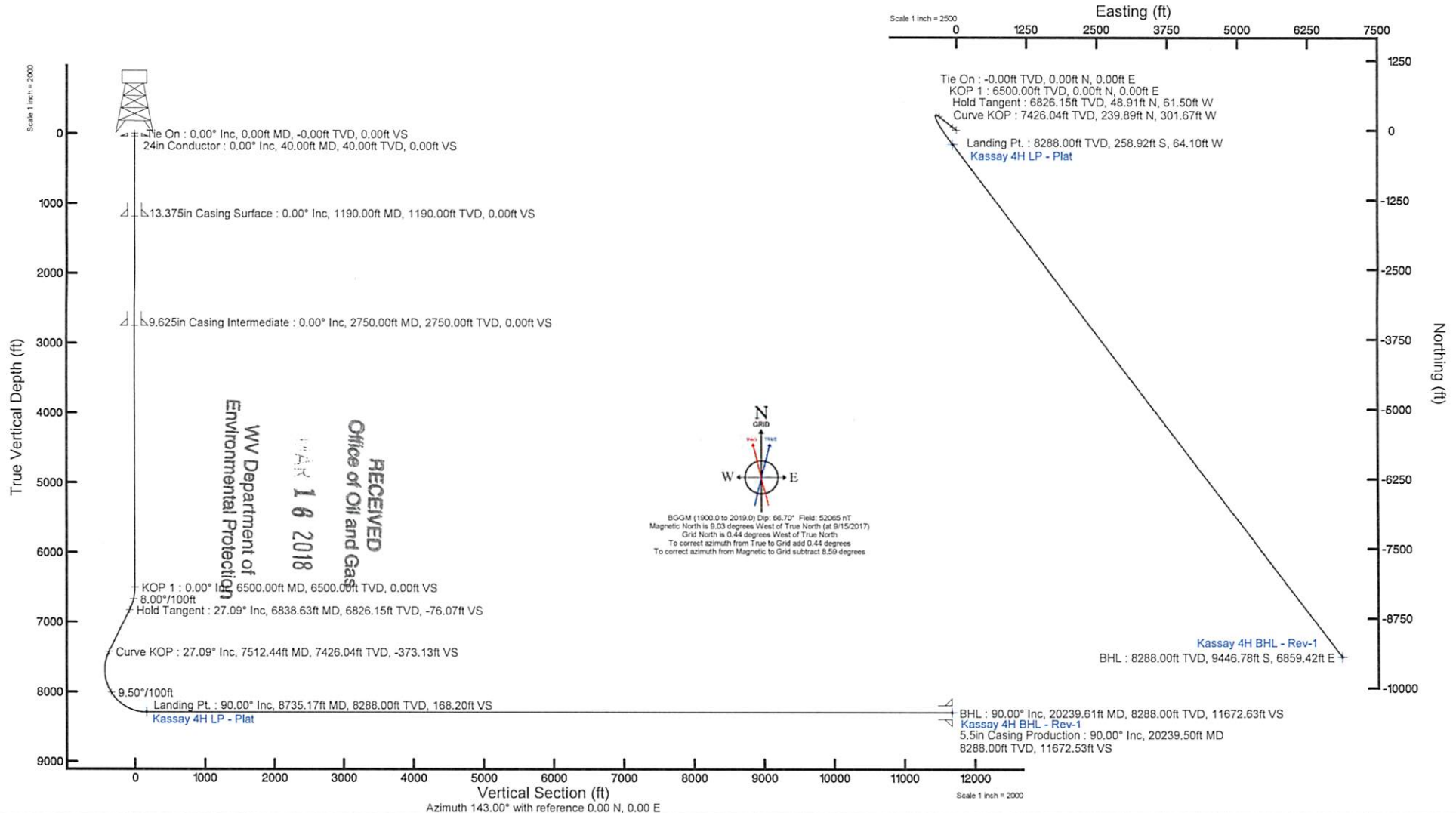


Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
Kassay Pad	1772945.670	422666.830	39°39'30.118"N	80°11'40.564"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #04	21.47	45.13	1772990.800	422688.300	39°39'30.333"N	80°11'39.989"W
Ground Level (GL) to Ground level (At Slot: Slot #04)			0ft			
Mean Sea Level to Ground level (At Slot: Slot #04)			-1534ft			
Ground Level (GL) to Mean Sea Level			1534ft			

Formation	Depth (KBTVD)
Tully	8040'
Hamilton	8090'
Upper Marcellus	8198'
Lower Marcellus	8246'
Onondaga	8301'

Type	Hole Size	Casing Size	Grade		GL Depth (Csg)
Conductor	28"	24"	NA		40'
Surface	17-1/2"	13-3/8"	J-55	54.5	1190'
Intermediate	12-1/4"	9-5/8"	J-55	40	2750'



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Northeast Natural Energy LLC Mine Contingency Plan



On all wells drilled, Northeast Natural Energy LLC (“NNE”) has contingency strategies in place should an unanticipated void or mine be encountered while drilling the surface section of the well. If encountered, any accumulated gases will be diverted a safe distance away from the drilling operations through the blooey line and/or flare.

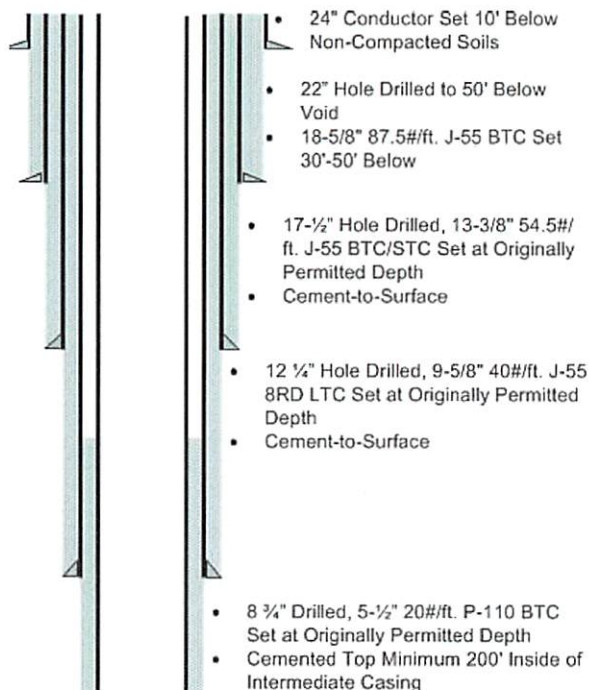
All casings programs submitted to the state incorporate the use of a 24” conductor over the previously used 20” that has long been the industry standard for a typical Marcellus design. The use of 24” conductor casing allows the use of a 22” bit to ream the surface hole, and drill 50’ below the void to run a string of 18-5/8” 87.50#/ft J-55 through the section when needed.

The 18-5/8” would be set 30-50’ below the void with cement baskets placed directly above and below. The section of pipe below the void would be cemented using the balance method with 100% excess. The section above the void would be cemented separately by using remedial top fill techniques and 30% excess.

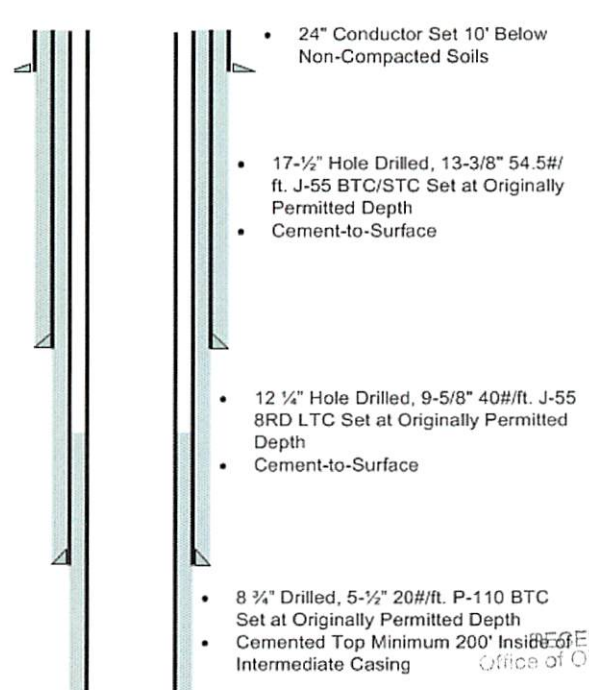
With the use of these string sizes and techniques, the surface and intermediate strings do not need to be altered. After a proper WOC time, the surface section of the well would continue to be drilled with a 17-1/2” bit and the 13-3/8” 54.50#/ft freshwater casing would be set at the originally permitted depth.

**The diagram below visually shows the alternative casing plan should an unanticipated void be encountered.*

Casing Schematic w/ Mine String



Casing Schematic w/o Mine String



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11/11 - IC

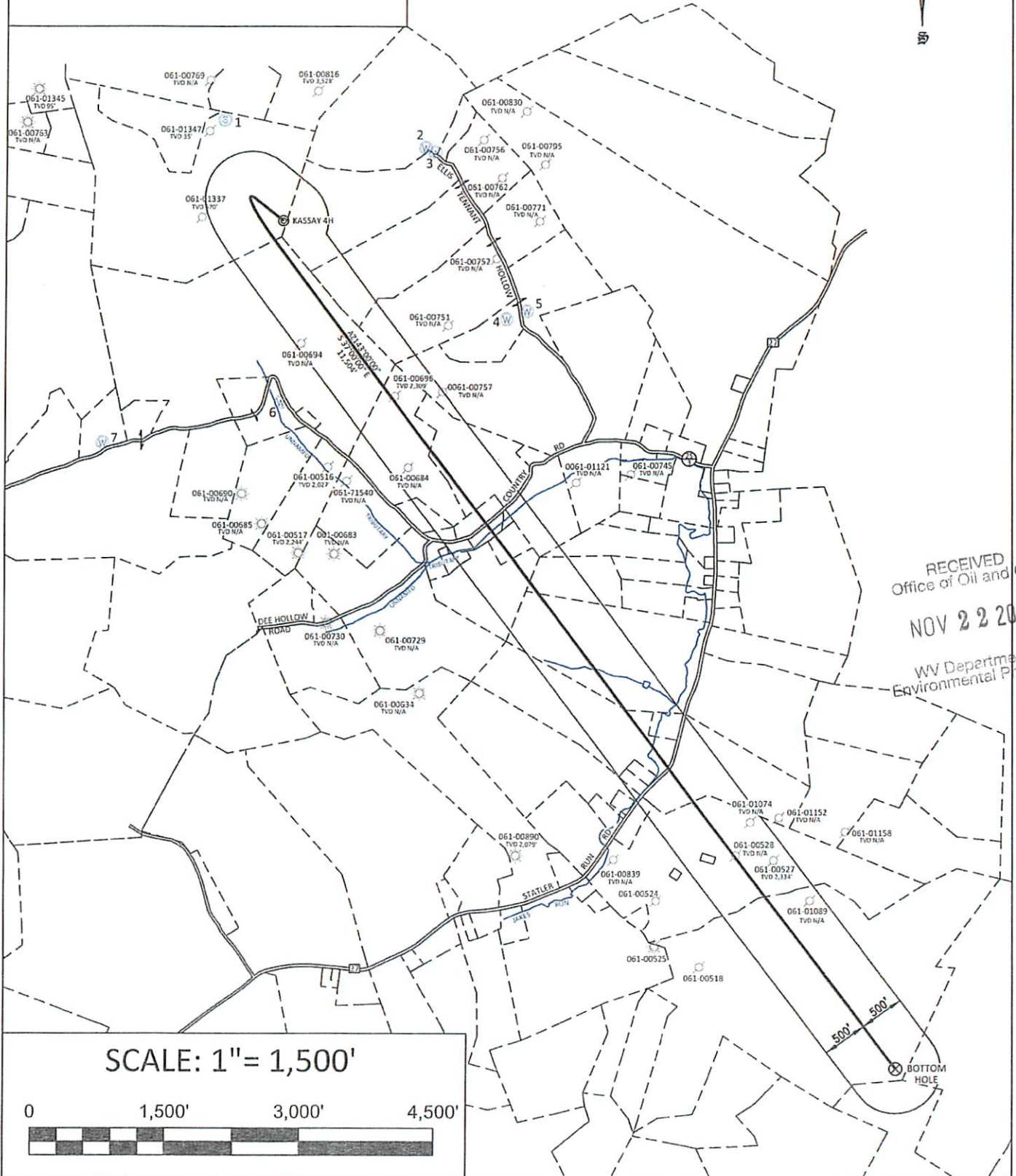
Kassay 4H Area of Review

API Number	Well Name	Well Number	Operator	Latitude (NAD 27)	Longitude (NAD 27)	TMP	TVD	Comments
47-061-00694	Ilean Morton Matteo	1	Consolidation Coal Co.	39.654711	-80.193662	4-17-59	NA	Plugged 08-15-1983
47-061-00684	E J Tennant	1	Consolidation Coal Co.	39.650941	-80.189347	4-17-76	NA	Plugged on 05-30-1983
47-061-01089	D & J Bracken	NA	Consolidation Coal Co.	39.638036	-80.172651	4-21-43	NA	Plugged on 06-30-1993
47-061-00527	James S Thomas	8	Consolidation Coal Co.	39.639051	-80.174714	4-20-20.1	NA	Plugged on 05-02-1992
47-061-00528	N A Tennant	9	Pennzoil Company	39.639196	-80.176214	4-20-20.1	NA	N/A
47-061-01074	James Thomas II	NA	Consolidation Coal Co.	39.640211	-80.175652	4-20-20.1	NA	Plugged on 04-14-1992
47-061-00696	South Penn Natural Gas Co	3	South Penn Oil (S. Penn Nat. Gas)	39.653116	-80.18991	4-17-76	NA	Plugged on 07-25-1983
47-061-00757	Larry A Bragg	NA	Consolidation Coal Co.	39.653261	-80.188034	4-17-74	NA	Plugged on 04-23-1985

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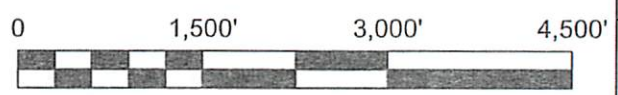
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KASSAY 4H EXISTING GAS WELLS NOVEMBER 7, 2017



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SCALE: 1" = 1,500'



WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Kassay 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, WV

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: N/A

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

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

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

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

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

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

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

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

Company Official Signature Hollie Medley

Company Official (Typed Name) Hollie Medley

Company Official Title Regulatory Manager

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Subscribed and sworn before me this 15 day of November, 20 17

[Signature]

My commission expires 9/25/2020

WV Department of Environmental Protection

Notary Public



4706101795

Form WW-9

Operator's Well No. Kassay 4H

Northeast Natural Energy LLC

Proposed Revegetation Treatment: Acres Disturbed 15.85 Prevegetation pH 5-7

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 300 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

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

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: _____

Title: Inspector Date: 11/16/2007

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 Kassay 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.

Kassay 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:

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

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northeast
NATURAL ENERGY

Kassay 4H
SITE SAFETY PLAN

November 8, 2017

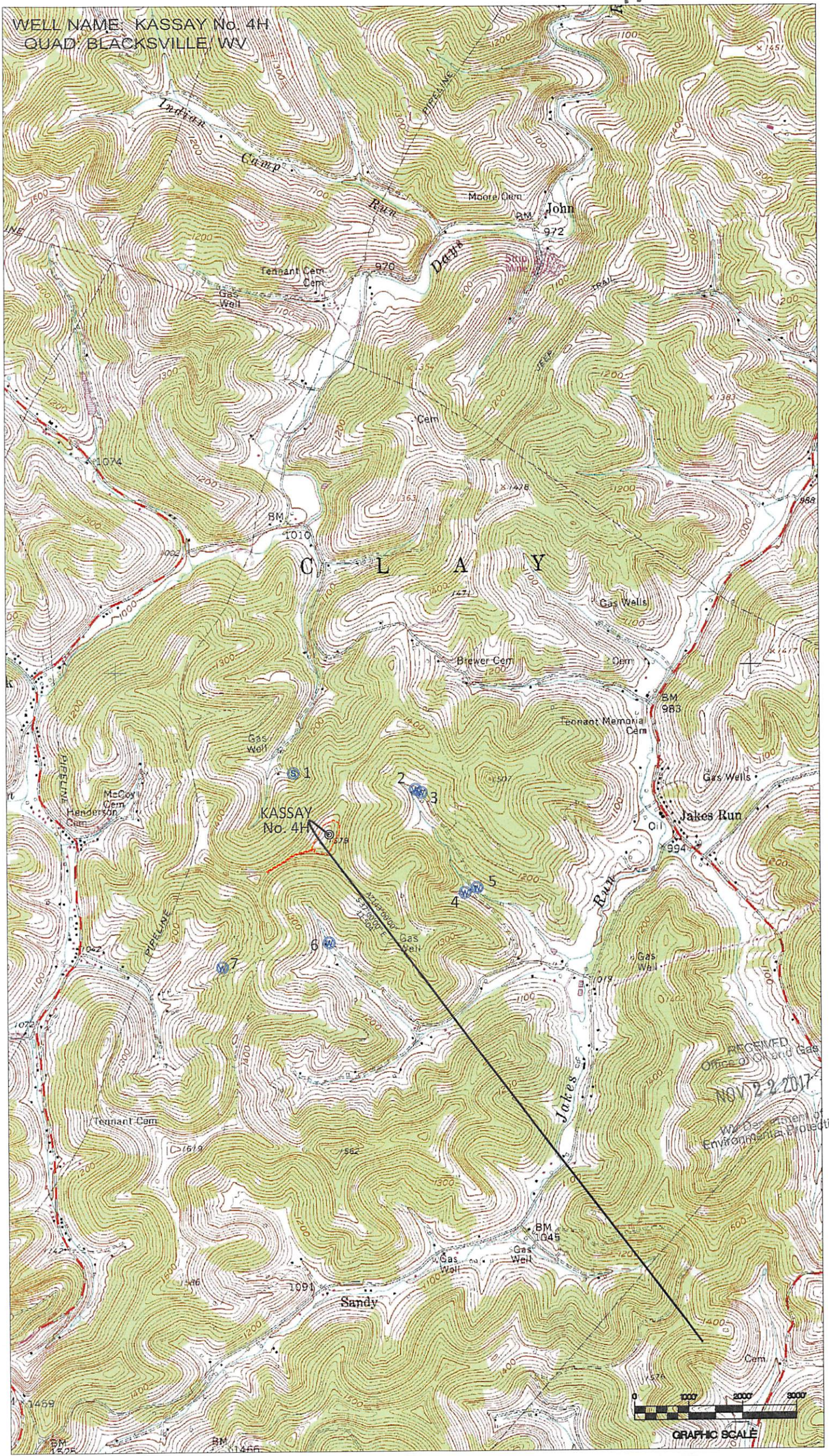
Haynes J. Kuntz
11/16/2017

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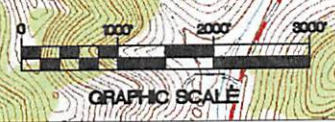
NOV 22 2017

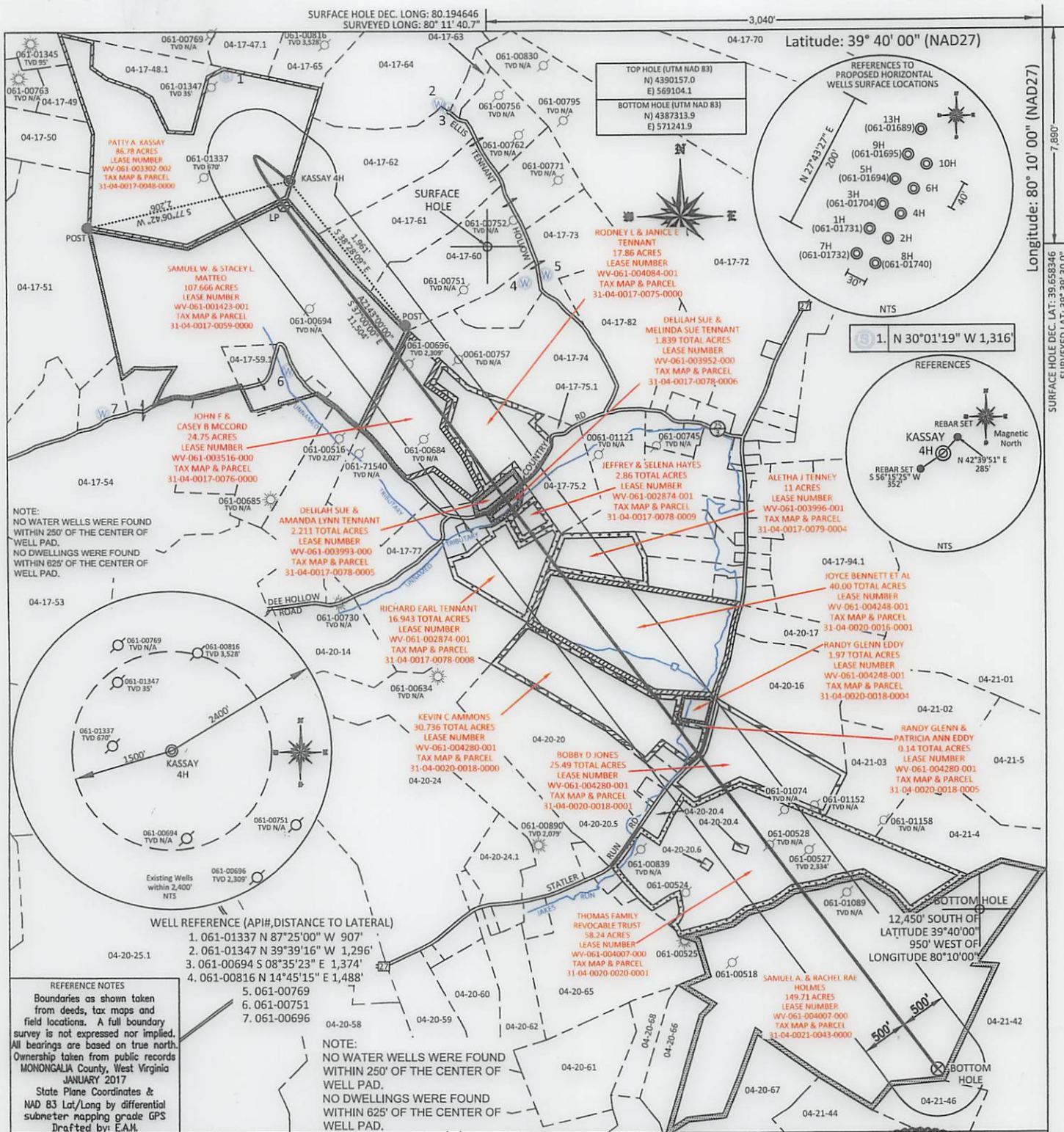
WV Department of
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WELL NAME: KASSAY No. 4H
QUAD: BLACKSVILLE, WV



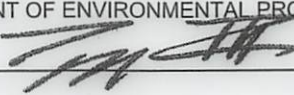
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FILE #: NNE15
 DRAWING #: 2818
 SCALE: PLAT: 1" = 1500'
TICK: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

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

Signed: 

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



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

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

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

WATERSHED: DUNKARD CREEK
 COUNTY/DISTRICT: MONONGALIA / CLAY
 SURFACE OWNER: PATTY A. KASSAY
 OIL & GAS ROYALTY OWNER: PATTY A. KASSAY
 LEASE NUMBERS: _____

DATE: MARCH 5, 2018
 OPERATOR'S WELL #: KASSAY 4H
 API WELL #: 47 61
 STATE COUNTY PERMIT

CURRENT ELEVATION: 1,534'
 QUADRANGLE: BLACKSVILLE
 ACREAGE: 86.78 +/-
 ACREAGE: 578.195 +/-

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

TARGET FORMATION: MARCELLUS
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

ESTIMATED DEPTH: TVD: 8,288' TMD: 20,239.61'
 DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

WW-6A1
(5/13)

Operator's Well No. Kassay 4H

**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
Please See Attachment				

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

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

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

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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 M. Medley *Hollie M Medley*
 Its: Regulatory Manager

WW-6A1		Operator's Well No. 4	KASSAY	
NNE LEASE NUMBER	LESSOR NAME	LESSEE NAME	ROYALTY	BOOK/PAGE
WV-061-003302-002	Patty A. Kassay	Northeast Natural Energy LLC	0.125 OR GREATER	1506/143
WV-061-003654-001	Dorsey Neil Strickler And Nancy E Strickler	Northeast Natural Energy LLC	DEED	1541/383
WV-061-003654-002	Lois Marie John	Northeast Natural Energy LLC	DEED	1541/379
WV-061-003654-003	Paul T Strickler And Sharon Strickler	Northeast Natural Energy LLC	DEED	1537/194
WV-061-003654-004	Mary Rose Butler	Northeast Natural Energy LLC	DEED	1537/198
WV-061-003654-005	Wilbur Randolph Stickler And	Northeast Natural Energy LLC	DEED	1557/257
WV-061-001423-001	Cathy Ann Collins	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1377/172
WV-061-001423-002	Lula Haze Tennant Jones	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1377/226
WV-061-001423-004	Betty Glover	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1377/232
WV-061-001423-005	Shirley Tennant	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1377/229
WV-061-001423-007	Jacob W Tennant And Elizabeth B Tennant	Northeast Natural Energy LLC	DEED	1524/196
WV-061-001423-008	Patricia Ellen Tennant Mayle	Northeast Natural Energy LLC	DEED	1585/833
WV-061-004382-001	Xto Energy Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1578/472
WV-061-003308-001	Chesapeake Appalachia Llc	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1487/224
WV-061-003308-002	Statoil Usa Onshore Properties	*Statoil USA Onshore Properties Inc.	0.125 OR GREATER	1488/721
WV-061-004249-001	Shuman Inc	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-003516-000	John F. Mccord And Casey B. Mccord	Northeast Natural Energy LLC	0.125 OR GREATER	1521/598
WV-061-004084-001	Margaret Ann Wood	Northeast Natural Energy LLC	0.125 OR GREATER	1563/759
WV-061-004084-002	Angela L Mccord	Northeast Natural Energy LLC	0.125 OR GREATER	1562/156
WV-061-004084-003	Eric B Mccord	Northeast Natural Energy LLC	0.125 OR GREATER	1563/136
WV-061-003052-001	Barbara Carol Jones And Billy W Jones	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1433/523
WV-061-003052-002	Lauren E Dean	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1430/354
WV-061-003052-003	Mary Patricia Utt And Hutchinson Utt	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1430/340
WV-061-003052-004	Gerald Hunt And Jo Ann Hunt	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1431/421
WV-061-003052-005	Emma Mccord	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1431/418
WV-061-003052-006	Aileen Riley	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1433/574
WV-061-003052-007	Nancy Carol Bowser	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1433/571
WV-061-003052-008	Tom Mccord And Trinka Mccord	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1433/568
WV-061-003052-009	Shirley Jones	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1433/534
WV-061-003052-010	Miriam Amanda Wade Steele And George Ronald Steele	*Chesapeake Appalachia, LLC	0.125 OR GREATER	1459/143
WV-061-003993-000	Delilah Sue Tennant, Life Estate and Amanda Lynn Tenna	Northeast Natural Energy LLC	0.125 OR GREATER	1563/757
WV-061-003952-000	Delilah Sue Tennant, Life Estate and Melinda and Matthe	Northeast Natural Energy LLC	0.125 OR GREATER	1564/685
WV-061-002930-001	Deborah S. Tennant	Chesapeake Appalachia, LLC	Inactive	1425/238
WV-061-002874-001	Richard Earl Tennant	Chesapeake Appalachia, LLC	0.125 OR GREATER	1425/355
WV-061-002874-001	Richard Earl Tennant	Chesapeake Appalachia, LLC	0.125 OR GREATER	1425/355
WV-061-003996-001	Jacqueline Straight	Northeast Natural Energy LLC	0.125 OR GREATER	1562/27
WV-061-003996-002	Warren E Barth	Northeast Natural Energy LLC	0.125 OR GREATER	1562/154
WV-061-003996-003	Paul E Kurtzwell	Northeast Natural Energy LLC	0.125 OR GREATER	
WV-061-003996-004	John Riggs Jr	Northeast Natural Energy LLC	0.125 OR GREATER	1564/24
WV-061-003996-005	Richard Glenn Gump	Northeast Natural Energy LLC	0.125 OR GREATER	1564/30
WV-061-003996-006	Randall Scott Albino	Northeast Natural Energy LLC	0.125 OR GREATER	1564/142
WV-061-003996-007	Regina L Black And Robert M Black	Northeast Natural Energy LLC	0.125 OR GREATER	1564/140
WV-061-003996-008	Lorrie E Smith And Jeff B Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1564/138
WV-061-003996-009	Robert Lee Mercer And Lila N Mercer	Northeast Natural Energy LLC	0.125 OR GREATER	1566/214
WV-061-003996-010	Sybil M Straight	Northeast Natural Energy LLC	DEED	1563/288
WV-061-003996-011	Michael Haught	Northeast Natural Energy LLC	DEED	1579/841
WV-061-003996-019	Richard Allen Mercer And Frances D Mercer	*XTO Energy Inc.	0.125 OR GREATER	1448/574
WV-061-003996-020	Ruth Ann Cutrone And Samuel Cutrone	*XTO Energy Inc.	0.125 OR GREATER	1448/571
WV-061-003996-021	Nancy C Yost	*XTO Energy Inc.	0.125 OR GREATER	1448/869
WV-061-003996-022	Mary Ellen Schipono	*XTO Energy Inc.	0.125 OR GREATER	1450/830
WV-061-003996-023	Ellen Ruth Yost	*XTO Energy Inc.	0.125 OR GREATER	1448/596
WV-061-003996-024	Willa Jean Hetrick	*XTO Energy Inc.	0.125 OR GREATER	1449/780
WV-061-003996-025	*Xto Energy Inc	*XTO Energy Inc.	0.125 OR GREATER	1449/777
WV-061-003996-026	Frank N Straight	*XTO Energy Inc.	0.125 OR GREATER	1448/793
WV-061-003996-027	Praben Mark Kurtzwell	Northeast Natural Energy LLC	0.125 OR GREATER	1581/305
WV-061-004314-001	Reed Energy Services Inc	Northeast Natural Energy LLC	DEED	1580/200
WV-061-004507-001	Richard G Gump	Northeast Natural Energy LLC	DEED	1581/285
WV-061-004248-001	Piney Holdings, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1564/172

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WV-061-004249-001	Shuman, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004249-001	Shuman, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004260-001	Heritage Resources - Marcellus	Northeast Natural Energy LLC	0.125 OR GREATER	1570/835
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004248-001	Piney Holdings Inc	Northeast Natural Energy LLC	0.125 OR GREATER	1568/777
WV-061-004249-001	Shuman Inc	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004248-001	Piney Holdings Inc	Northeast Natural Energy LLC	0.125 OR GREATER	1568/777
WV-061-004249-001	Shuman Inc	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004382-001	Xto Energy Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1578/472
WV-061-004249-001	Shuman Inc	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004260-001	Heritage Resources - Marcellus	Northeast Natural Energy LLC	0.125 OR GREATER	1570/835
WV-061-004248-001	Piney Holdings, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1568/777
WV-061-004249-001	Shuman, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004249-001	Shuman, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004260-001	Heritage Resources - Marcellus	Northeast Natural Energy LLC	0.125 OR GREATER	1570/835
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004249-001	Shuman, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004280-001	Joy Smith	Northeast Natural Energy LLC	0.125 OR GREATER	1572/34
WV-061-004249-001	Shuman, Inc.	Northeast Natural Energy LLC	0.125 OR GREATER	1568/775
WV-061-004260-001	Heritage Resources - Marcellus	Northeast Natural Energy LLC	0.125 OR GREATER	1570/835
WV-061-004007-000	Nimrod A. Tennant And Margaret J. Tennant	Dewitt, Ira	0.125 OR GREATER	26/359
WV-061-004007-000	Nimrod A. Tennant And Margaret J. Tennant	Dewitt, Ira	0.125 OR GREATER	26/359
WV-061-003721-001	Mary D. Fluharty And Roger Fluharty	Northeast Natural Energy LLC	DEED	1561/563
WV-061-003721-002	Eugene Armstrong	Northeast Natural Energy LLC	DEED	1557/170
WV-061-003721-003	Judith Williams	Northeast Natural Energy LLC	DEED	1559/795
WV-061-003721-004	Monica Miller	Northeast Natural Energy LLC	DEED	1560/579
WV-061-003721-005	David B. Tennant And Patricia J. Tennant	Northeast Natural Energy LLC	DEED	1560/384
WV-061-003721-006	Clifton E. Tennant And Loretta	Northeast Natural Energy LLC	DEED	1560/392
WV-061-003721-007	Olan W. Tennant	Northeast Natural Energy LLC	DEED	1560/392
WV-061-003721-008	Wilma G. Williams	Northeast Natural Energy LLC	DEED	1560/388
WV-061-003721-009	Denzil C. Wilson	Northeast Natural Energy LLC	DEED	1560/380
WV-061-003721-010	Martha Peters	Northeast Natural Energy LLC	DEED	1560/337
WV-061-003721-011	Kathy Brown	Northeast Natural Energy LLC	DEED	1561/559
WV-061-003721-012	Sara Beth Hensley And Ronald H	Northeast Natural Energy LLC	DEED	1561/555
WV-061-003721-013	Betty L. Vandetta	Northeast Natural Energy LLC	DEED	1557/247
WV-061-003721-014	Connie S. Wolfe	Northeast Natural Energy LLC	DEED	1557/243
WV-061-003721-015	Ronald D. Walls And Sue Walls	Northeast Natural Energy LLC	DEED	1557/239
WV-061-003721-016	Joyce E. Walls	Northeast Natural Energy LLC	DEED	1560/784
WV-061-003721-017	Melvin Carl Williams And Jean A. Williams	Northeast Natural Energy LLC	DEED	1559/439
WV-061-003721-018	Terri Ann Marratta	Northeast Natural Energy LLC	DEED	1561/323
WV-061-003721-019	Virginia Ellen Stiles	Northeast Natural Energy LLC	DEED	1561/209
WV-061-003721-020	Dortohy Jean Johns	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-021	Mary Margaret Headlee	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-022	David S. Bracken And Jane A. Bracken	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-023	Linda M. Tennant	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-024	Timonthy Alan Walls And Jennifer	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-025	Johnny Eugene Williams	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-026	John Vernon Williams And Catha	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-027	William Raymond Swick, Jr.	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-028	Krishnan R. Lannen	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-030	Jane Ann Jones	Northeast Natural Energy LLC	DEED	1578/132
WV-061-003721-031	Heather M. Lannen	Northeast Natural Energy LLC	DEED	1596/445
WV-061-003721-032	David Colwell Gallatin	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-033	Patricia A. Whitehead	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-034	Gary W. Tennant	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-035	Douglas W. Tennant And Barbara	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-036	Deborah L. Hill	Northeast Natural Energy LLC	DEED	1570/119

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WV-061-003721-037	Gregory L. Tennant	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-038	Barbara A. Bonnell, Aka Barbara A. Tennant	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-040	Susan R. Edwards And David Edwards	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-041	Linda L. Barker And William H. Baker Sr.	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-042	Steven Richard Freeland And Manami Fukuda Freeland	Northeast Natural Energy LLC	DEED	1578/132
WV-061-003721-043	Daryl Glenn Gallatin And Kristine M. Gallatin	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-044	James Earl Cooper	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-045	Robert D. Gump, Jr. And Kelly S. Gump	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-046	Chantal Kay Freeland	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-047	David R. Tennant, Jr.	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-048	Sybil Larita Tennant	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-049	Shelia Anderson-Freeland	Northeast Natural Energy LLC	DEED	1578/132
WV-061-003721-050	Donna Luketic And Donald Luketic	Northeast Natural Energy LLC	DEED	1569/567
WV-061-003721-052	Richard Joseph Wilson	Northeast Natural Energy LLC	DEED	1570/119
WV-061-003721-053	Carol M. Standifrod And Grant W. Standford	Northeast Natural Energy LLC	DEED	1577/12
WV-061-003721-054	Thomas A. Morris	Northeast Natural Energy LLC	0.125 OR GREATER	1595/763
WV-061-003721-029	Mary Catherine Walls	Northeast Natural Energy LLC	0.125 OR GREATER	1563/753

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Chesapeake Appalachia, LLC.



Northeast Natural Energy
Assignment
BK 120/769

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

—
Northeast Natural Energy
Assignment
BK 120/769

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XTO Energy Inc.



Northeast Natural Energy
Assignment
BK 132/311

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James S. Walker & Nancy Walker

Ira De Witt
Lease
DR 26/273
Ira De Witt, et al

Thomas M. Jackson, et al
Deed
DR 27/485
Ira De Witt

William S. Stevenson
Assignment
DR 28/522
Ira De Witt

South Penn Oil Company
Assignment
DR 29/53
Thomas M. Jackson, et al

South Penn Oil Company
Assignment
DR 31/79
Ira D. De Witt

Lucy D. De Witt
Last Will and Testament
WR 12/252
Lucy Smith De Witt

North Central Trust Company, et al
Last Will and Testatment
WR 12/186
North Central Trust Company, et al

Frances De Witt Marshall, et al
Assignment
DR 162/192
Frances De Witt Marshall, et al

South Penn Oil Company
Deed and Assignment
DR 265/145
South Penn Oil Company

South Penn Natural Gas Company
Agreement
DR 304/457
South Penn Natural Gas Company

South Penn Oil Company
Assignment
DR 580/311
South Penn Oil Company

Pennzoil United, Inc.
Assignment
DR 672/665
Pennzoil United, Inc.

Pennzoil Company
Name Change
Per Sec. of State Website 7/31/1963
Pennzoil Company

Pennzoil Products Company
Assignment
AR 23/280
Pennzoil Products Company

Eddy Brothers
Assignment
AR 34/563
Eddy Brothers

Northeast Natural Energy LLC
Assignment
AR 123/363

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4706101795

November 15, 2017

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

RE: Kassay 2H and 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 Statler Run Road (State Route 27), Country Road (State Route 25/3), and Dee Hollow Road (State Route 919) on the enclosed survey plat.

Sincerely,

A handwritten signature in blue ink that reads 'Jeannie Morgan Johnson'.

Jeannie Morgan Johnson, CPL
Vice President – Land Operations

Enclosure

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

Date of Notice Certification: 11/20/2017

API No. 47- _____ - _____

Operator's Well No. Kassay 4H

Well Pad Name: Kassay

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>569104.1</u>
County: <u>Monongalia</u>	UTM NAD 83 Northing: <u>4390157.0</u>
District: <u>Clay</u>	Public Road Access: <u>County Route 25/3 (Yank Hollow Road)</u>
Quadrangle: <u>Blacksville</u>	Generally used farm name: <u>Kassay</u>
Watershed: <u>Dunkard Creek</u>	

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>		<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/NOT REQUIRED</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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WW-6AC
(1/12)

Certification of Notice is hereby given:

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

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



Hollie M. Medley
 Subscribed and sworn before me this 21 day of November, 2017.
Christopher Allen Patterson Notary Public
 My Commission Expires June 18, 2018

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.

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WW-6A
(9-13)

API NO. 47- -
OPERATOR WELL NO. Kassay 4H
Well Pad Name: Kassay

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: 11/9/2017 Date Permit Application Filed: 11/20/2017

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: See Attachment
Address: _____

Name: _____
Address: _____

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

Name: See Attachment
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: See Attachment
Address: _____

COAL OPERATOR

Name: _____
Address: _____

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

Name: See Attachment
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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(8-13)

NOV 2 2017 API NO. 47-

OPERATOR WELL NO. Kassay 4H

WV Department of Environmental Protection
Well Pad Name: Kassay

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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(8-13)

API NO. 47- _____
OPERATOR WELL NO. Kassay 4H
Well Pad Name: Kassay

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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Environmental Protection

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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API NO. 47- _____
OPERATOR WELL NO. Kassay 4H
Well Pad Name: Kassay

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 deprivacyofficer@wv.gov.

Hollimmedley



Subscribed and sworn before me this 21 day of November, 2017.

Cristall Patt

Notary Public

My Commission Expires June 18, 2018

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Surface Owner(s):

Precision Oil and Gas, Inc.
P.O. Box 884
Bridgeport, WV 26330

Patty Kassay
1991 Daybrook Road
Fairview, WV 26570

Mr. Samuel W. and Stacy L. Matteo,
C/o Ileen Morton Matteo (life estate)
404 Country Road
Fairview, WV 26570

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

Patty Kassay
1991 Daybrook Road
Fairview, WV 26570

Mr. Samuel W. and Stacy L. Matteo
C/o Ileen Morton Matteo (life estate)
404 Country Road
Fairview, WV 26570

Coal Owner or Lessee:

CONSOL Mining Company LLC
Attn: Analyst
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317-6506

Murray American Energy
46226 National Road
St. Clairsville, OH 43950

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Surface Owner of Water Well and/or Water Purveyor:

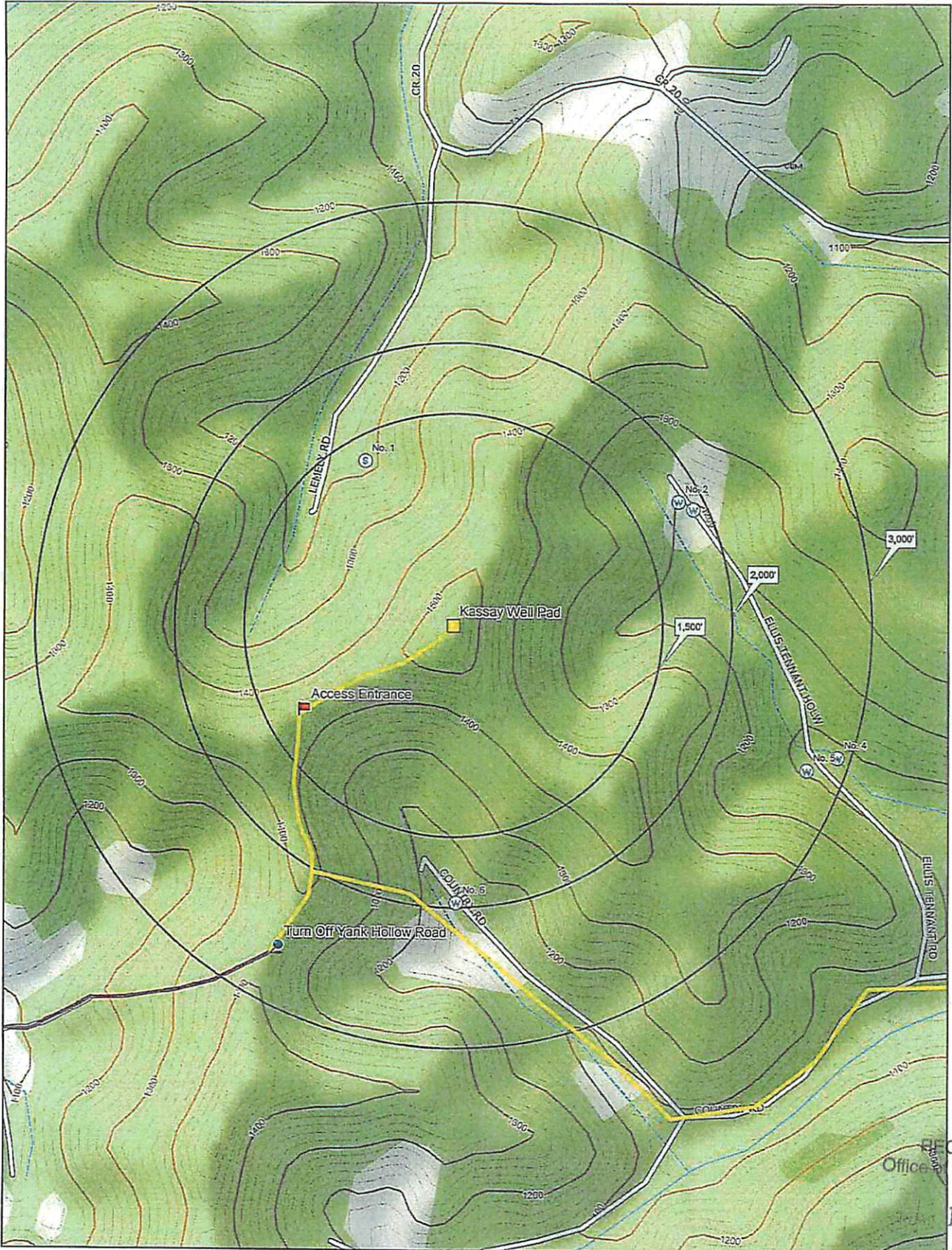
Patty Kassay
1991 Daybrook Road
Fairview, WV 26570

Bernice Tennant
299 Ellis Tennant Hollow
Fairview, WV 26570

Nancy Carpenter, et al
1343 Bunner Ridge Road
Fairmont, WV 26554

Angela Martin Mayle
477 Country Road
Fairview, WV 26570

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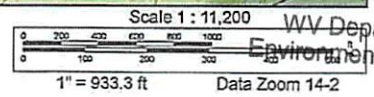
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Kassay Water Well Location

	Surface Owner/Water Purveyor	Supply Type	Tax Map and Parcel	Latitude/Longitude
1	Patty Kassay	Spring Fed Pond	Tax Map 17, Parcel 48	39.661540, -80.196811
2	Bernice Tennant	Well	Tax Map 17, Parcel 64	39.660746, -80.188790
3	Bernice Tennant	Well	Tax Map 17, Parcel 64	39.660598, -80.188415
4	Nancy Carpenter, et al	Well	Tax Map 17, Parcel 73	39.655795, -80.184712
5	Nancy Carpenter, et al	Well	Tax Map 17, Parcel 73	39.655544, -80.185504
6	Angela M. Mayle	Well	Tax Map 17, Parcel 59.1	39.652950, -80.194444

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WV Department of
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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: 12/18/2013 **Date of Planned Entry:** 12/26/2013

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: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>569112.37, 4390193.76 (UTM NAD)</u>
County: <u>Monongalia</u>	Public Road Access: <u>State Rt. 20 (Memorial Road)</u>
District: <u>Clay</u>	Watershed: <u>Dunkard</u>
Quadrangle: <u>Blacksville, WV</u>	Generally used farm name: <u>Kassay</u>

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

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC
 Telephone: 304.241.5752
 Email: hmedley@nne-llc.com

Address: 707 Virginia Street East, Suite 1200
Charleston, WV 25301
 Facsimile: 304.241.5972

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Oil and Gas Privacy Notice:

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

Surface Owner	Address
Nehemiah Kassay Patty Kassay	1991 Daybrook Road, Fairview, WV 26570
Precision Oil and Gas Inc.	P.O. Box 884, Bridgeport, WV 26330

Surface Owner - Access Road	Address
Nehemiah Kassay Patty Kassay	1991 Daybrook Road, Fairview, WV 26570

Mineral Owner	Address
Alice Wise, A Widow	8615 Tiber Hollow Court Louisville, KY 40219
Alma M. Joseph, A Widower	510 Brewer Street Akron, OH 44305
Almeada J. Barber, A Widow	22 Kurtz Street Apt 206 Athens, OH 45701
Ardella J. Clevenger	3 Karen Court Fairmont, WV 26554
Betty C. Lyons	316 North Main Street Bishop, CA 93514
Betty Lee Sine, Widow	Rt 1 Box 450 Riversville WV 26588
Billy Ray Tennant	658 Mooresville Road Core, WV 26541
C.W. Sine, A Single Man	4014 Trent Avenue Cleveland, OH 44109
Carol I Wise, Married	159 Pine Drive Poca, WV 26559
Celeste M Frickleton	11724 Dry River Ct. Reston, VA 20191
Cheryl Lisabeth Gallagher	2094 Croosroads Road Fairview, WV 26570
Connie Varner, A Single Woman	16005 Fleming Road Amesville, OH 45711
Darlene Eddy, A/K/A Darlene S.	910 Harlem Fairmont, WV 26554
Deborah Sudduth And Samuel	8480 Rural Dale Road Blue Rock, OH 43760
Dennis Keith Williams	Rt 1 Box 174 Fairmont, WV 26554
Diana Beth Thomas, A/K/A Diane	404 Brown Run Rd. Burton, WV 26590
Diane Beth Thomas And Curtis	404 Brown Run Rd. Burton, WV 26590
Donald R Sine, Married	5097 W. 148th Street Brook Park, OH 44142
Donald R. Sine And Irma Sine,	5097 W. 148th Street Brook Park, OH 44142
Donald Rex Williams	153 South Heritage Drive Jenkins, KY 41537
Donna Lynn Chase, Married	2833 West Roy E. Furman Highway Rogersville, PA 15359
Doris L Sine, Widow	4430 Fairmont Road Morgantown , WV 26501
Ellen J Woodruff, Widow	7529 Praire Road, NE, Albuquerque, NM 87109-1801
Emza M. Parsons, A Widow	607 Bryan Avenue Barrackville, WV 26559
Everett A Sine, Jr, Married	101 Mount Harmon Road Fairview, WV 26570
Freddy W Williams, Married	222 Happy Lane Fairview, WV 26570
Gail Church, Married	127 Dewey Ave. Spraggs, PA 15362
Ginger K. Estle	46 Breezy Drive Morgantown, WV 26501
Helen Cummings, A Widow	P.O. Box 277 Grant Town, WV 26574
James Everett Williams li	21200 State Rt. 676 Marietta, OH 45750
James Varner, A Single Man	16170 Fleming Road Amesville, OH 45711
Janet Varner, A Widow	16005 Fleming Road Amesville, OH 45711
Jarrold Williams	P.O. Box 311 Pentress, WV 26544
Jimmy Randall Tennant	15 Clint Moore Road Fairview, WV 26570
Jody L. Varner, A Single Man	P.O. Box 102 181 Water Street Duncan Falls, OH 43734
Joyce Ann Berga, A/K/A Joyce	619 Ruby Street Belmont, WV 26134
Karen J. Taylor, F/K/A Karen	50711 State Rt 7 New Matamoras, OH 45767
Karen M. Cain, A/K/A Karen	645 Hillwood Drive Morgantown, WV 26508
Kimberly Sue Brummage	2596 Daybrook Road Fairview, WV 26570

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Kristie Virgie Vedis	631 Daybrook Road Fairview, WV 26579
Larry K Sine, Married	1101 Buffalo Road Mannington, WV 26582
Larry Tennant, A Married Man	1110 Plum Road Mannington, WV 26582
Leonard D Moore, Married	10754 Mason Dixon HWY Burton, WV 26562
Leonard L Tennant, Married	206 Putney Road Cumberland, V A 23040
Lisa And William Mccammon	6549 South Blackburn Road Athens, OH 45701
Loretta Fluharty	Rt 3 Box 155A Mannington, WV
Louise Varner, A Widow	99 Bean Road Lot 4 The Plains, OH 45780
Lyall A Sine, Aka Lyal A Sine	355 Statler Run Road Fairview, WV 26570
Lydia L. Troutman	46 Breezy Drive Morgantown , WV 26501
Mabel L McAfee, Married	5208 Secretariat Run Spring Hill, FL 34609
Mabel L. McAfee, A Widow	5208 Secretariat Run Spring Hill, FL 34609
Mark Varner, A Single Man	480 High Street Nelsonville, OH 45764
Mary J. Pemberton, A/K/A Mary	149 Honeysuckle Lane Huntington, WV 25701
Mary Liming, A Married Woman	4341 Mason Dixon Highway Core, WV
Mary R. Mccullough, A Widow	1646 Morris Stret Washington, PA 15301
Michelle Dawn Johnson And Eric	3306 Mason Dixon HWY Core, WV 26541
Myrtle L. Sine	8044 Smokey Drain Road Core, WV 26529
Nehemiah Kassay and Patty A. Kassay	1991 Daybrook Road, Fairview, WV 26570
Nehemiah Kassay And Patty A. Kassay	1991 Daybrook Road, Fairview, WV 26570
Nola M Williams, Widow	61 Vermillion Drive Pentress, WV 26544
Pamela Brown And Carl Brown	1327 Irish Road Philo, OH 43771
Pamela J. Yurisko	RR 3 Box 197B Shinnston, WV26431
Pamela Rena Hall, Married	290 Oak Street Waynesburg, PA 15370
Patricia Ann Hostutler, Single	1460 Jakes Run Road Fairview, WV 26570
Patricia Van Tassell, Married	7024 Pam Drive Millington, TN 38053
Paul Varner, A Single Man	472 Scott Street Nelsonville, OH 45764
Peggy A Morris, Married	37534 Landis Ave. Zephyrhills, FL 33541
Raymer Tennant	154 Behler Road Fairview, WV 26570
Rebecca Gail Foley	1175 Range Road Wadestown, WV 26590
Rebecca Lynne Strahler	307 Marion Street Marietta, OH 45750
Richard Tennant	Rt 2 Box 335 C Fayetteville, ,WV 25840
Rickey Jane Buchanan, A	4603 Red Tail Hawk Lane Waxhaw, NC 28173
Robert Ora Wheeler And Paula	5210 Cass Street Oak Lawn, IL 60453
Robert Varner, A Single Man	16005 Fleming Road Amesville, OH 45711
Rodney Wayne Tennant	1733 Jakes Run Road Fairview, WV 26570
Roxana Cahill	609 South Pine Grove Road Virginia Beach, VA 23452
Ruby E. Van Fossen	1390 West jackson Hill Court Laecanto, FL 34461
Sandra Faye Wilson And Wayne	7725 Mason Dixon Highway Wana, WV 26590
Steven Varner Sr. And Tina	21 Robbins Road Nelsonville, OH 45764
Sue Ann Strickland, Married	6412 Colleen Ave., NE Albuquerque, NM 87109
Susan L. Michael, A/K/A Susan	4256 Crossroads Road Fairview, WV 26570
Tamela R. Simeral And Jerry	2207 Armco Avenue Zanesville, OH 43701
Tina L. Fluharty And Richard	41 Finch Lane Mannington, WV 26582
Tommy J. Eddy, Sr., A/K/A	3027 Daybrook Road Fairview, WV 26570
Troy L. Tennant And Anna L.	Rt. 1 Box 169 B Fairmont, WV 26554
Twyla Hinds Snopps	Rt 2 Box 367 Lost Creek, WV 26385

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4706101795

Varner L Moore, Married	7368 Mason Dixon HWY Wana, WV 26590
W Richard Williams, Married	10809 US Highway 27 South Sebring, FL 33876
Walden J. Cook, Jr.	340 1171st Street Middleton, IL 62666

✓
25
✓

Coal Owner	Address
Consolidated Coal Company	1000 Consol Energy Drive, Canonsburg, PA

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: 11/09/2017 **Date Permit Application Filed:** 11/20/2017

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: Please See Attachment Name: Please See Attachment
Address: _____ Address: _____

Notice is hereby given:

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

State: West Virginia UTM NAD 83 Easting: 569104.1
County: Monongalia Northing: 4390157.0
District: Clay Public Road Access: County Route 25/3 (Yank Hollow Road)
Quadrangle: Blacksville Generally used farm name: Kassay
Watershed: Dunkard Creek

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC
Address: 707 Virginia Street East, Suite 1200
Charleston, WV 25301
Telephone: 304-414-7060
Email: hmedley@nne-llc.com
Facsimile: 304-414-7061

Authorized Representative: Hollie Medley, Regulatory Manager
Address: 48 Donley Street, Suite 601
Morgantown, WV 26501
Telephone: 304-212-0422
Email: hmedley@nne-llc.com
Facsimile: 304-241-5972

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Oil and Gas Privacy Notice:

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

Surface Owner(s):

Precision Oil and Gas, Inc.
P.O. Box 884
Bridgeport, WV 26330

Patty Kassay
1991 Daybrook Road
Fairview, WV 26570

Mr. Samuel W. and Stacy L. Matteo,
C/o Ileen Morton Matteo (life estate)
404 Country Road
Fairview, WV 26570



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Surface Owner(s):

Precision Oil and Gas, Inc.
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Patty Kassay
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404 Country Road
Fairview, WV 26570

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Environmental Protection

WW-6AW
(1-12)

API NO. 47- _____ - _____
OPERATOR WELL NO. Kassay 2H,4H,6H,10H
Well Pad Name: Kassay

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

State: West Virginia UTM NAD 83 Easting: (2H) 569098.6 ; (4H) 569104.1 ; (6H) 569109.5 ; (10H) 569115.0
County: Monongalia Northing: (2H) 4390146.1 ; (4H) 4390157.0 ; (6H) 4390167.9 ; (10H) 4390178.8
District: Clay Public Road Access: County Route 25/3 (Yank Hollow Road)
Quadrangle: Blacksville Generally used farm name: Kassay
Watershed: Dunkard Creek

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: [Signature]
Print Name: Paul E. Smith
Date: 11/19/17

FOR EXECUTION BY A CORPORATION, ETC.

Company: Precision Oil and Gas, Inc.
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.

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WV Department of
Environmental Protection

WW-6AW
(1-12)

API NO. 47- _____
OPERATOR WELL NO. Kassay 2H,4H,6H,10H
Well Pad Name: Kassay

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

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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.

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VOLUNTARY STATEMENT OF NO OBJECTION

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

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County: Monongalia Northing: (2H) 4390146.1 ; (4H) 4390157.0 ; (6H) 4390167.9 ; (10H) 4390178.8
District: Clay Public Road Access: County Route 25/3 (Yank Hollow Road)
Quadrangle: Blacksville Generally used farm name: Kassay
Watershed: Dunkard Creek

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: Bernie Admerit
Print Name: Bernie Admerit
Date: 11-12-2017

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 if as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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

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VOLUNTARY STATEMENT OF NO OBJECTION

I, Casey V. Saunders, 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 ¹⁶, 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>(2H) 569098.6 ; (4H) 569104.1 ; (6H) 569109.5 ; (10H) 569115.0</u>
County:	<u>Monongalia</u>	UTM NAD 83 Northing:	<u>(2H) 4390146.1 ; (4H) 4390157.0 ; (6H) 4390167.9 ; (10H) 4390178.8</u>
District:	<u>Clay</u>	Public Road Access:	<u>County Route 25/3 (Yank Hollow Road)</u>
Quadrangle:	<u>Blacksville</u>	Generally used farm name:	<u>Kassay</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.

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>CONSOL Mining Company LLC</u></p> <p>By: <u>Casey V. Saunders</u></p> <p>Its: <u>Manager Coal/Gas Coordination</u></p> <p>Signature: <u><i>Casey V. Saunders</i></u></p> <p>Date: <u>03/08/2018</u></p>
--	---

Oil and Gas Privacy Notice:

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

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

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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, Alex O'Neill, 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 16, 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>(2H) 569098.6 ; (4H) 569104.1 ; (6H) 569109.5 ; (10H) 569115.0</u>
County:	<u>Monongalia</u>	UTM NAD 83 Northing:	<u>(2H) 4390148.1 ; (4H) 4390157.0 ; (6H) 4390167.9 ; (10H) 4390178.8</u>
District:	<u>Clay</u>	Public Road Access:	<u>County Route 25/3 (Yank Hollow Road)</u>
Quadrangle:	<u>Blacksville</u>	Generally used farm name:	<u>Kassay</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.

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>Murray American Energy, Inc.</u></p> <p>By: <u>Alex O'Neill</u></p> <p>Its: <u>Coal, Oil and Gas Relations Manager</u></p> <p>Signature: </p> <p>Date: <u>03/12/2018</u></p>
--	--

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.~~ ~~Office of Oil and Gas~~

MAR 16 2018



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Jim Justice
 Governor

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

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

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

Dear Mr. Martin,

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

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

Planned Additives to be used in Fracturing Stimulations

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

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WV Department of
Environmental Protection

WEST VIRGINIA 811

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

**KASSAY WELL PAD
AS-BUILT
CLAY DISTRICT, MONONGALIA COUNTY, WV
JANUARY 2017
(REVISED DECEMBER 2017)**

PLANS PREPARED BY:

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

OWNER



northeast
NATURAL ENERGY

707 VIRGINIA STREET
SUITE 1200 CHARLESTON, WV 25301

SHEET INDEX
1. TITLE SHEET
2-3. EVACUATION ROUTE/ PREVAILING WINDS
4. AS-BUILT OVERVIEW
5-11. AS-BUILT
12-13. ACCESS ROAD PROFILES
13a. MOUNTABLE BERM PROFILE AND CELLAR DETAIL
14. RECLAMATION PLAN OVERVIEW
15-21. RECLAMATION PLAN

TOTAL DISTURBED AREA: 15.85 ACRES
ROAD DISTURBED AREA: 2.81 ACRES
WELL PAD DISTURBED AREA: 13.04 ACRES
ACCESS ROAD LENGTH: 2,843'
ACCESS ROAD AVG. WIDTH: 24'
WELL PAD ELEVATION: 1534'

API NUMBERS
KASSAY 1H - 061-01731
KASSAY 3H - 061-01704
KASSAY 5H - 061-01694
KASSAY 8H - 061-01740
KASSAY 9H - 061-01695
KASSAY 13H - 061-01689

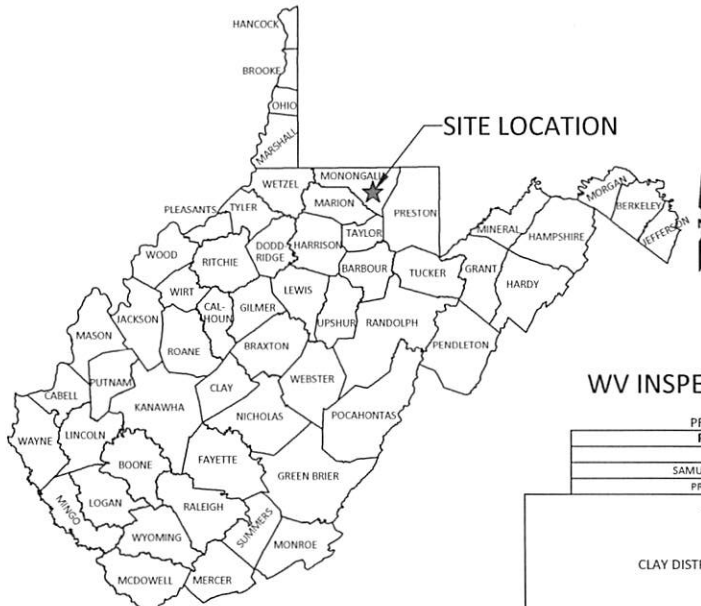
**WVDEP OOG
ACCEPTED AS-BUILT**
WJL 1/5/2018



Andrew Benchek 12-14-17

ANDREW BENCHEK
P.E.

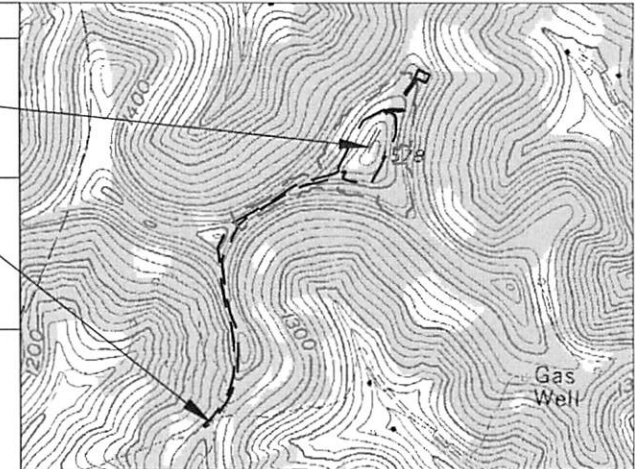
DATE



COORDINATES

CENTER OF WELLS
(NAD 83)
LAT: 39° 39' 30.58"
LONG: 80° 11' 40.03"
(NAD 27)
LAT: 39° 39' 30.29"
LONG: 80° 11' 40.77"

SITE ENTRANCE
(NAD 83)
LAT: 39° 39' 07.12"
LONG: 80° 11' 57.32"
(NAD 27)
LAT: 39° 39' 06.83"
LONG: 80° 11' 58.05"

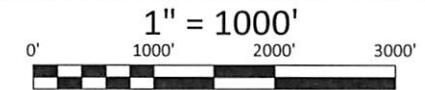


WV INSPECTOR: _____

PROPERTY OWNER PROJECT BOUNDARY ACREAGE		
PROPERTY OWNER	PARCEL #	ACRES
NEHEMIAH KASSAY	31-04-0017-0048-0000	7.83
SAMUEL W. & STACEY L. MATTEO	31-04-0017-0059-0000	3.24
PRECISION OIL & GAS INC.	31-04-0017-0062-0000	4.78

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

SHEET
1
OF
21



4706101795

**WVDEP OOG
ACCEPTED AS-BUILT**

1/5/2018

- LEGEND**
- x-x-x-x- = SUPER SILT FENCE (SSF)
 - - - - - = PROJECT BOUNDARY (15.85 ACRES)
 - - - - - = PROPERTY LINE
 - - - - - = AS-BUILT 10' CONTOURS
 - - - - - = AS-BUILT 2' CONTOURS
 - - - - - = EXISTING 10' CONTOURS
 - - - - - = EXISTING 2' CONTOURS
 - - - - - = EXISTING ROAD
 - - - - - = EXISTING WATERLINE
 - - - - - = EXISTING GAS LINE
 - ⊕ = STAKED WELL
 - ⊕ = PROPOSED WELL

BOARD, BENCHEK and ASSOC., INC.
Engineering, Surveying, Construction,
and Mining Services
Southpointe, PA 15317 Phone: 724-746-1085

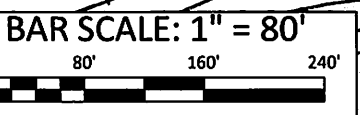
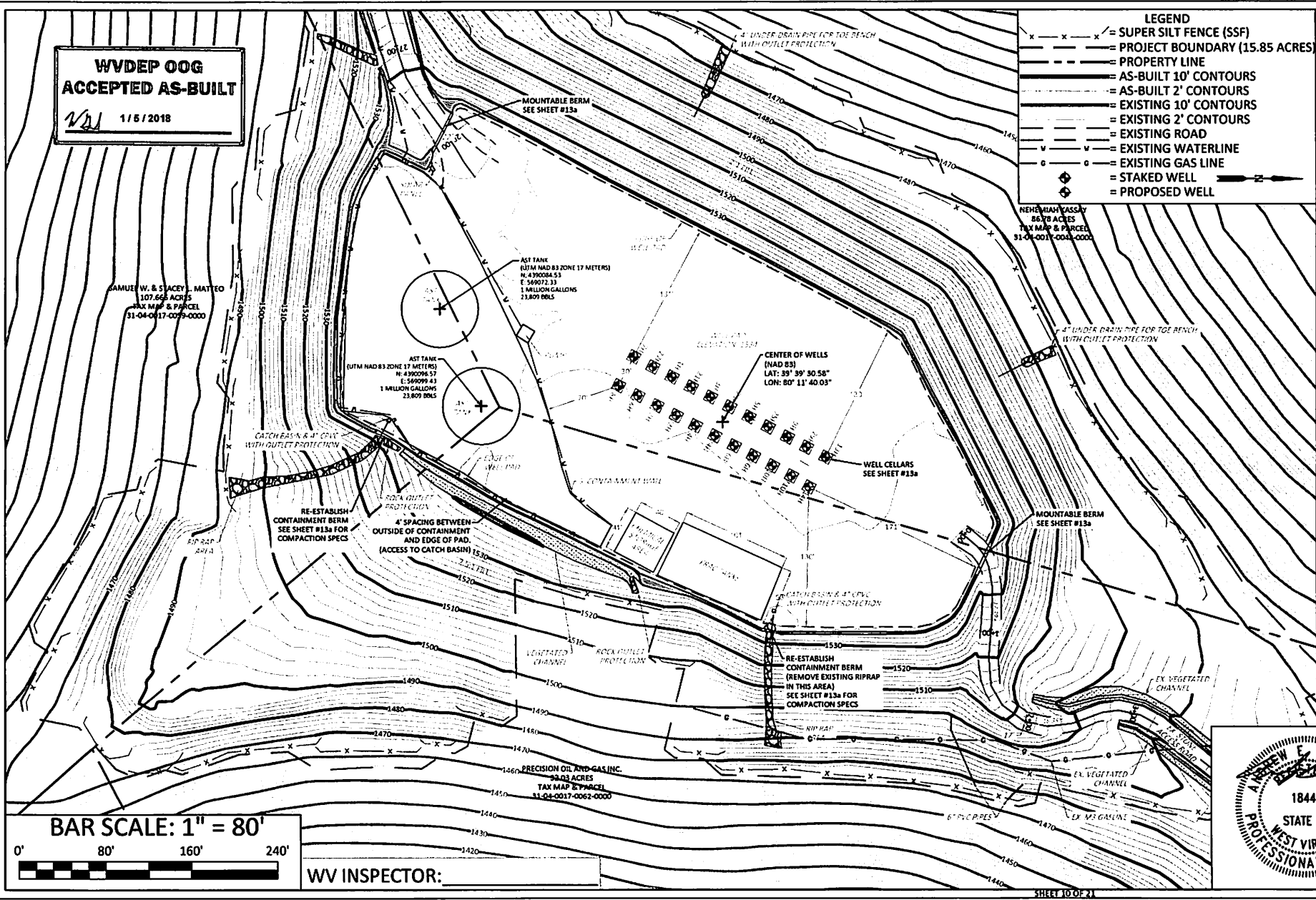
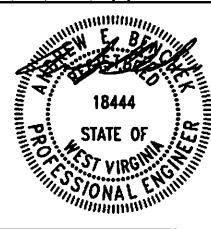
4706101795

AS-BUILT

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

DATE:
JANUARY 2017
(REVISED DECEMBER 2017)

KASSAY
WELL PAD
CLAY DISTRICT,
MONONGALIA
COUNTY, WV



WV INSPECTOR:

EROSION & SEDIMENT CONTROL PLAN

KASSAY WELL PAD

MONONGALIA COUNTY, WEST VIRGINIA

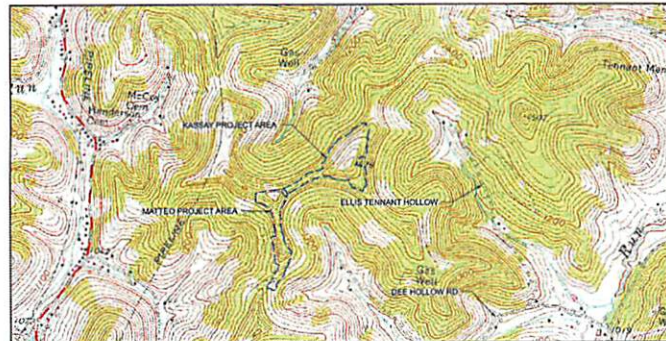
FOR

NORTHEAST NATURAL ENERGY LLC

APPROVED
WVDEP OOG
SAY 12/29/2014

API#6101689
API#6101694
API#6101695

Electronic Version of These Plans May Be Viewed at: Q:\OIL GAS\SAY FILES\REVIEWS



PROJECT NO. 1338001
DECEMBER 2014

DIEFFENBAUCH & HRITZ, LLC



INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES
3	EXISTING SITE PLAN
4	OVERALL SITE PLAN
5-8	PROPOSED SITE PLAN
9-10	ACCESS ROAD PROFILE
11	SOILS PLAN
12-15	SITE RESTORATION PLAN
16	REVEGETATION PLAN
17	TYPICAL SECTIONS
18-20	E&S DETAILS

KASSAY LIMITS OF DISTURBANCE BREAKDOWN:
OVERALL LIMITS OF DISTURBANCE: 15.85 AC
PROPOSED DESIGN ELEMENTS:
ACCESS ROAD: 2.82 AC
WELL PAD: 13.99 AC
LAND OWNERS:
KASSAY 7.83 AC
MATTED 3.24 AC
PRECISION OIL & GAS INC. 4.76 AC

WV Department of Environmental Protection

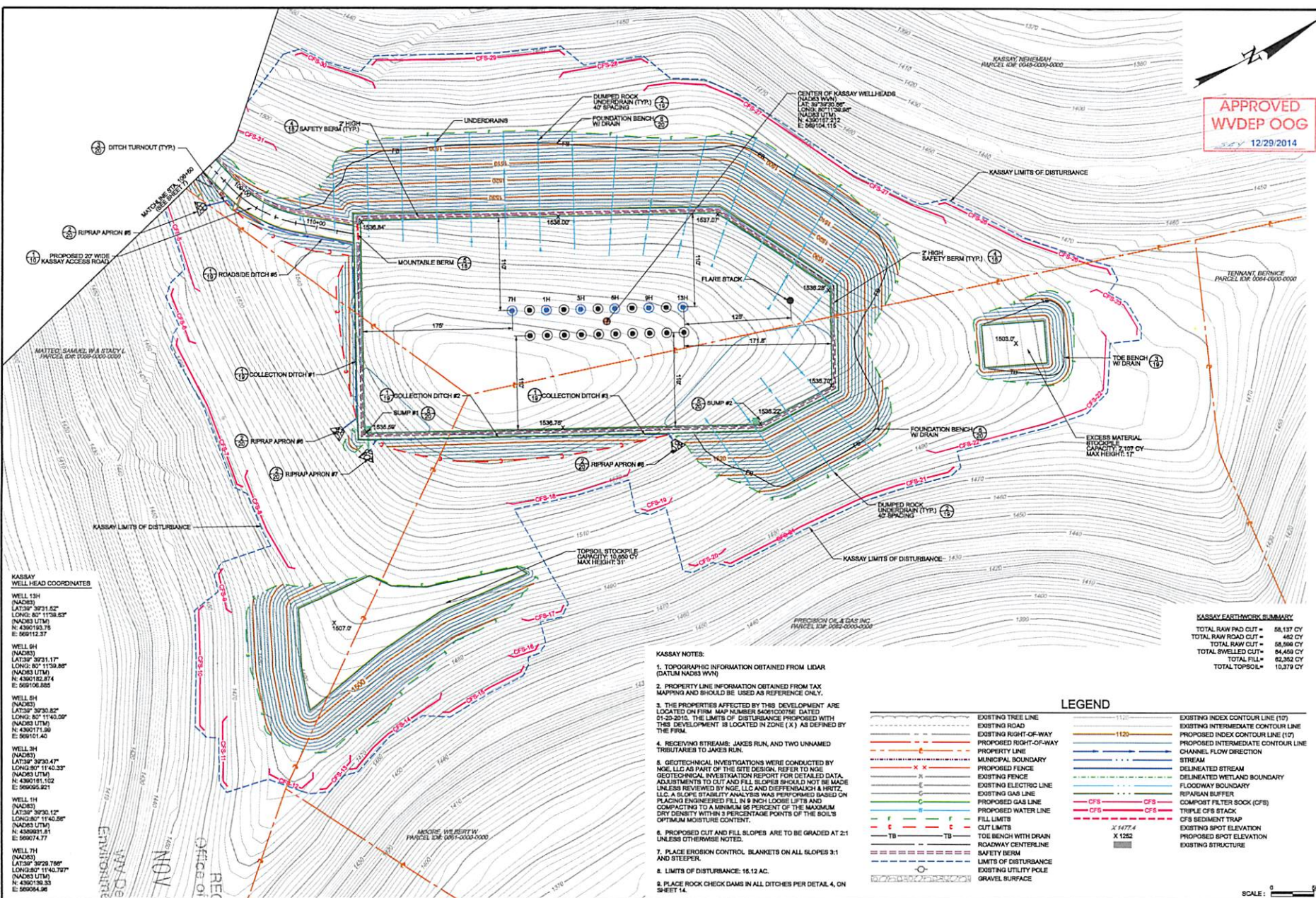
NOV 22 2017

RECEIVED
Office of Oil and Gas

NO. _____	DATE _____	REVISION _____
DESIGNED BY _____	CHECKED BY _____	DATE _____
DRAWN BY _____	APPROVED BY _____	DATE _____
PROJECT NO. 1338001	PROJECT NAME _____	PROJECT LOCATION _____
CLIENT: DIEFFENBAUCH & HRITZ, MONROEVILLE, WV	PROJECT: KASSAY WELL SITE	TITLE SHEET: 1

4706101795

APPROVED WVDEP OOG
12/29/2014



KASSAY WELL HEAD COORDINATES

WELL 13H
(NAD83)
LAT: 39° 30' 21.52"
LONG: 80° 11' 58.52"
N: 4360193.75
E: 569112.37

WELL 6H
(NAD83)
LAT: 39° 31' 1.17"
LONG: 80° 11' 39.86"
N: 4360171.59
E: 569106.885

WELL 8H
(NAD83)
LAT: 39° 30' 8.27"
LONG: 80° 11' 40.09"
N: 4360171.59
E: 569105.921

WELL 3H
(NAD83)
LAT: 39° 30' 4.77"
LONG: 80° 11' 40.33"
N: 4360171.59
E: 569105.921

WELL 1H
(NAD83)
LAT: 39° 30' 12.12"
LONG: 80° 11' 40.26"
N: 4360181.51
E: 569071.77

WELL 7H
(NAD83)
LAT: 39° 30' 29.769"
LONG: 80° 11' 40.797"
N: 4360176.53
E: 569054.98

KASSAY NOTES:

1. TOPOGRAPHIC INFORMATION OBTAINED FROM LIDAR (DATUM NAD83 WYN)
2. PROPERTY LINE INFORMATION OBTAINED FROM TAX MAPPING AND SHOULD BE USED AS REFERENCE ONLY.
3. THE PROPERTIES AFFECTED BY THIS DEVELOPMENT ARE LOCATED ON FIRM MAP NUMBER 840100786, DATED 01-20-2010. THE LIMITS OF DISTURBANCE PROPOSED WITH THIS DEVELOPMENT IS LOCATED IN ZONE (X) AS DEFINED BY THE FIRM.
4. RECEIVING STREAMS: JAKES RUN, AND TWO UNNAMED TRIBUTARIES TO JAKES RUN.
5. GEOTECHNICAL INVESTIGATIONS WERE CONDUCTED BY NGE, LLC AS PART OF THE SITE DESIGN. REFER TO NGE GEOTECHNICAL INVESTIGATION REPORT FOR DETAILED DATA. ADJUSTMENTS TO CUT AND FILL SLOPES SHOULD NOT BE MADE UNLESS REVIEWED BY NGE, LLC AND DIEFFENBAUGH & HIRTZ. A SLOPE STABILITY ANALYSIS WAS PERFORMED BASED ON PLACING ENGINEERED FILL IN 8 INCH LAGGERS LIFTS AND COMPACTING TO A MINIMUM 95 PERCENT OF THE MAXIMUM DRY DENSITY WITHIN 3 PERCENTAGE POINTS OF THE SOIL'S OPTIMUM MOISTURE CONTENT.
6. PROPOSED CUT AND FILL SLOPES ARE TO BE GRADED AT 2:1 UNLESS OTHERWISE NOTED.
7. PLACE EROSION CONTROL BLANKETS ON ALL SLOPES 3:1 AND STEEPER.
8. LIMITS OF DISTURBANCE: 15.12 AC.
9. PLACE ROCK CHECK DAMS IN ALL DITCHES PER DETAIL 4, ON SHEET 14.

LEGEND

---	EXISTING TREE LINE	---	EXISTING INDEX CONTOUR LINE (10')
---	EXISTING ROAD	---	EXISTING INTERMEDIATE CONTOUR LINE
---	EXISTING RIGHT-OF-WAY	---	PROPOSED INDEX CONTOUR LINE (10')
---	PROPOSED RIGHT-OF-WAY	---	PROPOSED INTERMEDIATE CONTOUR LINE
---	PROPERTY LINE	---	CHANNEL FLOW DIRECTION
---	MUNICIPAL BOUNDARY	---	DELINEATED STREAM
---	PROPOSED FENCE	---	DELINEATED WETLAND BOUNDARY
---	EXISTING FENCE	---	FLOODWAY BOUNDARY
---	EXISTING ELECTRIC LINE	---	RIPARIAN BUFFER
---	EXISTING GAS LINE	---	COMPOST FILTER SOCK (CFS)
---	PROPOSED GAS LINE	---	TRIPLE CFS STACK
---	PROPOSED WATER LINE	---	CFS SEDIMENT TRAP
---	FILL LIMITS	---	EXISTING SPOT ELEVATION
---	CUT LIMITS	---	PROPOSED SPOT ELEVATION
---	TOE BENCH WITH DRAIN	---	EXISTING STRUCTURE
---	ROADWAY CENTERLINE	---	
---	SAFETY BERM	---	
---	LIMITS OF DISTURBANCE	---	
---	EXISTING UTILITY POLE	---	
---	GRAVEL SURFACE	---	

KASSAY EARTHWORK SUMMARY

TOTAL RAW PAD CUT	= 58,137 CY
TOTAL RAW ROAD CUT	= 482 CY
TOTAL RAW CUT	= 58,619 CY
TOTAL SWELLED CUT	= 64,458 CY
TOTAL FILL	= 82,382 CY
TOTAL TOPSOIL	= 15,379 CY

SCALE: 0 50 FT

NOV 22 2017
RECEIVED
Office of Oil and Gas
WV Department of Environmental Protection

PROJECT: KASSAY WELL SITE
CLIENT: NORTHEAST NATURAL ENERGY LLC
LOCATION: DIEFFENBAUGH & HIRTZ, MORGANTOWN, WV
DATE: 12/29/2014
DRAWING NO: 08