



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, September 19, 2022
WELL WORK PERMIT
Horizontal 6A / New Drill

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

Re: Permit approval for BUNNER 3H
47-061-01907-00-00

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 blue ink signature of James A. Martin, Chief, is written over the printed name and title.

Operator's Well Number: BUNNER 3H
Farm Name: PATRICIA A BUNNER
U.S. WELL NUMBER: 47-061-01907-00-00
Horizontal 6A New Drill
Date Issued: 9/19/2022

Promoting a healthy environment.

09/23/2022

PERMIT CONDITIONS

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

CONDITIONS

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

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

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

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

3) Farm Name/Surface Owner: Patricia A. Bunner Public Road Access: Upper Days Run Rd

4) Elevation, current ground: 1,277' (as-built) Elevation, proposed post-construction: 1,277'

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

(b) If Gas Shallow Deep _____
Horizontal _____

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 8,024' , 104', 4500 psi

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8) Proposed Total Vertical Depth: 8,024'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 26,023'

11) Proposed Horizontal Leg Length: 17,492'

12) Approximate Fresh Water Strata Depths: 1,150'

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

14) Approximate Saltwater Depths: 1,359'

15) Approximate Coal Seam Depths: 865'

16) Approximate Depth to Possible Void (coal mine, karst, other): none

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: _____

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	94.7	100'	100'	113/GTS
Fresh Water	13-3/8	New	J-55	54.5	1230'	1200'	961/CTS
Coal							
Intermediate	9-5/8	New	J-55	36	2530'	2500'	864/CTS
Production	5-1/2	New	P-110	20	26,023'	25,993'	6,281
Tubing	2-7/8	New	P-110	6.5	NA	8000	NA
Liners							

Kenneth Greynolds Digitally signed by Kenneth Greynolds
 DN: cn = Kenneth Greynolds, email = kgreynolds@wv.gov, c = AD, o = WVDEP, ou = Oil and Gas
 Date: 2022.08.30 15:00:25 -0400

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	28	0.375	NA	NA	Type 1	1.18
Fresh Water	13-3/8	17-1/2	0.380	2730	500	*Class A	1.19
Coal							
Intermediate	9-5/8	12-3/8	0.395	3520	2800	*Class A	1.19
Production	5-1/2	8-3/4 & 8-1/2	0.361	14,360	11,500 (frac)	50:50 POZ	1.07
Tubing	2-7/8	NA	0.217	13,870	NA	NA	NA
Liners							

*or Class L cement with approval of variance request

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PACKERS

Kind:	NA			
Sizes:				
Depths Set:				

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

Utilize auger rig to set cellar & conductor. The conductor will be grouted with cement to surface. Mobilize top hole drilling rig. Drill surface section on air. Run surface (freshwater & coal string) casing to desired depth. The surface section will not penetrate sea level. Surface casing will be cemented to surface. Drill intermediate section on air. Run intermediate casing to desired depth. Intermediate casing will be cemented to surface. Drill on air the production section to the start of the curve (KOP). The well will be loaded with synthetic oil base drilling mud (SOBM). Demobilize top hole rig. Mobilize horizontal drilling rig. Finish drilling the production section utilizing MWD surveys and geosteering practices to maintain the wellbore in the Marcellus shale and prevent anti-collision. Production casing will be ran to TD and cement top will be inside the intermediate casing.

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

A cement bond log will determine the top of production casing cement. The production casing will be pressure tested. The hydraulic fracturing equipment will then open the toe sleeves and begin pumping the first stage. The plug-and-perf method will be used for the remaining stages. The max anticipated pressure during frac is 11,500psi and a max rate of 90bpm. After frac, the drillout rig will drill all plugs out of the well. Land production tubing at desired depth. Then flowback well until ready to turn in line to production facilities.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 16.36

22) Area to be disturbed for well pad only, less access road (acres): 6.79

23) Describe centralizer placement for each casing string:

Surface: shoe track & every 3rd joint to surface
Intermediate: shoe track & every 3rd joint to surface
Production: Rigid bow centralizers at shoe track & every other joint in the lateral to KOP. Bow springs from KOP to surface every third joint.

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

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

25) Proposed borehole conditioning procedures:

Surface & intermediate on air will utilize high volumetric flow rates of air to ensure the wellbore is clean prior to TOH.
Production section will utilize synthetic oil based drilling mud to properly clean the wellbore. At TD, pump rate and rotation will be maximized and tripping will not begin until shakers flow clean.
Production casing will be circulated prior to cementing to ensure a prepared wellbore for cement.

*Note: Attach additional sheets as needed.

NORTHEAST NATURAL ENERGY, LLC

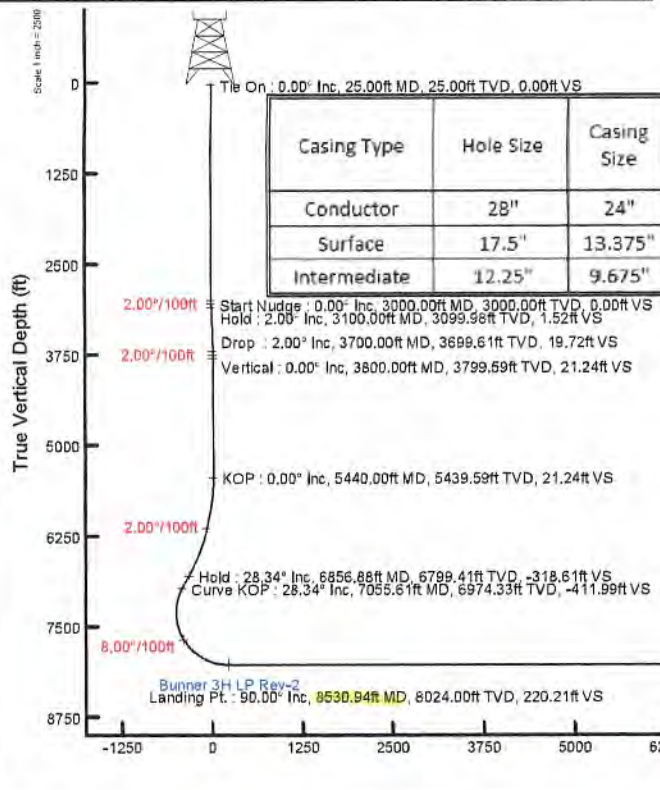
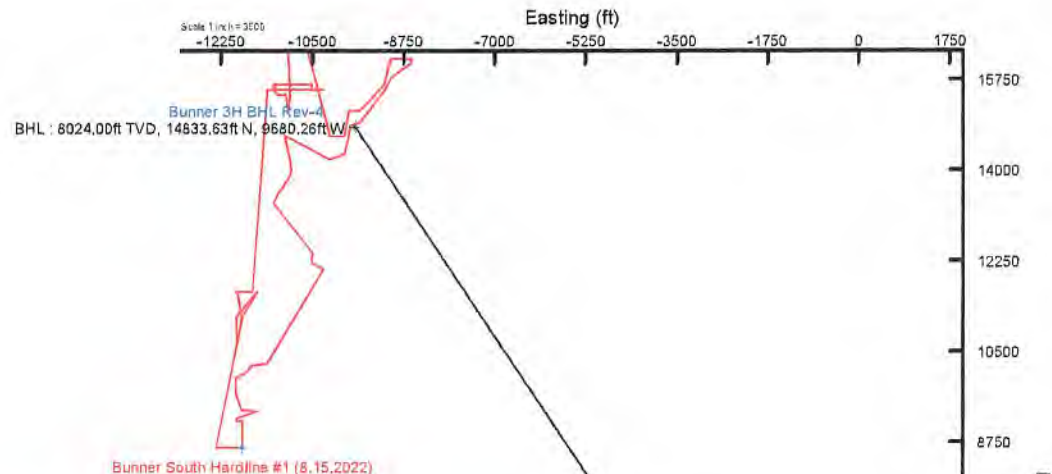
Location: Monongalia County, WV
 Field: Monongalia
 Facility: Bunner Pad

Slot: Slot 3H
 Well: Bunner 3H
 Wellbore: Bunner 3H PWB



Plan view on wellpath to Bunner 3H PWB 1:250	Grid System: NAD83 (Lat/Long) / UTM Zone 18Q (Easting/Northing)
True vertical depth is measured to Perforation 3H (3H)	North Reference: Grid North
Reference well BHL is measured to Perforation 3H (3H)	Scale: True Wellbore
Perforation 3H (3H) is Mean True Level 1700 feet	Coordinates are in feet unless otherwise stated
Mean Sea Level is 0.00 feet (0.00 m) above datum	Depth is in feet
Offset well BHL 1000 feet is shown in red, with centerline well BHL 1000	Created by: mmonaghan/2022-09-21, Drawn by: vls/2022-09-21, J. SOUTHWELL/2022

Formation	Top (GL)	Base (GL)
Tully	7746'	7795'
Hamilton	7795'	7903'
Upper Marcellus	7903'	7983'
Cherry Valley	7983'	7987'
Lower Marcellus	7987'	8012'
Target	7999'	
Onondaga	8012'	



Casing Type	Hole Size	Casing Size	Grade	Weight	Casing Depth (GL)	Drill Depth (GL)
Conductor	28"	24"	N/A	N/A	40'	40'
Surface	17.5"	13.375"	J-55	54.5	1200'	1230'
Intermediate	12.25"	9.675"	I-55	36	2500'	2530'

HOGW2021v11.0 (1800.0 to 2852.0) Dip: 88.48° Field: F1001 (1) nT
 Magnetic North is 0.10 degrees east of True North (at 10/6/2021)
 Grid North is 0.46 degrees West of True North
 To correct azimuth from True to Grid add 0.46 degrees
 To correct azimuth from Magnetic to Grid subtract 88.4 degrees

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Bunner 3H LP Rev-2
 Landing Pt: 8024.00ft TVD, 268.74ft N, 6.41ft E
 Tie On: 25.00ft TVD, 0.00ft N, 0.00ft E
 Start Nudge: 3000.00ft TVD, 0.00ft N, 0.00ft E
 Hold: 3099.98ft TVD, 1.74ft N, 0.12ft W
 Drop: 3699.61ft TVD, 22.63ft N, 1.58ft W
 Vertical: 3799.59ft TVD, 24.37ft N, 1.70ft W
 KOP: 5439.59ft TVD, 24.37ft N, 1.70ft W
 Hold: 6799.41ft TVD, 231.69ft S, 226.96ft E
 Curve KOP: 6974.33ft TVD, 302.05ft S, 289.79ft E

Bunner 3H BHL Rev-4
 BHL: 90.00° Inc, 26022.88ft MD, 8024.00ft TVD, 17712.15ft VS

Vertical Section (ft)
 Azimuth 326.37° with reference 0.00 N, 0.00 E

Scale: 1 inch = 2500

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.

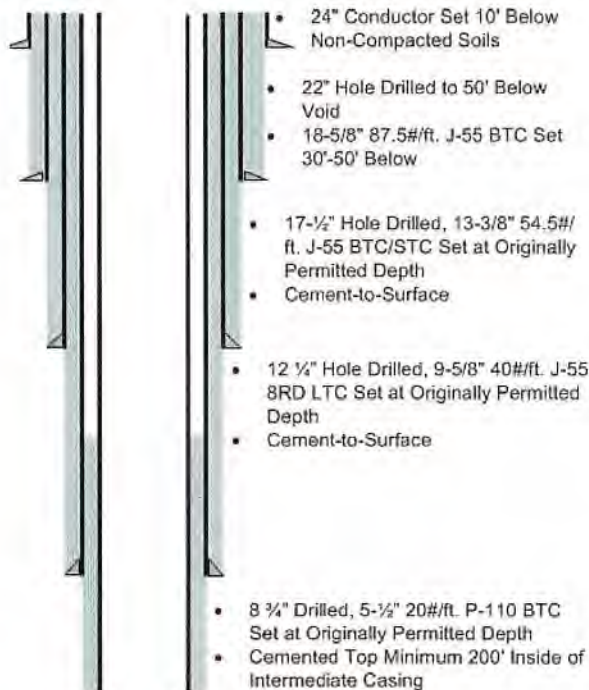
All casings programs submitted to the state incorporate the use of a 24" conductor over the previously used 20" that has long been the industry standard for a typical Marcellus design. The use of 24" conductor casing allows the use of a 22" bit to ream the surface hole, and drill 50' below the void to 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.

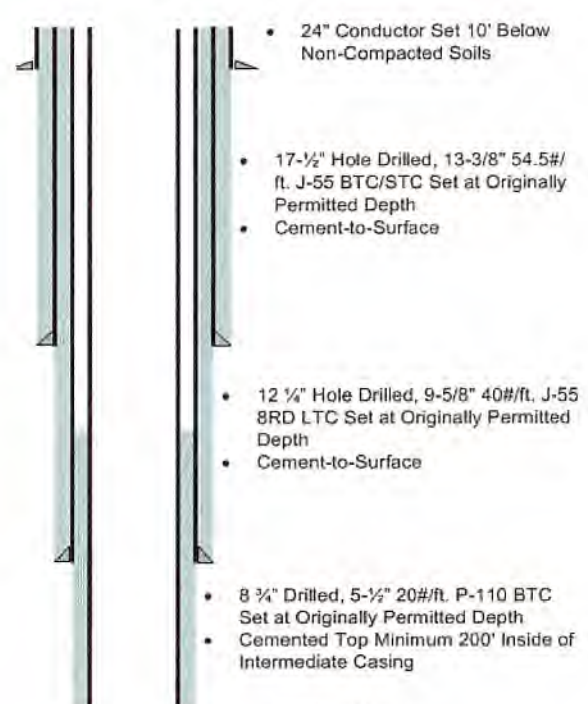
With the use of these string sizes and techniques, the surface and intermediate strings do not need to be altered. After a proper WOC time, the surface section of the well would continue to be drilled with a 17-1/2" bit and the 13-3/8" 54.50#/ft freshwater casing would be set at the originally permitted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



FILED
Office of Oil and Gas

JUL 29 2022

1000 Pennsylvania Ave, Harrisburg, PA 17133

11/11 - IC

09/23/2022

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Northeast Natural Energy LLC OP Code 494498281

Watershed (HUC 10) Dunkard Creek Quadrangle Blacksville

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: NA

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

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

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

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

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

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

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

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

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

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Environmental Protection

Subscribed and sworn before me this 12th day of July, 2022, 20

Kristen Brooks

Notary Public

My commission expires Aug. 10, 2023



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Northeast Natural Energy LLC

Proposed Revegetation Treatment: Acres Disturbed 17.11 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: Kenneth Greynolds
Digitally signed by Kenneth Greynolds
DN: cn = Kenneth Greynolds, email = Kenneth.L.Greynolds@wv.gov, c = AD O = WVDEP OU = Oil and Gas
Date: 2022.07.20 17:37:50 -0400

Comments: _____

Title: _____ Date: _____

Field Reviewed? () Yes () No

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Bunner 3H Area of Review

API Number	Well Name	Well Number	Operator	Latitude (NAD 83)	Longitude (NAD 83)	TMP	TVD	Comments
061-01473	Wm & Patricia Bunner	F2-510	Eastern Associated / Peabody Coal Company	39.660801	-80.216572	4-18-32	NA	Plugged 1/25/2005
061-01518	Jacob R Moore	F2-537	Eastern Associated / Peabody Coal Company	39.676512	-80.230835	4-9-25	NA	Plugged - 8/10/06
061-01535	Gary Yost	1	Eastern Associated / Peabody Coal Company	39.681152	-80.233463	4-9-17	3442'	Plugged - 2/28/07
061-00617	Minor Snodgrass	1	Big Nine Oil Co., Inc.	39.685937	-80.238157	4-9-3.2	2440'	
061-01014	Denny Snyder	F2-47	Clowser Production Co., Inc.	39.690867	-80.2421	4-8-5.1	NA	Plugged - 5/17/91
061-00511	Gayle Lemley	F2-436	South Penn Oil (S. Penn Nat. Gas)	39.697564	-80.2498	1-6-17	NA	Plugged - 12/20/91
061-01543	Sandra Bleigh	F2-46	Eastern Associated / Peabody Coal Company	39.688547	-80.23797	4-9-52	NA	Plugged - 4/16/07
061-01540	J Todd Moore	F2-128	Eastern Associated / Peabody Coal Company	39.684922	-80.234966	4-9-3	NA	Plugged - 5/29/07
061-01576	Charlie Chase	F2-43	Eastern Associated / Peabody Coal Company	39.678832	-80.230272	4-9-16	NA	Plugged - 8/21/08

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BUNNER 3H EXISTING GAS WELLS AUGUST 31, 2022



TOTAL DISTANCE BORED
FROM LP TO BH = 17,491.94'

SEP 8 2022
Gas
WV Department of
Environmental Protection

SCALE: 1" = 2,000'





northeast

NATURAL ENERGY

Bunner Pad Site Safety Plan

July 2022

Kenneth Greynolds

Digitally signed by Kenneth Greynolds
DN: CN = Kenneth Greynolds, email = Kenneth.L.
Greynolds@wv.gov C = AD O = WVDEP OU = Oil and
Gas
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**BUNNER
WATER WELL EXHIBIT
SCALE - (1" = 600')**



LAT: 39.6694
LON: 80.2094

PATRICIA A. BUNNER
55.77 ACRES
TAX MAP & PARCEL
31-04-0017-0036-0000

1,500'

Office of Oil and Gas

JUL 29 2022

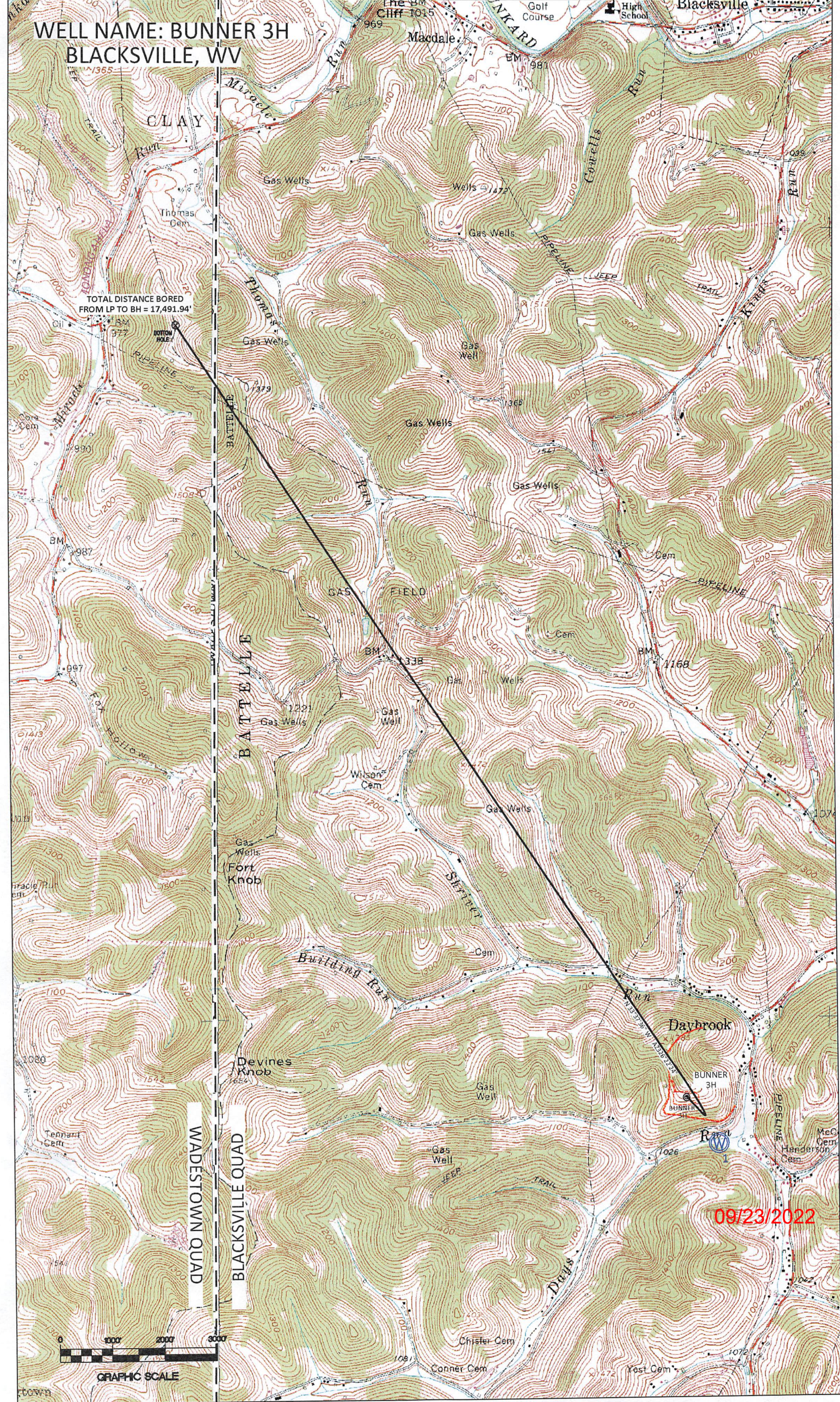
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09/23/2022

WELL NAME: BUNNER 3H
BLACKSVILLE, WV

TOTAL DISTANCE BORED
FROM LP TO BH = 17,491.94'

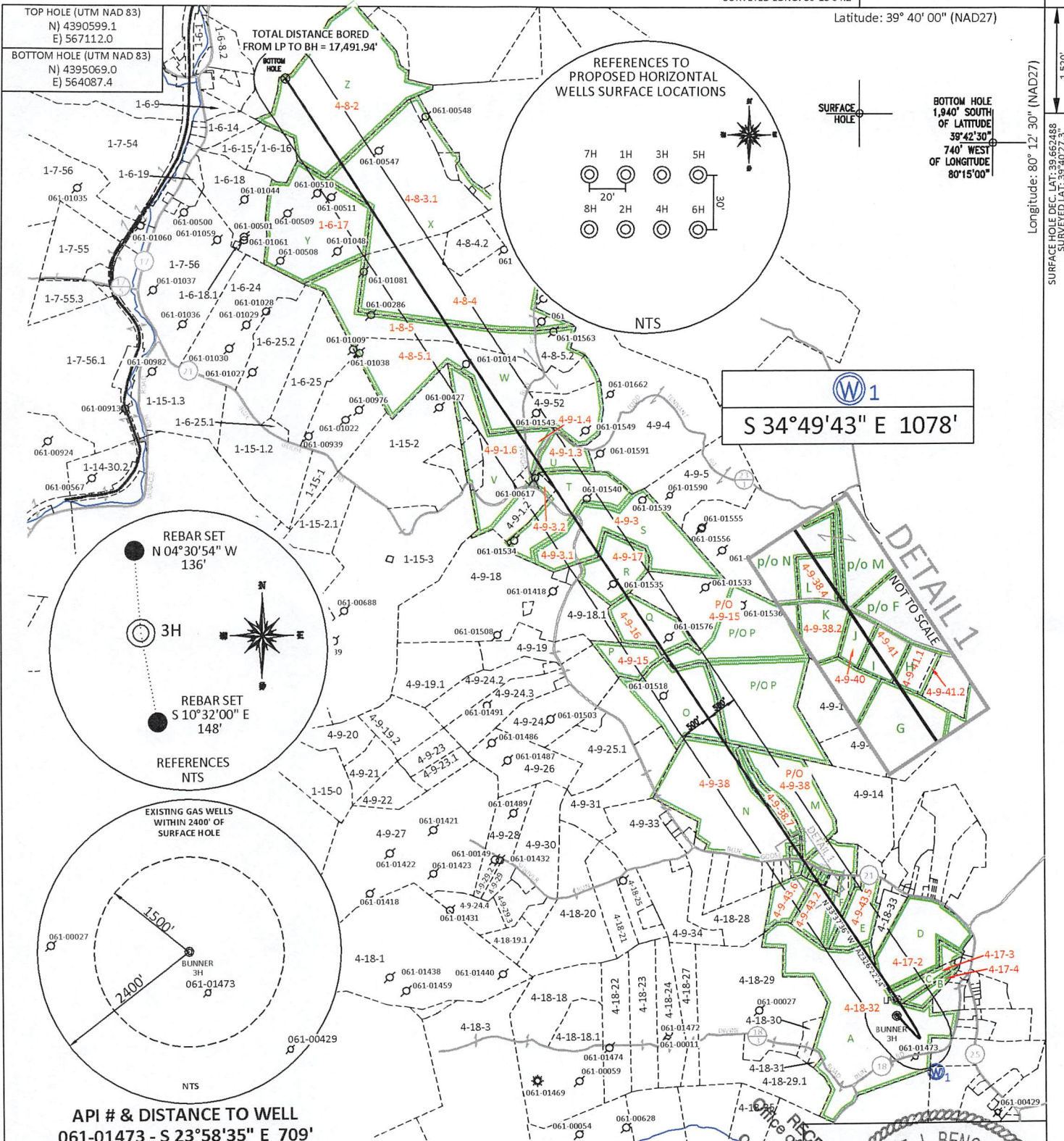
09/23/2022



SURFACE HOLE DEC. LONG: 80.217820
SURVEYED LONG: 80°13'04.2"

Latitude: 39° 40' 00" (NAD27)

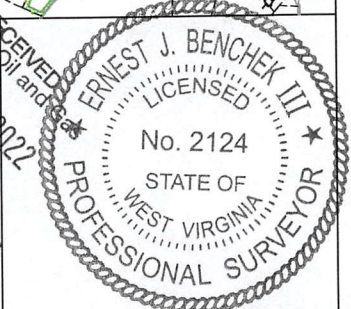
Longitude: 80° 12' 30" (NAD27)
SURFACE HOLE DEC. LAT: 39.665488
SURVEYED LAT: 39.640273°



FILE #: NEE14
 DRAWING #: 3075
 SCALE: PLAT: 1" = 2200'
 TICK MARK: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE: SUBMETER MAPPING
 OF ELEVATION: GRADE GPS

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

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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

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

WATERSHED: DUNKARD CREEK
 COUNTY/DISTRICT: MONONGALIA / CLAY
 SURFACE OWNER: PATRICIA A. BUNNER
 OIL & GAS ROYALTY OWNER: PATRICIA BUNNER, et al
 LEASE NUMBERS:

DATE: AUGUST 31, 2022
 OPERATOR'S WELL #: BUNNER 3H
 API WELL #: 47 61 01907
 STATE COUNTY PERMIT
 AS-BUILT
 ELEVATION: 1277.25'

QUADRANGLE: BLACKSVILLE, WV
 ACREAGE: 94.72 +/-
 ACREAGE: 986.8 +/-

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

TARGET FORMATION: MARCELLUS
 ESTIMATED DEPTH: TVD: 8,024' TMD: 26,022.88
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301
 DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

PROPERTY OWNER INDEX	
4-9-38	ALLEN K & VIRGINIA L MOORE
4-9-43.6	THOMAS R LUZADER
4-18-32	PATRICIA A BUNNER
4-9-38.7	ALLEN K & VIRGINIA L MOORE
4-9-43.2	ROSE MARIE MOORE
4-9-43.5	CHISLER INC
4-17-2	ANGELA L CHISLER
4-17-3	ANGELA L CHISLER
4-17-4	DAYBROOK CHURCH OF CHRIST
4-9-38.4	CHARLES E & CONNIE L SNODGRASS
4-9-38.2	TERRY L & ANGELA M SHRIVER
4-9-41	JERRY W & GATHA TETER
4-9-41.1	LOIS JEAN MCCOY
4-9-41.2	LOIS JEAN MCCOY
4-9-40	CAROLYN SUE LUZADER-NEWHOUSE
4-8-2	KATHY LYNN SNYDER, ELIZABETH ANN REESE & JOHN M BUTCHER SR
4-8-3.1	RAYMOND L ALLEN
1-6-17	JACK LEMLEY; JAMES R LEMLEY; OLESTON SURVIVORS TRUST
4-8-4	L DOUGLAS & VICKI L TENNANT
1-8-5	KENNETH W & DONNA P EFAW
4-9-1.6	ERP FEDERAL MINING COMPLEX LLC
4-8-5.1	JANICE M STILES IRREVOCABLE TRUST
4-9-1.3	ORA D & MARY ANN TENNANT
4-9-3	JEFFREY TODD & CARLENE SUE MOORE ET AL
4-9-3.2	J TODD & CARLENE S MOORE
4-9-3.1	JEFFREY TODD & CARLENE MOORE ET AL
4-9-17	GARY D YOST
4-9-16	CHARLIE CHASE II & VICKI M CHASE
4-9-15	LOIS J MCCOY ET AL

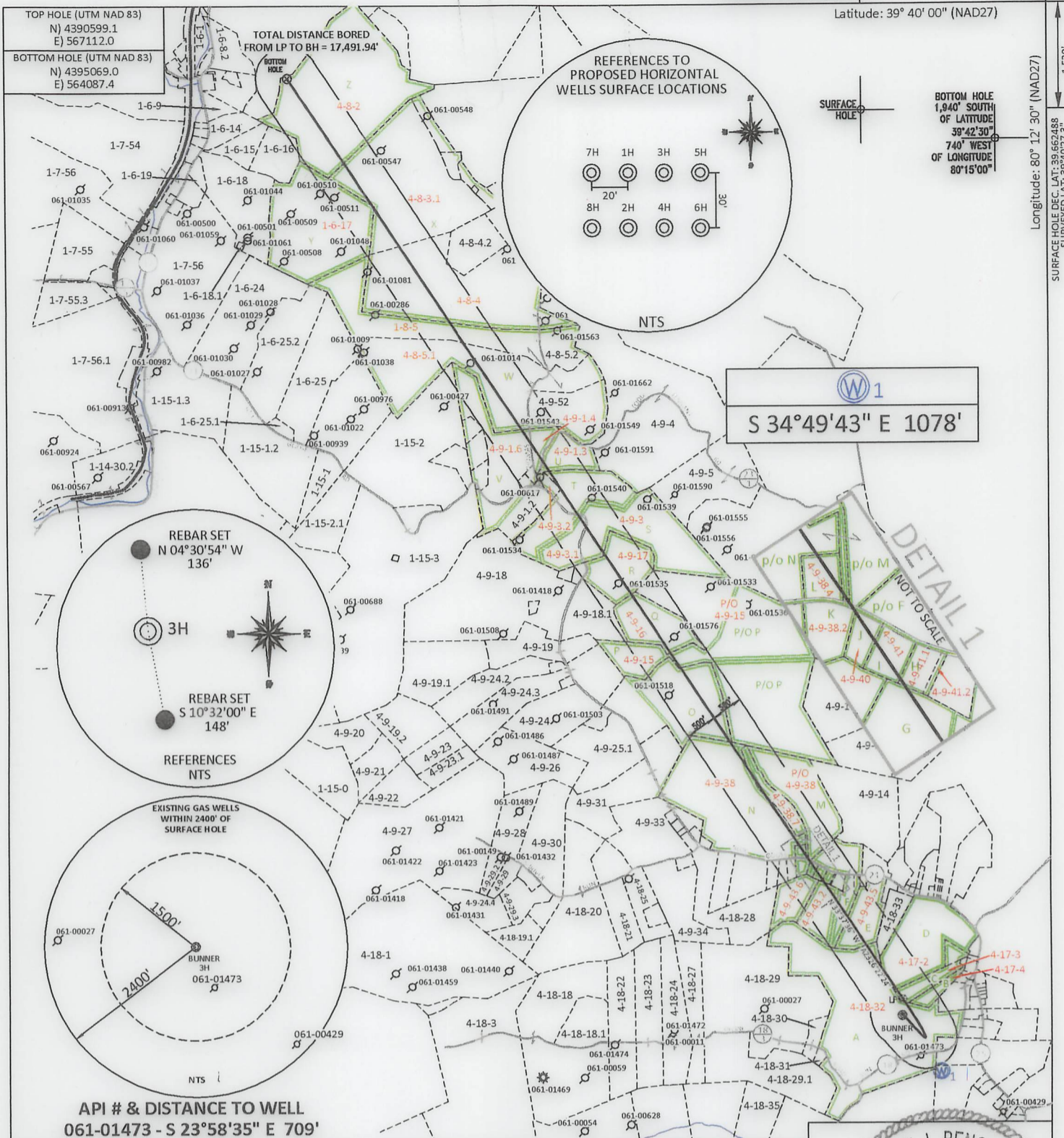
LEASE INDEX			
A	WV-061-004154-001	N	WV-061-005864-001
B	WV-061-003731-000	O	WV-061-002693-003
C	WV-061-005711-001	P	WV-061-005813-001
D	WV-061-005711-001	Q	WV-061-000160-001-LA
E	WV-061-005884-003	R	WV-061-006022-001
F	WV-061-005208-008	S	WV-061-086005-001
G	WV-061-002667-023	T	WV-061-003670-037
H	WV-061-004985-001	U	WV-061-005991-001
I	WV-061-004984-001	V	WV-061-005823-001
J	WV-061-005209-001	W	WV-061-006004-001
K	WV-061-005864-001	X	WV-061-000160-001-LA
L	WV-061-005864-001	Y	WV-061-000160-001-LA
M	WV-061-005864-001	Z	WV-061-005863-002

RECEIVED
 Office of Oil and Gas
 SEP 8 2022
 WV Department of
 Environmental Protection

09/23/2022

FILE #: NEE14
 DRAWING #: 3075
 SCALE: N/A

DATE: AUGUST 31, 2022
 OPERATOR'S WELL #: BUNNER 3H
 API WELL #: 47 61 01907
 STATE COUNTY PERMIT



Longitude: 80° 12' 30" (NAD27)
SURFACE HOLE DEC. LAT: 39.667238 SURVEYED LAT: 39.667238

W1
S 34°49'43" E 1078'

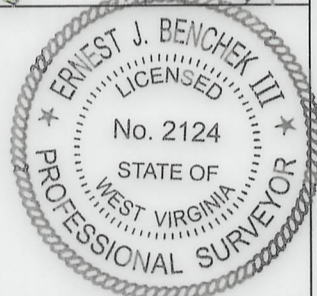
REBAR SET
N 04°30'54" W 136'
3H
REBAR SET
S 10°32'00" E 148'
3H
REFERENCES
NTS

EXISTING GAS WELLS
WITHIN 2400' OF
SURFACE HOLE
1500'
2400'
BUNNER
3H
061-01473
REFERENCES
NTS

API # & DISTANCE TO WELL
061-01473 - S 23°58'35" E 709'

FILE #: NEE14
DRAWING #: 3075
SCALE: 1" = 2200'
TICK MARK: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
Signed: [Signature]
L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
OFFICE OF OIL & GAS
601 5TH STREET
CHARLESTON, WV 25304

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

WATERSHED: DUNKARD CREEK

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

SURFACE OWNER: PATRICIA A. BUNNER ACREAGE: 94.72 +/-

OIL & GAS ROYALTY OWNER: PATRICIA BUNNER, et al ACREAGE: 986.8 +/- **09/23/2022**

LEASE NUMBERS: _____

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 8,024' TMD: 26,022.88

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

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

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

DATE: AUGUST 31, 2022

OPERATOR'S WELL #: BUNNER 3H

API WELL #: 47 61 01907
STATE COUNTY PERMIT

AS-BUILT
ELEVATION: 1277.25'

PROPERTY OWNER INDEX	
4-9-38	ALLEN K & VIRGINIA L MOORE
4-9-43.6	THOMAS R LUZADER
4-18-32	PATRICIA A BUNNER
4-9-38.7	ALLEN K & VIRGINIA L MOORE
4-9-43.2	ROSE MARIE MOORE
4-9-43.5	CHISLER INC
4-17-2	ANGELA L CHISLER
4-17-3	ANGELA L CHISLER
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K	WV-061-005864-001	X	WV-061-000160-001-LA
L	WV-061-005864-001	Y	WV-061-000160-001-LA
M	WV-061-005864-001	Z	WV-061-005863-002

09/23/2022

FILE #: <u>NEE14</u>	DATE: <u>AUGUST 31, 2022</u>
DRAWING #: <u>3075</u>	OPERATOR'S WELL #: <u>BUNNER 3H</u>
SCALE: <u>N/A</u>	API WELL #: <u>47</u> <u>61</u> <u>01907</u> STATE COUNTY PERMIT

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

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

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

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

RECEIVED
Office of Oil and Gas
SEP 8 2022
WV Department of
Environmental Protection

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

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

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

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

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

WW-6A1

Operators Well No. Bunner NORTHEAST 3H

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page	Tax Map	Parcel	Index
A	WV-061-004154-001	Patricia Bunner	Northeast Natural Energy, LLC	12.5% or Greater	1563	435	18	32	390
B	WV-061-003731-000	Daybrook Church of Christ	Northeast Natural Energy, LLC	12.5% or Greater	1541	816	17	4	1188
C	WV-061-005711-001	Angela L. Chisler	EQT Production Company	12.5% or Greater	1576	416	17	3, 3.1	1175, 1176
			EQT Production Company	Northeast Natural Energy, LLC	149	643			
D	WV-061-005711-001	Angela L. Chisler	EQT Production Company	12.5% or Greater	1576	416	17	2	1174
			EQT Production Company	Northeast Natural Energy, LLC	149	643			
E	WV-061-005884-003	Donny Lee Moore	Northeast Natural Energy, LLC	12.5% or Greater	1770	83	9	43.5	1117
E	WV-061-005884-001	Danny K. Moore	Northeast Natural Energy, LLC	12.5% or Greater	1770	79			
E	WV-061-005884-002	David W. Moore	Northeast Natural Energy, LLC	12.5% or Greater	1770	81			
E	WV-061-005884-004	Dale L. Moore	Northeast Natural Energy, LLC	12.5% or Greater	1770	85			
E	WV-061-005884-005	Diane Lynn Long	Northeast Natural Energy, LLC	12.5% or Greater	1770	87			
F	WV-061-005208-008	Victor R. Church	Northeast Natural Energy, LLC	12.5% or Greater	1627	500	9	p/o 43.2, 43.4	1114B, 1116
F	WV-061-005208-003	Diane Lynn Long	Northeast Natural Energy, LLC	12.5% or Greater	1623	188			
F	WV-061-005208-005	Dale Lynn Moore	Northeast Natural Energy, LLC	12.5% or Greater	1623	142			
F	WV-061-005208-002	Danny Keith Moore	Northeast Natural Energy, LLC	12.5% or Greater	1623	186			
F	WV-061-005208-001	David Wayne Moore	Northeast Natural Energy, LLC	12.5% or Greater	1623	184			
F	WV-061-005208-004	Donny Lee Moore	Northeast Natural Energy, LLC	12.5% or Greater	1623	190			
F	WV-061-005208-007	Leslie Dale Moore	Northeast Natural Energy, LLC	12.5% or Greater	1627	54			
F	WV-061-005208-009	Rose Marie Moore	Northeast Natural Energy, LLC	12.5% or Greater	1627	502			
F	WV-061-005208-006	Nancy Louise Moore Walker	Northeast Natural Energy, LLC	12.5% or Greater	1627	52			
G	WV-061-002667-023	Jean-Clare Sims Bohm	Northeast Natural Energy, LLC	12.5% or Greater	1636	668	9	p/o 43.2	1114
G	WV-061-002667-031	Janet Coleman	Northeast Natural Energy, LLC	12.5% or Greater	1636	697			
G	WV-061-002667-044	Lisa Carol Cortes	Northeast Natural Energy, LLC	12.5% or Greater	1643	587			
G	WV-061-002667-048	Eva L. Ellis	Northeast Natural Energy, LLC	12.5% or Greater	1642	817			
G	WV-061-002667-045	Kim David Fritz	Northeast Natural Energy, LLC	12.5% or Greater	1643	178			
G	WV-061-002667-017	Connie Geissinger	Northeast Natural Energy, LLC	12.5% or Greater	1637	420			
G	WV-061-002667-019	Goldene B. Tennant - life estate	Northeast Natural Energy, LLC	12.5% or Greater	1637	424			
G	WV-061-002667-021	Jacquelyn M. Halbrook	Northeast Natural Energy, LLC	12.5% or Greater	1637	428			
G	WV-061-002667-020	Sherry L. Harrison	Northeast Natural Energy, LLC	12.5% or Greater	1637	426			
G	WV-061-002667-028	Barbara Huber	Northeast Natural Energy, LLC	12.5% or Greater	1636	691			
G	WV-061-002667-038	Lori Kirby	Northeast Natural Energy, LLC	12.5% or Greater	1640	297			
G	WV-061-002667-026	Carol A. Luckey	Northeast Natural Energy, LLC	12.5% or Greater	1636	687			
G	WV-061-002667-022	Donald R. Reynolds and Diane K. Reynolds	Northeast Natural Energy, LLC	12.5% or Greater	1637	430			
G	WV-061-002667-037	Carl E. Schuster	Northeast Natural Energy, LLC	12.5% or Greater	1638	490			
G	WV-061-002667-040	Joyce E. Sell	Northeast Natural Energy, LLC	12.5% or Greater	1640	301			
G	WV-061-002667-042	Daniel T. Sims	Northeast Natural Energy, LLC	12.5% or Greater	1641	306			
G	WV-061-002667-015	Jerry E. Sims	Northeast Natural Energy, LLC	12.5% or Greater	1635	347			
G	WV-061-002667-024	Phillip J. Sims	Northeast Natural Energy, LLC	12.5% or Greater	1636	683			
G	WV-061-002621-001	Robert M. Spragg Revocable Trust	Northeast Natural Energy, LLC	12.5% or Greater	1468	425			
G	WV-061-002667-027	Eddie Swartz	Northeast Natural Energy, LLC	12.5% or Greater	1636	689			
G	WV-061-002667-043	D. Ray Tennant	Northeast Natural Energy, LLC	12.5% or Greater	1641	308			
G	WV-061-002667-016	Ginger R. Tennant	Northeast Natural Energy, LLC	12.5% or Greater	1637	418			
G	WV-061-002667-036	Kent S. Tennant	Northeast Natural Energy, LLC	12.5% or Greater	1638	488			
G	WV-061-002667-029	Leo Keith Tennant	Northeast Natural Energy, LLC	12.5% or Greater	1636	693			
G	WV-061-002667-046	Marion Emrod Tennant	Northeast Natural Energy, LLC	12.5% or Greater	1643	180			
G	WV-061-002667-049	Stephen A. Tennant	Northeast Natural Energy, LLC	12.5% or Greater	1648	298			
G	WV-061-002667-047	Sue Tennant	Northeast Natural Energy, LLC	12.5% or Greater	1643	182			
G	WV-061-002667-039	David Watkins	Northeast Natural Energy, LLC	12.5% or Greater	1640	299			
G	WV-061-002667-018	Douglas D. Watkins	Northeast Natural Energy, LLC	12.5% or Greater	1637	422			
G	WV-061-002667-030	Gregory S. Watkins	Northeast Natural Energy, LLC	12.5% or Greater	1636	695			
G	WV-061-002667-025	JoAnn Watkins	Northeast Natural Energy, LLC	12.5% or Greater	1636	685			
G	WV-061-002667-030	Kevin J. Watkins	Northeast Natural Energy, LLC	12.5% or Greater	1636	695			
G	WV-061-002667-041	Robert D. Watkins	Northeast Natural Energy, LLC	12.5% or Greater	1641	304			
G	WV-061-002667-035	Judy E. Wilson	Northeast Natural Energy, LLC	12.5% or Greater	1638	486			
H	WV-061-004985-001	Lois Jean McCoy	Northeast Natural Energy, LLC	12.5% or Greater	1616	252	9	41.1	1109

Entered in the
 WV Dept of
 Environmental
 Protection
 SEP 10 2012
 Oil and Gas

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page	Tax Map	Parcel	Index
I	WV-061-004984-001	Jerry W. Teter	Northeast Natural Energy, LLC	12.5% or Greater	1616	250	9	41, 41.2	1108, 1110
J	WV-061-005209-001	Carolyn Sue Luzader-Newhouse	Northeast Natural Energy, LLC	12.5% or Greater	1623	144	9	40	1107
K	WV-061-005864-001	Fortune Development, LLC	Northeast Natural Energy, LLC	12.5% or Greater	1768	797	9	38.1, 38.2, 38.3, 38.4, 38.5, 38.6, 38.7, 38.9	1097 et al
K	WV-061-005864-002	Donna Irene Pifer	Northeast Natural Energy, LLC	12.5% or Greater	1773	559			
L	WV-061-005864-001	Fortune Development, LLC	Northeast Natural Energy, LLC	12.5% or Greater	1768	797	9	38.1, 38.2, 38.3, 38.4, 38.5, 38.6, 38.7, 38.9	1097 et al
L	WV-061-005864-002	Donna Irene Pifer	Northeast Natural Energy, LLC	12.5% or Greater	1773	559			
M	WV-061-005864-001	Fortune Development, LLC	Northeast Natural Energy, LLC	12.5% or Greater	1768	797	9	38	1095, 1096
	WV-061-005864-002	Donna Irene Pifer	Northeast Natural Energy, LLC	12.5% or Greater	1773	559			
N	WV-061-005864-001	Fortune Development, LLC	Northeast Natural Energy, LLC	12.5% or Greater	1768	797	9	38	1095, 1096
N	WV-061-005864-002	Donna Irene Pifer	Northeast Natural Energy, LLC	12.5% or Greater	1773	559			
O	WV-061-002693-003	Deborah J. Moore	Northeast Natural Energy, LLC	12.5% or Greater	1781	655	9	p/o 25	1068
P	WV-061-005813-001	Heritage Resources - Marcellus Minerals LLC	Northeast Natural Energy, LLC	12.5% or Greater	1760	834	9	po 15	1050A
Q	WV-061-000160-001-LA	Charlie Chase II and Vicki M. Chase	EQT Production Company	12.5% or Greater	1508	673	9	16	1051
		EQT Production Company	Northeast Natural Energy, LLC		1775	42			
R	WV-061-006022-001	Shuman Inc.	Northeast Natural Energy, LLC	12.5% or Greater			9	p/o 17, p/o 18.1	1052A, 1055A
S	WV-061-086005-001	Kimeric and Company	Northeast Natural Energy, LLC	12.5% or Greater	1784	465	9	p/o 3, p/o 3.1	1079A, 1080A
T	WV-061-003670-037	Diana Adamson	Northeast Natural Energy, LLC	12.5% or Greater	1630	199	9	p/o 3, p/o 3.1, 3.2, 3.3	1079, 1080, 1081, 1082
T	WV-061-003670-024	Donna L. Huffman	Northeast Natural Energy, LLC	12.5% or Greater	1629	112			
T	WV-061-003670-012	Larry Hull	Northeast Natural Energy, LLC	12.5% or Greater	1614	383			
T	WV-061-003670-008	Donley E. Kisner	Northeast Natural Energy, LLC	12.5% or Greater	1611	654			
T	WV-061-003670-005	Vickie L. Kisner	Northeast Natural Energy, LLC	12.5% or Greater	1608	644			
T	WV-061-003670-042	Linda Moran	Northeast Natural Energy, LLC	12.5% or Greater	1635	534			
T	WV-061-003670-007	Lola E. May	Northeast Natural Energy, LLC	12.5% or Greater	1611	263			
T	WV-061-003670-009	Shirley J. Miller	Northeast Natural Energy, LLC	12.5% or Greater	1612	807			
T	WV-061-003670-043	Lea Ann Papesh	Northeast Natural Energy, LLC	12.5% or Greater	1635	536			
T	WV-061-003670-025	R. Bruce Rogers	Northeast Natural Energy, LLC	12.5% or Greater	1629	117			
T	WV-061-003670-044	Jason Sumner	Northeast Natural Energy, LLC	12.5% or Greater	1635	538			
T	WV-061-003670-059	Burl A. Tennant Jr.	Northeast Natural Energy, LLC	12.5% or Greater	1643	196			
T	WV-061-003670-010	Russel D. Walters	Northeast Natural Energy, LLC	12.5% or Greater	1612	809			
U	WV-061-005991-001	Sarah Bell et al	AL Lowrie and J.H. McDermott	*See Leasehold Chain Attached	125	486	9	1.3	1038
V	WV-061-005823-001	WV Minerals Inc.	Northeast Natural Energy, LLC	12.5% or Greater	1769	843	9	1, 1.1, p/o 1.2, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2	1035, 1036, 1037 et al
W	WV-061-006004-001	William E. Snyder et al	CNG Producing Company	12.5% or Greater	* See Leasehold Chain Attached		8;9	5, 5.1, 5.2, 5.2	1034, 1127 et al
X	WV-061-000160-001-LA	Abraham Varner	Waynesburg Natural Gas Company	*See Leasehold Chain Attached	40	21	8	3,3.1,3.2,3.3,3.4, 4, 4.1, 4.2	1764 et al
Y	WV-061-000160-001-LA	Three Rivers Royalty II LLC	EQT Production Company	12.5% or Greater	1668	312			1723
		EQT Production Company	Northeast Natural Energy, LLC		1775	39			
Y	WV-061-000160-001-LA	P&P Fujimo, LLC	EQT Production Company	12.5% or Greater	1599	617			
		EQT Production Company	Northeast Natural Energy, LLC		1775	39			
Z	WV-061-005863-002	Elizabeth Ann Reese	Northeast Natural Energy, LLC	12.5% or Greater	1767	741	8	2	1763
	WV-061-005863-001	Kathy Lynn Snyder	Northeast Natural Energy, LLC	12.5% or Greater	1767	739	8	2	
	WV-061-005863-003	John M. Butcher Sr.	Northeast Natural Energy, LLC	12.5% or Greater	1767	743	8	2	

AN D
 dependent
 of
 2022

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
U		Sarah Bell et al	AL Lowrie and J.H. McDermott	12.5% or Greater	125	486
		AL Lowrie and J.H. McDermott	Hope Natural Gas Company		134	499
		Hope Natural Gas Company	AM Snider		597	62
		AM Snider	Duane M. Snider		9	325
		Duane M. Snider	Susanna Snider		58	300
		Peggy Williams, Successor of Susanna Snider	EBTB Corporation		106	245
		EBTB Corporation	Northeast Natural Energy, LLC		158	157

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 SEP 8 2022
 WV Department of
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Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
W	WV-061-006004-001	William E. Snyder et al	CNG Producing Company	12.5% or Greater	1029	314
		CNG Producing Company	Dominion Exploration & Production Company	WV Secretary of State Name change 5/10/2000		
		Dominion Exploration & Production Company	Antero Resources Appalachian Corporation		102	797
		Antero Resources Appalachian Corporation	Northeast Natural Energy, LLC		158	94

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Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
X		Abraham Varner	Waynesburg Natural Gas Company	12.5% or Greater	40	21
		Waynesburg Natural Gas Company	The Manufacturers Light and Heat Company	PA Secretary of State Merger		
		The Manufacturers Light and Heat Company	The Preston Oil Company		502	395
		The Preston Oil Company	South Penn Natural Gas Company		505	436
		South Penn Natural Gas Company	South Penn Oil Company		580	311
		South Penn Oil Company	Pennzoil Company	Change of Name Certificate	50	573
		Pennzoil Company	Pennzoil United, Inc.			
		Pennzoil United, Inc.	Pennzoil Company	WV Secretary of State Name Change		
		Pennzoil Company	Pennzoil Products Company		23	280
		Pennzoil Products Company	Pennzoil Exploration and Production Company		53	69*
		Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production LLC	WV Secretary of State Merger		
		PennzEnergy Exploration and Production LLC	Devon Energy Production Company, LLC	WV Secretary of State Merger		
		Devon Energy Production Company, LLC	East Resources, Inc.		1207	146
		East Resources, Inc.	HG Energy, LLC		110	500
		HG Energy, LLC	American Energy - Marcellus, LLC		123	43
		American Energy - Marcellus, LLC	Ascent Resources - Marcellus, LLC		122	85
		Ascent Resources - Marcellus, LLC	EQT Production Company		132	166
		EQT Production Company	Northeast Natural Energy, LLC		1775	39

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 Office of Oil and Gas
 SEP 8 2022
 WV Department of
 Environmental Protection



July 26, 2022

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

RE: Bunner NE – 1H, 3H, 5H, 7H

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 Blue Goose Road/Route 21, Upper Days Run Road/Route 18, and SR 18/3.

Sincerely,

Charles Dornetto

Charles Dornetto
Manager – Land Acquisitions

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Office of Oil and Gas

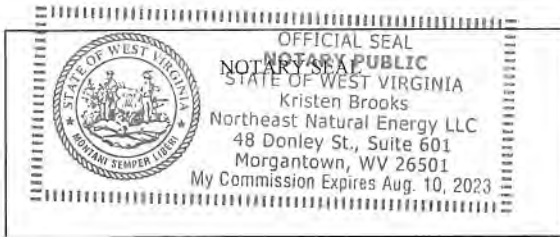
JUL 29 2022

WV Department of
Environmental Protection

Certification of Notice is hereby given:

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

Well Operator:	<u>Northeast Natural Energy, LLC</u>	Address:	<u>707 Virginia St, E, Suite 1200</u>
By:	<u>Hollie Medley</u>		<u>Charleston, WV 25301</u>
Its:	<u>Regulatory Manager</u>	Facsimile:	<u>304-241-5972</u>
Telephone:	<u>304-241-5752</u>	Email:	<u></u>



Subscribed and sworn before me this 27th day of July, 2022
Kristen Brooks Notary Public
 My Commission Expires Aug. 10, 2023

Oil and Gas Privacy Notice:

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

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Office of Oil and Gas

JUL 29 2022

WV Department of
Environmental Protection

**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: 7/19/2022 **Date Permit Application Filed:** 7/29/2022

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 & COAL OWNER

Name: Patricia A. Bunner
Address: 15 Devine Road
Fairview, WV 26570

Name: _____
Address: _____

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

Name: _____
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER

Name: Phoenix Energy Resources, LLC
Address: 863 Quail Valley Drive
Princeton, WV 24740

COAL OWNER

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

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

Name: Roger & Joyce Williams Trust
Address: 2318 Daybrook Rd
Fairview, WV 26570

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas

JUL 29 2022

WV Department of Environmental Protection

09/23/2022

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

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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JUL 29 2022

WV Department of
Environmental Protection

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

09/23/2022

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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Office of Oil and Gas
JUL 29 2022
WV Department of
Environmental Protection

WW-6A
(8-13)

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

Notice is hereby given by:

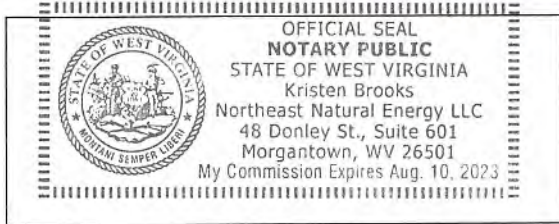
Well Operator: Northeast Natural Energy LLC
Telephone: 304-241-5752
Email: _____

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

Oil and Gas Privacy Notice:

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

Hall Meay



Subscribed and sworn before me this 19th day of July, 2022

Kristen Brooks Notary Public

My Commission Expires Aug. 10, 2023

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Office of Oil and Gas

JUL 29 2022

WV Department of
Environmental Protection

09/23/2022

**BUNNER
WATER WELL EXHIBIT
SCALE - (1" = 600')**



JUL 29 2022
WV Department of
Environmental Protection

09/23/2022

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: 7/25/2019 **Date of Planned Entry:** 8/5/2019

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: Patricia A Bunner
Address: 15 Devine Rd
Fairview, WV 26570

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: _____
Address: _____

MINERAL OWNER(s)

Name: _____
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>Dunkard Creek</u>
County: <u>Monongalia</u>	Public Road Access: <u>CR 25/2</u>
District: <u>Clay</u>	Watershed: <u>Dunkard Creek</u>
Quadrangle: <u>Blacksville</u>	Generally used farm name: <u>Bunner</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: _____

Address: 707 Virginia St. E, Suite 1200
Charleston, WV 25301
Facsimile: _____

RECEIVED
Office of Oil and Gas
JUL 29 2022

WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

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

09/23/2022

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: 7/25/2019 **Date of Planned Entry:** 8/5/2019

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: Daybrook Church of Christ
Address: 14 Upper Days Run
Fairview, WV 26570

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: _____
Address: _____

MINERAL OWNER(S)

Name: _____
Address: _____

*please attach additional forms if necessary

Notice is hereby given:

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

State: West Virginia
County: Monongalia
District: Clay
Quadrangle: Blacksville

Approx. Latitude & Longitude: Dunkard Creek
Public Road Access: CR 25/2
Watershed: Dunkard Creek
Generally used farm name: Bunner

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: _____

Address: 707 Virginia St. E, Suite 1200
Charleston, WV 25301
Facsimile: _____

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Office of Oil and Gas
JUL 29 2022
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

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

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF 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: 7/25/2019 **Date of Planned Entry:** 8/5/2019

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: Angela L. Chisler

Address: 153 Blue Goose Rd
Fairview, WV 26570

Name: _____

Address: _____

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: _____

Address: _____

MINERAL OWNER(s)

Name: _____

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>Dunkard Creek</u>
County: <u>Monongalia</u>	Public Road Access: <u>CR 25/2</u>
District: <u>Clay</u>	Watershed: <u>Dunkard Creek</u>
Quadrangle: <u>Blacksville</u>	Generally used farm name: <u>Bunner</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: _____

Address: 707 Virginia St. E, Suite 1200
Charleston, WV 25301

Facsimile: _____

RECEIVED
Office of Oil and Gas

JUL 29 2022

WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

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

09/23/2022

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: 07/19/2022 **Date Permit Application Filed:** 07/29/2022

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: Patricia A. Bunner
Address: 15 Devine Road
Fairview, WV 26570

Name: _____
Address: _____

RECEIVED
Office of Oil and Gas
JUL 29 2022

Notice is hereby given:

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

State:	<u>West Virginia</u>	UTM NAD 83 Easting:	<u>567112.0</u>
County:	<u>Monongalia</u>	UTM NAD 83 Northing:	<u>4390599.1</u>
District:	<u>Clay</u>	Public Road Access:	<u>Upper Days Run Rd/CR 18</u>
Quadrangle:	<u>Blacksville, WV</u>	Generally used farm name:	<u>Bunner</u>
Watershed:	<u>Dunkard Creek</u>		

WV Department of
Environmental Protection

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: Northeast Natural Energy, LLC
Address: 707 Virginia St. E., Suite 1200
Charleston, WV 25301
Telephone: 304-414-7060
Email: _____
Facsimile: _____

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

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.

09/23/2022

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

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

Date of Notice: 07/19/2022 **Date Permit Application Filed:** 07/29/2022

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

- CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: <u>Patricia A. Bunner</u>	Name: _____
Address: <u>15 Devine Road</u>	Address: _____
<u>Fairview, WV 26570</u>	_____

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>567112.0</u>
County: <u>Monongalia</u>		Northing: <u>4390599.1</u>
District: <u>Clay</u>	Public Road Access: <u>Upper Days Run Rd/ CR 18</u>	
Quadrangle: <u>Blacksville, WV</u>	Generally used farm name: <u>Bunner</u>	
Watershed: <u>Dunkard Creek</u>		

This Notice Shall Include:

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

Well Operator: <u>Northeast Natural Energy LLC</u>	Address: <u>707 Virginia St. E. Suite 1200</u>
Telephone: <u>304-414-7060</u>	<u>Charleston, WV 25301</u>
Email: _____	Facsimile: _____

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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Office of Oil and Gas
JUL 29 2022

09/23/2022



4706101907

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

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

D. Alan Reed, P.E.
State Highway Engineer

Jimmy Wriston, P. E.
Secretary of Transportation
Commissioner of Highways

June 29, 2022

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 Bunner Pad, Monongalia County
Bunner 3H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2019-0982 which has been issued to Northeast Natural Energy for access to the State Road for a well site located off Monongalia County Route 18 SLS MP 3.98.

This operator is in compliance with §22-6A-20 of the WV Code. 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 October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

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

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

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JUL 29 2022

WV Department of
Environmental Protection

Planned Additives To Be Used In Fracturing Stimulations

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

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Office of Oil and Gas
JUL 29 2022
MN Department of
Environmental Protection



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

OWNER



northeast
NATURAL ENERGY

NORTHEAST NATURAL ENERGY, LLC
707 VIRGINIA STREET EAST, SUITE1200,
CHARLESTON, WV 25301

BUNNER WELL PAD AS-BUILT

CLAY DISTRICT, MONONGALIA COUNTY, WV

JUNE 2021

PLANS PREPARED BY:

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

SHEET INDEX	
1.	TITLE SHEET
2-3.	EVACUATION ROUTE/PREVAILING WIND
4.	AS-BUILT OVERVIEW
5-6.	ASBUILT
7.	ACCESS ROAD PROFILE
8.	RECLAMATION PLAN OVERVIEW
9-10.	RECLAMATION PLAN
11.	DETAILS

TOTAL DISTURBED AREA: 16.97 AC.
ACCESS ROAD DISTURBED AREA: 8.43 AC.
WELL PAD DISTURBED AREA: 8.54 AC.
ACCESS ROAD LENGTH: 2481.17'
ACCESS ROAD AVG. WIDTH: 20'
WELL PAD ELEVATION: 1277'

PROPERTY OWNER DISTURBANCE
PATRICA A BUNNER (04-18-32): 16.48 AC.
PATRICA A BUNNER (04-17-6.1): 0.49 AC.



ANDREW BENCHEK
P.E.

DATE

TOTAL PROJECT AREA: 16.97 AC.

COORDINATES
CENTER OF WELL PAD (NAD 83) LAT: 39°39'45.36" LONG: -80°13'03.38"
(NAD27) LAT: 39°39'45.06" LONG: -80°13'04.12"
SITE ENTRANCE (NAD 83) LAT: 39°39'43.55" LONG: -80°12'41.15"
(NAD27) LAT: 39°39'43.26" LONG: -80°12'41.89"



**WVDEP OOG
ACCEPTED AS-BUILT**
9/7/2022

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

REVISIONS		
NO.	DATE	DESCRIPTION

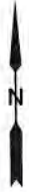
BUNNER WELL PAD AS-BUILT

BUNNER WELL PAD
CLAY DISTRICT, MONONGALIA COUNTY, WV

SHEET

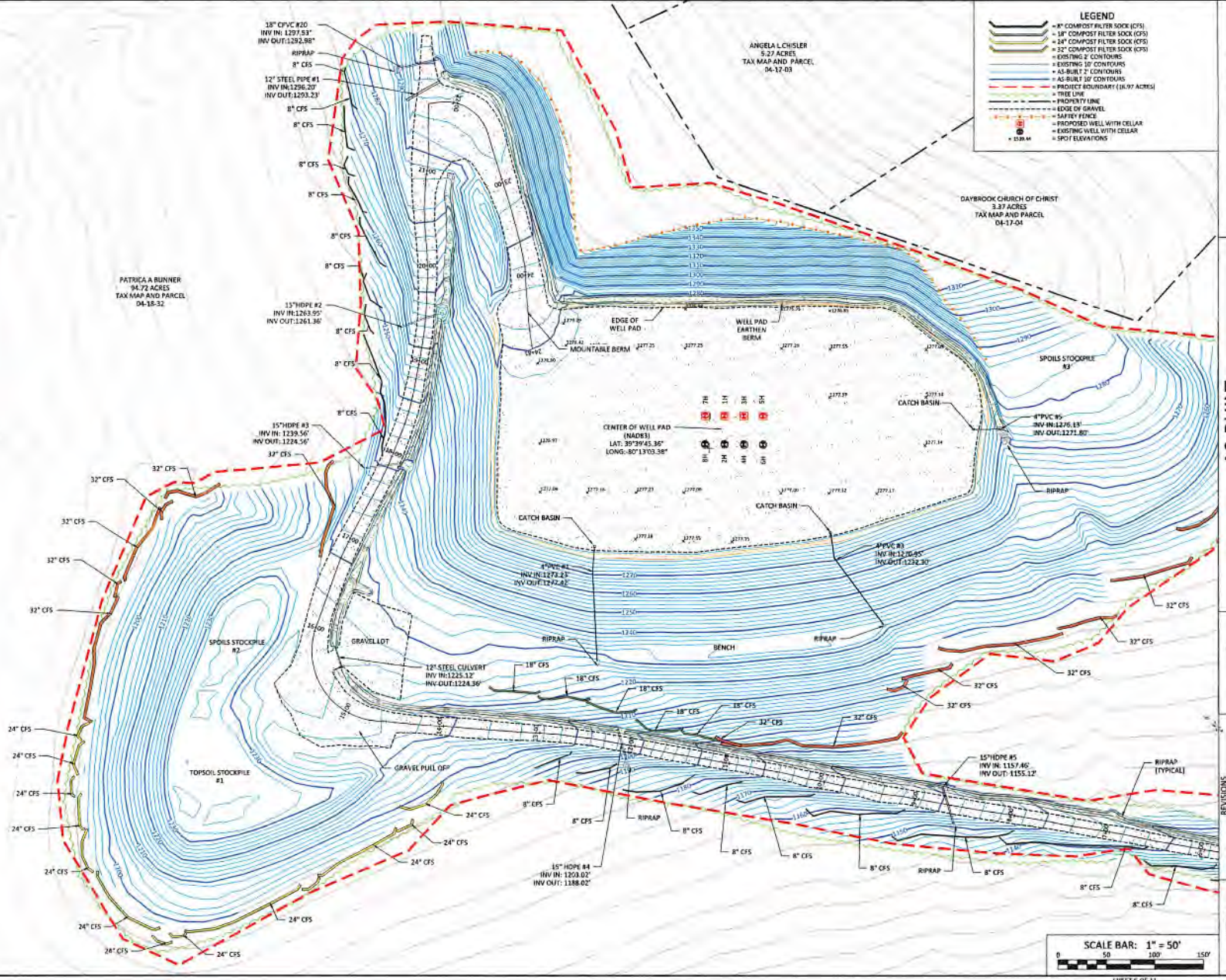
1
OF
11





WVDEP OOG
ACCEPTED AS-BUILT

9/7/2022



LEGEND

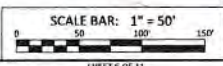
- 8" COMPOST FILTER SOCK (CFS)
- 12" COMPOST FILTER SOCK (CFS)
- 15" COMPOST FILTER SOCK (CFS)
- 18" COMPOST FILTER SOCK (CFS)
- 24" COMPOST FILTER SOCK (CFS)
- 32" COMPOST FILTER SOCK (CFS)
- EXISTING 10' CONTOURS
- EXISTING 2' CONTOURS
- AS-BUILT 10' CONTOURS
- AS-BUILT 2' CONTOURS
- PROJECT BOUNDARY (16.97 ACRES)
- TREE LINE
- PROPERTY LINE
- EDGE OF GRAVEL
- SAFETY FENCE
- PROPOSED WELL WITH CELLAR
- EXISTING WELL WITH CELLAR
- SPOT ELEVATIONS

BOORD, BENCHEK and ASSOC., INC.
Engineering, Surveying, Construction,
and Mining Services
Southpointe, PA 15317 Phone: 724-746-1055

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

DATE:
JUNE 2021
BUNNER WELL PAD
AS-BUILT
CLAY DISTRICT,
MONONGALIA
COUNTY, WV

NO.	DATE	REVISIONS	DESCRIPTION



SHEET 6 OF 11