



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

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

November 2, 2017
PERMIT MODIFICATION APPROVAL
Horizontal 6A / Horizontal 6A Well - 1

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

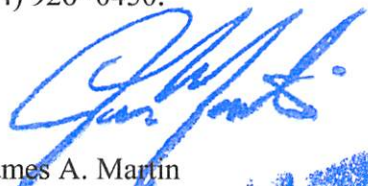
Re: Permit Modification Approval for MEPCO 8H
47-061-01759-00-00

Well Location

NORTHEAST NATURAL ENERGY LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin
Chief

Operator's Well Number: MEPCO 8H
Farm Name: MEPCO LLC
U.S. WELL NUMBER: 47-061-01759-00-00
Horizontal 6A / Horizontal 6A Well - 1
Date Issued: November 2, 2017

Promoting a healthy environment.

11/03/2017

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

1) Well Operator: NORTHEAST NATURAL ENERGY LLC 494498281 MONONGALIA CLAY BLACKSVILLE
Operator ID County District Quadrangle

2) Operator's Well Number: MEPCO 8H Well Pad Name: MEPCO

3) Farm Name/Surface Owner: MEPCO LLC Public Road Access: CR 29/7

4) Elevation, current ground: 1452.16' Elevation, proposed post-construction: 1424.00'

5) Well Type (a) Gas X Oil NA Underground Storage NA
Other NA

(b) If Gas Shallow X Deep NA
Horizontal X

6) Existing Pad: Yes or No NO *MDK 8/10/2017*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
MARCELLUS; 8,222'; 103'; 3600 PSI

8) Proposed Total Vertical Depth: 8,222'

9) Formation at Total Vertical Depth: MARCELLUS

10) Proposed Total Measured Depth: 17,007.41'

11) Proposed Horizontal Leg Length: 7,838'

12) Approximate Fresh Water Strata Depths: 50', 1,307'

13) Method to Determine Fresh Water Depths: DRILLER'S LOG FROM OFFSET WELLS

14) Approximate Saltwater Depths: 1,947', 2,589'

15) Approximate Coal Seam Depths: 662', 1,305'

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

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

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

18)

CASING AND TUBING PROGRAM

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	24"	NEW	NA	52.78	40'	40'	CTS
Fresh Water	13 3/8"	NEW	J-55	54.6	1,423'	1,400'	CTS
Coal							
Intermediate	9 5/8"	NEW	J-55	40	2,680'	2,650'	CTS
Production	5 1/2"	NEW	P-110	20	17,007.41'	17,977.41'	3,953 CU. FT.
Tubing	2 3/8"	NEW	P-110	4.7	NA	8,500'	NA
Liners							

MDK 8/10/2017

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	24"	30"	.375"	415		4,500 PSI GROUT	NA
Fresh Water	13 3/8"	17 1/2"	.38"	2,760	2,000	CLASS A	1.23
Coal							
Intermediate	9 5/8"	12 1/4"	.395"	3,950	3,000	CLASS A	1.3
Production	5 1/2"	8 3/4"	.361"	12,530	9,700	50:50 POZ	1.21
Tubing	2 7/8"	NA	.217"	1,570	3,600	NA	NA
Liners							

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Kind:				
Sizes:				
Depths Set:				

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

Drilling and completion of a horizontal Marcellus well. The well will be drilled on air to an approximate depth of 6,650' TVD/MD. The well will then be horizontally drilled on fluid from KOP to approximately 8,222' TVD / 17,007.41' MD along a 147 degree azimuth.

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

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

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 23.18

22) Area to be disturbed for well pad only, less access road (acres): 7.07

23) Describe centralizer placement for each casing string:

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

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

Surface string cement will be a Class A + 3% bwoc Calcium Chloride Fresh Water blend. Intermediate string cement will be a Class A Cement + 0.3% bwoc Calcium Chloride + Fresh Water. Production string cement will be (50:50) Poz (Fly Ash):Type I Cement with a gas migration additive.

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25) Proposed borehole conditioning procedures:

Surface string will use a 35.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite + 80 lbs Fed Seal @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Intermediate string will use a 35.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite + 80 lbs Fed Seal @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Production string will use a 50.0 bbls SealBond 25 + 1 gal/bbl US-40 + 275 lbs/bbl Barite, Bulk + 1 gal/bbl SS-2 @ 13.5 ppg spacer prior to cement.

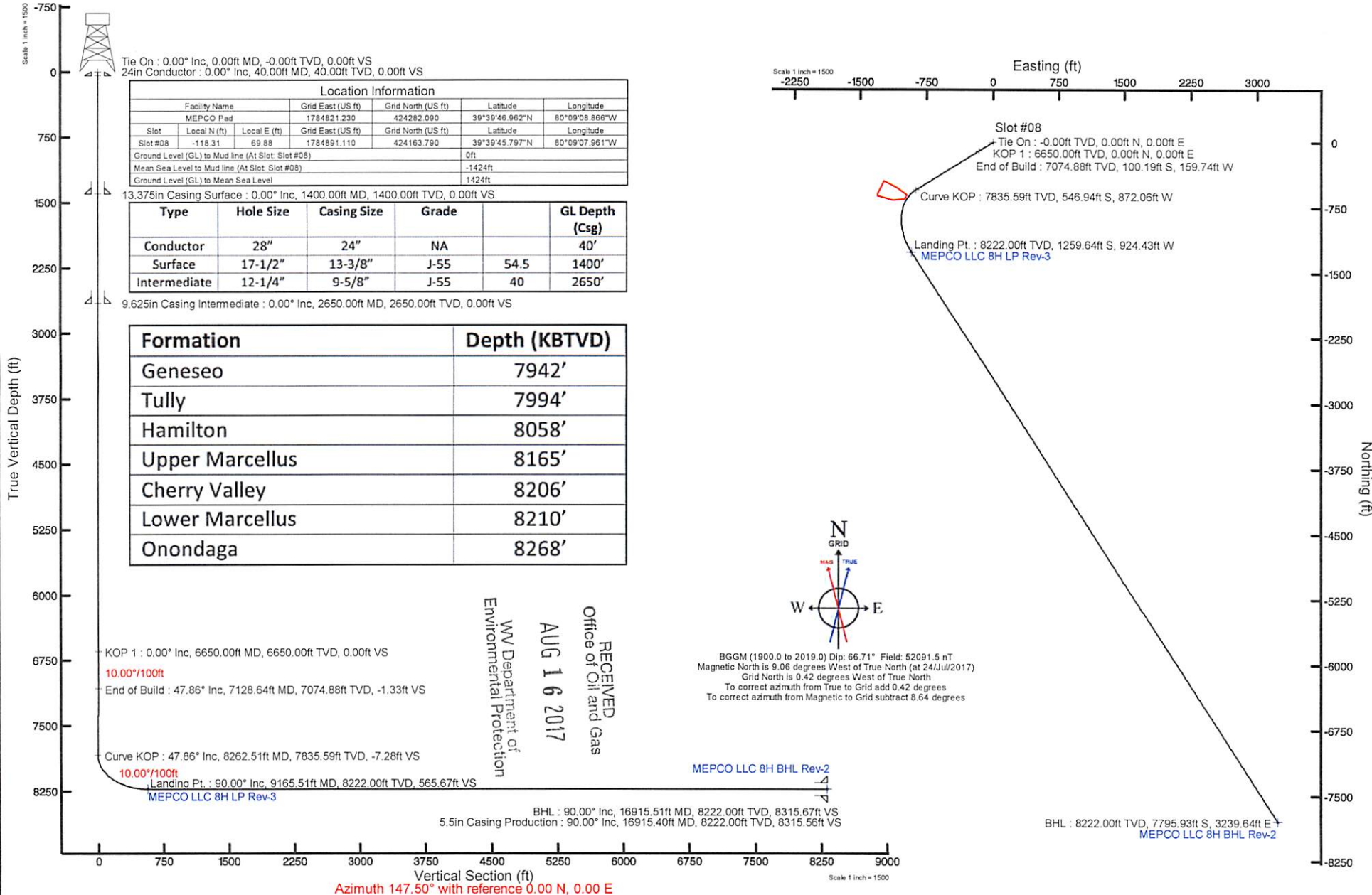
*Note: Attach additional sheets as needed.



NORTHEAST NATURAL ENERGY, LLC

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

Slot: Slot #08
 Well: MEPCO LLC 8H
 Wellbore: MEPCO LLC 8H PWB



Tie On : 0.00° Inc, 0.00ft MD, -0.00ft TVD, 0.00ft VS
 24in Conductor : 0.00° Inc, 40.00ft MD, 40.00ft TVD, 0.00ft VS

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
MEPCO Pad	1784821.230	424282.090	39°39'46.962"N	80°09'08.866"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #08	-118.31	69.88	1784891.110	424163.790
Ground Level (GL) to Mud line (At Slot: Slot #08)			0ft	
Mean Sea Level to Mud line (At Slot: Slot #08)			-1424ft	
Ground Level (GL) to Mean Sea Level			1424ft	

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

Formation	Depth (KBTVD)
Geneseo	7942'
Tully	7994'
Hamilton	8058'
Upper Marcellus	8165'
Cherry Valley	8206'
Lower Marcellus	8210'
Onondaga	8268'

KOP 1 : 0.00° Inc, 6650.00ft MD, 6650.00ft TVD, 0.00ft VS

10.00°/100ft

End of Build : 47.86° Inc, 7128.64ft MD, 7074.88ft TVD, -1.33ft VS

Curve KOP : 47.86° Inc, 8262.51ft MD, 7835.59ft TVD, -7.28ft VS

10.00°/100ft

Landing Pt. : 90.00° Inc, 9165.51ft MD, 8222.00ft TVD, 565.67ft VS

MEPCO LLC 8H LP Rev-3

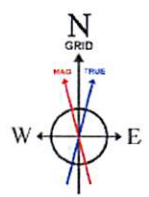
BHL : 90.00° Inc, 16915.51ft MD, 8222.00ft TVD, 8315.67ft VS

5.5in Casing Production : 90.00° Inc, 16915.40ft MD, 8222.00ft TVD, 8315.56ft VS

BHL : 8222.00ft TVD, 7795.93ft S, 3239.64ft E

MEPCO LLC 8H BHL Rev-2

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BGGM (1900.0 to 2019.0) Dip: 66.71° Field: 52091.5 nT
 Magnetic North is 9.06 degrees West of True North (at 24/Jul/2017)
 Grid North is 0.42 degrees West of True North
 To correct azimuth from True to Grid add 0.42 degrees
 To correct azimuth from Magnetic to Grid subtract 8.64 degrees

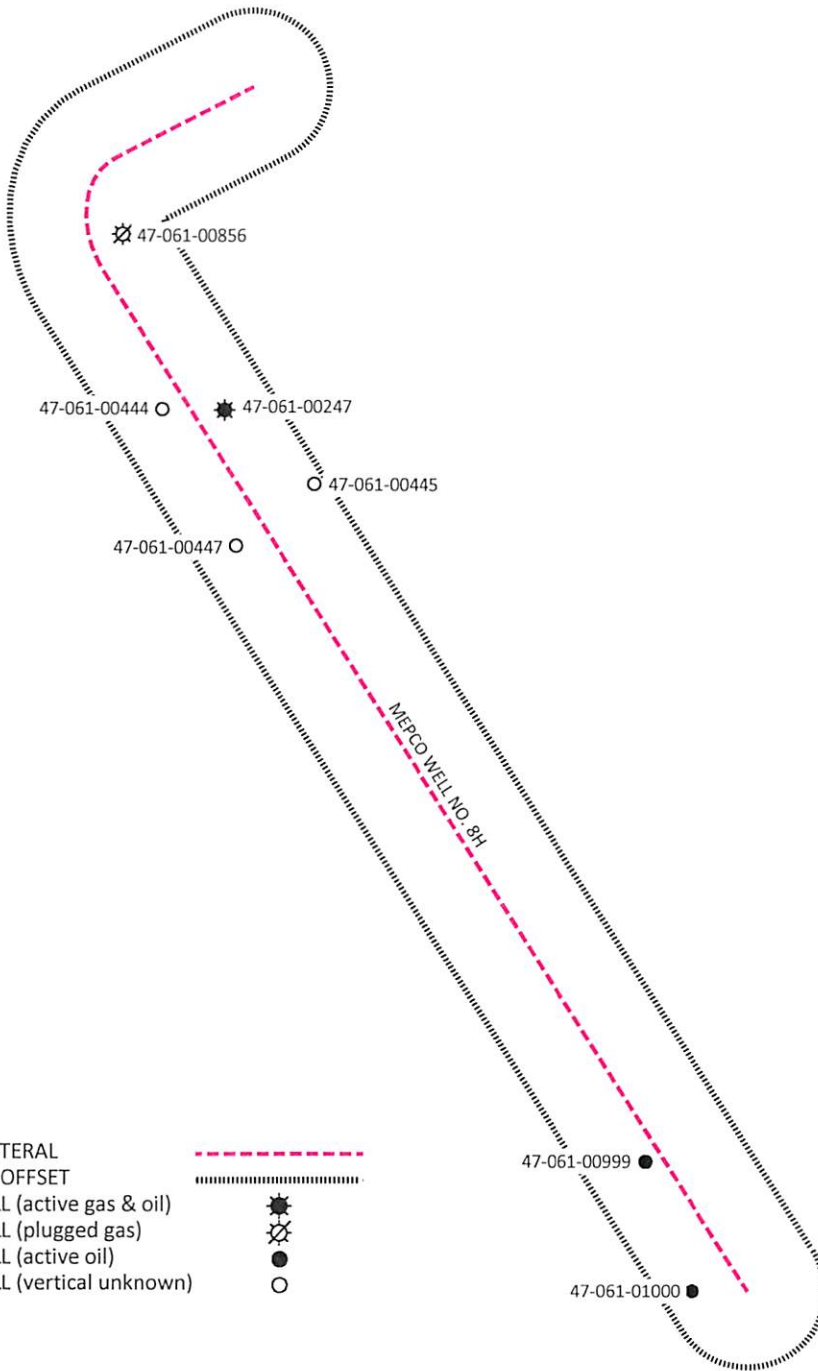
MEPCO LLC 8H BHL Rev-2

61-01759 WOB

61-01759MOD

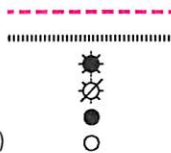


NORTH



LEGEND

- PROPOSED LATERAL
- 500' LATERAL OFFSET
- EXISTING WELL (active gas & oil)
- EXISTING WELL (plugged gas)
- EXISTING WELL (active oil)
- EXISTING WELL (vertical unknown)



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Civil & Environmental Consultants, Inc.

600 Marketplace Ave · Suite 200 · Bridgeport, WV 26330
Ph: 304.933.3119 · Fax: 304.933.3327
www.cecinc.com

NORTHEAST NATURAL ENERGY LLC
MEPCO LLC
CLAY DISTRICT, MONONGALIA COUNTY
WEST VIRGINIA

MEPCO WELL 8H
AREA OF REVIEW

DRAWN BY:	LDM	CHECKED BY:	JDR	APPROVED BY:	DEM	FIGURE NO.:	11/03/2017
DATE:	AUGUST 8, 2017	DWG SCALE:	1" = 1,200'	PROJECT NO:	150-445		

P:\2015\150-445-Survey\Draw\Well Plats\FINAL PLATS\AREA OF REVIEW\150445-SRV-MEPCO WELL BH ADR.dwg\MEPCO BH ADR\ LS:(8/3/2017 - jshafer) - LP: 8/8/2017 4:38 PM

61-01759
MOD

AREA OF REVIEW
MEPCO WELL 8H

UNIT (API NUMBER)	WELL NAME	WELL NUMBER	OPERATOR	WV DEP STATUS	TD	GROUND ELEVATION
4706100856	J. W. WRIGHT	WRIGHT 2	CONSOLIDATION COAL CO.	PLUGGED	1900'	1128'
4706100247	J. W. WRIGHT	15	CONSOLIDATION COAL CO.	VERTICAL GAS	2248'	1312.35'
4706100444	MIKE WRIGHT	15	CONSOLIDATION COAL CO.	VERTICAL GAS	2248'	1312.35'
4706100445	MIKE WRIGHT	4	CONSOLIDATION COAL CO.	VERTICAL GAS	2463'	1220'
4706100447	NOAH WRIGHT	3	CONSOLIDATION COAL CO.	ABANDONED	2486'	UNKNOWN
4706100999	J. WILDMAN	6	NNE RESOURCES, LLC	VERTICAL	2400'	1170'
4706101000	L. WILDMAN	11	NNE RESOURCES, LLC	VERTICAL	2400'	1190'

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11/03/2017

WW-9
(2/15)

API Number 47 - 061 - 01759 MOV
Operator's Well No. MEPCO 8H

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) JAKES RUN OF 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. AIR-VERTICAL; OIL BASED-CURVE & HORIZONTAL

-If oil based, what type? Synthetic, petroleum, etc. SYNTHETIC OIL BASED MUD

Additives to be used in drilling medium? ORGANOPHILIC CLAY VISCOSIFIERS, LIME, UNSATURATED FATTY ACIDS, CaCl, BARITE, EMULSIFIERS, MICA LCM, WATER LOSS AGENTS

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. REMOVED OFFSITE - PLEASE SEE ATTACHMENT "A" RECEIVED Office of Oil and Gas

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____ AUG 16 2017

-Landfill or offsite name/permit number? PLEASE SEE ATTACHMENT "A" WV Department of Environmental Protection

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

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

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

Company Official Signature Hollie M Medley
Company Official (Typed Name) HOLLIE M MEDLEY
Company Official Title REGULATORY MANAGER



Subscribed and sworn before me this 10th day of August, 2017

Shana Kennedy Notary Public

My commission expires Dec. 29, 2021

11/03/2017

61-61759100

Form WW-9

Operator's Well No. MEPCO 8H

NORTHEAST NATURAL ENERGY LLC

Proposed Revegetation Treatment: Acres Disturbed 12.80 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	1	

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Maime J. Kistner

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Comments: _____

WV Department of
Environmental Protection

Title: Inspector

Date: 8/10/2017

Field Reviewed? () Yes () No

11/03/2017

Attachment A to WW-9

Northeast Natural Energy LLC (“NNE”) plans to utilize a closed loop process for its drilling of the MEPCO 8H well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completion process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

MEPCO 8H Drill Cuttings will be taken to disposal at one or more of the following disposal/approved waste facilities, unless listed facilities are no longer approved to accept waste at time of disposal:

- Westmoreland Landfill (Tervita) – Belle Vernon, PA (Permit # 100277)
- Meadowfill Landfill (Waste Management) – Bridgeport, WV (Permit # SWF 103298)
- Max Environmental – Yukon, PA (PAD004835146 and 301071)
- Max Environmental – Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal) – Export, PA (Permit # 101421)

NNE plans to reuse and recycle all flowback fluid and/or reach out to other operators in the area who may be able to reuse and recycle such fluid. However, in the event that reuse is not obtainable the fluid will be disposed of at one, or multiple, of the following disposal/approved waste facilities unless listed facilities are no longer approved to accept waste at time of disposal:

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

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northeast
NATURAL ENERGY

MEPCO 8H
SITE SAFETY PLAN

JULY 27, 2017

MJK
8/10/2017

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SURFACE HOLES SURVEYED LONGITUDE -80°09'07.96"
 BOTTOM HOLE SURVEYED LONGITUDE -80°08'25.83"

7,661'
 4,367'

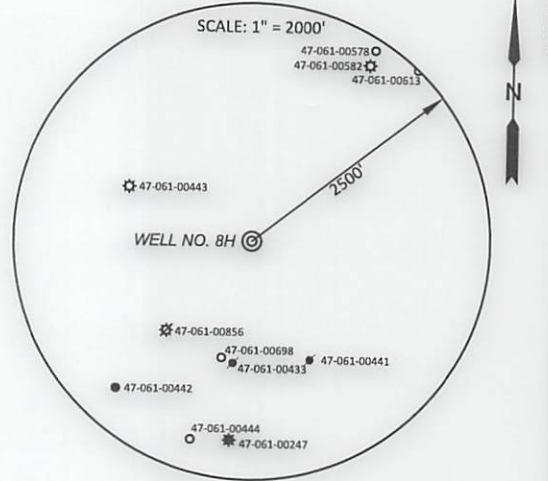
**NORTHEAST NATURAL ENERGY LLC
 MEPCO WELL NO. 8H
 LEASE NO. WV-061-003478-001**

SURFACE HOLE WELL NO. 8H

TOP HOLE (UTM NAD 83)
 N) 4390667.11
 E) 572722.26

LANDING POINT (UTM NAD 83)
 N) 4390301.17
 E) 572432.15

BOTTOM HOLE (UTM NAD 83)
 N) 4388308.53
 E) 573748.91

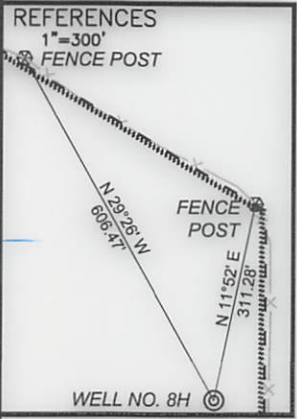


TOP HOLE (NAD 83)	LP (NAD 83)	BOTTOM HOLE (NAD 83)
N) 424163.79 E) 1784891.11 LAT.) 39°39'45.80" LONG.) 80°09'07.96" DEC. LAT.) 39.662722 DEC. LONG.) -80.152212	N) 422978.94 E) 1783919.14 LAT.) 39°39'34.02" LONG.) 80°09'20.28" DEC. LAT.) 39.659449 DEC. LONG.) -80.155633	N) 416368.34 E) 1789130.55 LAT.) 39°38'28.98" LONG.) 80°08'25.83" DEC. LAT.) 39.641384 DEC. LONG.) -80.140507
TOP HOLE (NAD 27)	LP HOLE (NAD 27)	BOTTOM HOLE (NAD 27)
N) 424126.71 E) 1816327.94 LAT.) 39°39'45.51" LONG.) 80°09'08.71" DEC. LAT.) 39.662641 DEC. LONG.) -80.152418	N) 422941.86 E) 1815356.02 LAT.) 39°39'33.73" LONG.) 80°09'21.02" DEC. LAT.) 39.659369 DEC. LONG.) -80.155840	N) 416331.20 E) 1819567.56 LAT.) 39°38'28.69" LONG.) 80°08'26.57" DEC. LAT.) 39.641303 DEC. LONG.) -80.140714

TAG	OWNER	DIST-TM-PAR	AC. ±
1	MEPCO LLC	4-16-48.3	103.49
2	DOWNEY HAROLD FOX EST	4-16-47	0.85
3	DOWNEY HAROLD FOX EST	4-16-46	21.9
4	CONSOL MINING COMPANY LLC	4-16-54	84.14
5	CONSOL MINING COMPANY LLC	4-16-52	19.97
6	A. KEITH MICHAEL, ET AL	4-16-45	35.53
7	A. KEITH MICHAEL, ET AL	4-16-44	8.20
8	A. KEITH MICHAEL, ET AL	4-16-48	206.00
9	JOE CLARK STATLER	4-16-66	97.69
10	A. KEITH MICHAEL, ET AL	4-16-43	45.00
11	ARTHUR LUZADER	4-16-72.8	16.06
12	KENNETH & GENEVA YOST	4-16-72.4	5.25
13	KENNETH & GENEVA YOST	4-16-72.2	4.85
14	JESSE & HELEN LEMASTERS	4-16-72.3	3.72
15	WILLIAM JONAH KERNS	4-16-72.9	2.26
16	WADESTOWN VOLUNTEER FIRE DEPT.	4-16-72.6	2.78
17	MT. PLEASANT UNITED METHODIST CHURCH	4-16-72.13	2.35
18	KENNETH & GENEVA YOST	4-16-72.7	11.69
19	GEORGE H. RUCKLE	4-16-72	5.22
20	ROBERT JOSEPH & IRENE CATHERINE CARUBIA	4-16-74	12.05
21	CONSOL MINING COMPANY LLC	4-16-72.1	0.93
22	GEORGE H. RUCKLE	4-21-19	48.00
23	MARK & BETTY EDDY, ET AL	4-21-20	58.91
24	MARK & BETTY EDDY, ET AL	4-21-21	83.46
25	MARK & BETTY EDDY, ET AL	4-21-22	25.577
26	CHAD M. & MELISSA K. MATHENY	4-21-22.1	7.483

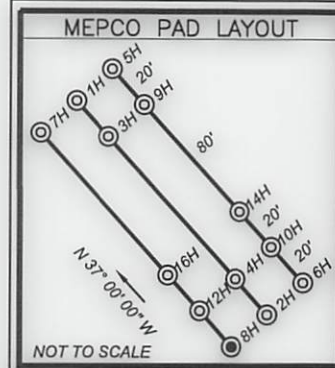
BOTTOM HOLE WELL NO. 8H

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



NOTES ON SURVEY

- NO OCCUPIED DWELLINGS OR BUILDINGS 2500 SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY WITHIN 625' OF THE CENTER OF THE WELL PAD WERE OBSERVED.
- NO WATER WELLS OR DEVELOPED SPRINGS USED FOR HUMAN OR DOMESTIC ANIMAL CONSUMPTION WERE FOUND WITHIN 250'.
- SURFACE OWNERSHIP TAKEN FROM THE MONONGALIA COUNTY TAX ASSESSOR AND COUNTY CLERK OFFICES IN OCTOBER, 2015.
- WELL LATITUDE AND LONGITUDE FROM SURVEY GRADE VRS SOLUTIONS.
- BEARINGS SHOWN ARE BASED UPON THE WV STATE PLANE COORDINATE SYSTEM, NAD 83 GRID NORTH ZONE.
- LEASE INFORMATION PROVIDED BY NORTHEAST NATURAL ENERGY LLC.
- PARCEL AND LEASE BOUNDARY LOCATIONS ARE APPROXIMATE AND BASED UPON RELEVANT GIS INFORMATION, FIELD LOCATION BOUNDARY EVIDENCE AND DEED DESCRIPTIONS.



600 Marketplace Avenue, Suite 200
 Bridgeport, WV 26330
 Toll Free 855-488-9539
 Fax 304-933-3327



Civil & Environmental Consultants, Inc.

DATE JULY 31, 2017

SCALE 1" = 1600' ACCURACY 1:2500

OPERATORS WELL No. 8H

47-061-01759 MOD
 API No. H6A

TYPE OF WELL:

GAS:
 Production Storage *Deep *Shallow

PROPOSED WORK ON LOCATION:

Drill Drill Deeper Redrill Convert
 Fracture/ Stimulate *Plug off to Formation
 Perforate New Formation Plug and Abandon
 Clean/ Replug Other Than Above
 If "Other" Please see Details below
 DETAILS OF PROPOSED WORK

*TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH TVD: 8,222' TMD: 17,007.41'



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 rules issued and prescribed by the Division of Environmental Protection.

Dennis E. Miller

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



WELL AREA & LOCATION INFORMATION:

ELEVATION SOURCE DGPS (OPUS)
 ELEVATION 1452.16' (EXISTING), 1424.00' (PROPOSED)
 WATERSHED JAKES RUN OF DUNKARD CREEK DISTRICT CLAY
 COUNTY MONONGALIA TOPO QUAD BLACKSVILLE
 SURFACE OWNER MEPCO LLC
 ACREAGE 103.49 ±
 ROYALTY OWNER NORTHEAST NATURAL ENERGY, LLC (LEASE NO. WV-061-003478-001)
 LEASE ACREAGE 537.39 ±

WELL OPERATOR NORTHEAST NATURAL ENERGY LLC
 ADDRESS 707 VIRGINIA STREET EAST, SUITE 1200 CHARLESTON, WV 25301

DESIGNATED AGENT JOHN ADAMS
 ADDRESS 707 VIRGINIA STREET EAST, SUITE 1200 CHARLESTON, WV 25301

SURFACE HOLE SURVEYED LATITUDE 39°39'45.80"
 9,210'
 BOTTOM HOLE SURVEYED LATITUDE 39°38'28.98"

SURFACE HOLES SURVEYED LONGITUDE -80°09'07.96"
 BOTTOM HOLE SURVEYED LONGITUDE -80°08'25.83"

7,661' 4,367'

**NORTHEAST NATURAL ENERGY LLC
 MEPCO WELL NO. 8H
 LEASE NO. WV-061-003478-001**

ID	BEARING	DISTANCE
L1	N 56°08' W	1720.57'
L2	N 44°18' W	986.42'
L3	S 62°53' W	1006.18'

LATITUDE: 39°40'00"

LONGITUDE: -80°07'30"

1,438'

9,210'

SURFACE HOLE SURVEYED LATITUDE 39°39'45.80"

LONGITUDE: -80°07'30"

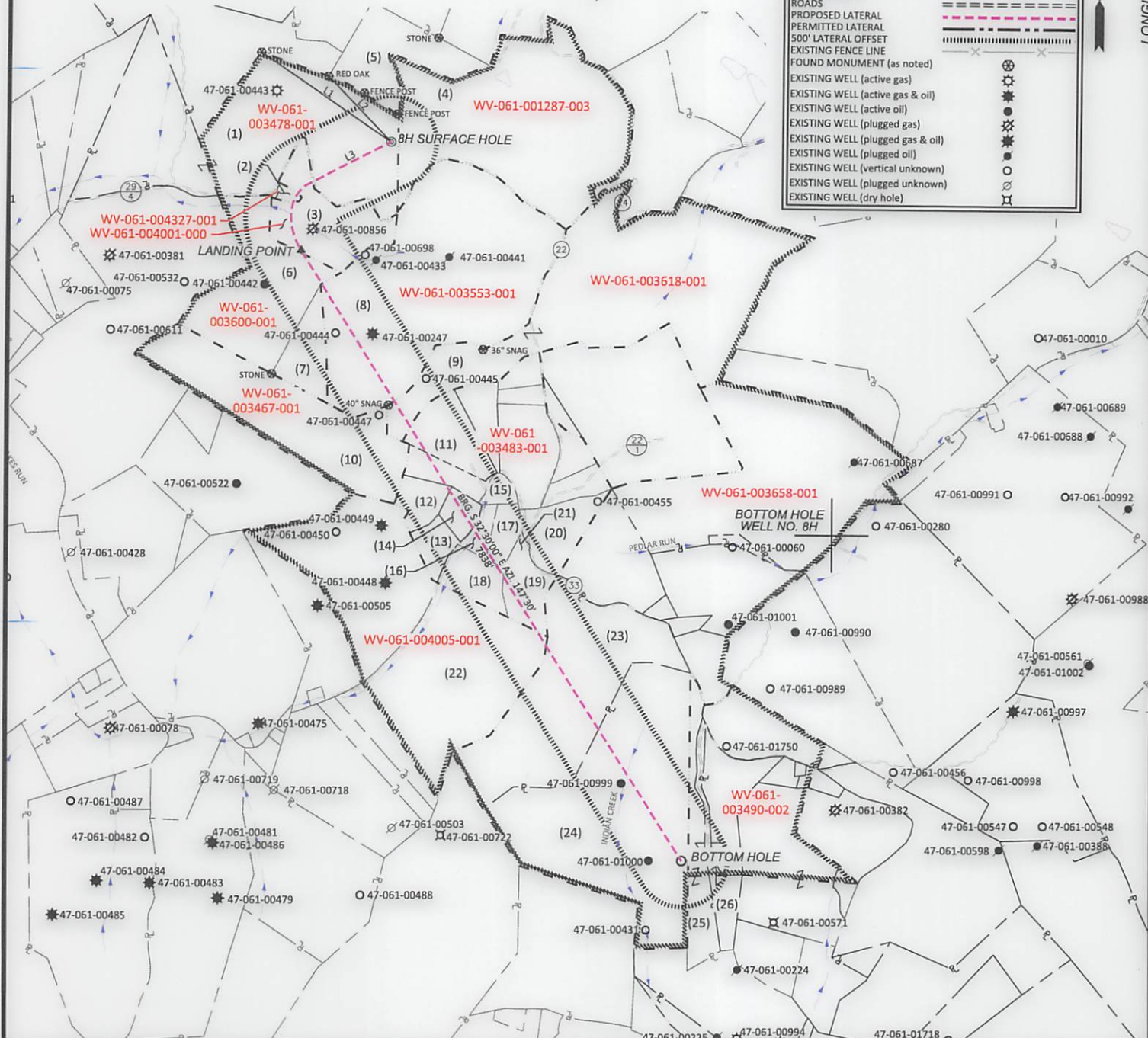
1,438'

9,210'

SURFACE HOLE SURVEYED LATITUDE 39°38'28.98"

SURFACE HOLE WELL NO. 8H

LEASE BOUNDARY	
OUTER LEASE BOUNDARY	
SURFACE BOUNDARY	
CREEK/STREAM	
ROADS	
PROPOSED LATERAL	
PERMITTED LATERAL	
500' LATERAL OFFSET	
EXISTING FENCE LINE	
FOUND MONUMENT (as noted)	
EXISTING WELL (active gas)	
EXISTING WELL (active gas & oil)	
EXISTING WELL (active oil)	
EXISTING WELL (plugged gas)	
EXISTING WELL (plugged gas & oil)	
EXISTING WELL (plugged oil)	
EXISTING WELL (vertical unknown)	
EXISTING WELL (plugged unknown)	
EXISTING WELL (dry hole)	



600 Marketplace Avenue, Suite 200
 Bridgeport, WV 26330
 Toll Free 855-488-9539
 Fax 304-933-3327
Civil & Environmental Consultants, Inc.



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 rules issued and prescribed by the Division of Environmental Protection.

DENNIS E. MILLER
 LICENSED
 No. 991
 STATE OF WEST VIRGINIA
 PROFESSIONAL SURVEYOR

DATE JULY 31, 2017
 SCALE 1" = 1600' ACCURACY 1:2500
 OPERATORS WELL No. 8H
47 - 061 - 01759 MOD H&A
 API No.

TYPE OF WELL:
 GAS: Production Storage *Deep *Shallow

PROPOSED WORK ON LOCATION:
 Drill Drill Deeper Redrill Convert
 Fracture/ Stimulate *Plug off to Formation
 Perforate New Formation Plug and Abandon
 Clean/ Replug Other Than Above
 If "Other" Please see Details below
 DETAILS OF PROPOSED WORK _____
 *TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH TVD: 8,222' TMD: 17,007.41'

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

WELL AREA & LOCATION INFORMATION:
 ELEVATION SOURCE DGPS (OPUS)
 ELEVATION 1452.16' (EXISTING), 1424.00' (PROPOSED)
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 LEASE ACREAGE 537.39 ±

WELL OPERATOR NORTHEAST NATURAL ENERGY LLC DESIGNATED AGENT JOHN ADAMS
 ADDRESS 707 VIRGINIA STREET EAST, SUITE 1200 ADDRESS 707 VIRGINIA STREET EAST, SUITE 1200
CHARLESTON, WV 25301 CHARLESTON, WV 25301

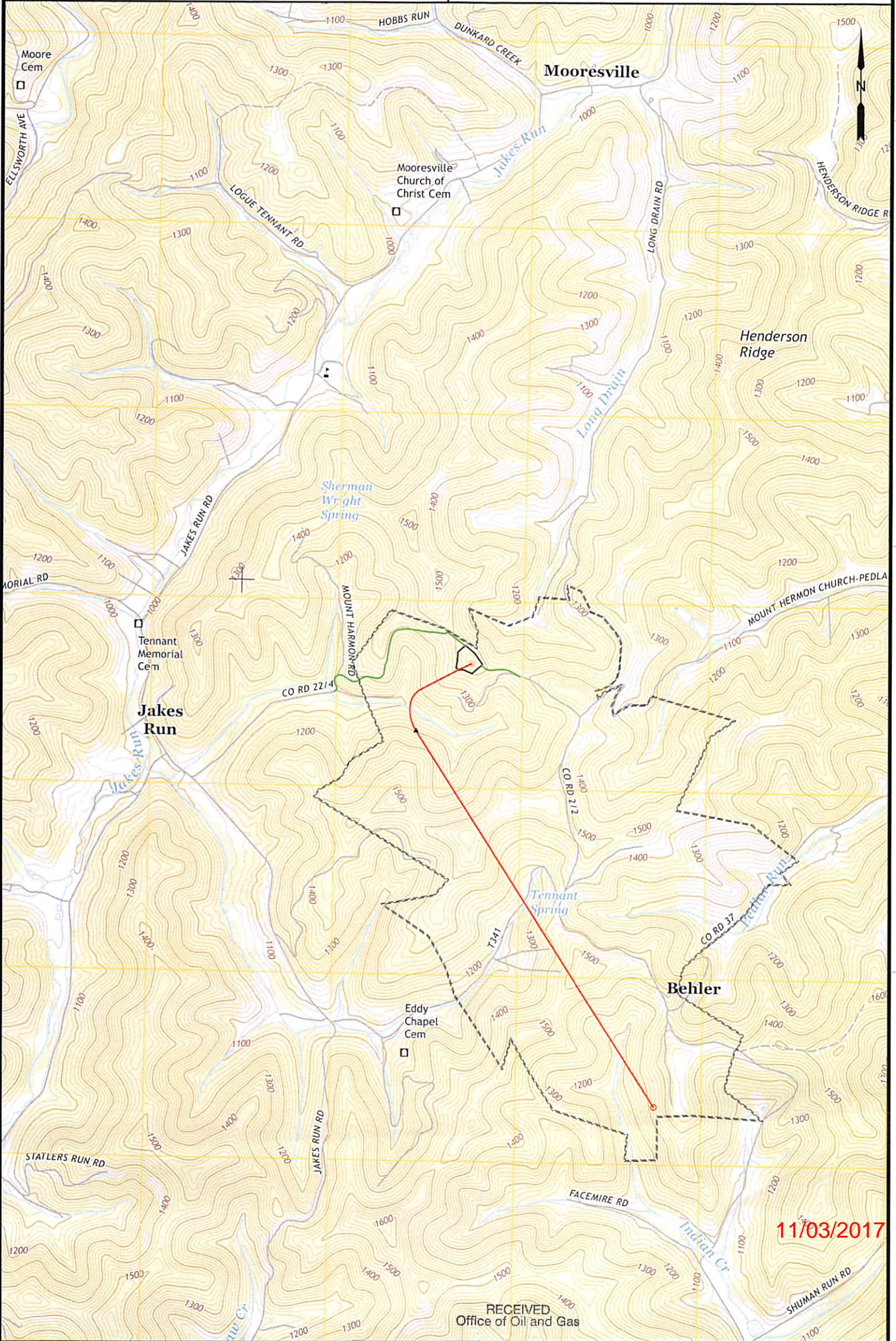
NORTHEAST NATURAL ENERGY LLC
MEPCO WELL NO. 8H
LEASE NO. WV-061-003478-001

600 Marketplace Avenue, Suite 200
Bridgeport, WV 26330
Toll Free 855-488-9539
Fax 304-933-3327

61-01759 MOD



Civil & Environmental Consultants, Inc.



11/03/2017

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Environmental Protection

SCALE IN FEET



0 2000 4000

LEGEND	
LEASE BOUNDARY	---
PROPOSED LATERAL	---
PAD	---
ACCESS ROAD	---
PROPOSED SURFACE HOLE	○
PROPOSED BOTTOM HOLE	●
PROPOSED LANDING POINT	▲

WW-6A1
(5/13)Operator's Well No. MEPCO 8H

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

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

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

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

*Please See Attachment

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

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

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

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. RECEIVED
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AUG 30 2017

Well Operator: Northeast Natural Energy LLC WV Department of
Environmental Protection
 By: Hollie Medley
 Its: Regulatory Manager

WW-60
(7-01)

DATE: August 14th, 20 17
OPERATOR'S
WELL NO. MEPCO 2H, 4H, 6H, 8H, 10H 12H, 14H
API NO: 47-
State County Permit No.

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

A F F I D A V I T

State of West Virginia
County of Monongalia

I, Jeannie Morgan Johnson (the designated owner or operator, or authorized representative thereof), after being duly sworn, do declare that the undersigned is authorized by the owner of the working interest in the well permit application to which this affidavit is attached to state that (he, she, or it) shall tender to the owner of the oil and gas in place not less than one-eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced, or marketed before deducting the amount to be paid or set aside for the owner of the oil or gas in place, or all such oil or gas to be extracted, produced, or marketed from the well. West Virginia Code 22-6-8(e).

Signed: Jeannie Morgan Johnson

Taken, subscribed and sworn to before me this 14th day of August, 20 17.

Brenda Malone-Pence
Notary Public

My Commission expires: _____



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WV Department of
Environmental Protection

WW-6A1

OPERATOR'S WELL NO.

MEPCO 8H

NNE LEASE NUMBER	GRANTOR, LESSOR, ETC	GRANTEE, LESSEE, ETC	ROYALTY	BK/PG
WV-061-003600-001	GARY G LORING	NORTHEAST NATURAL ENERGY LLC	DEED	1550/343
WV-061-004001-000	JOHN W WRIGHT AND AMANDA WRIGHT	*SOUTH PENN OIL CO	0.125 OR GREATER	39/202
WV-061-004327-001	REED ENERGY SERVICES LLC	NORTHEAST NATURAL ENERGY LLC	DEED	1577/831
WV-061-004001-000	JOHN W WRIGHT AND AMANDA WRIGHT	*SOUTH PENN OIL CO	0.125 OR GREATER	39/202
WV-061-004327-001	REED ENERGY SERVICES LLC	NORTHEAST NATURAL ENERGY LLC	DEED	1577/831
WV-061-004001-000	JOHN W AND AMANDA WRIGHT	*SOUTH PENN OIL CO	0.125 OR GREATER	39/202
WV-061-003553-001	GARY G LORING	NORTHEAST NATURAL ENERGY LLC	DEED	1529/705
WV-061-004327-001	REED ENERGY SERVICES LLC	NORTHEAST NATURAL ENERGY LLC	DEED	1577/831
WV-061-004001-000	JOHN W AND AMANDA WRIGHT	*SOUTH PENN OIL CO	0.125 OR GREATER	39/202
WV-061-003478-001	LORING, GARY G.	NORTHEAST NATURAL ENERGY LLC	DEED	1521/99
WV-061-004001-000	JOHN W AND AMANDA WRIGHT	*SOUTH PENN OIL CO	0.125 OR GREATER	39/202
WV-061-004002-000	NIMROD AND NANCY TENNANT	*SOUTH PENN OIL CO	0.125 OR GREATER	39/361
WV-061-003618-001	SHUMAN, INC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1539/411
WV-061-003483-001	HERV OIL LLC	*EM1 ENERGY INC	0.125 OR GREATER	1501/278
WV-061-003483-002	ANDREW SOLOMON	*EM1 ENERGY INC	0.125 OR GREATER	1501/740
WV-061-003554-001	JUNE C MYERS	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1523/795
WV-061-003554-002	RUTH J MONTILOR	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1535/39
WV-061-003554-003	ALEXANDRA D DIERINGER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/82
WV-061-003554-004	HAPPY ENDINGS LLC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/116
WV-061-003483-001	HERV OIL LLC	*EM1 ENERGY INC	0.125 OR GREATER	1501/278
WV-061-003483-002	ANDREW SOLOMON	*EM1 ENERGY INC	0.125 OR GREATER	1501/740
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WV-061-003554-002	RUTH J MONTILOR	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1535/39
WV-061-003554-003	ALEXANDRA D DIERINGER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/82
WV-061-003554-004	HAPPY ENDINGS LLC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/116
WV-061-003483-001	HERV OIL LLC	*EM1 ENERGY INC	0.125 OR GREATER	1501/278
WV-061-003483-002	ANDREW SOLOMON	*EM1 ENERGY INC	0.125 OR GREATER	1501/740
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WV-061-003483-002	ANDREW SOLOMON	*EM1 ENERGY INC	0.125 OR GREATER	1501/740
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WV-061-003554-002	RUTH J MONTILOR	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1535/39
WV-061-003554-003	ALEXANDRA D DIERINGER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1533/82
WV-061-003554-004	HAPPY ENDINGS LLC	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1534/116
WV-061-004017-000	JARRETT WILDMAN, ET AL	*JW SCOTT	0.125 OR GREATER	27/145
WV-061-003658-001	MICHAEL L AND TERRY STRAIGHT	NORTHEAST NATURAL ENERGY LLC	DEED	1542/110
WV-061-004020-000	MARK V AND BETTY A EDDY	NORTHEAST NATURAL ENERGY LLC	DEED	1505/572
WV-061-004017-000	JARRETT WILDMAN, ET AL	*JW SCOTT	0.125 OR GREATER	27/145
WV-061-003658-001	MICHAEL L AND TERRY STRAIGHT	NORTHEAST NATURAL ENERGY LLC	DEED	1542/110
WV-061-004020-000	MARK V AND BETTY A EDDY	NORTHEAST NATURAL ENERGY LLC	DEED	1505/572
WV-061-004005-001	KEVIN K CHUMNEY AND JANET L CHUMNEY	NORTHEAST NATURAL ENERGY LLC	DEED	1581/250
WV-061-004314-001	REED ENERGY SERVICES LLC	NORTHEAST NATURAL ENERGY LLC	DEED	1580/200
WV-061-004005-000	JAMES S WALKER AND NANCY WALKER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	26/273
WV-061-004005-002	DONNA JEAN SHELTON AND THOMAS C	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1591/700
WV-061-004005-001	KEVIN K CHUMNEY AND JANET L CHUMNEY	NORTHEAST NATURAL ENERGY LLC	DEED	1581/250
WV-061-004314-001	REED ENERGY SERVICES LLC	NORTHEAST NATURAL ENERGY LLC	DEED	1580/200
WV-061-004005-000	JAMES S WALKER AND NANCY WALKER	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	26/273
WV-061-004005-002	DONNA JEAN SHELTON AND THOMAS C	NORTHEAST NATURAL ENERGY LLC	0.125 OR GREATER	1591/700

*SEE ATTACHMENT

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Office of Oil and Gas
AUG 30 2017
WV Department of
Environmental Protection

11/03/2017

South Penn Oil Company
 Assignment
 DR 32/240
 South Penn Oil Company
 |
 South Penn Natural Gas Company
 Assingment
 DR 304/547
 South Penn Natural Gas Company
 |
 South Penn Oil Company
 Assignment
 DR 580/311
 South Penn Oil Company merged with
 Pennzoil Company and United Gas
 |
 Pennzoil United Inc.
 Assignment
 DR 672/665
 Pennzoil United Inc.
 |
 W. H. Allen
 Assignment
 DR 695/557
 W. H. Allen
 |
 Union Trust & Deposit Company
 Assignment
 DR 695/556
 W.H. Allen and James A. Allen

Edwin Associates, Inc.
 Assignment
 DR 754/594
 Union Trust National Bank, as successor by conversion of
 Union Trust & Deposit Company
 |
 Edwin Associates, Inc.
 Edwin Associates, Inc.
 |
 J. T. Carson
 Assignment
 DR 754/600
 J. T. Carson
 |
 Thompson/Texas Associates Partnership
 Assignment
 DR 754/606
 Thompson/Texas Associates Partnership, Thompson Pipe and Supply Company,
 Jack O. Thompson, Harold J. Arnsteen, Equidyne Investment Associates, Inc.,
 individually and as partners and/or joint venturers in that entity known as
 Thompson/Texas Associates Partnership
 |
 Mark Eddy
 Assignment
 AR 21/22
 |
 Beth Eddy, Debbie Eddy and Melissa Eddy
 Assignment
 AR 21/582
 Beth Stewart, Debbie Morris and Melissa Matheny
 |
 Mark V. Eddy
 Assignment
 AR 102/275
 Mark V. Eddy & Betty Eddy (h&w) & Eddy Brothers
 |
 Northeast Natural Energy LLC
 Assignment
 AB 123/363

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11/03/2017

EM1 Energy Inc.

AS 125/638

D: 12/18/2014

R: 6/9/2015

Northeast Natural
Energy LLC

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WV Department of
Environmental Protection

11/03/2017

J. W. Scott
Lease
DR 27/145
J. W. Scott
|
William Munhall and George P. Hukill
Assignment
DR 28/447
William Munhall and George P. Hukill and J. W. Scott, doing business as Mountain State Oil Company
|
South Penn Oil Company
Assignment
DR 32/240
South Penn Oil Company
|
South Penn Natural Gas Company
Assignment
DR 304/547
South Penn Natural Gas Company
|
South Penn Oil Company
Assignment
DR 580/311
South Penn Oil Company merged with Pennzoil Company on July 31, 1963
Pennzoil Company and United Gas Corporation
|
Pennzoil United Inc.
Assignment
DR 672/665
Pennzoil United Inc.
|
W. H. Allen
Assignment
DR 695/557
W. H. Allen
|
Union Trust & Deposit Company
Assignment
DR 695/556
W. H. Allen and James A. Allen

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DR 754/594
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Assignment
DR 754/598
Edwin Associates, Inc.
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J. T. Carson
Assignment
DR 754/600
J. T. Carson
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Assignment
DR 754/606
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Thompson/Texas Associates Partnership, Thompson Pipe and Supply Company, Jack O. Thompson, Harold J. Arnsteen, Equidyne Investment Associates, Inc., individually and as partners and/or joint venturers in that entity known as Thompson/Texas Associates Partnership
|
Mark Eddy
Assignment
AR 21/22
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Thompson/Texas Associates Partnership, Thompson Pipe and Supply Company, Jack O. Thompson, Harold J. Arnsteen, Equidyne Investment Associates, Inc., individually and as partners and/or joint venturers in that entity known as Thompson/Texas Associates Partnership
|
Beth Eddy, Debbie Eddy and Melissa Eddy
Assignment
AR 21/582
Beth Stewart, Debbie Morris and Melissa Matheny
|
Mark V. Eddy
Assignment
AR 102/275
Mark V. Eddy & Betty Eddy (h&w) & Eddy Brothers
|
Northeast Natural Energy LLC
Assignment
AB 123/363

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WV Department of
Environmental Protection



7

July 14, 2017

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

RE: MEPCO 2H, 4H, 6H, 8H, 10H, 12H, 14H and 16H

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 Horace Thorn Road (State Route 33), Noah Wright Road (State Route 22/1), Long Drain Road (State Route 22), Mt. Hermon Road (State Route 29/4) and Pedlar Run (State Route 37) on the enclosed survey plat.

Sincerely,

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

Jeannie Morgan Johnson, CPL
Vice President – Land Operations

Enclosure

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WV Department of
Environmental Protection

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

Date of Notice Certification: 08/14/2017

API No. 47- 061 - 01759 MOD
Operator's Well No. MEPCO 8H
Well Pad Name: MEPCO

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>572722.26</u>
County:	<u>Monongalia</u>		Northing:	<u>4390667.11</u>
District:	<u>Clay</u>	Public Road Access:	<u>State Route 29/4</u>	
Quadrangle:	<u>Blacksville</u>	Generally used farm name:	<u>MEPCO LLC</u>	
Watershed:	<u>Jakes Run of Dunkard Creek</u>			

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

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

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Office of Oil and Gas
AUG 16 2017
WV Department of Environmental Protection

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

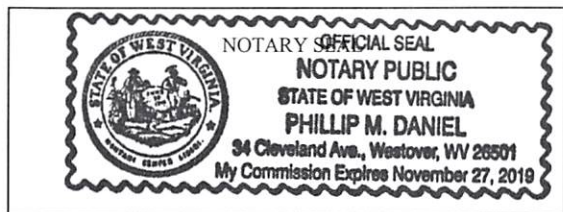
62-01759100

WW-6AC
(1/12)

Certification of Notice is hereby given:

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

Well Operator:	<u>Northeast Natural Energy LLC</u>	Address:	<u>707 Virginia Street East, Suite 1200</u>
By:	<u>Hollie M. Medley</u>		<u>Charleston, WV 25301</u>
Its:	<u>Regulatory Manager</u>	Facsimile:	<u>304.241.5972</u>
Telephone:	<u>304.212.0422</u>	Email:	<u>hmedley@nne-llc.com</u>



Hollie M. Medley

Subscribed and sworn before me this 17th day of August, 2017
Phillip M. Daniel Notary Public
 My Commission Expires 11/27/2019

Oil and Gas Privacy Notice:

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

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 Office of Oil and Gas
 AUG 16 2017
 WV Department of
 Environmental Protection

11/03/2017

WW-6A
(9-13)

API NO. 47- 61 - 01759 MOD
OPERATOR WELL NO. MEPCO 8H
Well Pad Name: MEPCO

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: 8/4/2017 **Date Permit Application Filed:** 8/14/2017

Notice of:

- PERMIT FOR ANY WELL WORK CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

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

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
Name: Please See Attached
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: Please See Attached
Address: _____

COAL OPERATOR
Name: _____
Address: _____

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

Name: _____
Address: _____

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

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

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WW-6A
(8-13)

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API NO. 47- 61 - 01759MOD
OPERATOR WELL NO. MEPCO 8H
Well Pad Name: MEPCO

Notice is hereby given:

WV Department of
Environmental Protection

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WW-6A
(8-13)

API NO. 47- 61 - 01759 MOY
OPERATOR WELL NO. MEPCO 8H
Well Pad Name: MEPCO

Notice is hereby given by:

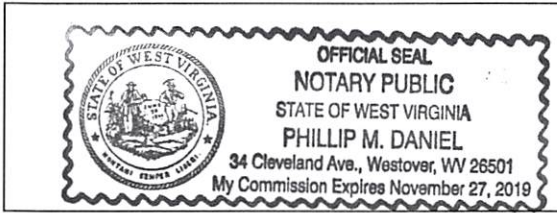
Well Operator: Northeast Natural Energy LLC
Telephone: 304-212-0422
Email: hmedley@nne-llc.com

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

Oil and Gas Privacy Notice:

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

hmedley



Subscribed and sworn before me this 14th day of August, 2017.
Phillip M. Daniel Notary Public
My Commission Expires 11/27/2019

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WW-6A

MEPCO 8H

Surface Owner(s)

Consolidation Coal Company
Attn: Melissa Wilson
Land Agent Dipositions – Rentals
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

MEPCO, LLC
Attn: Will Oliver
103 Corporate Drive, Suite 102
Morgantown, WV 26501

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

Consolidation Coal Company
Attn: Melissa Wilson
Land Agent Dipositions – Rentals
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

Coal Owner or Lessee

Consol Mining Company, LLC
Attn: Analyst, Engineering and Operations Support – Coal
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

Murray Energy Corp.
Attn: Alex P. O'Neill
Coal – Oil and Gas Relations Manager
46226 National Road
St. Clairsville, OH 43950

Gary G. Loring
139 Thistledown Lane
Morgantown, WV 26508

A. Keith Michael
241 Jefferson St.
Bridgeport, WV 26330

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61-01259 MGD

Gregory G. Michael
1176 Sands Drive
Fairmont, WV 26554

Jane Ann Reynolds
2 West Hill Drive
Fairmont, WV 26554

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

Diane K. Braun, co-executrix of James E. Fletcher Estate
44 Luther Park Road
Fairview, WV 26570

William D. Statler
578 Long Drain Road, Core, WV 26541

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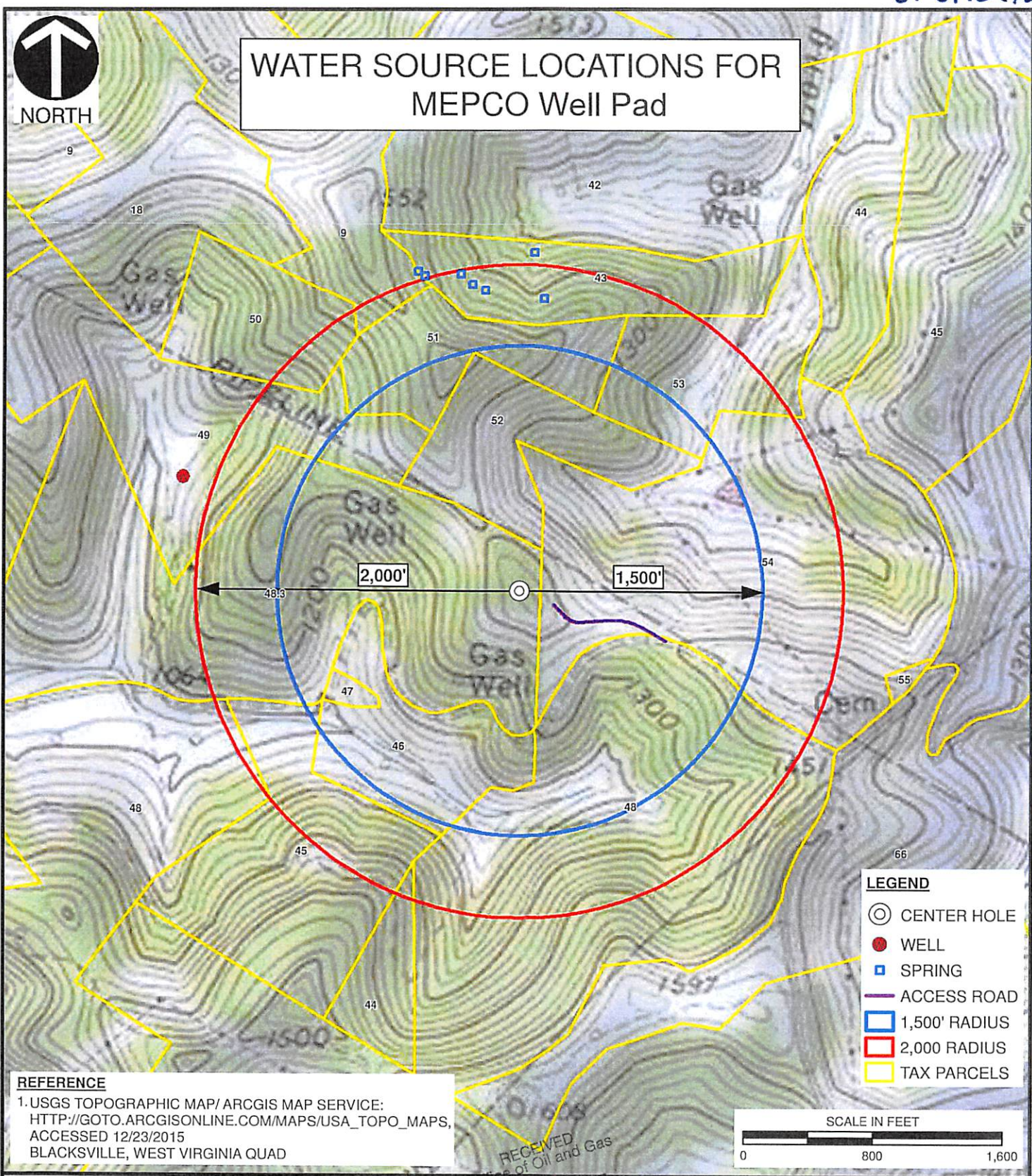
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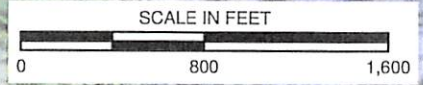


WATER SOURCE LOCATIONS FOR MEPCO Well Pad



REFERENCE
 1. USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:
[HTTP://GTO.ARCGISONLINE.COM/MAPS/USA_TOPO_MAPS](http://gto.arcgis.com/maps/usa_topo_maps),
 ACCESSED 12/23/2015
 BLACKSVILLE, WEST VIRGINIA QUAD

- LEGEND**
- ⊙ CENTER HOLE
 - WELL
 - SPRING
 - ACCESS ROAD
 - 1,500' RADIUS
 - 2,000 RADIUS
 - TAX PARCELS



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C&E
Civil & Environmental Consultants, Inc.
 600 Marketplace Suite 200 - Bridgeport, WV 26330-2820
 Ph: 304-933-3119 Toll: 855-488-9539 Fax: 304-933-3327
www.cecinc.com

NORTHEAST NATURAL ENERGY LLC
 MEPCO PAD
 MONONGALIA COUNTY, WEST VIRGINIA

WATER SOURCES FOR MEPCO PAD

DRAWN BY: MAF	CHECKED BY: JDR	APPROVED BY: *Hand signature on file SAC*	FIGURE NO: WT
DATE: 12/21/2015	SCALE: 1" = 800'	PROJECT NO: 150-445.0021	11/03/2017

I:\Svr-bridgeport\150-445-0021\150445-0021_WATER_WELL_TOPO.mxd 12/21/2015 (mfrank)

MEPCO

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

TMP 16-49

Diane K. Braun, co-executrix of James E. Fletcher Estate
44 Luther Park Road
Fairview, WV 26570

TMP 16-43

William D. Statler
578 Long Drain Road, Core, WV 26541

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY**

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

Date of Notice: 10/5/2015 **Date of Planned Entry:** 10/13/2015

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

Name: SEE ATTACHMENT
Address: _____

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: SEE ATTACHMENT
Address: _____

MINERAL OWNER(s)

Name: SEE ATTACHMENT
Address: _____

*please attach additional forms if necessary

Notice is hereby given:

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>4390688.4; 572705 (UTM NAD 83)</u>
County: <u>Monongalia</u>	Public Road Access: <u>State Route 29/4</u>
District: <u>Clay</u>	Watershed: <u>Dunkard Creek</u>
Quadrangle: <u>Blacksville</u>	Generally used farm name: <u>MEPCO</u>

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

Notice is hereby given by:

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

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

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Oil and Gas Privacy Notice:

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

11/03/2017

WW-6A3 ATTACHMENT

MEPCO

Surface Owner(s)

Consolidation Coal Company
Attn: Melissa Wilson
Land Agent Depositions – Rentals
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

MEPCO, LLC
Attn: Will Oliver
103 Corporate Drive, Suite 102
Morgantown, WV 26501

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

Consolidation Coal Company
Attn: Melissa Wilson
Land Agent Depositions – Rentals
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

MEPCO, LLC
Attn: Will Oliver
103 Corporate Drive, Suite 102
Morgantown, WV 26501

Coal Owner or Lessee

Consol Mining Company, LLC
Attn: Analyst, Engineering and Operations Support – Coal
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

Murray Energy Corp.
Attn: Alex P. O'Neill
Coal – Oil and Gas Relations Manager
46226 National Road
St. Clairsville, OH 43950

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Mineral Owner

Telluric Company
Attn: Joseph Swiger
143 Distributor Drive
Morgantown, WV 26508

A. Keith Michael
241 Jefferson St.
Bridgeport, WV 26330

Gregory G. Michael
1176 Sands Drive
Fairmont, WV 26554

Jane Ann Reynolds
2 West Hill Drive
Fairmont, WV 26554

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 08/04/2017 **Date Permit Application Filed:** 08/14/2017

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

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: CONSOLIDATION COAL COMPANY
Address: CNX CENTER, 1000 CONSOL ENERGY DRIVE
CANONSBURG, PA 15317

Name: MEPCO LLC
Address: 103 CORPORATE DRIVE, SUITE 102
MORGANTOWN, WV 26501

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>572722.26</u>
County:	<u>MONONGALIA</u>		Northing:	<u>4390667.11</u>
District:	<u>CLAY</u>	Public Road Access:		<u>CR 29/4</u>
Quadrangle:	<u>BLACKSVILLE</u>	Generally used farm name:		<u>MEPCO</u>
Watershed:	<u>JAKES RUN OF DUNKARD CREEK</u>			

This Notice Shall Include:

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

Notice is hereby given by:

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

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

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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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

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

Earl Ray Tomblin
Governor

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

January 6, 2016

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 Mepco Pad, Monongalia County
Mepco 8H

Dear Mr. Martin,

This well site will be accessed from a permit #04-2015-1144 issued to Northeast Natural Energy Corporation for access to the State Road for a well site located off of Monongalia County Route 29/4 SLS.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

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

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

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WV Department of
Environmental Protection

11/03/2017

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
Cl-14	Corrosion Inhibitor	Fatty Acids Methanol Olefin Polyozyalkylenes Propargyl Alcohol	NA 67-56-1 NA NA 107-19-7
FRW-18	Friction Reducer	Hydrotreated Light Distillate	64742-47-8
Ferrotrol 300L	Iron Cnontrol	Citric Acid	77-92-9
Sand, White, 40/70	Proppant	Cystalline Silica (Quartz)	14808-50-7
Sand, White, 100 mesh	Proppant	Cystalline Silica (Quartz)	14808-50-7
Scaletrol 720	Scale Inhibitor	Siethylene Glycol	111-46-6

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 MN Department of
 Environmental Protection

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