



west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

March 13, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-7900896, issued to CHESAPEAKE APPALACHIA, L.L.C., 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 all 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: 4172
Farm Name: MAYNARD, W. A.
API Well Number: 47-7900896
Permit Type: Plugging
Date Issued: 03/13/2015

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code §22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. This well is under a consent order and must be plugged under the terms of that agreement.

CK# 5239603
100.00

79 00896 P

FORM WW-4 (B)
Observe
File Copy
(Rev. 2/01)

1) Date: 1/23/2015
2) Operator's Well No. 804172 P&A
3) API Well No. 47-079-00896

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil _____ Gas X Liquid injection _____ Waste disposal _____
(Is Gas, Production X or Underground storage _____) Deep _____ Shallow X
- 5) Location: Elevation 748' Watershed Turkey Creek
District Curry County Putnam Quadrangle Garretts Bend, WV 7.5'
- 6) Well Operator Chesapeake Appalachia, L.L.C. 7) Designated Agent Jessica Greathouse
Address P.O. Box 18496 Address P.O. Box 6070
Oklahoma City, OK 73154-0496 Charleston, WV 25362
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Jamie Stevens Name Chesapeake Appalachia, L.L.C.
Address 105 Kentuck Road Address P.O. Box 18496
Kenna, WV 25248 Oklahoma City, OK 73154-0496

10) Work Order: The work order for the manner of plugging this well is as follows:

See Attached Sheet

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WV Department of
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work Order approved by Inspector _____ Date _____

804172 P&A Procedure

- 1) Prepare road and location, MIRU Service Rig
- 2) Run in hole with tools to check TD at approximately 2130'
- 3) Attempt to pull 3 1/2" and packer
 - A) If successful
 - a) Run W.S. to 2100', spot gel
 - b) Spot 100' cement plug 2100'-2000', pull W.S.
 - c) Proceed to step 4
 - B) If unsuccessful
 - a) Run W.S. to 2100', spot gel
 - b) Spot 100' cement plug 2100'-2000', pull W.S.
 - c) Cut 3 1/2" at free-point (approximately 1830') and pull
 - d) Run W.S. to 1880' (if possible), spot gel
 - e) Spot 100' cement plug 1880'-1780' (be careful not to get cement above 1780') pull W.S.
- 4) Attempt to pull 5 3/16" casing
 - A) If successful
 - a) Run W.S. to 1620', spot gel
 - b) Spot 100' cement plug 1620'-1520', pull W.S. to 1465'
 - c) Proceed to step 5
 - B) If unsuccessful
 - a) Run W.S. to previous top of cement (approximately 1780')
 - b) Spot 100' cement plug 1780'-1680', pull W.S.
 - c) Cut 5 3/16" at free-point (approximately 1600') and pull
 - d) Run W.S. to 1600', spot gel
 - e) Spot 100' cement plug 1600'-1500', pull W.S. to 1465'
 - f) Proceed to step 5
- 5) Spot 100' cement plug 1465'-1365', pull W.S.
- 6) Run in hole with tools to check top of cement – If TOC is below 1390', re-set plug
- 7) Cut 6 5/8" at free-point (approximately 880') and pull
- 8) Run W.S. to 880', spot gel
- 9) Spot 100' cement plug 880'-780', pull W.S.
- 10) Attempt to pull 8 1/4" ? *Your RECORDS DO NOT INDICATE ANY 8 1/4" CASING.*
 - A) If successful
 - a) Run W.S. to 480', spot gel
 - b) Spot 100' cement plug 480'-380'
 - c) Proceed to step 11
 - B) If unsuccessful
 - a) Run W.S. to 480', spot gel
 - b) Spot 100' cement plug 480'-380', pull W.S.
 - c) Cut 8 1/4" at free-point (approximately 150') and pull
 - d) Proceed to step 11
- 11) Pull or run W.S. to 150'
- 12) Spot 150' cement plug 150'-surface
- 13) Pull W.S. and top of with cement
- 14) Set monument and reclaim as prescribed by law

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OK
JMM

WELL # 804172

79 00896P

UNITED FUEL GAS COMPANY

079-0896

P

SERIAL WELL NO. 4172

LEASE NO. 39400

MAP SQUARE 2-55

RECORD OF WELL No. 1 on the W.A. Maynard Farm of 130 Acres in Curry District Putnam County Field, State of W.Va.		CASING AND TUBING			TEST BEFORE SHOT	
		SIZE	USED IN DRILLING	LEFT IN WELL	5 of Water in 3 .incl 10ths. of Merc. in .incl Volume Cu. ft	
Rig Commenced	193	16			TEST AFTER SHOT	
Rig Completed	193	13			80 of Water in 3 .incl 10ths. of Merc. in .incl Volume Cu. ft	
Drilling Commenced	June 7, 1925	10			Rock Pressure	
Drilling Completed	June 30, 1925	8 1/4			Date Shot 6-30-1925	
Drilling to cost	per foot	6 5/8	1407	1407	Size of Torpedo 40	
Contractor is:	C.O. Nichols	5 3/16	1775	1775	Shot 2077-2097	
Address:	Charleston, W.Va.	4 7/8			Oil Flowed bbls. 1st 24 hrs	
Driller's Name Well purchased from the C.D.N.C.CO. by the U.F.G.CO. Jan. 1, 1930.		4			Oil Pumped bbls. 1st 24 hrs.	
		3		2136	Well abandoned and Plugged 193...	
		2				
		SHUT IN				
		Date July 6, 1925				
		3 in Tubing or Casing				
		Size of Packer 2 1/2 - 1 1/2				
		Kind of Packer Anchor set 1854				
		1st Perf. Set 2087 from				
		2nd Perf. Set from				

Elev. 752 B

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Salt Sand	875	945	70	
Slate	945	960	15	
Sand	960	1020	60	Water at 1000
Slate	1020	1023	3	
Sand	1023	1215	192	
Slate	1215	1245	30	
Sand	1245	1360	115	
Little Lime	1360	1390	30	
Pencil Cave	1390	1395	5	
Big Lime	1395	1575	180	Gas 1550-1560
Big Injun	1575	1616	41	" 1600-1613
Slate & Shells	1615	2060	415	
Brown Shale	2060	2072	12	
Black Lime	2072	2077	5	
Berea Grit	2077	2097	20	Gas 2077-2085
Slate	2097	2136	39	
Total Depth		2136		

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WW4-A
Revised
2/01

1) Date: 1/23/2015
2) Operator's Well No. 804172 P&A
3) API Well No. 47-079-00896

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name Paul Lloyd Maynard
Address Rt 2 Box 1
Hurricane, WV 25526

(b) Name Leslie V. Maynard Living Trust
Address 9576 Taylor Court
Pinkerington, OH 43137

(c) Name _____
Address _____

6) Inspector Jamie Stevens
Address 105 Kentuck Road
Kenna, WV 25248

Telephone 304-206-7775

5) Coal Operator
(a) Name None
Address _____

Coal Owner(s) with Declaration
(b) Name Please see attached sheet
Address for Coal Owners

Name _____
Address _____

Coal Lessee with Declaration
(c) Name None
Address _____

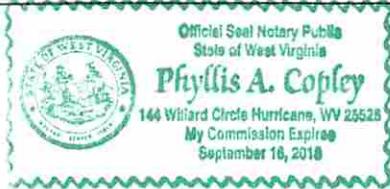
Name _____
Address _____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed the Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of the Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator: Chesapeake Appalachia, L.L.C.
By: [Signature]
Its: Manager Operations - Appalachia South
Address: P.O. Box 18496
Oklahoma City, OK 73154-0496
Telephone: 405-935-4073

Subscribed and sworn before me this 23rd day of January the year of 2015
Phyllis A. Copley Notary Public
My Commission Expires September 16, 2018
Form WW-9

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WV Department of
Environmental Protection

API: 47-079-00896

804172 P&A -- COAL OWNERS

Paul Lloyd Maynard
Rt 2 Box 1
Hurricane, WV 25526

Maynard Cementery Fund
Rt 2 Box 243
Hurricane, WV 25526

Justine M. McCallister
Rt 2 Box 243
Hurricane, WV 25526

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WV # 804172 79 00 896P
 API # 47-079-00896

7010 3090 0002 9275 3707

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Certified Fee	\$ 3.30	01
Return Receipt Fee (Endorsement Required)	\$ 2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees	\$ 7.40	01/26/2015

Sent To: **804172 P&A**
 Paul Lloyd Maynard
 Rt 2 Box 1
 Hurricane, WV 25526

PS Form 380

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Certified Fee	\$ 3.30	01
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Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees	\$ 7.40	01/26/2015

Sent To: **804172 P&A**
 Leslie V. Maynard Living Trust
 9576 Taylor Court
 Pinkerington, OH 43137

PS Form 380

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Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees	\$ 7.40	01/26/2015

Sent To: **804172 P&A**
 Maynard Cemetery Fund
 Rt 2 Box 243
 Hurricane, WV 25526

PS Form 380

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Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees	\$ 7.40	01/26/2015

Sent To: **804172 P&A**
 Justine McCallister
 Rt 2 Box 243
 Hurricane, WV 25526

PS Form 380

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 WV Department of
 Environmental Protection

Rev. 02/01

API Number 47-079-00896
Operator's Well No. 804172 P&A

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Chesapeake Appalachia, L.L.C. OP Code 494477557
Watershed Turkey Creek Quadrangle Garretts Bend, WV 7.5'
Elevation 748' County Putnam District Curry

Description of anticipated Pit Waste: Plugging Returns/Cement

Will a synthetic liner be used in the pit? Yes 20 MK

Proposed Disposal Method For Treated Pit Wastes:

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

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Swabbing
- Plugging
- Other (Explain _____)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on December 31, 1999, 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 *[Signature]*

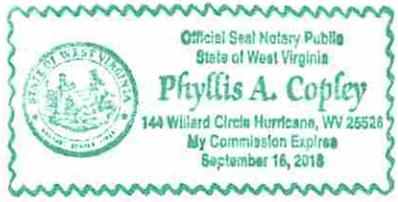
Company Official (Typed Name) Dave Gocke

Company Official Title Manager - Operations, Appalachia South

Subscribed and sworn before me this 23rd day of January, 2015.

[Signature] Notary Public.

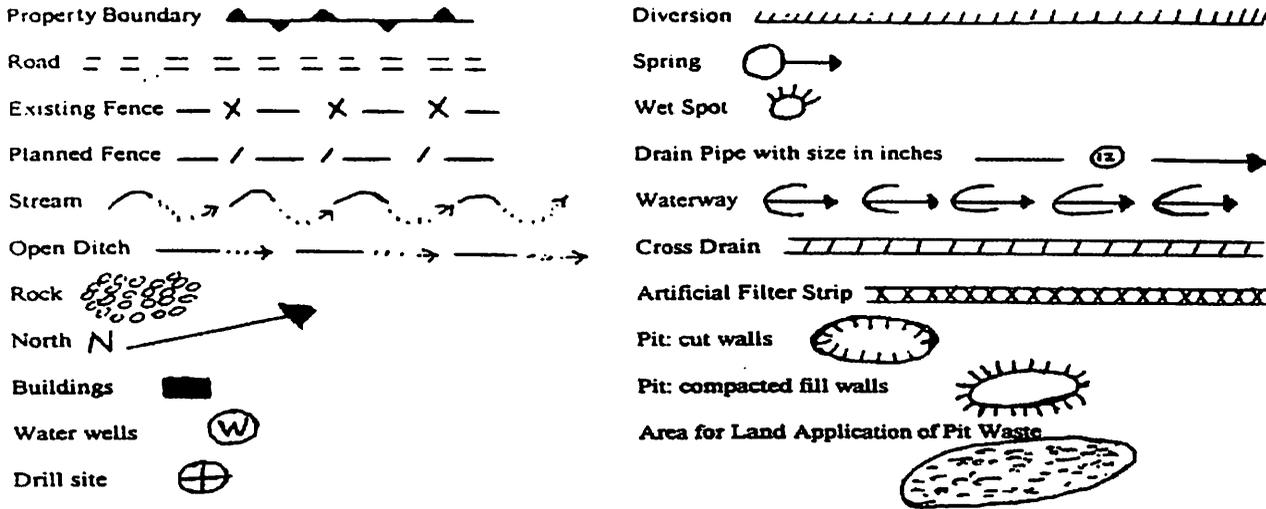
My Commission Expires September 16, 2018



Attachment #1

API #: 47-079-00896
 Operator's Well No. 804172 P&A

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1.0 Prevegetation pH 6.1

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch Hay 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		

Attach:
 Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Title: _____

Date: _____

Field Reviewed? () Yes () No

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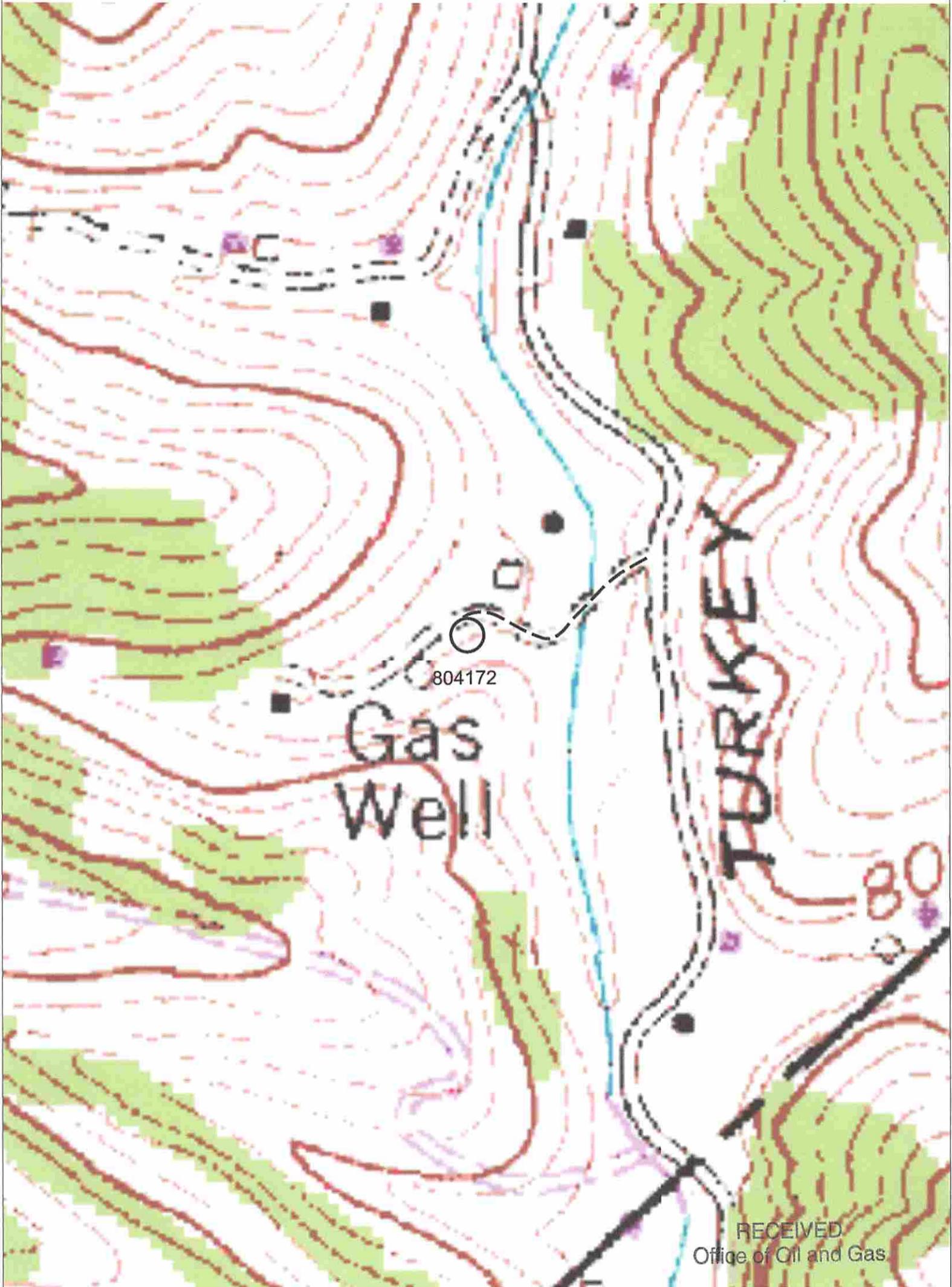
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CHESAPEAKE APPALACHIA, L.L.C.

TOPOGRAPHICAL MAP OF ACCESS AND
WELL LOCATION 804172

API 47-079-00896



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JAN 29 2015

CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION
P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523
304 824-5141 - FAX 304 824-2247

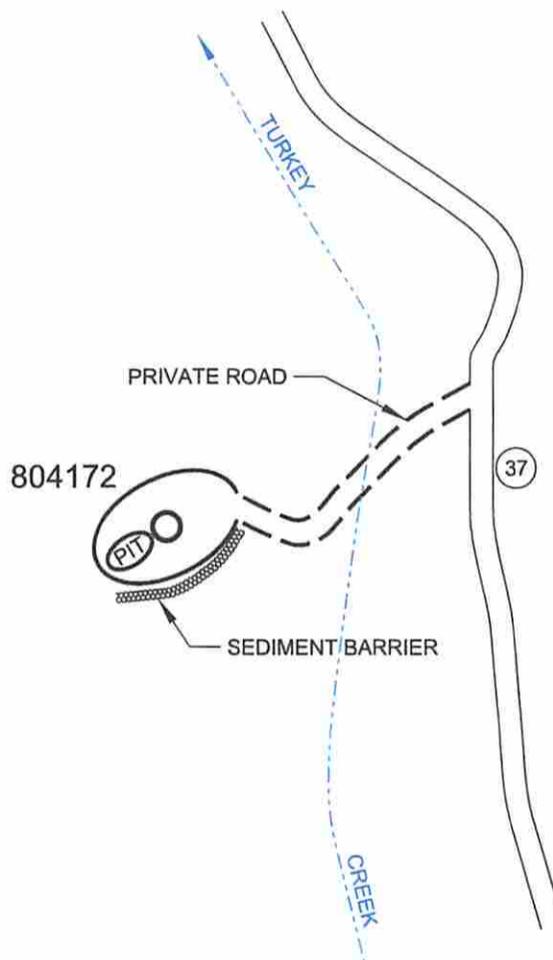
WV Department of
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CHESAPEAKE APPALACHIA, L.L.C.

79 00896P

RECLAMATION DIAGRAM WELL LOCATION 804172

API 47-079-00896



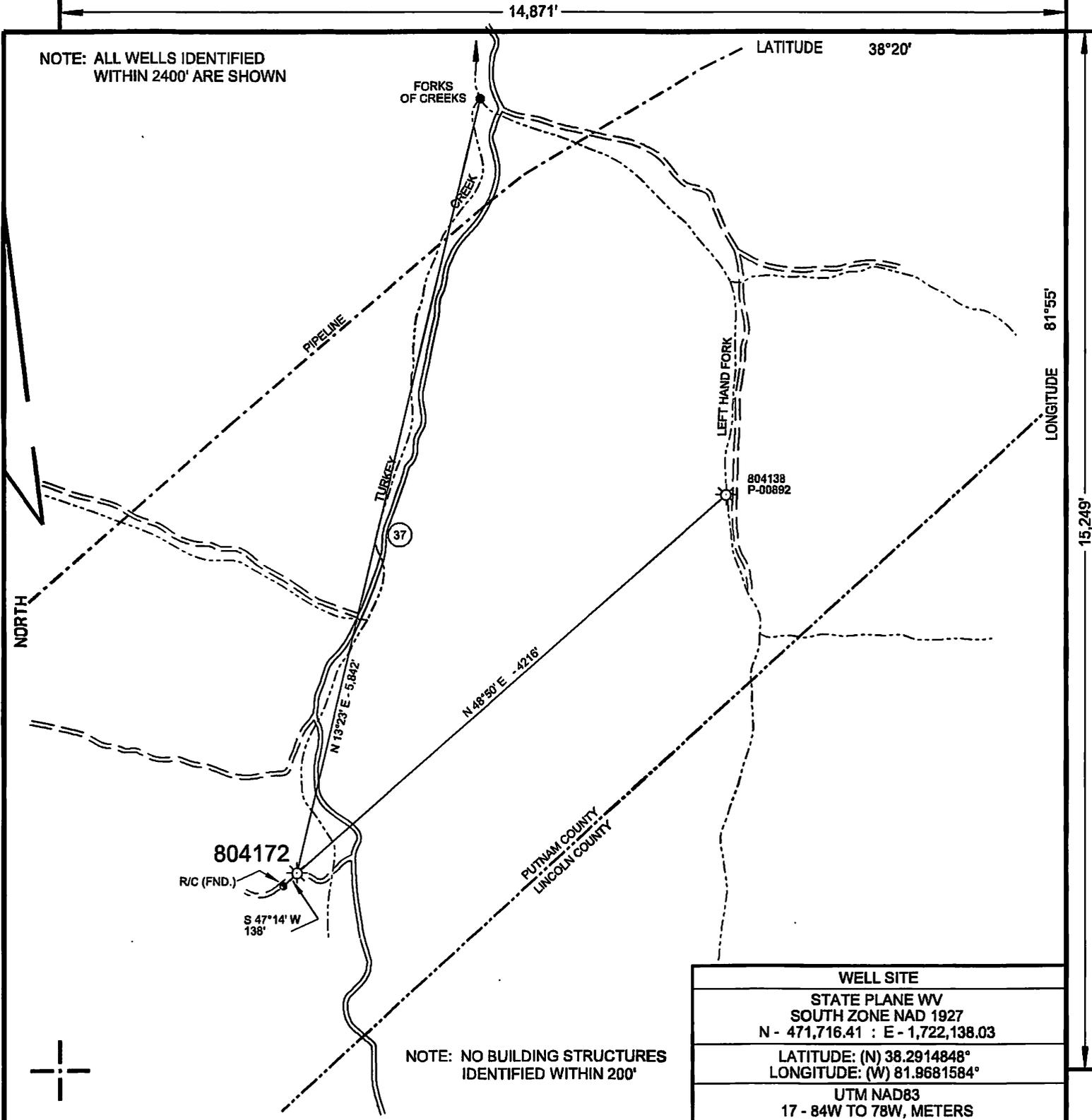
GENERAL NOTES

This drawing is a schematic representation of the well site and access road. Proposed structures such as well site, drilling pit, roadways, culverts, sediment barriers, etc. are shown in approximate pre-planning configurations.

All culvert pipes will be a minimum of 15 inches in diameter. All culvert pipes installed will be accompanied by an entrance sump with dimensions no less than 3 feet (width) x 3 feet (length) x 4 feet (deep). Culverts will be installed at an angle to ensure proper flow. The outfall of culverts will be protected from erosion and sedimentation using large rocks or other sediment controls deemed necessary in the prevention of erosion and sedimentation. Storm water from the ditches to the culverts will be directed to stable natural vegetative areas. Where culverts are not practical, operator will have other sediment control in place to minimize erosion sedimentation.

Cross drains, broad based dips, water bars, and diversion ditches, will be employed during the construction phase. These erosion and sediment control structures will be used to control erosion and sedimentation during the construction phase, where applicable, and in areas that will allow. These structures will be considered permanent and used as such.

Permanent seeding: See Attachment #1.

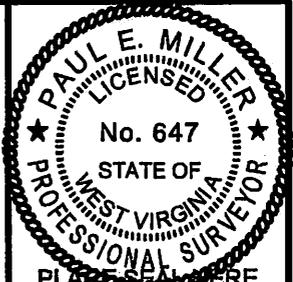


WELL SITE
STATE PLANE WV SOUTH ZONE NAD 1927 N - 471,716.41 : E - 1,722,138.03
LATITUDE: (N) 38.291484° LONGITUDE: (W) 81.9681584°
UTM NAD83 17 - 84W TO 78W, METERS N - 4,238,610.172 : E - 415,347.724

FILE NO. 804172.DGN
 DRAWING NO. 804172 P&A
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION 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) *Paul E. Miller*
 R.P.E. _____ L.L.S. 647



FORM WW-6

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



DATE JANUARY 14, 2015
 OPERATOR'S WELL NO. 804172
 API WELL NO.

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 748' WATER SHED TURKEY CREEK
 DISTRICT CURRY COUNTY PUTNAM
 QUADRANGLE GARRETT'S BEND, WV 7.5'

SURFACE OWNER PAUL LLOYD MAYNARD ACREAGE -
 OIL & GAS ROYALTY OWNER _____ LEASE ACREAGE _____
 LEASE NO. 1-030400-000

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
 FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION _____ ESTIMATED DEPTH _____
 WELL OPERATOR CHESAPEAKE APPALACHIA, L.L.C. DESIGNATED AGENT JESSICA GREATHOUSE
 ADDRESS P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496 ADDRESS CHESAPEAKE APPALACHIA, L.L.C. PO BOX 6070, CHARLESTON, WV 25362

COUNTY NAME
 PERMIT