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**west virginia** department of environmental protection

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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 17, 2015

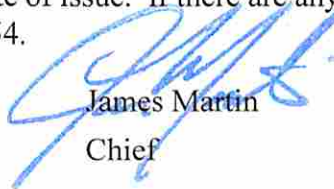
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-4301907, 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: 6010  
Farm Name: LINCOLN LAND ASSOC.  
**API Well Number: 47-4301907**  
**Permit Type: Plugging**  
Date Issued: 03/17/2015

**Promoting a healthy environment.**

**03/20/2015**

## 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

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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.

43019078

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

1) Date: 2/11/2015  
2) Operator's Well No. 806010 P&A  
3) API Well No. 47-043-01907

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  Liquid injection  Waste disposal   
 (Is Gas, Production  or Underground storage  ) Deep  Shallow

5) Location: Elevation 732' Watershed Trace Fork of Mud River  
 District Carroll County Lincoln Quadrangle Hamlin, WV 7.5'

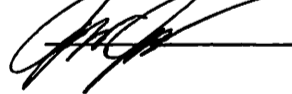
6) Well Operator Chesapeake Appalachia, L.L.C. 7) Designated Agent Jessica Greathouse  
 Address P.O. Box 18496 Address P.O. Box 6070  
Oklahoma City, OK 73154-0496 Charleston, WV 25362

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
 Name Ralph Triplett Name Chesapeake Appalachia, L.L.C.  
 Address 5539 McClellan Highway Address P.O. Box 18496  
Branchland, WV 25506 Oklahoma City, OK 73154-0496

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

See Attached Sheet

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

Work Order approved by Inspector  Date 2-23-15

Received

FEB 25 2015

03/20/2015

Office of Oil and Gas  
WV Dept. of Environmental Protection

## 806010 P&amp;A Procedure

NOTE: 8 ¼" may have been pulled

Elev. 732

- 1) Prepare road and location, MIRU service rig
- 2) RIH with tools to check TD approximately at 2050'
- 3) TIH with W.S. to 2050', spot gel
- 4) Spot 100' cement plug 2050'-1950', pull W.S. (BEREA)
- 5) Cut 3" at free-point (approximately 1700') and pull
- 6) Run W.S. to 1700', spot gel
- 7) Spot 150' cement plug 1700'-1550', pull W.S. INNOV
- 8) RIH with tools to check top of plug (If TOC is below 1610' then reset plug)
- 9) Shoot or rip holes in 6 5/8" approximately at 1525', 1500', 1325' and 1300'
- 10) Run W.S. to 1525', spot gel
- 11) Spot 100' cement plug 1525'-1425', pull W.S. to 1325'
- 12) Spot 100' cement plug 1425'-1325', pull W.S.
- 13) Cut 6 5/8" at free-point (approximately 875') and pull
- 14) Run W.S. to 875', spot gel
- 15) Spot 150' cement plug 875'-725', pull W.S. WARRA
- 16) RIH with tools to check TOC (If top of plug is below 775' then reset plug)
- 17) Determine if the 8 ¼" is in the well
- 18) If 8 ¼" is present then attempt to pull 8 ¼"
  - A) If successful or 8 ¼" is not present
    - a) Run W.S. to 375', spot gel
    - b) Spot 100' cement plug 375'-275'
    - c) Proceed to step ~~19~~ 20
  - B) If unsuccessful
    - a) Run W.S. to 375'
    - b) Spot 100' cement plug 375'-275', pull W.S.
    - c) Cut 8 ¼" at free-point (approximately 125') and pull
    - d) Proceed to step 20
- 20) Pull or run W.S. to 125'
- 21) Spot 125' cement plug 125'-surface
- 22) Pull W.S. and top off with cement
- 23) Erect monument and reclaim as prescribed by law

Received

FEB 25 2015

Office of Oil and Gas  
WV Dept. of Environmental Protection

03/20/2015



HUNTINGTON DEVELOPMENT & GAS CO.

Well # 806010  
API # 47-043-01907

Serial Well No. 6010 184  
PARAGON PRINT. IM 5-25 53688

Lease No. ....

Map Square.....

RECORD OF WELL No. 6010 on the

**J. W. Jimison** Farm of Acres  
in **Carroll** District  
**Lincoln** County  
Field, State of **W. Va.**

Rig Commenced 192  
Rig Completed 192  
Drilling Commenced 10-22-17 192  
Drilling Completed 11-26-17 192  
Drilling to cost per foot  
Contractor is: **G. L. Meabon**  
Address:

Driller's Names **Fred Meabon**  
**J. M. Chichester**

CASTING AND TUBING

SIZE	USED IN DRILLING	LEFT IN WELL
16		
13		
10		20
8 1/4		316
6 3/4		1625
5 3-16		
4 7/8		
4		
3		288
2		1800
SHUT IN <u>20 88</u>		
Date	Tubing or Casing	
in		
Size of Packer		
Kind of Packer		
1st Perf. Set	from	
2nd Perf. Set	from	

TEST BEFORE SHOT

.....of Water in ..... inch  
10ths  
.....of Merc. in ..... inch  
10ths  
Volume ..... Cu. ft.

TEST AFTER SHOT

.....of Water in ..... inch  
10ths  
.....of Merc. in ..... inch  
10ths 1,175,000 Cu. ft.  
Volume

Rock Pressure 530

Date Shot 1917

Size of Torpedo 80 lbs

Oil Flowed ..... bbls. 1st 24 hrs.

Oil Pumped ..... bbls. 1st 24 hrs.

Well abandoned and

Plugged ..... 19.....

DRILLER'S RECORD

Formation	Top	Bottom	Thickness	Remarks
				Gas from Berea
Mud	0	10		
Sand	10	40		
slate	40	70		
Sand	70	120		
??	120	190		
Slate	190	230		
Sand	230	316		
Slate-reduce hole	316	325		
Sand	325	350		
Slate & sand shell	350	550		
Slate	550	650		
Sand	650	675		
Slate & sand shells	675	750		
Slate	750	810		
Salt sand gas	810	836		
Slate	836	846		
Sand	846	1195		
Water 880				
Black shale	1195	1200		
Maxton sand	1200	1280		
Little lime	1280	1295		
Pencil cave	1295	1300		
Big Lime	1300	1492		
Gas	1455			
Slate	1492	1497		
Keener	1497	1514		
Slate	1514	1524		
Injun sand	1524	1600		
Slate & lime shell	1600	1800		
Lime	1800	1815		
Slate & lime shells	1815	2035		
Brown shale	2035	2045		
Berea	2045	2065		
Slate	2065			
TOTAL DEPTH	2089			
TOTAL DEPTH	2089			

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Office of Oil and Gas  
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WV Department of  
Environmental Protection

2062  
242  
1820

03/20/2015

4301907P

WW4-A  
Revised  
2/01

1) Date: 2/11/2015  
2) Operator's Well No. 806010 P&A  
3) API Well No. 47-043-01907

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 Helen Taylor  
Address Box 8  
Hamlin, WV 25523  
  
(b) Name Barry & Rosilee Ashworth  
Address 213 Trace Fork road  
Culloden, WV 25510  
  
(c) Name John Kevin Shank  
Address 3166 Frogs Creek Road  
Charleston, WV 25312  
  
6) Inspector Ralph Triplett  
Address 5539 McClellan Highway  
Branchland, WV 25506  
  
Telephone 304-389-0350

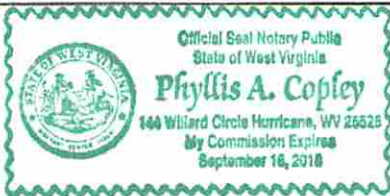
5) Coal Operator  
(a) Name None  
Address \_\_\_\_\_  
  
Coal Owner(s) with Declaration  
(b) Name Chesapeake Appalachia, L.L.C.  
Address Attention: Fred Jones  
P.O. Box 6070  
Charleston, WV 25362-0070  
  
Name Pocahontas Land Corporation  
Address 800 Princeton Avenue  
P.O. Box 1517  
Bluefield, WV 24701  
  
Coal Lessee with Declaration  
(c) Name None  
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: R.S. Schmidt  
Its: Completion Superintendent  
Address: P.O. Box 18496  
Oklahoma City, OK 73154-0496  
Telephone: 405-935-4073

Subscribed and sworn before me this 11<sup>th</sup> day of February the year of 2015  
Phyllis A. Copley Notary Public  
My Commission Expires September 16, 2018

03/20/2015

Well 806010

API 47-043-01907 P

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Certified Fee	\$ 3.30	03	
Return Receipt Fee (Endorsement Required)	\$ 2.70		Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00		
<b>T</b>	<b>\$ 7.40</b>	<b>02/11/2015</b>	

Se 806010 P&A (coal)  
 Pocahontas Land Corporation  
 800 Princeton Avenue  
 P.O. Box 1517  
 Bluefield, WV 24701 ✓

PS Form 3800, July 2014 Instructions

7014 2120 0003 6636 5897

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Restricted Delivery Fee (Endorsement Required)	\$ 0.00		
<b>T</b>	<b>\$ 6.91</b>	<b>02/11/2015</b>	

Se 806010 P&A (surface access)  
 John Kevin Shank  
 3166 Frogs Creek Road  
 Charleston, WV 25312 ✓

PS Form 3800, July 2014 Instructions

7014 2120 0003 6636 5880

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Return Receipt Fee (Endorsement Required)	\$ 2.70		Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00		
<b>T</b>	<b>\$ 7.40</b>	<b>02/11/2015</b>	

Se 806010 P&A (surface and access)  
 Helen Taylor  
 Box 8  
 Hamlin, WV 25523 ✓

PS Form 3800, July 2014 Instructions

7014 2120 0003 6636 5866

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Restricted Delivery Fee (Endorsement Required)	\$ 0.00		
<b>T</b>	<b>\$ 7.40</b>	<b>02/11/2015</b>	

Se 806010 P&A (surface access)  
 Barry & Rosilee Ashworth  
 213 Trace Fork Road  
 Culloden, WV 25510 ✓

PS Form 3800, July 2014 Instructions

7014 2120 0003 6636 5873

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 WV Department of  
 Environmental Protection

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Certified Fee	\$ 3.30	03	
Return Receipt Fee (Endorsement Required)	\$ 2.70		Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00		
<b>T</b>	<b>\$ 7.40</b>	<b>02/11/2015</b>	

Se 806010 P&A (coal)  
 Chesapeake Appalachia, L.L.C.  
 Attn: Fred Jones  
 P.O. Box 6070  
 Charleston, WV 25362-0070 ✓

PS Form 3800, July 2014 Instructions

7014 2120 0003 6636 5903

CK 5241364  
\$ 10000

03/20/2015

4301907F

Form WW-9  
Rev. 02/01

API Number 47-043-01907  
Operator's Well No. 806010 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 Trace Fork of Mud River Quadrangle Hamlin, WV 7.5'  
Elevation 732' County Lincoln District Carroll

Description of anticipated Pit Waste: Plugging Returns/Cement

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

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 *R.E. Schindler*

Company Official (Typed Name) Robert E. Schindler

Company Official Title Completion Superintendent

Subscribed and sworn before me this 11<sup>th</sup> day of February, 2015.

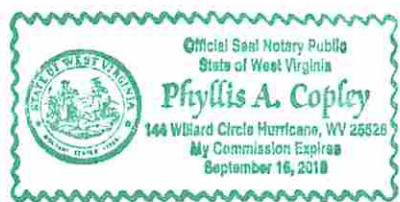
*Phyllis A. Copley* Notary Public.

My Commission Expires September 16, 2018

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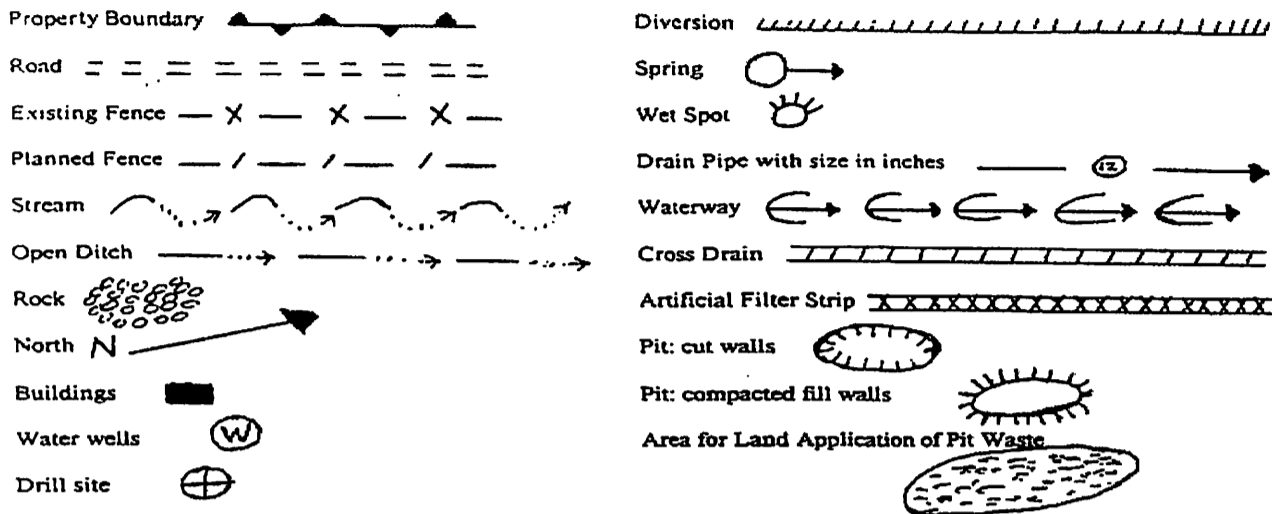
03/20/2015



Attachment #1

API #: 47-043-01907  
 Operator's Well No. 806010 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
CHESAPEAKE CONTRACTOR'S MIX	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: inspector OOG

Date: 2-23-15

Field Reviewed? () Yes () No

Received

FEB 25 2015

03/20/2015

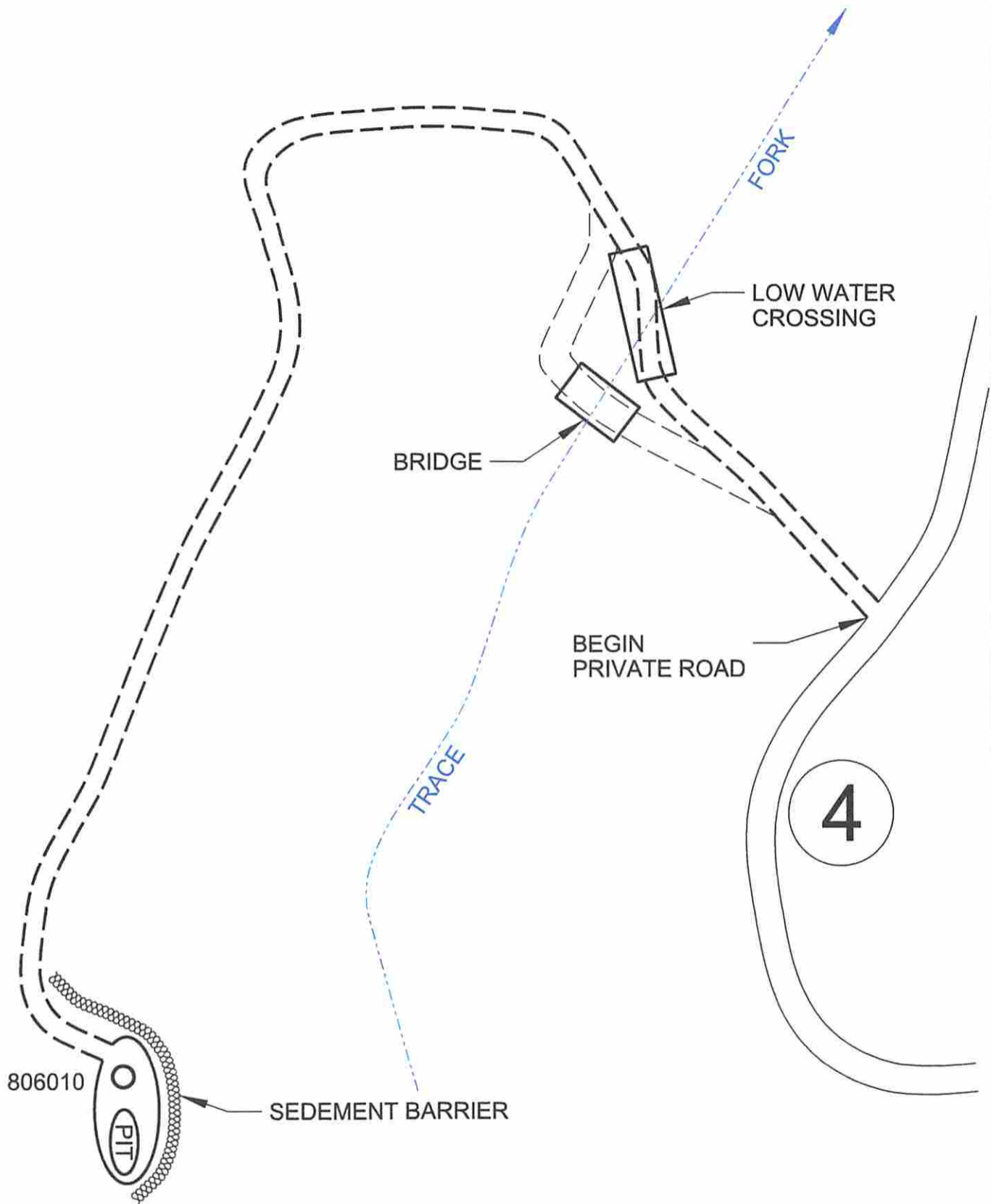
Office of Oil and Gas  
 WV Dept. of Environmental Protection

4301907P

# CHESAPEAKE APPALACHIA, L.L.C.

## TOPOGRAPHICAL MAP OF ACCESS AND WELL LOCATION 806010

API 47-043-01907



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Office of Oil and Gas

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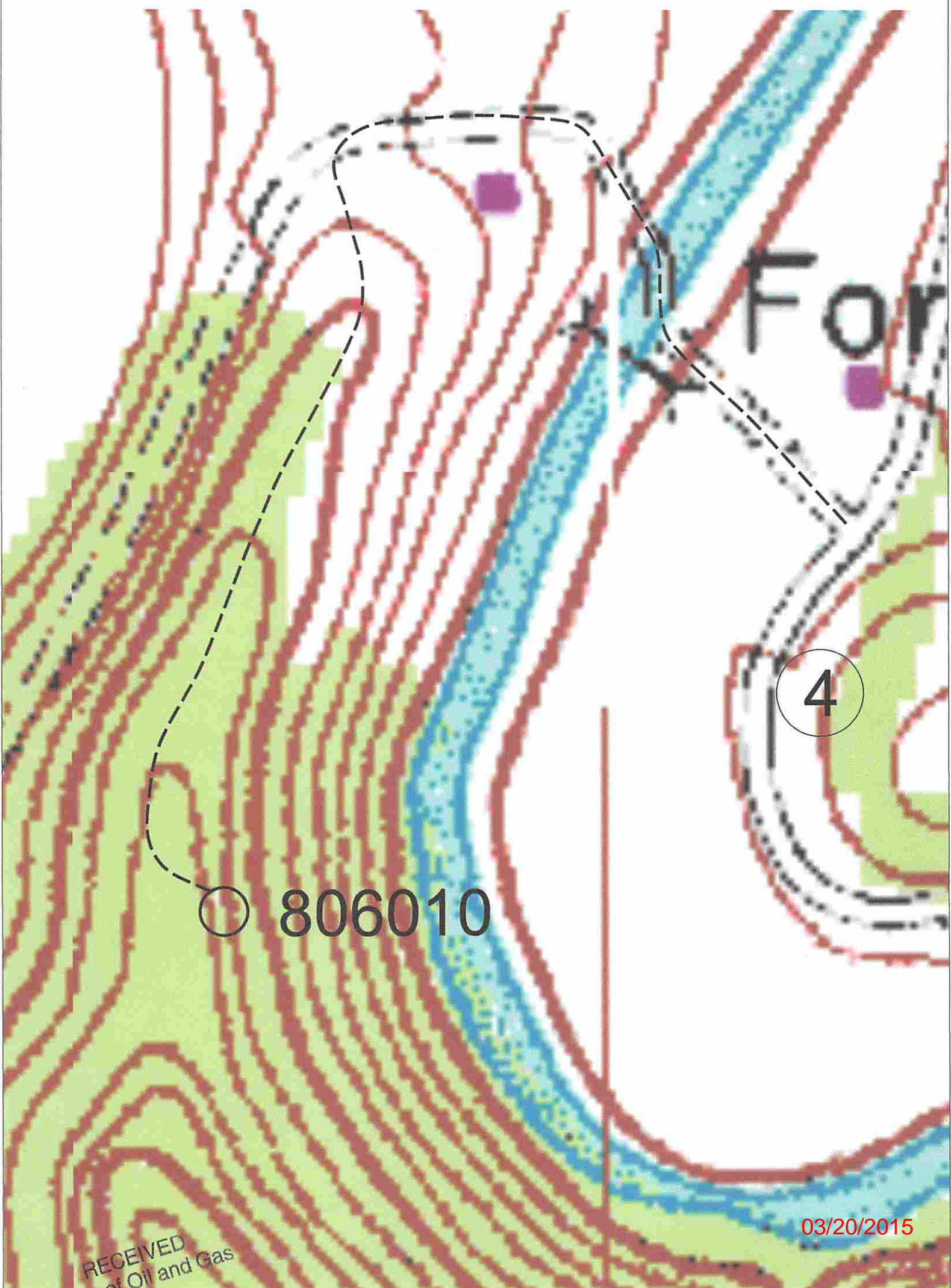
WV Department of  
Environmental Protection

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

03/20/2015

4301907A

CHESAPEAKE APPALACHIA, L.L.C.  
TOPOGRAPHICAL MAP OF ACCESS AND  
WELL LOCATION 806010  
API 47-043-01907



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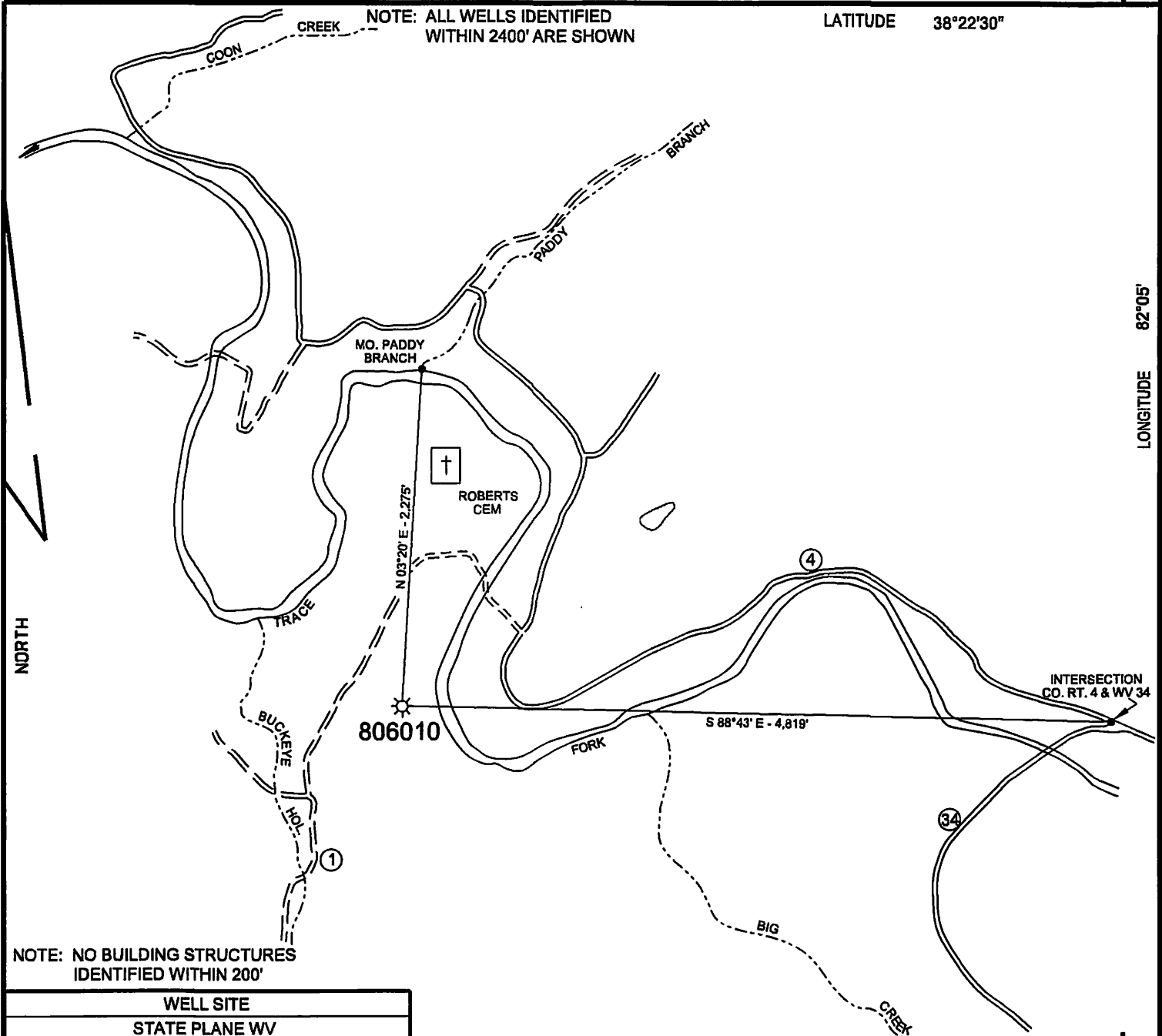
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CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION  
P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523  
304 824-5141 - FAX 304 824-2247

498'

LATITUDE 38°22'30"

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN



LONGITUDE 82°05'

14,316'

NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

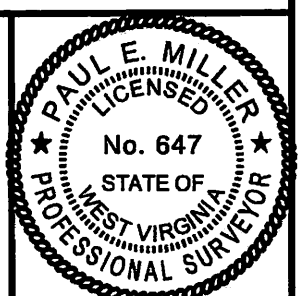
WELL SITE	
STATE PLANE WV SOUTH ZONE NAD 1927 N - 488,172.14 : E - 1,688,778.08	
LATITUDE: (N) 38.3356572° LONGITUDE: (W) 82.0850561°	
UTM NAD83 17 - 84W TO 78W, METERS N - 4,243,624.823 : E - 405,181.841	

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

FILE NO.	806010 P&A.DGN
DRAWING NO.	806010 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



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



DATE FEBRUARY 6, 20 15  
OPERATOR'S WELL NO. 806010  
API WELL NO.

47 043 01907 P  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 732' WATER SHED TRACE FORK OF MUD RIVER

DISTRICT CARROLL COUNTY LINCOLN

QUADRANGLE HAMLIN, WV 7.5

SURFACE OWNER HELEN TAYLOR ACREAGE -

OIL & GAS ROYALTY OWNER CHESAPEAKE APPALACHIA, L.L.C. LEASE ACREAGE

LEASE NO. FEE OIL & GAS

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 X 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 8070, CHARLESTON, WV 25362

FORM WW-6

COUNTY NAME

PERMIT

03/20/2015