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

February 23, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-7900883, 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 penalities 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: 4126
Farm Name: HENSON, H.
API Well Number: 47- 7900883
Permit Type: Plugging
Date Issued: 02/23/2015

Promoting a healthy environment.

7906883P

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.

7900883P

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

1) Date: 12/19/2014
2) Operator's Well No. 804126 P&A
3) API Well No. 47-079-00883

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

CK 5224230
$100.00

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 945' Watershed Hurricane Creek
District Curry County Putnam Quadrangle Scott Depot, WV 7.5'

6) Well Operator Chesapeake Appalachia, L.L.C.
Address P.O. Box 18496
Oklahoma City, OK 73154-0496

7) Designated Agent Jessica Greathouse
Address P.O. Box 6070
Charleston, WV 25362

8) Oil and Gas Inspector to be notified
Name Jamie Stevens
Address 105 Kentuck Road
Kenna, WV 25248

9) Plugging Contractor
Name Chesapeake Appalachia, L.L.C.
Address P.O. Box 18496
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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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work Order approved by Inspector _____ Date _____

API: 47-079-00883-P

804126 P&A Procedure

NOTE: There is no casing record for this well – at the surface there is conductor, 6 5/8", 5 ½" and 3 ½" tubing.

1) Prepare road and location, MIRU service rig

2) Run in hole with tools to check TD at approximately 2415', attempt to pull 3 ½" and packer

3) Run W.S. to 2410', spot gel

4) Spot 100' cement plug 2415'-2315', pull W.S.

5) Cut 3 ½" at free-point (approximately 2125') and pull, if not pulled in step 2

6) Run W.S. to 2125', spot gel

7) Spot 100' cement plug 2125'-2025', pull W.S.

8) Attempt to find bottom of 5 3/16" (approximately 1950') with ripper and tools

9) Attempt to pull 5 3/16"

   A) If successful

      a) Run W.S. to 1950'

      b) Spot 100' cement plug 1950'-1850', pull W.S. to 1725'

      c) Spot 100' cement plug 1725' – 1625'

      d) Proceed to step 10

   B) If unsuccessful

      a) Run W.S. to 2000'

      b) Spot 100' cement plug 2000'-1900', pull W.S.

      c) Cut 5 3/16" at free-point (approximately 1775') and pull

      e) Run W.S. to 1775', spot gel

      f) Spot 100' cement plug 1775'-1675', pull W.S.

      f) Proceed to step 10

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10) Cut 6 5/8" at free-point (approximately 1125') and pull

11) Run W.S. to 1125', spot gel

12) Spot 150' cement plug 1125'-1025', pull W.S. to 775'

13) Spot 100' cement plug 775'-675', pull W.S. to 350'

14) Spot 100' cement plug 350'-250', pull W.S. to 150'

15) Spot 150' cement plug 150'-surface

16) Pull W.S. and top off with cement

17) Erect monument and reclaim as prescribed by law

Well 804126 API: 079-883 7900883P

FORM U-87—SM—4-30—PADS OF 100

UNITED FUEL GAS COMPANY

SERIAL WELL NO. 4126 LEASE NO. 30426 MAP SQUARE 46-61

RECORD OF WELL No. 1 on the
H. Henson Farm of 138 Acres
in Curry District
Putnam County
Field, State of W.Va.

Rig Commenced		193
Rig Completed		193
Drilling Commenced		193
Drilling Completed	Jan. 1, 1920	193
Drilling to cost	per foot	

Contractor is: (No record)

Address:

Driller's Name Well purchased from C.D.N.G.Co. Jan. 1, 1930 by U. F. G. Co.

CASING AND TUBING

SIZE	USED IN DRILLING	LEFT IN WELL
16		
13		
10		
8 1/4		
6 5/8		2000
5 3/16	?	?
4 7/8		
4		
3		2435
2		

SHUT IN

Date

3 in Tubing or Casing

Size of Packer 3x6-5/8

Kind of Packer Anchor set at 2351'

1st Perf. Set from

2nd Perf. Set from

TEST BEFORE SHOT

18 of Water in 2 inch
10ths.
of Merc. in inch
10ths.
Volume 199,200 Cu. ft.

TEST AFTER SHOT

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

Rock Pressure 410#

Date Shot

Size of Torpedo

Oil Flowed bbls. 1st 24 hrs.

Oil Pumped bbls. 1st 24 hrs.

Well abandoned and

Plugged 193

Elev 920 B

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Berea		2379		Well repaired Dec. 14, 1928. No record
Slate	2379	2419	40	of formations and casing.
Total Depth		2419 1/2		

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WW4-A
Revised
2/01

1) Date: 12/19/2014
2) Operator's Well No. 804126 P&A
3) API Well No. 47-079-00883 P

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 Ronnie L. Justice
Address P.O. Box 2123
Charleston, WV 25328

(b) Name
Address

(c) Name
Address

5) Coal Operator
(a) Name None
Address

Coal Owner(s) with Declaration
(b) Name Ronnie L. Justice
Address P.O. Box 2123
Charleston, WV 25328

Name
Address

Coal Lessee with Declaration
(c) Name None
Address

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

Telephone 304-206-7775

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.

Official Seal Notary Public
State of West Virginia
Phyllis A. Copley
144 Willard Circle Hurricane, WV 25526
My Commission Expires
September 16, 2018

Well Operator: Chesapeake Appalachia, L.L.C.
By:
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 19th day of December the year of 2014
Phyllis A. Copley Notary Public
My Commission Expires September 16, 2018
Form WW-9

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Office of Oil & Gas
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Well 804126
API 47-079-00883P

7010 3090 0002 9275 3790

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

CHARLESTON WV 25328

OFFICIAL USE

Postage	$	$1.61	0523
Certified Fee		$3.30	01
Return Receipt Fee (Endorsement Required)		$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)		$0.00	
Total Postage & Fees	$	$7.61	12/22/2014

Sent To

Street, Apt. or PO Box

City, State,

804126 P&A (Surface/Access/Coal)
Ronnie L. Justice
P.O. Box 2123
Charleston, WV 25328

PS Form 3 ... ons

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DEC 23 2014

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Rev. 02/01

API Number 47-079-00883
Operator's Well No. 804126 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 Hurricane Creek Quadrangle Scott Depot, WV 7.5'

Elevation 945' County Putnam District Curry

Description of anticipated Pit Waste: Plugging Returns/Cement

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

Proposed Disposal Method For Treated Pit Wastes:

X 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
X 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.

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Company Official Signature

Company Official (Typed Name) David Gocke

Company Official Title Manager - Operations, Appalachia South

Subscribed and sworn before me this 19th day of December, 2014.

Phyllis A. Copley Notary Public.

My Commission Expires September 16, 2018

Official Seal Notary Public
State of West Virginia
Phyllis A. Copley
144 Willard Circle Hurricane, WV 25526
My Commission Expires
September 16, 2018

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Attachment #1

API #: 47-079-00883
Operator's Well No. 804126 P&A

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells
Drill site
Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

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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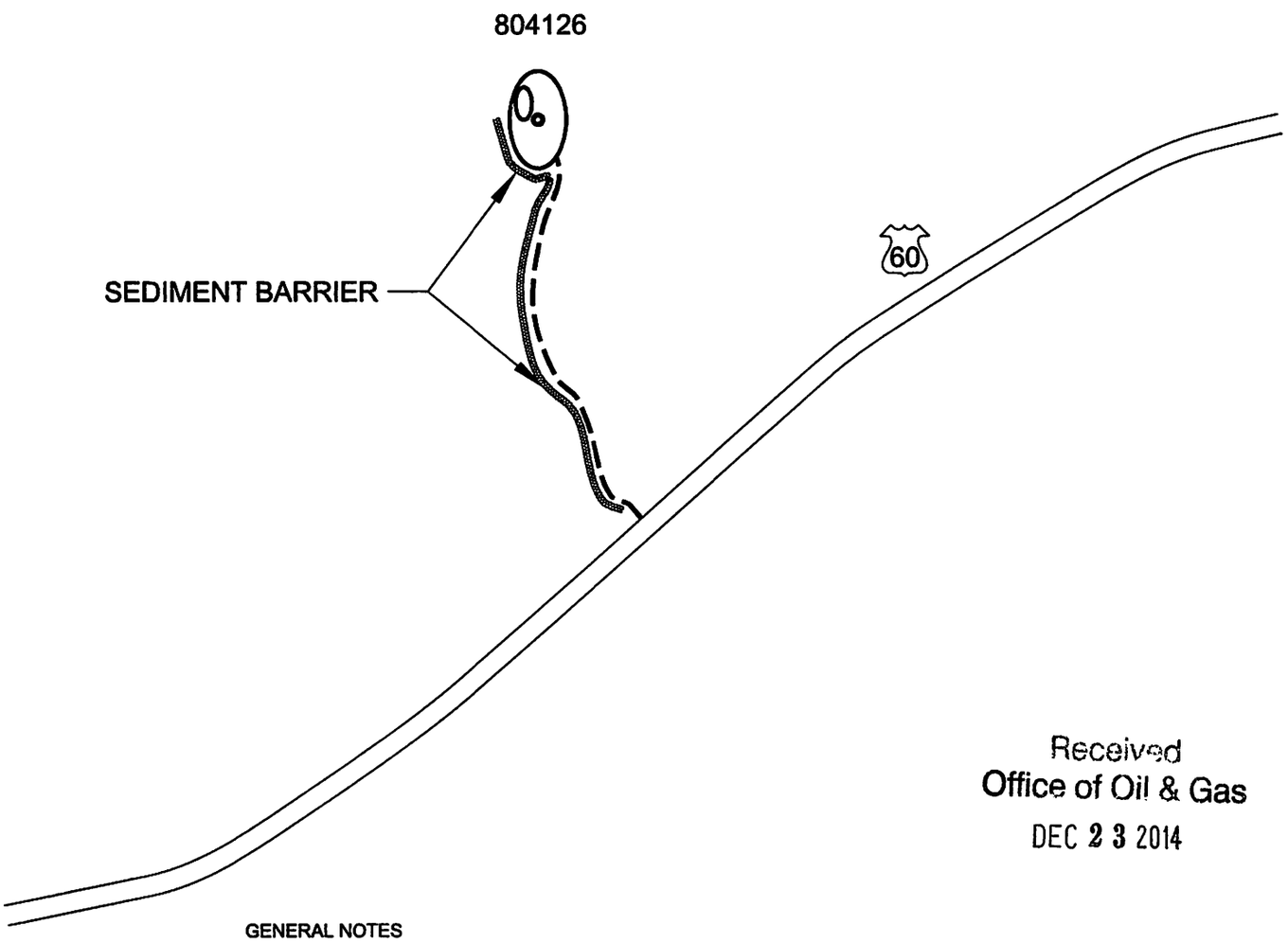
CHESAPEAKE APPALACHIA, L.L.C.

RECLAMATION DIAGRAM
WELL LOCATION 804126

API 47-079-00883



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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 show in approximate pre-planning configurations.

All culvert pipes will be a minimum of 15 inches in diameter. all culvert pipes installed will be accomanied 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 out fall of culverts will be protected from erosion and sedimentation using large roacks of 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 contruction phase, where applicable, and in areas that will allow. These structures will be considered permanent and used as such.

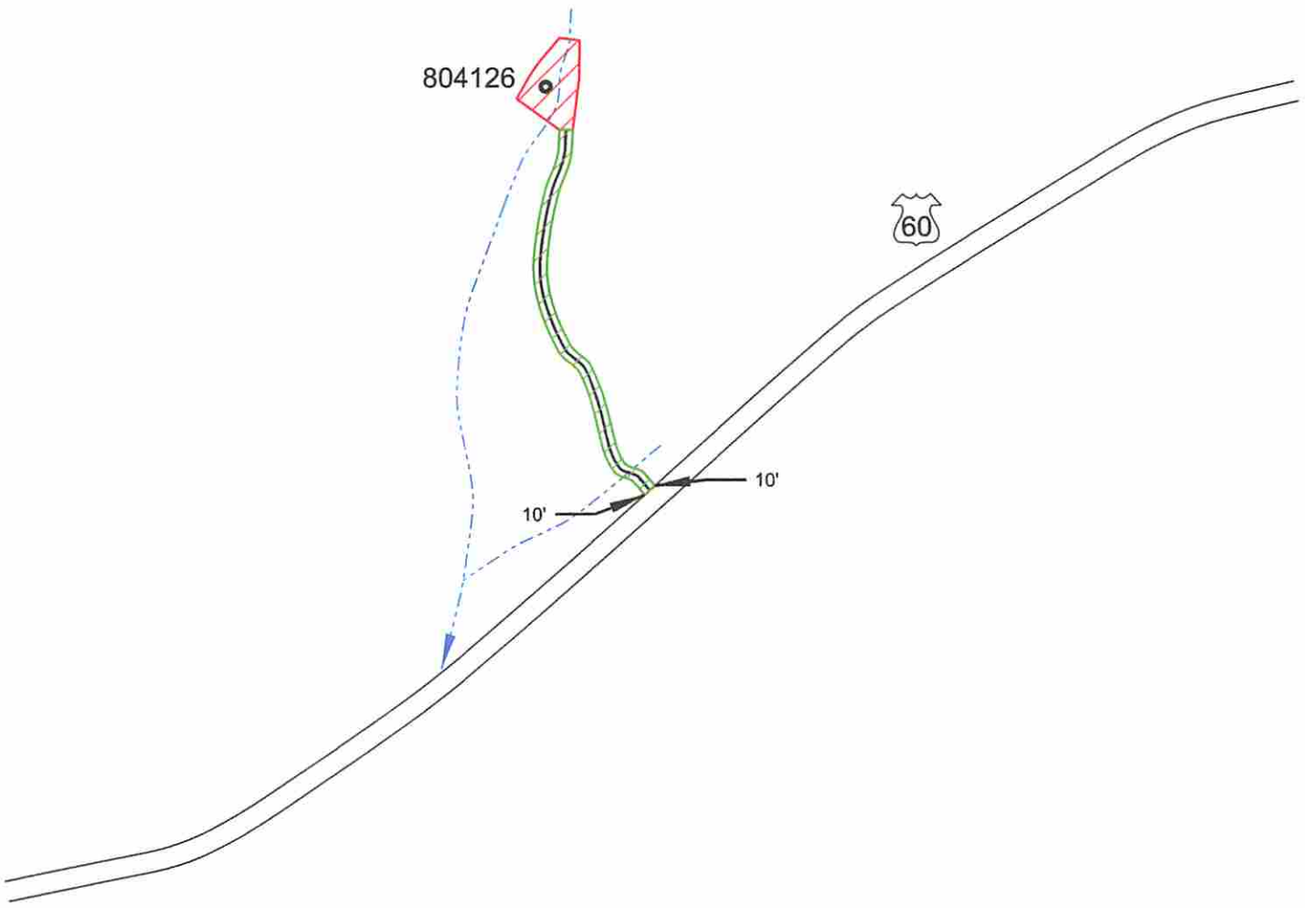
Permanent seeding: See Attachment #1.

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

7900883P

SCOTT DEPOT, WV 7.5'

LIMITS OF ORIGINAL DISTURBANCE
LOCATION 0.19 AC.
ACCESS ROAD 0.27 AC.



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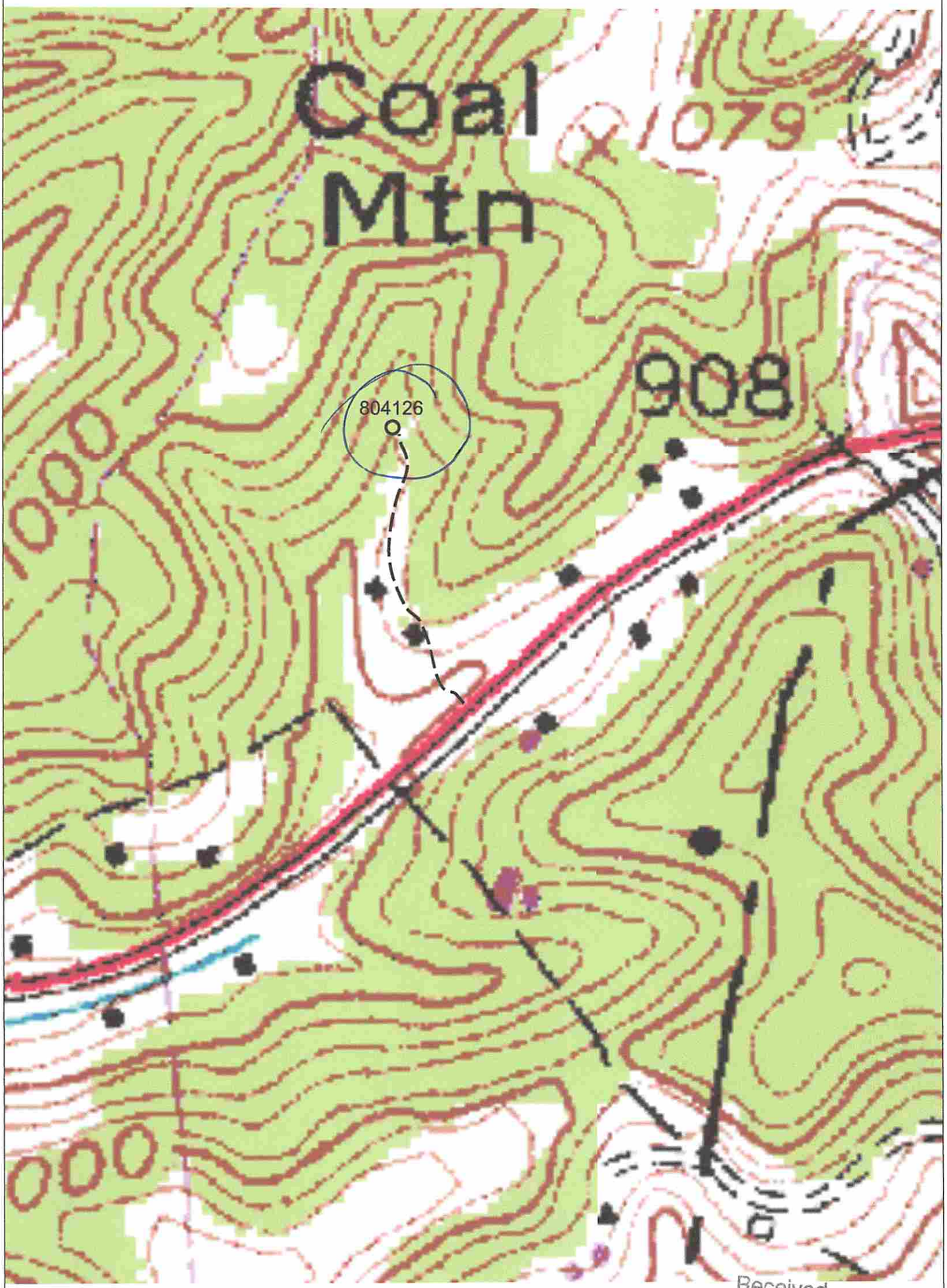
CHESAPEAKE APPALACHIA, L.L.C. POST OFFICE BOX 6070, CHARLESTON, WV 25362		
LIMITS OF ORIGINAL DISTURBANCE EXISTING LOCATION 804126		
HURRICANE CREEK CURRY DIST., PUTNAM CO., WV		
SURVEY DATE: 10-9-14	DRAWING DATE: 11-14-14	DRAWING NO. 1 OF 1
PREPARED BY : TRUE LINE SURVEYING, INC.	FILE: 804126P&A LOD.DGN	

7900883P

CHESAPEAKE APPALACHIA, L.L.C.

TOPOGRAPHICAL MAP OF ACCESS AND WELL LOCATION 804126

API 47-079-00883



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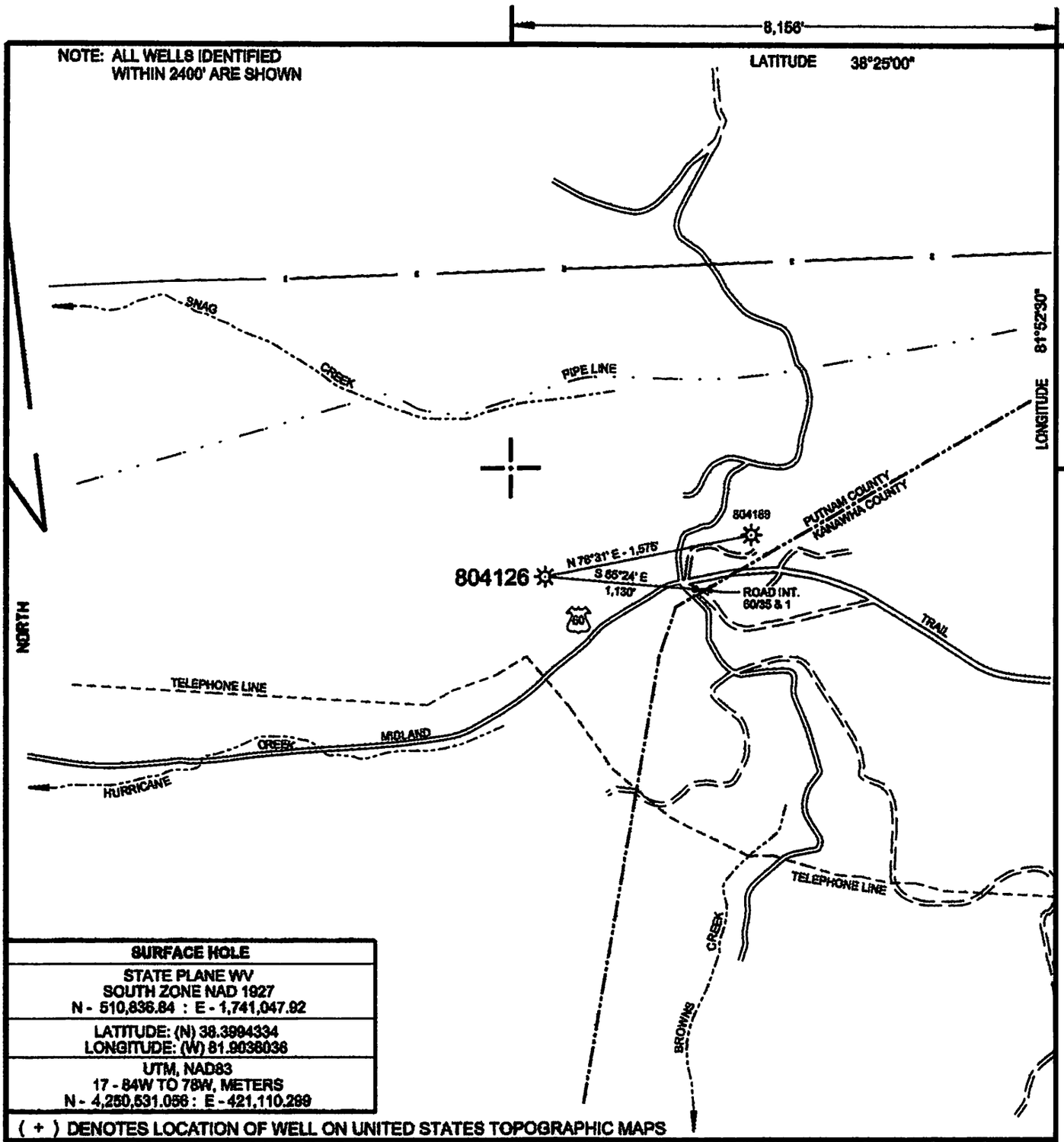
CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION
P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523
304 824-5141 - FAX 304 824-2247



SURFACE HOLE
STATE PLANE WV SOUTH ZONE NAD 1927 N - 510,836.84 : E - 1,741,047.92
LATITUDE: (N) 38.3994334 LONGITUDE: (W) 81.9038036
UTM, NAD83 17 - 84W TO 78W, METERS N - 4,250,531.056 : E - 421,110.269

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

FILE NO. 804126 P&A.DGN
DRAWING NO. 804126 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

PAUL E. MILLER LICENSED No. 647 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR
PLACE SEAL HERE

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

DATE NOVEMBER 21, 20 14
OPERATOR'S WELL NO. 804126
API WELL NO.
47 (STATE) 079 (COUNTY) 00883 (PERMIT)

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 945' WATER SHED HURRICANE CREEK
DISTRICT CURRY COUNTY PUTNAM
QUADRANGLE SCOTT DEPOT, WV 7.5'
SURFACE OWNER RONNIE L. JUSTICE ACREAGE _____
OIL & GAS ROYALTY OWNER _____ LEASE ACREAGE _____
LEASE NO. _____
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 LLC DESIGNATED AGENT JESSICA GREATHOUSE
ADDRESS PO BOX 18496 OKLAHOMA CITY, OK 73154-0496 ADDRESS PO BOX 6070 CHARLESTON, WV 25362

FORM WW-6

COUNTY NAME

PERMIT