



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

July 14, 2014

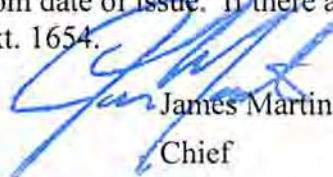
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4301086, 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: 808031(8031)
Farm Name: FERRELL, LOIS & CLAUDE
API Well Number: 47-4301086
Permit Type: Plugging
Date Issued: 07/14/2014

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 within two years of the date of issuance of this permit.

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

1) Date: 5/20/2014
2) Operator's Well No. 808031 P&A
3) API Well No. 47-043-01086

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 945' Watershed Big Ugly Creek
 District Harts Creek County Lincoln Quadrangle Big Creek, WV 7.5'

6) Well Operator Chesapeake Appalachia, L.L.C. 7) Designated Agent Eric B. Gillespie
 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 Ralph D. Triplett Date May 27, 2014

07/18/2014
RECEIVED
Office of Oil and Gas
JUN 03 2014
WV Department of
Environmental Protection

OK

808031 P&A PROCEDURE

- 1) Prepare road and location, MIRU service rig
- 2) Attempt to pull 2 3/8" tubing and packer
 - A) If successful
 - a) Run W.S. as deep as possible, load hole with gel, pull W.S. to 2300'
 - b) Spot 100' cement plug 2300'-2200'
 - c) Proceed to step #3
 - B) If unsuccessful
 - a) Cut 2 3/8" at free-point (approximately 1860') and pull
 - b) Run W.S. to 1860', load hole with gel
 - c) Spot 100' cement plug 1860'-1760'
 - d) Proceed to step #3
- 3) Pull W.S. to 1760', spot 100' cement plug 1760'-1660', pull W.S. to 1640'
- 4) Spot 100' cement plug 1640'-1540', pull W.S.
- 5) Run in hole with tools to check top of plug (If TOC is below 1570' then reset plug)
- 6) Cut 7" at free-point (approximately 900') and pull
- 7) Run W.S. to 900', load hole with gel
- 8) Spot 150' cement plug 900'-750', pull W.S. to 550' SW
- 9) Spot 100' cement plug 550'-450', pull W.S.
- 10) Attempt to pull 8 5/8"
 - A) If successful
 - a) Run W.S. to 350', load hole with gel
 - b) Spot 100' cement plug 350'-250'
 - c) Proceed to step #11
 - B) If unsuccessful
 - a) Run W.S. to 350'
 - b) Spot 100' cement plug 350'-250', pull W.S.
 - c) Cut 8 5/8" at free-point (approximately 185') and pull
 - d) Proceed to step #11
- 11) Run or pull W.S. to 185', load hole with gel
- 12) Spot 185' cement plug 185'-surface
- 13) Pull W.S. and top off with cement
- 14) Erect monument and reclaim as prescribed by law

RDT
5/27/14

RECEIVED
Office of Oil and Gas

JUN 03 2014

WV Department of
Environmental Protection

07/18/2014



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

API 47-043-01086 P
Well 808031

Midkiff

WELL RECORD

Permit No. LIN-1086

Oil or Gas Well Gas
(KIND)

Company UNITED FUEL GAS COMPANY
Address P.O. Box 1273, Charleston 25, W. Va.
Farm U.F.G. Co. Fee Tr. #1 Acres 55.87
Location (waters) Big Ugly Creek
Well No. 8091-P.I. Elev. 1153.17
District Harts Creek County Lincoln
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by United Fuel Gas Co.
Address Charleston, W.Va.
Drilling commenced 7-17-52
Drilling completed 9-27-52
Date Shot 10-3-52 From 2489 To 3675
With 8,000# DuPont Gelatin
Open Flow 28/10ths Water in 1" Inch
/10ths Merc. in _____ Inch
Volume 105,000 Cu. Ft.
Rock Pressure 104 lbs. 48 hrs.
364 lbs. 48 hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water 315 feet
Salt water 965 feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
18			Hook Wall
10		12'	Size of
5/8		283'	2"x6-5/8"x16"
7"		1586'	Depth set
5 8/16			1920'
8			Perf. top
2		3680'	Perf. bottom
Linera Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT 90 FEET 36 INCHES
150 FEET 60 INCHES FEET INCHES
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil Gas or Water	Depth Found	Remarks
Soil			0	15	Fresh Water	315'	
Sand			15	90			
Coal			90	93	Hole full water	965'	
Slate			93	150			
Coal			150	155	Gas	1600'	36/10 W 3" 569 M
Sand			155	220			
Slate			220	260	Gas	1720'	30/10 W 2" 231 M
Sand			260	280			
Slate			280	360	Show oil	1720'	
Sand			360	560			
Slate			560	712	Show gas	2500'	2/10 W 1" 15 M
Sand			712	865			
Slate			865	870	Gas	3455'	increased to 4/10 W 2" 84 M
Salt Sand			870	1387			
Red Rock			1387	1400			
Slate			1400	1463	Test before shot	21/10 W 1" 48 M	
Red Rock			1463	1470	Shot 10-3-52 with 8,000# DuPont Gel.		
Slate			1470	1525	from 2489-3675'		
Little Lime			1525	1550	Test 1 hr. after shot	50/10 W 2" 327 M	
Pencil Cave			1550	1556	Test 40 hrs. after shot	28/10 W 1" 56 M	
Big Lime			1556	1720			
Injun Sand			1720	1790			
Slate & Shells			1790	1910			Big Lime -49 M
Big shell			1910	1980	FINAL OPEN FLOW-105 M		Br. Shale- 56 M
Slate & Shells			1980	2260	48 Hr. R.P. 104# Casing		
Brown Shale			2260	2280	48 Hr. R.P. 364# Tubing		Gas
Berea Grit			2280	2296			
Slate & Shells			2296	3370			
Brown Shale			3370	3660	Shut in 10-5-52 in 2" tubing		
Slate			3660	3680			
Total depth			3680'				

WV Dept of Environmental Protection
JAN 1953
WEST VIRGINIA
DEPARTMENT OF MINES

80
4301086P

WW4-A
Revised
2/01

1) Date: 5/20/2014
2) Operator's Well No. 808031 P&A
3) API Well No. 47-043-01086

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 Lois and Claude Ferrell
Address 791 Big Ugly Road, East
Harts, WV 25524

(b) Name _____
Address _____

(c) Name _____
Address _____

6) Inspector Ralph Triplett
Address 5539 McClellan Highway
Branchland, WV 25506

Telephone 304-389-0350

5) Coal Operator
(a) Name Alpha Natural Resources
Address 300 Running Right Way
Julian, WV 25529

Coal Owner(s) with Declaration
(b) Name Pocahontas Land Corporation
Address 800 Princeton Avenue
Bluefield, WV 24701

Name _____
Address _____

Coal Lessee with Declaration
(c) Name Alpha Natural Resources
Address 300 Running Right Way
Julian, WV 25529

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

RECEIVED
Office of Oil and Gas
MAY 22 2014

Subscribed and sworn before me this 20th day of May the year of 2014

Phyllis A. Copley
Notary Public
My Commission Expires September 16, 2018

WV Department of
Environmental Protection

RECEIVED 07/18/2014
Office of Oil and Gas

7012 3460 0000 4499 2715

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

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

OFFICIAL USE

Postage	\$ 1.40	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	\$ 7.40	05/21/2014

Sent To: **808031 P&A**
 Alpha Natural Resources
 300 Running Right Way
 Julian, WV 25529

PS Form 3849, See reverse for instructions

Will 808031
 API
 47-043-01086P
 CK 5/3287
 10000

7012 3460 0000 4499 2722

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

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

OFFICIAL USE

Postage	\$	
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To: **808031 P&A**
 Pocahontas Land Corp.
 800 Princeton Avenue
 Bluefield, WV 24701

PS Form 3849, See reverse for instructions



7012 3460 0000 4499 2760

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

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

HARTS WV 25524

OFFICIAL USE

Postage	\$ 1.40	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	\$ 7.40	05/21/2014

Sent To: **808031 P&A**
 Lois and Claude Ferrell
 791 Big Ugly Road East
 Harts, WV 25524

PS Form 3849, See reverse for instructions

RECEIVED
 Office of Oil and Gas
 MAY 22 2014
 WV Department of
 Environmental Protection

4301086P

Rev. 02/01

API Number 47-043-01086
Operator's Well No. 808031 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 Big Ugly Creek Quadrangle Big Ugly, WV 7.5'

Elevation 945' County Lincoln District Harts Creek

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:

- 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 *David Gocke*

Company Official (Typed Name) David Gocke

Company Official Title Manager - Operations, Appalachia South

Subscribed and sworn before me this 20th day of May, 2014.

Phyllis A. Copley

Notary Public
Office of Oil and Gas

My Commission Expires September 16, 2018

MAY 22 2014



WV Department of Environmental Protection

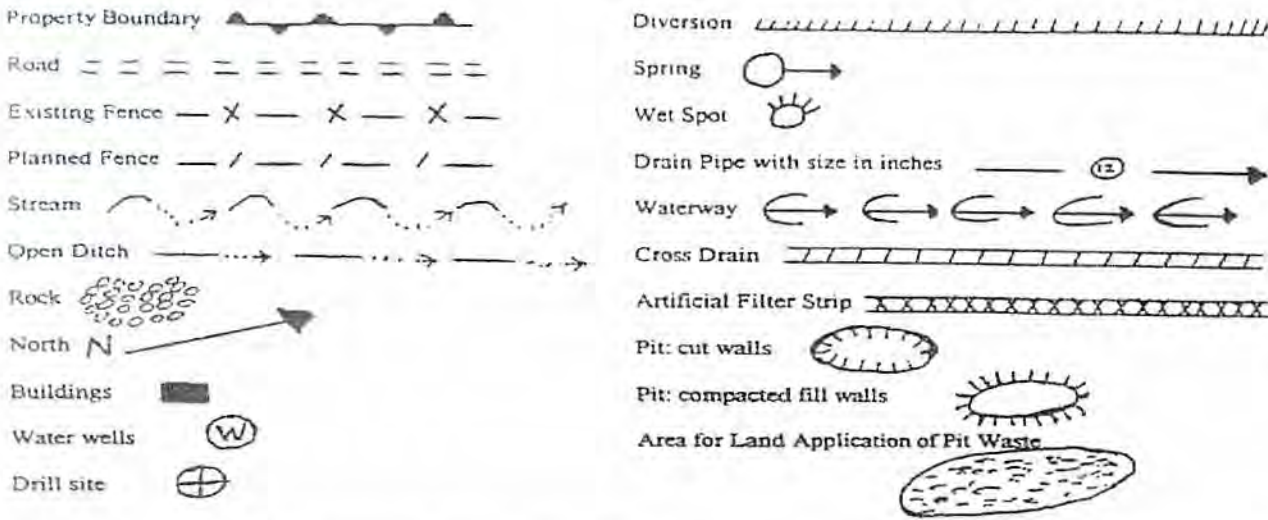
07/18/2014

WV Department of Environmental Protection

Attachment #1

API #: 47-043-01086
 Operator's Well No. 808031 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: Joseph D. Trupia

Title: District Inspector

Date: May 27, 2014

Field Reviewed? () Yes () No

RECEIVED
 07/18/2014
 Office of Oil and Gas
 JUN 03 2014
 WV Department of
 Environmental Protection

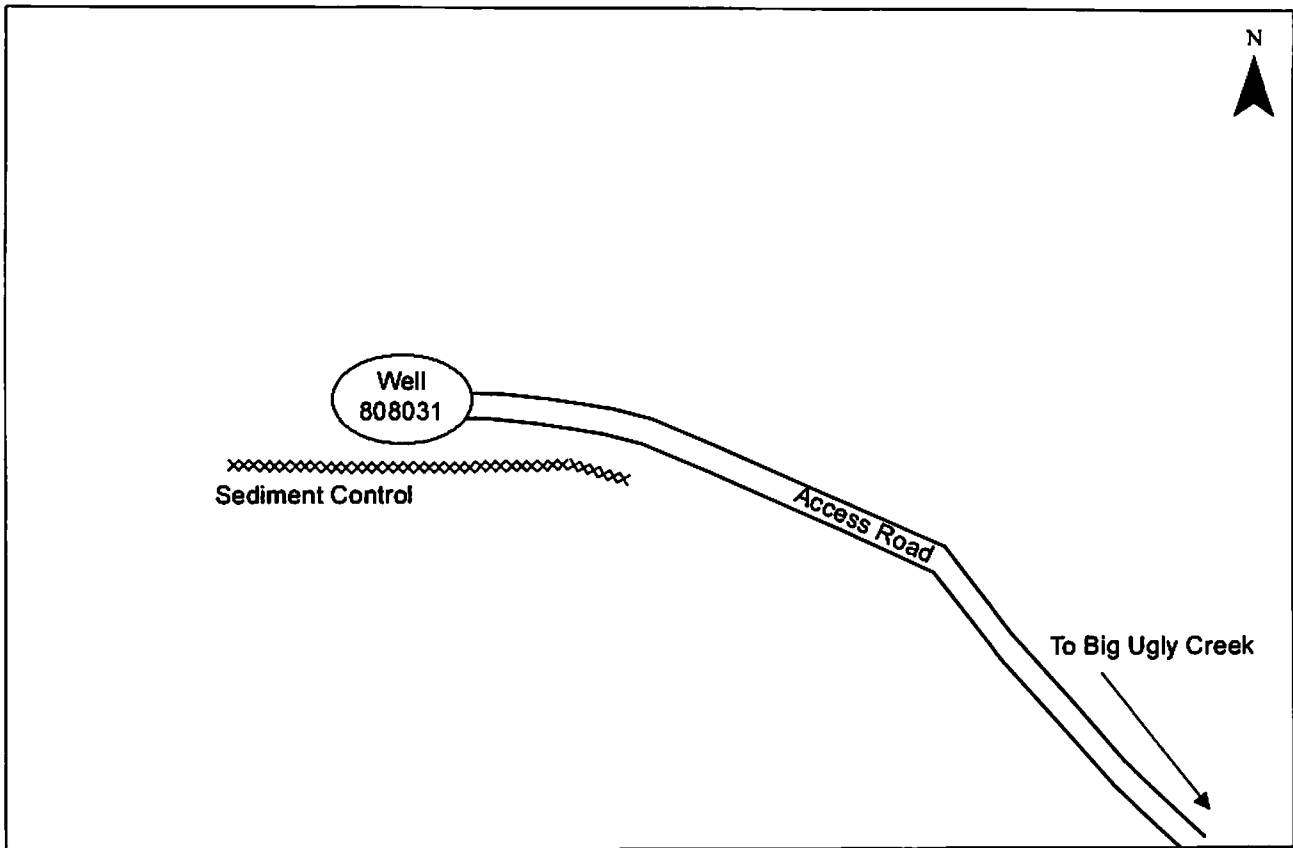
CHESAPEAKE APPALACHIA, L.L.C.

Diagram of Well 808031

API 47-043-01086

Field Office - Branchland

County - Lincoln

**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 and 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 areas that will allow. These structures will be considered permanent and used as such.

Permanent seeding: See Attachment #1

RECEIVED
Office of Oil and Gas
MAY 22 2014
WV Department of
Environmental Protection

07/18/2014

Site Plan

Prepared by: Lloyd Reynolds
Date: 05/20/2014

Chesapeake Energy Corporation - Eastern Division
P.O. Box 579 - 8165 Court Avenue - Hamlin, WV 25523
304.824.5141 - fax 304.824.2247

4301086P

CHESAPEAKE APPALACHIA, L.L.C.

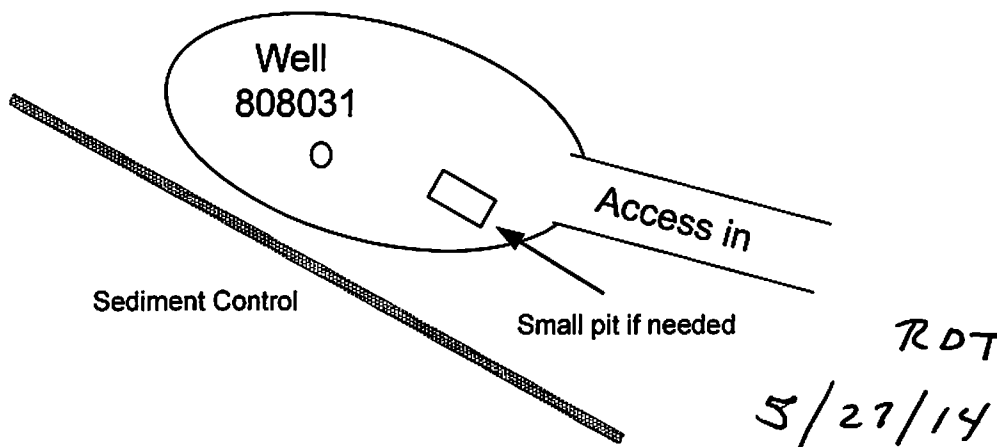
Diagram of Well 808031

API 47-043-01086

Field Office - Branchland

County - Lincoln

Surface Owner:
Lois and Claude Ferrell



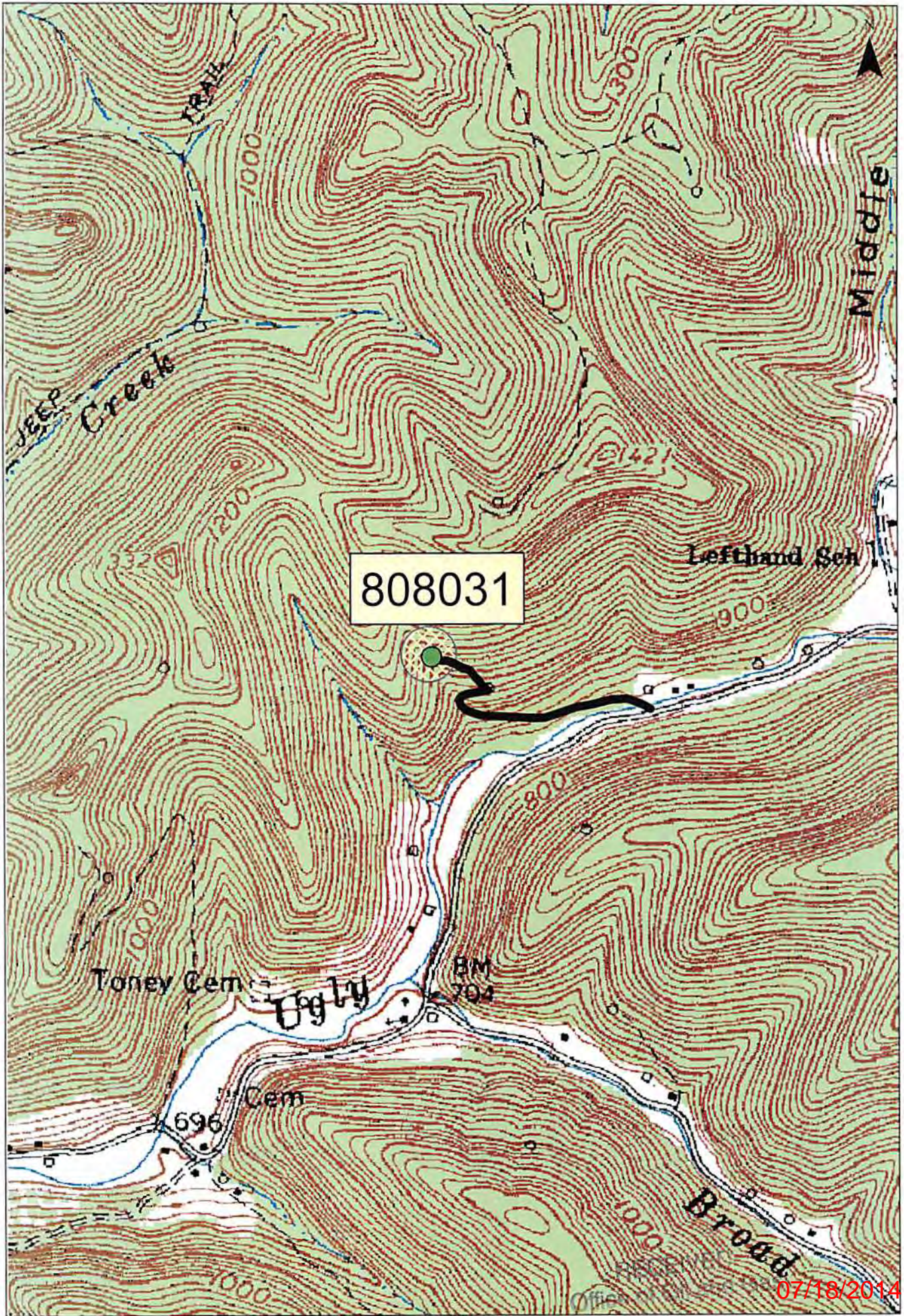
REQUESTED
DETAIL
KA 5-29-14

RECEIVED
Office of Oil and Gas
JUN 03 2014
WV Department of
Environmental Protection

Site Plan

CHESAPEAKE APPALACHIA, L.L.C.

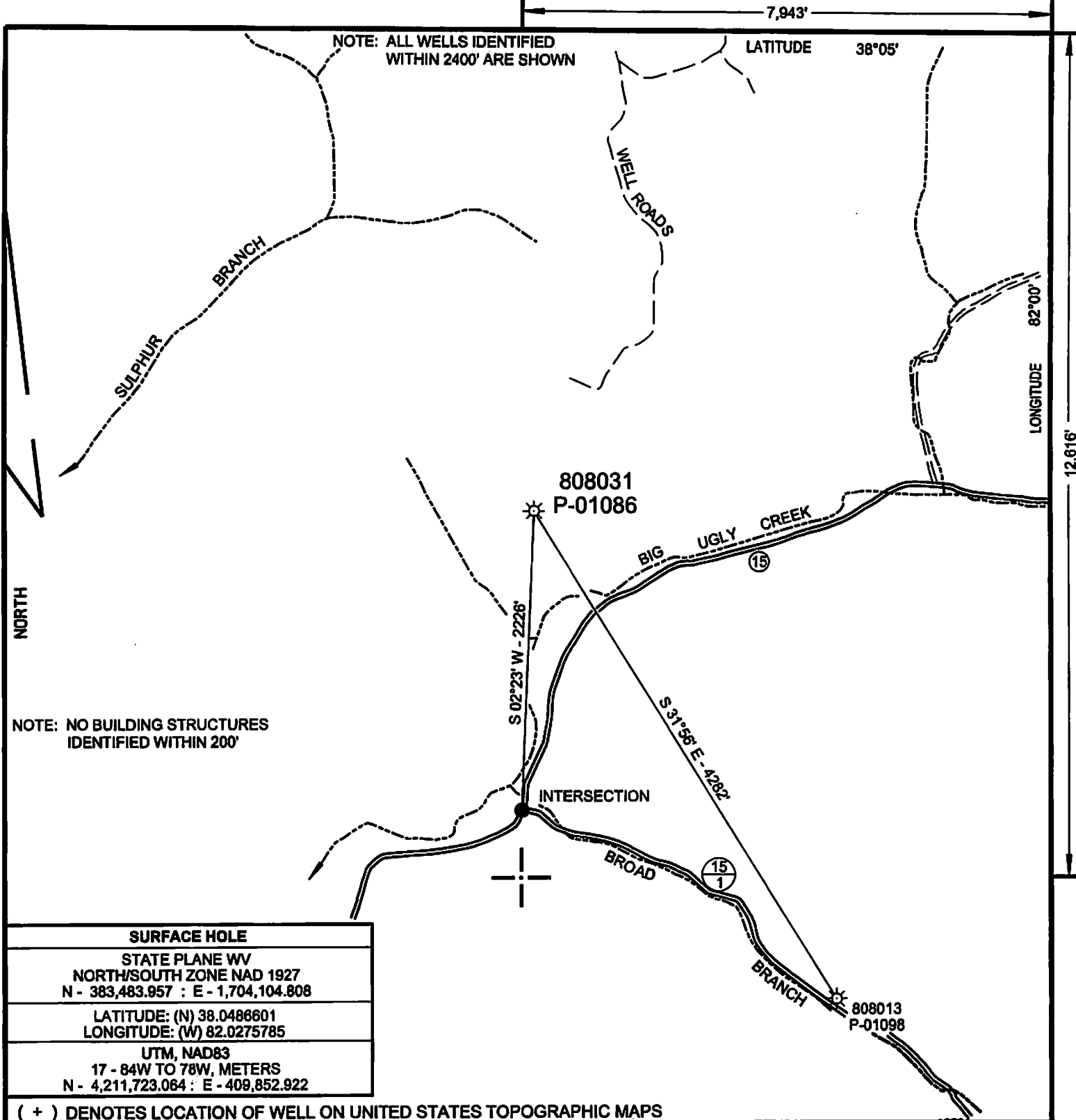
Topographical Map of Access
and Well Location 808031
API 47-043-01086
Field Office - Branchland
County - Lincoln



1:10,000

0 450 900 1,800 Feet
MAY 2 9 00/14

WV Department of
Environmental Protection



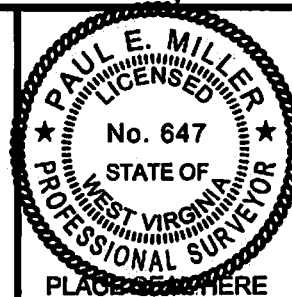
SURFACE HOLE
STATE PLANE WV NORTH/SOUTH ZONE NAD 1927 N - 383,483.957 : E - 1,704,104.808
LATITUDE: (N) 38.0486601 LONGITUDE: (W) 82.0275785
UTM, NAD83 17 - 84W TO 78W, METERS N - 4,211,723.064 : E - 409,852.922

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

FILE NO.	808031P&A.DGN
DRAWING NO.	8031 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 MARCH 28, 20 14
OPERATOR'S WELL NO. 808031
API WELL NO.

47 043 01086 P
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 945' WATER SHED BIG UGLY CREEK
DISTRICT HARTS CREEK COUNTY LINCOLN
QUADRANGLE BIG CREEK, WV 7.5'

SURFACE OWNER LOIS AND CLAUDE FERRELL ACREAGE 55.2
OIL & GAS ROYALTY OWNER CHESAPEAKE APPLACHIA L.L.C. LEASE ACREAGE 55.2
LEASE NO. FEE 1-000026-000

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 X CLEAN OUT AND REPLUG ___
TARGET FORMATION _____ ESTIMATED DEPTH _____
WELL OPERATOR CHESAPEAKE APPALACHIA L.L.C. DESIGNATED AGENT ERIC B. GILLISPIE
ADDRESS PO 18496 OKLAHOMA CITY, OK 73154-0496 ADDRESS PO BOX 6070 CHARLESTON, WV 25362

COUNTY NAME

PERMIT

FORM WW-6

07/18/2014