

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

June 30, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4302086, 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: 5913

Farm Name: WATERS, A. K.

API Well Number: 47-4302086

Permit Type: Plugging

Date Issued: 06/30/2015

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

- 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.

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

STATE O

1) Date: 4/24/2015 2) Operator's Well No. 805913 P&A 3) API Well No. 47-043-02086

	,	<u>ا</u>	O DEPARTM	IENT OF ENV	WEST VIRG IRONMENTA FOIL AND G	L PROTEC	CTION			
4)	Well Type: (Is Gas, Prod	Oil	APPLICATIO Gas or Undergroun		Liquid injecti			ste disposal Shallow		
5)	Location:	Elevation _ District _	773' Sheridan	Watershed County	Lincoln		ranch of S rangle	ixmile Creek Branchland, V	VV 7.5'	
6)	Well Operator Address	P.O. Box 1	ke Appalachi 8496 City, OK 731		7) Designate Address		P.O. Box 6	reathouse 5070 n, WV 25362		
8)	Address 5539	pector to be n Triplett McClellan F chland, WV	lighway		9) Plugging Name Address	Chesapea P.O. Box 1	8496	chia, L.L.C. 73154-0496		
10)	Work Order: Th	ie work orde	r for the mann	er of plugging t	his well is as fo	ollows:				
				See Attached S	heet					

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

Work Order approved by Inspector

Ralpe D. Trupedl)

Date May 4, 2015

07/03/2015

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Office of Oil and Gas

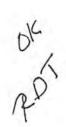
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805913 P&A PROCEDURE

- 1) Prepare road and location, MIRU service rig
- 2) Run in hole with tools to check TD (approximately 1350') OA KINAL TO WAS 1442.
- 3) Attempt to pull tubing and packer
 - A) If successful
 - a) Run W.S. to 1350', spot gel
 - b) Spot 250' cement plug 1350'-1100', pull W.S.
 - c) Proceed to step 4
 - B) If unsuccessful
 - a) Cut 2" at free-point (approximately 1275') and pull
 - b) Run W.S. as deep as possible (approximately 1300'), spot gel
 - c) Spot 200' cement plug 1300'-1100', pull W.S.
 - d) Proceed to step 4
- 4) Run in hole with tools to check top of plug. If TOC is below 1155', then reset plug.
- 5) Cut 6 5/8" at free-point (approximately 575') and pull
- 6) Run W.S. to 575', spot gel
- 7) Spot 150' cement plug 575'-425', pull W.S. to 150'
- 8) Spot 150' cement plug 150'-surface
- 9) Pull W.S. and top off with cement
- 10) Erect monument and reclaim as prescribed by law

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WW4-A Revised 2/01

1) Date:

4/24/2015

2) Operator's Well No.

805913 P&A

3) API Well No.

47-043-02086

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

		NOTICE OF APPL	ICATION TO PLUG AND ABANDON	A WELL
()	Surface Ow	ner(s) to be served:	5) Coal Operato	
	(a) Name	Boyd L. Vance	(a) Name	None
	Address	217 Omega Road	- (-7.1-1113	
		Lyburn, WV 25632	Coal Owner	s) with Declaration
			(b) Name	J. L. Caldwell
			Address	303 Washington Street, W.
	(b) Name	John David Sailstron	71001000	Charleston, WV 25302
	Address	P.O. Box 123	-	Charleston, VV 20002
	211200	Hamlin, WV 25523	-	
		114111111111111111111111111111111111111	Name	
			Address	
	(c) Name	Wilson College	Address	
	Address	1015 Philadelphia Avenue	-	
	Addiess		-	
		Chambersburg, PA 17201	S. Viene	
			Name	
		2 0-0 G U I O	Address	
)	Inspector	Ralph Triplett	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Address	5539 McClellan Highway	Coal Lessee	with Declaration
		Branchland, WV 25506	(c) Name	None
			Address	
	Telephone	304-389-0350		
=				
0	THE PERSO	ONS NAMED ABOVE: You sho	uld have received this Form and	the following documents:
	(1) The applica	ation to Plug and Abandon a Well on Fo	rm WW-4B, which sets out the parties in	volved in the work and
		the well its and the plugging work order;		
		urveyor's map) showing the well location		
			have rights regarding the application whi	ch are summarized in the
	instructions on	the reverses side. However, you are no	ot required to take any action at all.	
	Take notice tha	at under Chanter 22-6 of the West Virgin	nia Code, the undersigned well operator p	proposes to file or has filed the
			for a permit to plug and abandon a well v	
			tal Protection, with respect to the well at	
	and the second second second		m WW-6. Copies of the Notice, the Appl	
			and to the person(s) named above (or by	publication in certain
	circumstances) on or before the day of mailing or deliv	ery to the Chief.	

Chesapeake Appalachia, L.L.C. Well Operator: Official Seal Notary Public State of West Virginia Phyllis A. Copley K.S. Jehenets By: Its: Completion Superintendent Mard Circle Hurricane, WV 2552 P.O. Box 18496 Address: My Commission Expires September 16, 2018 Oklahoma Cily, OK 73154-0496 405-935-4073 Telephone: Subscribed and sworn before me this the year of 2015 Notary Public My Commission Expires September 16, 2018

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Office of Oil and Gas

MAY 0 6 29:5

I ITED FUEL GAS COMPANY Incorporated

59/3 Incorporated

WILL 805913 API 47-043-020868

	2//3	*****	or from the cert			
	Serial Well No39		D	·····	Мар	Square 32-49
	RECORD OF WELL No. 18	on the	CAST	ING AND T	UBING	TEST BEFORE SHOT
,	Caldwell Cons. Farm of	Acres	Size	Used in Drilling	Left in Well	of Water in inch
	in Sheridan	District	16			10ths of Merc. in inch
7	Lincoln	County	13			Volume Cu. ft.
	Fleid, State of	.Va.	10	15 124	30 5	TEST AFTER SHOT
	Poplar Hollow of Wall Branch		81/4		00	of Water in inch
	Rig Commenced	192	6%	1185	1185	of Merc. ininch
	Rig Completed	192	5 3-16			Volume 2,000,000 Cu. ft.
	Drilling Commenced 8-2-15	102	4%			Rock Pressure 410
•	Drilling Completed 2725-15	192	4	_		Date Shot 8-26-15
	Drilling to cost per foot		3	127	127	No Record Size of Toppedo
	Contractor is: G. L. Meabon		2	1315	1375	Oil Flowedbbls. 1st 24 hrs.
	Address: 2566-1st Ave.		i!	SHUT IN	2020	Oil Pumpedbbls. 1st 24 hrs.
	nuntington, ". Va.		Date	8-27-15		
	Driller's Names J.P.Campbell & C.I	.Smith	in		uhing or Casing	"Well abandoned and
			Size of Pa	6-5/8X	3XZ	Plugged 19
	•			~ . XXXV - *	EL CAR	1 •
			1st. Perf. :	Set	from POTTO	M.
			2nd Perf.	Set	from	n

DRILLER'S RECORD

Formation	Тор	Bottom	Thickness Remarks
Clay	0	16	1
Sand Sla te	16 50	50 60	The lower preferation consists of one joint of 3" tubing perforated
Sand	60-	80	full length 20'.
Sla te	80	150	Second preferation consists of 2 1/2" holes immediately under the
Sand	150	180	tubing packer.
Sla te	180	210	Tubing nockey get in notten of No
Sand	210	294	Tubing packer set in nottom of Big Lime under Gas pay at 1315.
Slate	294	448	Original record indicates shot was
Sand	448	480	exploded in hig Injun sand, but does not give size of shot or exact
Slate	480	545	not give size of shot or exact
Salt sand	5 45	946	depth of its place.
Sla te	740	755	lo record of bottom hole packer or
Sand	755	946	casing shoe on 6-5/8" casing.
Slate	946	1015	Show of gas in top of Sig Lime. Thow of gas in Salt Sand at 546'.
Maxton sand	1015	1768	Pig Injun pay at 1396'.
Slate	1068	1105	
Red rock	1105	1120	NO FURTHER RECORD AVAILABLE.
Slate	1120	⊉150	
To I had	• ::		
			Red Rock 1375 1385 Slate 1385 1393
Little Lime	1150	1175	Big Injun Sand 1393 07703/2015
Pencil Cave	1175	1177	Slate 1433 1442
Big Lime	1177	1360	TOTAL DEPTH 1442
Keener Sand	1360	1370	Deathard
Slate	1370	375	Received Office of Oil & Gas

APR 29 2015

WW4-A Revised 2/01 1) Date: 4/24/2015 2) Operator's Well No. 805913 P&A 3) API Well No. 47-043-02086

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

1)	Surface Ow	ner(s) to be served:		Coal Operato	or
	(a) Name	Boyd L. Vance		(a) Name	None
	Address	217 Omega Road			
		Lyburn, WV 25632		Coal Owner(s	s) with Declaration
				(b) Name	J. L. Caldwell
				Address	303 Washington Street, W.
	(b) Name	John David Sailstron			Charleston, WV 25302
	Address	P.O. Box 123	/		
		Hamlin, WV 25523			
				Name	
			1	Address	
	(c) Name	Wilson College	_/		
	Address	1015 Philadelphia Avenue	/		
		Chambersburg, PA 17201			
				Name	
				Address	
6)	Inspector	Ralph Triplett			
	Address	5539 McClellan Highway		Coal Lessee	with Declaration
		Branchland, WV 25506		(c) Name	None
				Address	
	Telephone	304-389-0350			

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.

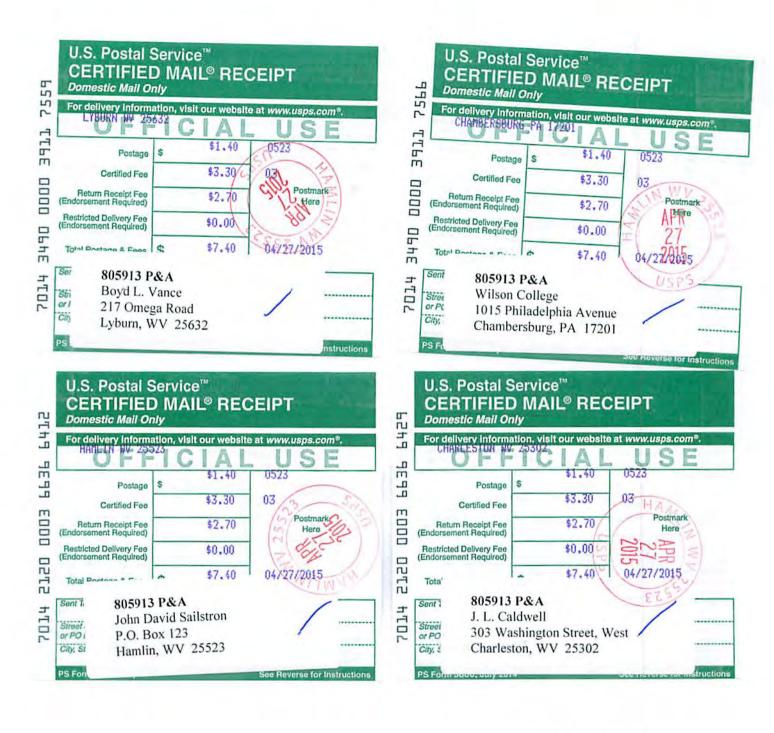
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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	Well Operator: By:	K.S. Jehrah		
144 Willard Circle Hurricana, WV 25528	Its: Address:	P.O. Box 18496		
My Commission Expires September 15, 2019	Telephone:	Oklahoma City, OK 73154-0496 405-935-4073		
Subscribed and sworn before me this A My Commission Expires		the year of 2015 Notary Public	Paceived Office of OP 9 Gas	

APR 29 2015

Well 805913 PAA API 47-043-02086P



Received
Office of Oil & Gas
APR 2.9 2015

Form WW-9 Rev. 02/01

API Number 47-043-02086
Operator's Well No. 805913 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 Nam	neCh	iesapeake A	ppalachia, L.L	C.	OP Code 494477557	
Watershed		Mill Branch o	of Sixmile Creek	(Quadrangle Branchla	and, WV 7.5'
Elevation	773'		County _	Lincoln	District	Sheridan
Description of	anticipated F	Pit Waste:	Plugging Retu	urns/Cement		
Will a syntheti	c liner be use	ed in the pit?	Yes	20	mil.	
Proposed Disp	posal Method X	Land App Undergro Reuse (al	ilication und Injection (t API Number_ Disposal (Supply	UIC Permit Nun y form WW-9 fo	nber) r disposal location)	
Proposed Wo	rk For Which	Pit Will Be U Drilling Workover Swabbing Plugging Other (Ex	1)	
issued on D understand permit and/o I certify this applicat for obtaining	ecember 31, 199 that the provision or other applicabe under penalty of ion form and all gothe information renalties for subs	e9, by the Office as of the permit le law or regular law that I have attachments the I believe that the nitting false info	e of Oil and Gas of are enforceable by tion can lead to en personally examin ereto and that, bas he information is tr	the West Virginia D y law. Violations of forcement action. ed and am familiar ed on my inquiry of	RAL WATER POLLUTION PER bepartment of Environmental Pro- any term or condition of the ger with the information submitted of those individuals immediately ro- complete. I am aware that there e or imprisonment.	otection. I neral on esponsible
Company Office	cial (Typed N	ame)	Robert E. Sc	hindler		
Company Office	cial Title		Completions	Superintenden	t ·	
Subscribed ar	nd sworn befo	re me this	24th day of Inflis a. (April		Notary Public.
My Commissio	on Expires	Septen	nber 16, 2018			Official Seal Notary Public State of West Virginia Phyllis A. Copley Williard Circle Hurricane, WV 25528 My Commission Expires September 16, 2018

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Office of Oil and Gas

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Attachment #1

API #: 47-043-02086 Operator's Well No. 805913 P&A

Property Boundary	Dive	critical contraction of the cont	Ш
Road = = = = = = = = = = = = = = = = = = =	<u> </u>	ng 🗪	
Existing Fence — X — X — X -	Wes	Spai 🖐	
Planned Fence / / /	_ Dra	in Pipe with size in inches @	-
Stream	→ wa	$erway \longleftrightarrow \longleftrightarrow \longleftrightarrow \longleftrightarrow \longleftrightarrow$	
Open Ditch		ss Drain 77777777	
Rock ESES	Art	ficial Filter Strip XXXXXXXXXXXXXXXX	DC:
North N	Pit	cut walls	
Buildings	Pit:	compacted fill walls	
Water wells	An	a for Land Application of Pit Waste	
Drill site			
Proposed Revegetation Treatment: Acre	es Disturbed	.0 Prevegetation pH 6.1	
Liı	ne 3 T	ons/acre or to correct to pH 6.5	
	·	onstance of to correct to pri	
Fertilizer (10-20-20 or equivale	nt) 1/3 TON lbs/	acre (500 lbs minimum)	
Mu	lch Hay 2 Tor	s/acre	
	Seed I	/lixtures	
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 proportion photocopied section of involved 7.5' topograms.	graphic sheet.	application.	
Plan Approved by: Ralph & 7 Title: Sistrict Inspector Date: May 4, 2015	ripsell)		
Title: District Inspector	•		
Date:			
Date: 11py 4, 2010			

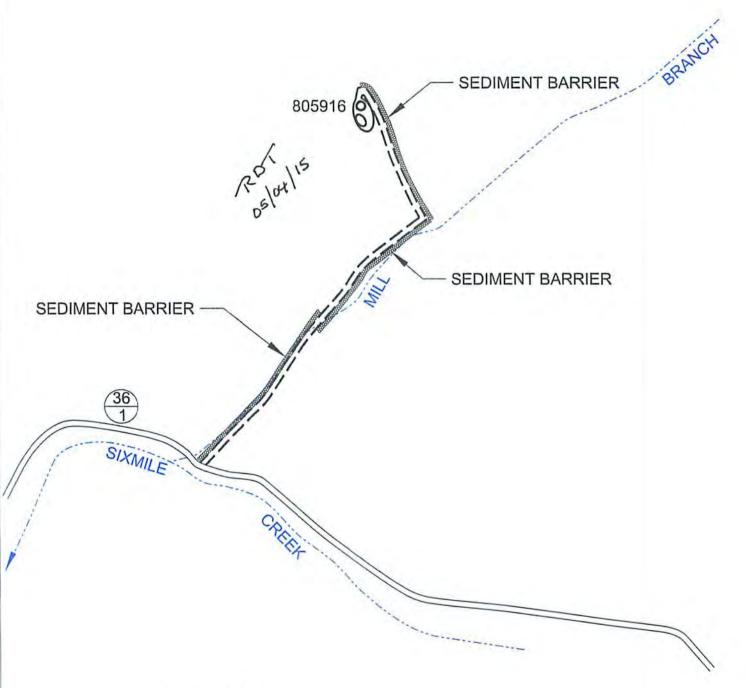
LEGEND

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MAY 0 6 2015
WV Department of
Environmental Protection

CHESAPEAKE APPALACHIA, L.L.C.

RECLAMATION DIAGRAM WELL LOCATION 805913

API 47-043-02086



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 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 NECO7/03/2015 structures will be considered permanent and used as such. Office of Oil and G

Permanent seeding: See Attachment #1.

MAY 0 6 200

CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION WV Department of P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25522 P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523

304 824-5141 - FAX 304 824-2247

WV Departition

WV Departition

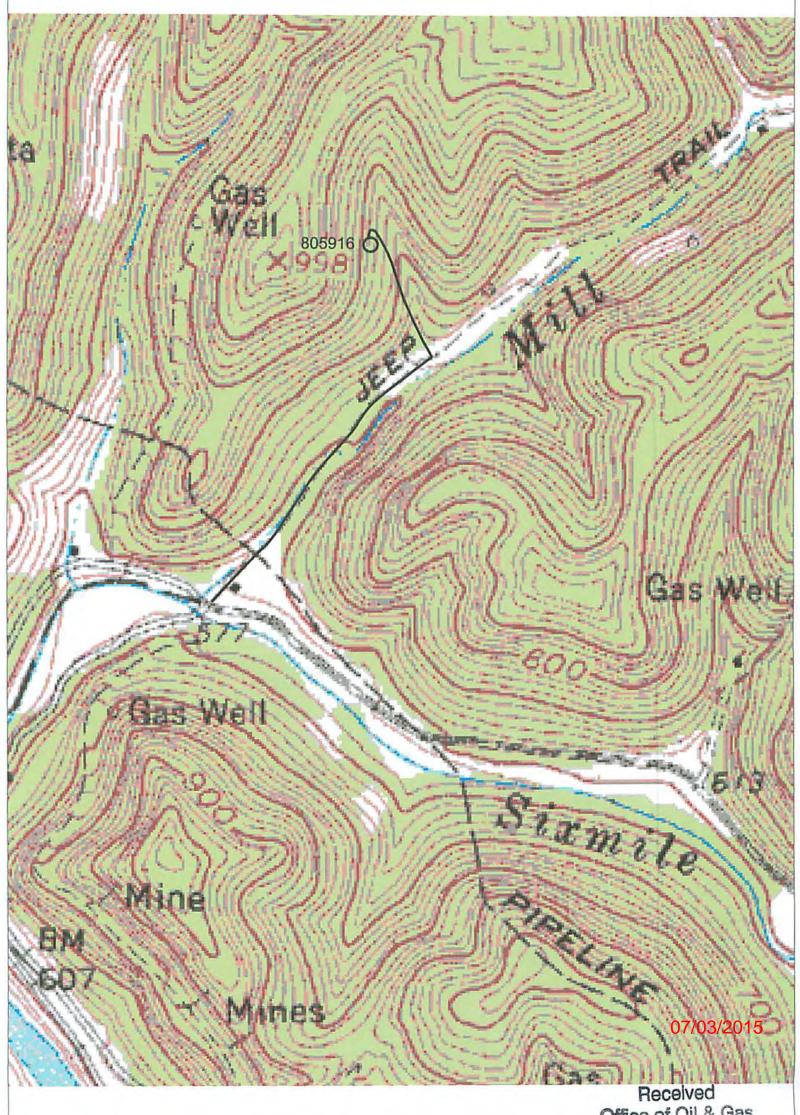
WV Departition

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CHESAPEAKE APPALACHIA, L.L.C.

TOPOGRAPHICAL MAP OF ACCESS AND WELL LOCATION 805913

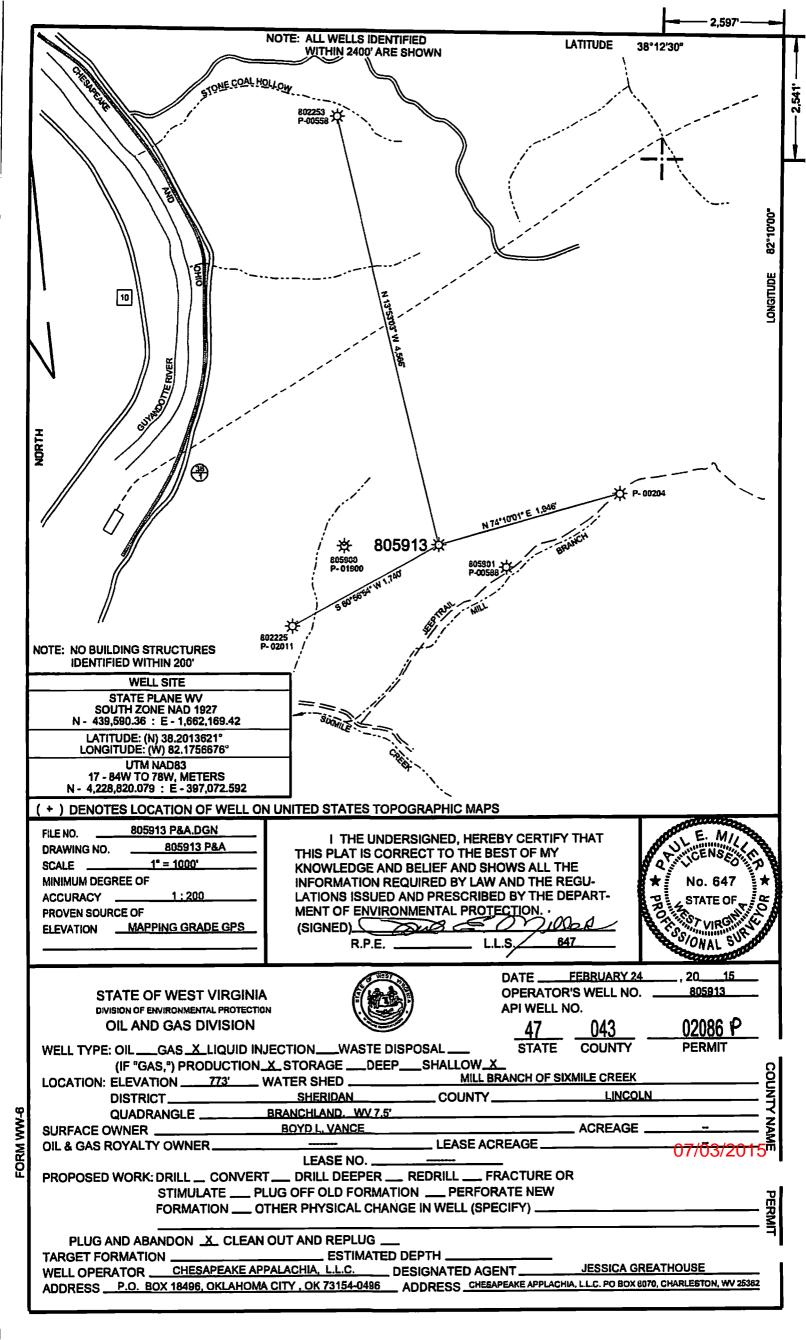
API 47-043-02086



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

Office of Oil & Gas

APR 29 2015



Operator: CHESAPEAKE APPALACHIA, L.L.C.

API: 4302086

WELL No: 5913

Reviewed by: 9 mm Date: 6/26/15

15 Day End of Comment: 05/64/15

* Well is on an Agreed Order *

CHECKLIST FOR FILING A PERMIT

Plugging

₹WW-4B
Inspector signature on WW-4B
Completion / Well Records of Previous Work
WW-4A (Notarized)
Certified Mail Receipts, Waivers, or Affidavits of Personal Service
Surface Owner Waiver
Coal Owner / Lessee /Operator Waiver
WW-9 (Page 1) (Notarized)
Inspector Signature on WW-9 (Optional)
Topographic Map of location of well
WW-7
OR
Mylar Plat (Surface owner on plat matches WW-4A)
Bond
Company is Registered with the SOS
Worker's Compensation / Unemployment Insurance account is OK
\$100.00 check (\$0.00 if no pit)