

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 24, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8702228, 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: 604

Farm Name: OGDEN, M. T. & R. K.

API Well Number: 47-8702228

Permit Type: Plugging
Date Issued: 06/24/2015

Promoting a healthy environment.

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

1) Date:	6/11/2015
Operator's Well No.	800604 P&A

3) API Well No.

47-087-02228

STATE OF WEST VIRGINIA

	DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS							
4)	APPLICATION FOR A PERMIT TO PLUG AND ABANDON Well Type: Oil Gas X Liquid injection Waste disposal (Is Gas, Production X or Underground storage Deep Shallow X							
5)	Location:	Elevation 704' District Geary	Watershed County	Roane			of Elk River	E'
6)	Well Operator Address	Chesapeake Appalachia, P.O. Box 18496 Oklahoma City, OK 7315	L.L.C.	7) Designate Address		Jessica Gro P.O. Box 60 Charleston		.5
8)	9) Plugging Contractor Name Ed Gainer Name Address P.O. Box 821 Spencer, WV 25276 9) Plugging Contractor Name Chesapeake Appalachia, L.L.C. P.O. Box 18496 Oklahoma City, OK 73154-0496							
10)	0) 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 commenced Oil & Gas

Work Order approved by Inspector

API Number: 47-087-02228

800604 P&A PROCEDURE

- 1) Prepare road and location, MIRU service rig
- 2) RIH with tools to check TD approximately at 1600'
- 3) Attempt to pull 3" and packer:
 - A) If successful:
 - a) RIH with W.S. to 1600', spot gel, pull W.S. to 1570'
 - b) Spot 100' cement plug 1570'-1470', pull W.S.
 - c) Proceed to step #4
 - B) If unsuccessful:
 - a) TIH with W.S. to 1600', spot gel
 - b) Spot 100' cement plug 1600'-1500', pull W.S.
 - c) Cut 3" at free-point (approximately 1470') and pull
 - d) Proceed to step #4
- 4) Rip or shoot holes in 6 5/8" approximately at 1435'
- 5) TIH with W.S. to 1470', spot gel
- 6) Spot 150' cement plug 1470'-1320', pull W.S.
- 7) Cut 6 5/8" at free-point (approximately 1300') and pull
- 8) Rip or shoot holes in 8 ¼" approximately at 1280', 1240', 1170'
- 9) TIH with W.S. to 1300', spot gel
- 10) Spot 150' cement plug 1300'-1150", pull W.S.
- 11) Cut 8 1/4" at free-point (approximately 1050') and pull
- 12) Run W.S. to 1050', spot gel
- 13) Spot 100' cement plug 1050'-950', pull W.S. to 925'
- 14) Spot 125' cement plug 925'-800', pull W.S. to 630'
- (15) Spot 100' cement plug 630'-530', pull W.S. to 450'
- 16) Spot 100' cement plug 450'-350', pull W.S. to 150'
- 17) Spot 150' cement plug 150'-surface
- 18) Pull W.S. and top off with cement
- 19) Erect monument and reclaim as prescribed by law

16 (a) 15 15

(INCORPORATED) WELL 800604

APT 47-087-02248 SHRIAL WELL NO. 604 LEASE NO.5618.

			* (* * * * * * * * * * * * * * * * * *			. 82-75	3 18
RECOR	D OF WELL No.	1. on the	CASIN	G AND CONE	UCTOR	GA	S WELL
M.T.&.R.K.OGDEN	Farm of	405 Acres	BIZE	DRILLING	LEFT IN	OPE	N FLOW
ie G	EARY	District	Conductor		8	in.	Tubin
	ROANE	County	13"	121	=	At Centre	At 1-7 Diam
CLENDENIN	Field, State of	WVA.	10"	398+		Pounds Ounces	Pounds Our
			81/4"	1375	1375		20/10 Mer
Rig Commenced		19	8"		-512	CLC	SED IN
Rig Completed		19	75%"			in	3" Tubing Casing
Drilling Commenced	JUNE 18 PH. 19	L4• 19	6%"	1458•	1458•	1 Min.	145 Pound
Drilling Completed	AUG.11TH. 191	L4• 19	6¼*			2 Min.	185 Pound
Drilling to cost 1.3	O per foot		554"			3 Min.	225 Pound
Contractor is: MUNO	CE DRILLING CO.		5∦″			4 Min.	250 Pound
Address :	CHARLESTON W.	VA.	436"			5 Min.	270 Pound
			3"		1635.5"	Rock Pressure	450 Pound
Drillers' Names PI	RANK DYER		Shot		19	24 Hrs. OIL	WELL
			Size of Tor	pedo		Size of Rods	T 5 (2) 8:
			į.			Kind of Rods	
Elev. 702 B.			Size of Tub	ing 3	inch	-	
Int DAY	S PRODUCTION		Size of Paci	ker 3 × 6€			
Gas calculated to be	1,770.	000 cubic feet	Kind of Pac			Well abandoned	and plugged
Oil flowed	barrels, pumped	barrels	Set 133				19
	lst. Perfor	Want of the second way of the	" 63•	7" "	**		332
	2nd. "		R'S RECOR	D	77	974 H.V.	131.00 ± 68
FORMATION	TAD			- 11 - V			9

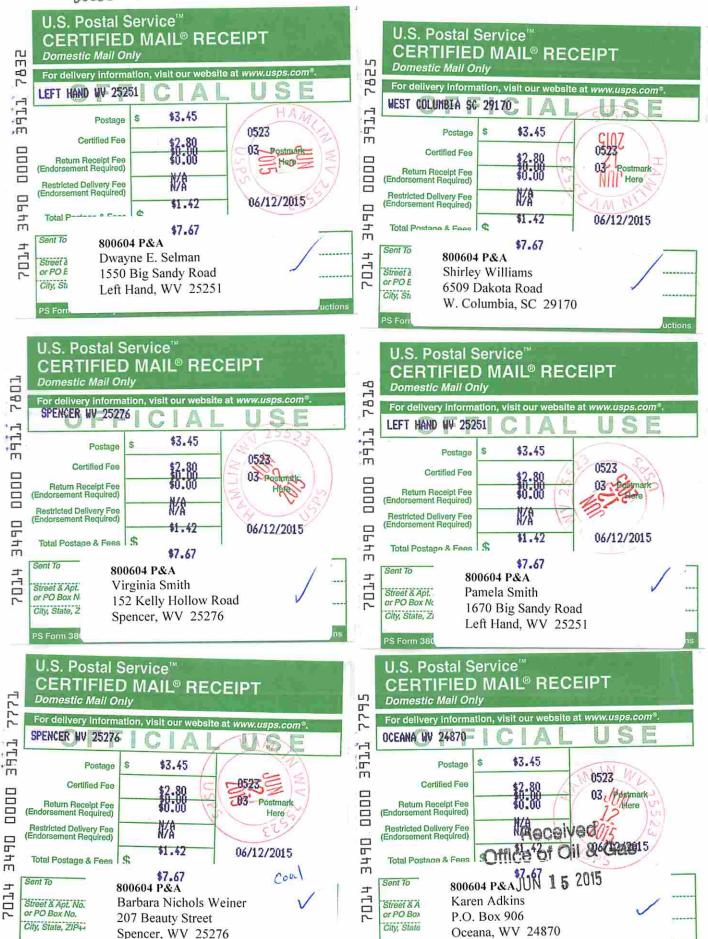
		DF	RILLER'S RE	CORD
FORMATION	TOP	BOTTOM	THICKNESS	REMARKS DATE
SLATE	. 0	5	5	SLATE 1370 1380 10
GRAVEL	: 5	10	5	LITTLE LIME 1380 1405 25
SAND	10	100	90	PENCIL CAVE 1405 1420 15
SLATE	100	320	220	BIG LIME 1420 1517 97
LITTLE DUNKARD SAND	320	350	30	BIG INJUN 1517 1579 62
SLATE	350	355	5	GAS AT 1482
BIG DUNKARD SAND	355	380	25	GAS AT 1525
COAL	380	383	3	GAS AT 1540 to 1563
SLATE	383	398	15	SLATE 1579 1627 48
BAND	398	420	22	TOTAL DEPTH 1627.
BLATE	420	520	100	Well repaired Sept. 13, 1924,
BAND	520	540	20	Used 1637-ft. 12" Tubing
SLATE	540	600	. 60	RUN STEEL LINE AT 1007,1172,1420,1482.
COAL	600	605	5	1485,1517,1525,1540,1563,1579,1627.
SLATE	605	655	50	1 - 3xl inchor Packer
BAND	655	745	90	143 feet of anchor.
HATE	745	750	5	APPIn
BAND	750	815	65	- Life Talas
IME	815	845	30	Received
LATE	845	925	Bo	Office of Oil & Gas
LAND	925	960	35	CHAIT COOK OR ATT OCC. MA ATO.
LATE	960	1000	40	SMALL SHOW OF OIL 925, TO 9301 15 1115
,DE	1000	1007	7	
LALT SAND	1007	13 3 5	32 8	GAS AT 1172. HOLE FULL WATER AT 1060.
LATE	1335	1340	5	
LAXON SAND	1340	1370	30	06/26/2015
192				00/20/2010

604 Lease No. 5618	4	· 15 //		82-75
UNITED WELL LOCATION	FUEL	GAS CC	MPANY	
Well No. 6C4 MITERK OF	iko :	Farm: 40.5	Acres On	FIELD
Dist.	700	176	0-	WV
Location Made by	Scale 1" -	RI MAS		
Location Made by		70/2	Date	<i>III. A.L</i> , 191 <i>A</i>
-1.f. 38°35'	Elevation		•	•
Jat. 38°35' Jong. 81°14'14	' ' "			ı
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			•	Received
Approved: april 98, 10.	1	1710		Office of Oll & G
Approved: 1	914	XI CI. CI.	ctohum	TURNIFICATO 15
:	91.4	- AUCH	111100	General Manager

WW4-A Revised 2/01 1) Date: 6/11/2015 2) Operator's Well No. 800604 P&A 3) API Well No. 47-087-02228

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 Ow	ner(s) to be served:	DI AFFEIGATION TO FEOG	5) Coal Operato	
	(a) Name	See Attached List of		(a) Name	None
	Address	Surface Owners		Coal Owner's	s) with Declaration
				(b) Name	See attached list of Coal Owners
)	:	Address	
	(b) Name		-		
	Address				
				Name	
				Address	
	(c) Name			7 (44) 000	-
	Address				
				Name	
				Address	
-	Thereway and the same	lance (American)			
3)	Inspector	Ed Gainer		0 - 11	
	Address	P.O. Box 821			with Declaration
		Spencer, WV 25276		(c) Name Address	None
	Telephone	304-389-7582		Address	
	relephone	304-303-7302		2	
	describes t	the well its and the plugging w urveyor's map) showing the w		ts out the parties in	volved in the work and
	A 10 20 20 20 20 20 20 20 20 20 20 20 20 20		s that you have rights regarding you are not required to take any	570.5	ch are summarized in the
	Take notice tha	at under Chapter 22-6 of the V	West Virginia Code, the undersig	ned well operator p	proposes to file or has filed the
		The state of the s	ocuments for a permit to plug ar		
	Oil and Gas, W	Vest Virginia Department of Er	nvironmental Protection, with res	spect to the well at t	he location described on the
	attached Applic	cation and depicted on the att	ached Form WW-6. Copies of t	he Notice, the Appli	ication, and the plat have been
			ered by hand to the person(s) n	amed above (or by p	publication in certain
	circumstances	on or before the day of maili	ng or delivery to the Chief.		
	3	Official Seal Notary Public State of West Virginia	Well Operator:	Chesapeake Appala	ichia, L.L.C.
	100	Phyllis A. Copley	By:	& Schurde	
	(代數是多月	144 Willard Circle Hurricane, WV 25525	000000	Completion Superint	tendent
	}	My Commission Expires September 16, 2018	50.000.000.000.000.000	P.O. Box 18496	70454.0400
	Emanne	Community		Oklahoma City, OK 405-935-4073	
		L	relephone.	103-933-4073	Office of Oll & Gas
Sub	scribed and swo	rn before me this	day of June	the year of	2015 JUN 1 5 2015
8 2	1 1 1 1		Tryuou. If	No.	otary Public
Ay (Commission Exp	ires	September 16, 2018	()	



PS Form

SURFACE OWNERS

Dwayne E. Selman 1550 Big Sandy Road Left Hand, WV 25251

Shirley Williams 6509 Dakota Road W. Columbia, SC 29170

Pamela Smith 1670 Big Sandy Road Left Hand, WV 25251

Virginia Smith 152 Kelly Hollow Road Spencer, WV 25276

Karen Adkins P.O. Box 906 Oceana, WV 24870

Carol Selman 600 North River Road Tiffin, OH 44883

> Received Office of Oil & Gas JUN 15 2015

SURFACE OWNERS

Dwayne E. Selman 1550 Big Sandy Road Left Hand, WV 25251

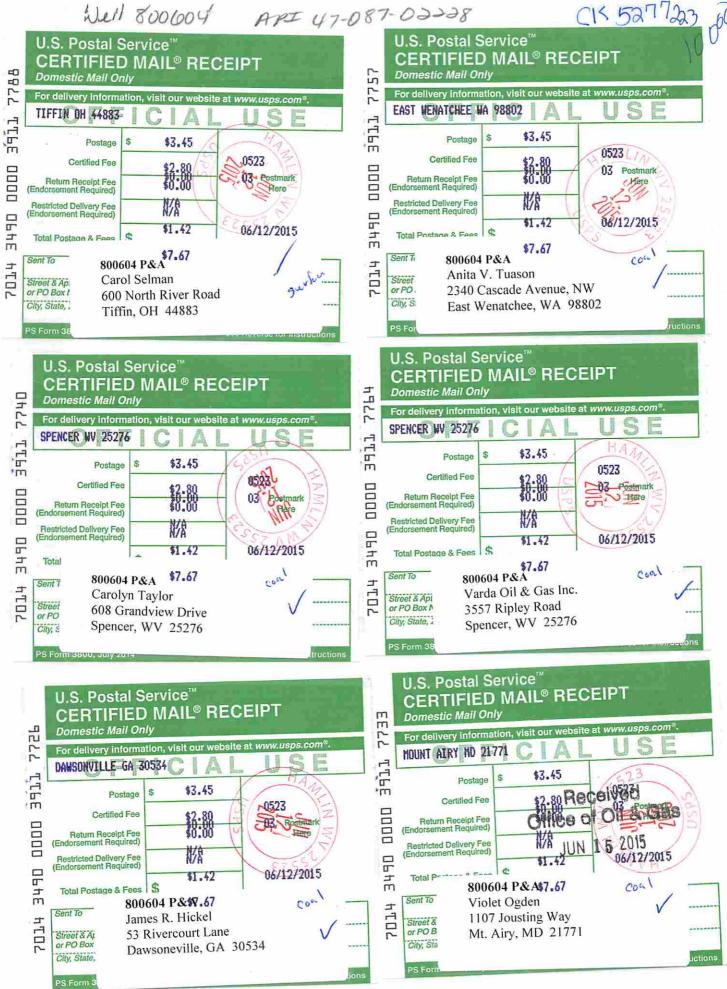
Shirley Williams 6509 Dakota Road W. Columbia, SC 29170

Pamela Smith 1670 Big Sandy Road Left Hand, WV 25251

Virginia Smith 152 Kelly Hollow Road Spencer, WV 25276

Karen Adkins P.O. Box 906 Oceana, WV 24870

Carol Selman 600 North River Road Tiffin, OH 44883



Well 800604 API 47-081-02228



Received Office of Oil & Gas JUN 1 5 2015

Coal and Royalty Owners

Barbara Nichols Weiner 207 Beauty Street Spencer, WV 25276

Varda Oil & Gas Inc. 3557 Ripley Road Spencer, WV 25276

Anita V. Tuason 2340 Cascade Avenue, NW East Wenatchee, WA 98802

Carolyn Taylor 608 Grandview Drive Spencer, WV 25276

Violet Ogden 1107 Jousting Way Mt. Airy, MD 21771

James R. Hickel 53 Rivercourt Lane Dawsoneville, GA 30534

Jame Hildreth 656 Triplet Road Spencer, WV 25276

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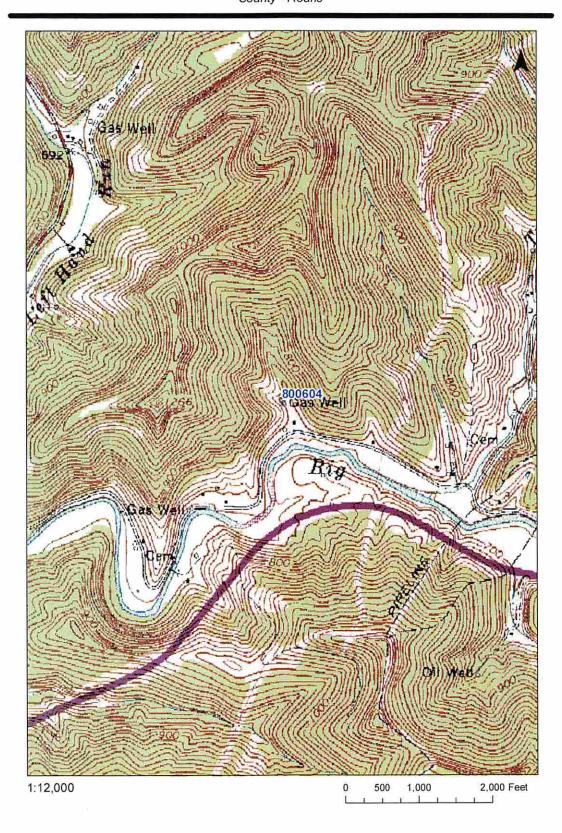
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James R. Hickel 53 Rivercourt Lane Dawsoneville, GA 30534

Jame Hildreth 656 Triplet Road Spencer, WV 25276

CHESAPEAKE APPALACHIA, L.L.C.

Topographical Map of Access and Well Location 800604 API 47-087-02228 Field Office - Crawford County - Roane



Form WW-9 Rev. 02/01

API Number	47-087-02228		
Operator's Well No.	800604 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	Che	sapeake A	Appalachia, L.L.	с	OP Code	494477557	
Watershed	В	g Sandy C	reek of Elk River	:	Quadrangle	Newton,	WV 7.5'
Elevation7	04'		County	Roane	_ [District	Geary
Description of ant	icipated Pit	Waste:	Plugging Retu	rns/Cement			
Will a synthetic lir	er be used	in the pit?	Yes				
Proposed Disposi		Land App Undergro Reuse (a	olication ound Injection (L t API Number Disposal (Supply		r disposal loca)	
Proposed Work F	or Which P	Drilling Workove Swabbing	r J)	
issued on Decer understand that permit and/or off I certify unde this application of for obtaining the significant penal	nber 31, 1999, the provisions her applicable er penalty of la form and all att information, I lies for submit Signature	by the Office of the permit law or regula w that I have achments the believe that t ting false info	he terms and condit to of Oil and Gas of the are enforceable by tion can lead to enforceable personally examine tereto and that, based the information is true termation, including the	the West Virginia D law. Violations of procement action. d and am familiar d on my inquiry of e, accurate, and con the possibility of fine	epartment of Envi any term or condit with the informatio those individuals in omplete. I am awa	ronmental Protection of the general in submitted on in mediately responsare that there are	
Company Official Company Official		-	Robert E. Sch Completions S		f		
Subscribed and s			114 day of	June a. Cool	,20	—— Nota	ary-Publisived
My Commission E	xpires	Septem	nber 16, 2018	1	Official Scal M State of We	Off	Ice of Oil & Gas



Attachment #1

API #: 47-089-02228 Operator's Well No. 800604 P&A

r.	EGEND
Property Boundary	Diversion William 111111111111111111111111111111111111
Rond = = = = = = = = =	Spring
Existing Fence — X — X — X —	Wei Spot &
Planned Fence / / /	Drain Pipe with size in inches (2
Stream Con 7	Waterway \longleftrightarrow \longleftrightarrow \longleftrightarrow
Open Ditch	Cross Drain ////////////////////////////////////
Rock 635 886	Artificial Filter Strip
North N	Pit: cut walls
Buildings	Pit: compacted fill walls
Water wells W	Area for Land Application of Pit Waste
Drill site	
Proposed Revegetation Treatment: Acres Disturbed	d 1.0 Prevegetation pH 6.1
TC 2	Tanalagra or to correct to pl 6.5
Lime 3	Tons/acre or to correct to pH6.5
Fertilizer (10-20-20 or equivalent) 1/3 TON	lbs/acre (500 lbs minimum)
Mulch Hay 2	Tong/goro
Mulch Hay 2	10115/4016
	eed Mixtures
Area I	Area II Seed Type Ibs/acre
Seed Type Ibs/acre CHESAPEAKE CONTRACTOR'S MIX 40	Seed Type Ibs/acre ORCHARD GRASS 15
ALSIKE CLOVER 5	ALSIKE CLOVER 5
ANNUAL RYE 15	
Attach:	
Drawing(s) of road, location, pit and proposed area for	r land application.
Photocopied section of involved 7.5' topographic shee	t.
Plan Approved by:	
	Office of Oil & Gas
Title:	Office of Oil at
Date: Ce 15	JUN 15 2015
	() No
Field Paviouad?	



West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LOCATION FORM: GPS

47-087-02228	80	00604				
API: 47-087-02228						
FARM NAME: MT&RKOgde	en 1					
RESPONSIBLE PARTY NAME:	Chesapeake Appalachia, L	.L.C.				
COUNTY: Roane						
QUADRANGLE:Newton						
SURFACE OWNER: See Atta	ched List					
ROYALTY OWNER: See Atta	ached List					
UTM GPS NORTHING: 42707	61					
UTM GPS EASTING: 047936		ON: 704'				
The Responsible Party named above preparing a new well location plat for above well. The Office of Oil and G the following requirements: 1. Datum: NAD 1983, Zone height above mean sea le 2. Accuracy to Datum – 3.0 3. Data Collection Method: Survey grade GPS: Post Pr	or a plugging permit or assigned Al as will not accept GPS coordinates a: 17 North, Coordinate Units: met evel (MSL) – meters. 5 meters	PI number on the s that do not meet				
Real-T	ime Differential					
Mapping Grade GPS X: Post	Mapping Grade GPS X: Post Processed Differential					
Real-Time Differential X						
4. Letter size copy of the to I the undersigned, hereby certify this belief and shows all the information prescribed by the Office of Oil and O	required by law and the regulation	nowledge and				
R.E. Janes	Completion Superintendent	June 11, 2015				
Signature	Title	Date				

Operator:	CHESAPEA	KE APPALACH	IA, L.L.C.
API:	8702228		
WELL No:	604		
Reviewed by	GCS	Date:	6/24/15
45 Day End	of Comment:	06/22/15	1

CHECKLIST FOR FILING A PERMIT

	Plugging	CK#5277223
✓ WW-4B		\$10000
Inspector signature on WW-4B		
Completion / Well Records of Previous	us Work	
WW-4A (Notarized)		
Certified Mail Receipts, Waivers, or A	Affidavits of Personal Service	
Surface Owner Waiver		
Coal Owner / Lessee /Operator Waive	er	
WW-9 (Page 1) (Notarized)		
Inspector Signature on WW-9 (Option	nal)	
Topographic Map of location of well		
WW-7		
OR		
Mylar Plat (Surface owner on plat ma	atches WW-4A)	
Bond		
Company is Registered with the SOS		
Worker's Compensation / Unemployn	ment Insurance account is OK	
\$100.00 check (\$0.00 if no pit) N	e per 2	