

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

December 02, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8101382, issued to ARP MOUNTAINEER PRODUCTION, LLC, 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.

Chief

James Martin

Operator's Well No: SD-5

Farm Name: SOUTHERN LAND COMPANY

API Well Number: 47-8101382 Permit Type: Plugging

Date Issued: 12/02/2014

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 under the terms of that agreement.

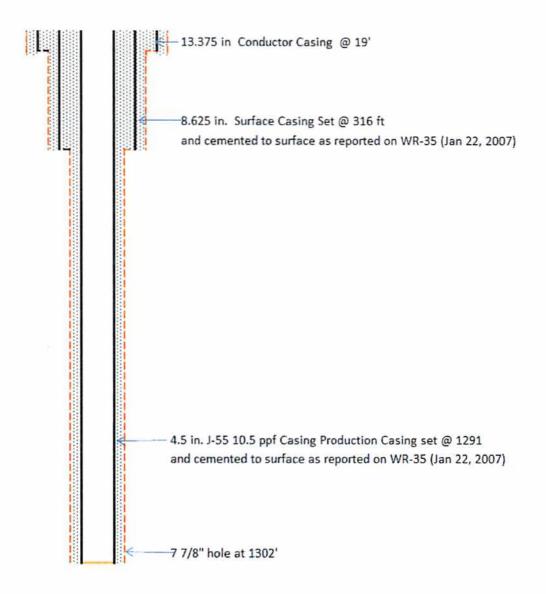
WW-4B Rev. 2/01

1) Date	⊇ Octob	er 10		2	0 14
2) Ope:	rator	's			
Wel:	l No.	SD-5			
3)API	Well	No.	47 - 081	-	1382-C

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

	APPLICATION FOR A PERM	MIT TO PLUG AND ABANDON
4) We	ll Type: Oil / Gas X / Liquid	d injection/ Waste disposal/
		derground storage) Deep / Shallow X
5) Lo	cation: Elevation 2,291.18'	Watershed Harper Branch Sandlick Creek
	District Clear Fork	County Raleigh Quadrangle Eccles
6) We	11 Operator ARP Mountaineer Production, LLC	7) Designated Agent CT Corporation System
	Address Park Place Corporate Center One	Address 5400 D Big Tyler Road
	1000 Commerce Drive 4th Floor, Pittsburg, PA 15275	Charleston, West Virginia 25313
8) Oi	l and Gas Inspector to be notified	9) Plugging Contractor
	Name Gary Kennedy	Name Universal Well Services
	Address P.O. Box 268	Address 5252 RT 1428
	Nimitz, WV 25978	Allen, KY 41601
Spot Wait i Circul Pull o	45 cu. ft. of expanding cement (50/50 PozMIx with 10%	ement.
		Received
	ation must be given to the district oin commence.	al and gas inspector 24 hours before permitted OCT 2 4 2014
Work or	der approved by inspector Huy Ki	Date 10 Felice of Oil and Gas

SD #5 Plug and Abandon Schematic API# 47-081-01382





Office of Oil and Gas
WV Dept. of En 2/05/2014

810138261

State of West Virginia Division of Environmental Protection Section of Oil & Gas Well Operator's Report of Well Work

vveii Operator's P	eport of vveil vvork	
Farm name: Southern Land Company	Operator Well No: SD-5	
Location: Elevation: 2298.72'	Quadrangle: Eccles	
District: Clear Fork	County:Raleigh	
Latitude: 4852 Feet So Longitude: 9204 Feet W	oth of 37 Deg. 50 Min. 00 Sec. st of 81 Deg. 15 Min. 00 Sec.	
Company: Amvest Gas Resources, Inc. One Boar's Head Pointe Charlottesville, VA 22903		
Agent: Chris Butler	Casing Used in Left in Cement & Drilling Well Fill up Tubing Cu.ft.	
Inspector: Terry Urban Permit Issued: <u>08-15-05</u>	Size	
Well Work commenced: 03-14-06	13.375	
Well Work completed: 03-18-06	8.625 . 316 CTS	
Verbal plugging Permission granted on:	4.500 1,291 CTS	
Rotaryx _ Cable Rig Total depth (ft)1312	2.375 1,221	
Is coal being mined in the area (Y/N)? N Coal depths (ft): 548-49', 552-55', 919-21', 1136-40 OPEN FLOW DATA Producting formation Pocahontas #3 Gas: Initial open flow TSTM Mcf/d Final open flow 12.5 Mcf/d Time of open flow between initial and Static rock pressure 205 psig (s	Pay zone depth(ft) <u>1,136.4 – 1,140.1 (ft)</u> Oil: Initial open flow Bbl Final open flow Bbl inal tests: hours	/d
Second Producing formation <u>Pocahonta</u> (ft) Gas: Initial open flow <u>Mcf/d</u> Final open flow <u>12.5</u> Mcf/d Time of open flow between in Static rock pressure <u>205</u> psig (surf	#2 Pay zone depth	<u>9.9</u> I/d I/d
Third Producing formation Mcf/d Gas: Initial open flow Mcf/d Final open flow Mcf/d Time of open flow between ini Static rock pressure psig (surface)	Oil: Pay zone depth Bbl	/d
Note: ON BACK OF THIS FORM, PUT THE FOLLOW FRACTURING OR STIMULATING, PHYSICAL CHANGE DETAILED GEOLOGICAL RECORD OF ALL FORMAT WELLBORE.	/ING: 1) DETAILS OF PERFORATED INTERVAL ETC. 2) THE WELL LOG WHICHIS A SYSTEMATIONS, INCLUDING COAL ENCOUNTERED BY TH	ČK HE
Die Jul	For: Amvest Gas Resources, Inc.	
	By: Office of Oil an	d Gas ental Protection
	By: Office of Oil an Office of Oil and Other Dept. of Environment 12/0	<u>5</u> /2014

SI 013821P

Operator: SD-5 AP1..0. 47-081-01382

Location: Raleigh County

Details of Perforated Intervals, Fracturing or Stimulation, Physical Change, Etc. –
Breakdown w/500 gal 15% FE acid & Stimulated w/N₂ Foam containing 319 sxs 16-30 sand proppant, 451
MScf N₂ & 216 Bbls H₂O

Pre - Stim		
ISIP	(PSIG)	1,103
FG	(PSI/FT)	1.40
Post - Stim		
ISIP	(PSIG)	1,919
FG	(PSI/FT)	1.97
Proppant Conc		
Max	(LBS/GAL)	3.41
Avg	(LBS/GAL)	1.10
Pressure		
Max	(PSIG)	3,749
Avg	(PSIG)	2,965

Well Log & Geologic Record - Depths from G.L.

	Depth in feet		
Lithology	Тор Во	ttom	
Casing	0	310	
Sandstone	310	380	
Siltstone	380	445	
Sandstone	445	480	
Siltstone	480	548	
Coal	548	549	
Shale	549	552	
Coal	552	555	
Shale	555	600	
Sandstone	600	722	
Siltstone	722	744	
Sandstone	744	910	
Shale	910	919	
Coal	919	921	
Siltstone	921	1025	
Shale	1025	1075	
Sandstone	1075	1120	
Shale	1120	1136	
Coal	1136	1140	
Shale	1140	1145	
Coal	1145	1147	
Shale		1148	
Coal	1148	1150	
andstone	1150	1219	
iltstone		1232	
andstone		1302	
	TD 1302		

Received

OCT 2 4 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

12/05/2014

1382-C

WW-4A Revised 6-07

1) Date:	October 10.2014
2) Operator	r's Well Number
12.00 N.OO. D. M. P. M. P.	SD-5

081

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

3) API Well No.: 47 -

Oil and Gas Privac	ay Notice	NOTARIAL SEAL NATALIE J. HINDMAN, NOTARO CROVE CITY BORO, MERCER	PUBLIC	WV Department of Wironmental Protection
My Commission	Expires	COMMONWEALTH OF PENNS	Notary Public	WV Department of
Subscribed and s		HA day of OCH	sher 2014	OCT 2 4 2014
	Tele	phone 724-3	301-9089 Off	ICE of OII and Gas
	Add	Park Place Corporate	Center One, 1000 Commerce Drive	HUECEWED 15275
	its: Add	Senior Manager, Reg ress ARP Mountaineer Pr	1 -1 - 110	
	By:	Kirk Elkin.	the Oli.	
		Operator ARP Mountaineer Pro	oduction, LL gard	
			9.ev	
eel lain circui	mstances) on or before the day of ma	aning or delivery to the Chief.		
the Applicati	ion, and the plat have been mailed	on described on the attached Applica I by registered or certified mail or d		
accompanyin	g documents for a permit to plug a	nd abandon a well with the Chief of	the Office of Oil and Gas, West Vi	rginia Department of Environmental
Take notice	that under Chanter 22.6 of the We	st Virginia Code, the undersigned we	Lonerator proposes to file or has fi	iled this Notice and Application and
	ou received these documents is the u arc not required to take any action	at you have rights regarding the app at all.	ication which are summarized in the	ne instructions on the reverses side.
****	at (surveyor's map) showing the		National State of the National Conference of the State of	est unitario pagata o construir a construir de la construir de
well it	s and the plugging work order;	and	Commencer of the Commen	Cooperation (1997) (1997) (Internal Conference of the Conference o
(I) The m	onlication to Plug and Abandor	n a Well on Form WWm. which	sets out the parties involved in	the work and describes the
TO THE PER	SONS NAMED AB	OVE: You should have rece	ived this Form and the foll	owing documents:
Telephone	304-382-8402	Address	Julian WV 25529	iii rruy
Address	P.O. Box 268 Nimitz, WV 25978	Name Address	P.O. Box 271 300 Running Right	ht Way
6) Inspector	Gary Kennedy		ssee with Declaration	
Address		Address		
(c) Name		Name		
		2,133,1233	Charleston, WV 25301	
Address		Address	300 Capitol Street Suite 1401	
(b) Name		Name	wner(s) with Declaration Southern Land Company, L.P.	
71 X XI	P.O. Box 214 Harper, WV 258510		Julian WV 25529	
Address	300 Arlington Road	Address	P.O. Box 271 300 Running Righ	ıt Way
(a) Name	Daniel McMillion et al	Name	Black King Mine Development	
(-) NI				

The Office of Oil and Gas processes your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officerat deppl'ivacyoffier awv.gov.



106 Ridgeview Way Clinton, TN 37716 Telephone: 865.457.6844 Facsimile: 865.457.6827

10/22/201

U.S. Postal Service...

Certified Fee

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees

2892

4848

0000

2000

CERTIFIED MAIL. RECEIPT

Charleston

(Domestic Mail Only; No Insurance Coverage Provided)

\$3.30

\$2.70

October 22, 2014

Eddie Workman Southern Land Company, L.P. 300 Capitol Street, Suite 1401 Charleston, WV 25301

RE: Plug and Abandon SD-5 Well Raleigh County, West Virginia

. Whh

Mr. Workman:

In preparation for plugging the SD-5, a vertical coalbed methane well API # 47-081-01382C, you are receiving this notice because you have been identified as a land owner and/or coal owner/lessee/operator, within the notification radius of the above mentioned well. Details of the plugging plan may be found in the enclosed plugging permit application.

If you should have any questions or concerns regarding this matter, please feel free to contact me at (865) 457-6844, ext. 106, or by email at kwishoun@atlasenergy.com.

Sincerely,

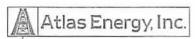
Keith Wishoun Land Manager Atlas Energy

encl.

RECEIVED
Office of Oil and Gas

OCT 2 4 2014

WV Department of Environmental Protection



106 Ridgeview Way Clinton, TN 37716 Telephone: 865.457.6844 Facsimile: 865.457.6827

10/22/201

McMillion of a

U.S. Postal Service...

Certified Fee

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

CERTIFIED MAIL. RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

October 22, 2014

Daniel McMillion, et al 300 Arlington Road, P.O. Box 214, Harper, WV 25851

RE: Plug and Abandon SD-5 Well Raleigh County, West Virginia

Mr. McMillion:

In preparation for plugging the SD-5, a vertical coalbed methane well API # 47-081-01382C, you are receiving this notice because you have been identified as a land owner and/or coal owner/lessee/operator, within the notification radius of the above mentioned well. Details of the plugging plan may be found in the enclosed plugging permit application.

4848

0000

2000

If you should have any questions or concerns regarding this matter, please feel free to contact me at (865) 457-6844, ext. 106, or by email at kwishoun@atlasenergy.com.

Sincerely,

Keith Wishoun Land Manager

Atlas Energy

RECEIVED
Office of Oil and Gas

OCT 2 4 2014

WV Department of Environmental Protection

encl.



106 Ridgeview Way Clinton, TN 37716 Telephone: 865.457.6844

Facsimile: 865.457.6827

October 22, 2014

Black King Mine Development 300 Running Right Way, P.O. Box 271, Julian, WV 25529

RE: Plug and Abandon SD-5 Well Raleigh County, West Virginia

To whom it may concern:

In preparation for plugging the SD-5, a vertical coalbed methane well API # 47-081-01382C, you are receiving this notice because you have been identified as a land owner and/or coal owner/lessee/operator, within the notification radius of the above mentioned well. Details of the plugging plan may be found in the enclosed plugging permit application.

If you should have any questions or concerns regarding this matter, please feel free to contact me at (865) 457-6844, ext. 106, or by email at kwishoun@atlasenergy.com.

Sincerely, Kutte Wohn

Keith Wishoun Land Manager

Atlas Energy

RECEIVED Office of Oil and Gas

OCT 2 4 2014

WV Department of Environmental Protection

encl.

WW-9 Rev. 5/08

	Page _	of	
API Number 47 -	081	01382-C	_
Operator's Well N	O. SD-5		

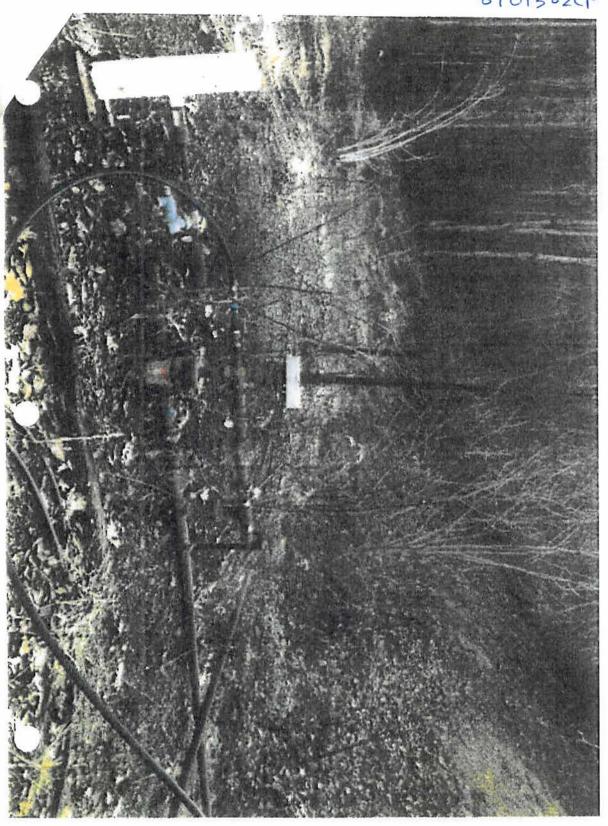
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

	GENERAL P	ERMIT FOR OIL AND	O GAS PIT WASTE DISCHARGE	
Operator Name AR	P Mountaineer Pro	duction, LLC	OP Code	
Watershed Harper	Branch Sandlick Cre	eek C	Quadrangle Eccles	
Elevation 2,291.	18'		District Clear Fork	
Description of antici	pated Pit Waste: Fres	h Water, Produce	ed Water, Bentonite, Cement	
Will a synthetic line	be used in the pit? Ope	en Top Tank .	De la company de	
<u>×</u>	fethod For Treated Pit V Land Application Underground Inje Reuse (at API Nu Off Site Dispposa Other (Explain	ction (UIC Permit Num mber_ i (Supply form WW-9 t	mber) for disposal location)	
Proposed Work For	Which Pit Will Be Used Drilling Workover Other (Explain	×	Swabbing Plugging	
on August 1, 2005, b provisions of the per law or regulation car I certify un application form an obtaining the inform penalties for submitte Company Official Si	y the Office of Oil and Omit are enforceable by lead to enforcement act der penalty of law that d all attachments there action, I believe that thing false information, in	Gas of the West Virginia law. Violations of any ion. I have personally example to and that, based on the information is true, a cluding the possibility of the possi	itions of the GENERAL WATER POLLUTION PERMIT issued in Department of Environmental Protection. I understand that the verm or condition of the general permit and/or other applicable amined and am familiar with the information submitted on this my inquiry of those individuals immediately responsible for accurate, and complete. I am aware that there are significant of fine or imprisonment.	
Subscribed and swor	Joch ,	7 day of	Notory Public COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Jodi Kloos, Notary Public Coolspring Twp., Mercer County My Commission Expires May 29, 2018 pt. of Circle of Circl	

Operator's Well No. SD-5

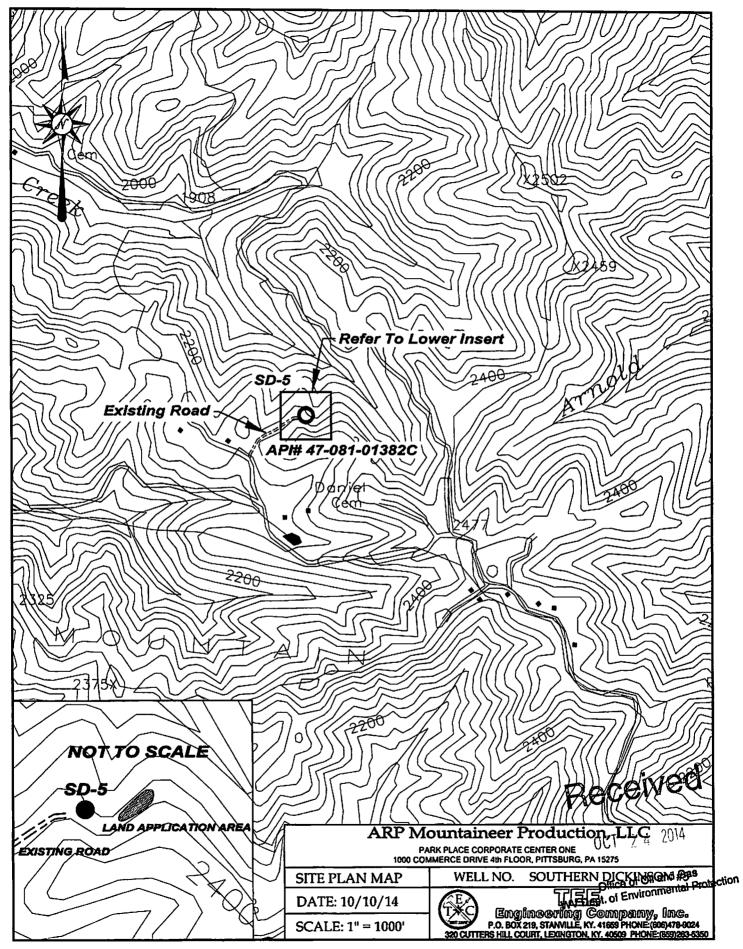
i.	EGEND
Property Boundary	Diversion Willer Hill Hill Hill Hill
Road = = = = = = = = = =	Spring -
Existing Fence — X — X — X —	Wet Spot
Planned Fence / / /	Drain Pipe with size in inches (2)
Stream	Waterway C
Open Ditch	Cross Drain ////////////////////////////////////
Rock 68688	Artificial Filter Strip
North N	Pit: cut walls
Buildings	Pit: compacted fill walls
Water wells	Area for Land Application of Pit Waste
Drill site	
- · · · · · · · · · · · · · · · · · · ·	G
Proposed Revegetation Treatment: Acres Disturbed 0.5	Prevegetation pH 5-6.5
Lime 2 Tons/acre or to correct to pH	
Fertilizer (10-20-20 or equivalent) 500 lbs/a	acre (500 lbs minimum)
Hay / Straw	
Mulch_Tay / StrawTons/ac	re
Seed	Mixtures
Area I	Area II
Seed Type lbs/acre	Seed Type lbs/acre
Tall Fescue or Orchard Grass 40	
Annual Duarence E	3
Annual Ryegrass 5	
Attach:	
Drawing(s) of road, location,pit and proposed area for land appli	ication.
Photocopied section of involved 7.5' topographic sheet.	
i notocopied section of involved the topographic sites.	
Λ	
Plan Approved by: They Kenning	
0	
Comments:	100
	Received
	I rec
Title: Inspector	Date: 124/14 OCT 2 4 2014
Field Reviewed? () Yes () No
rieid Keviewed?	_) No

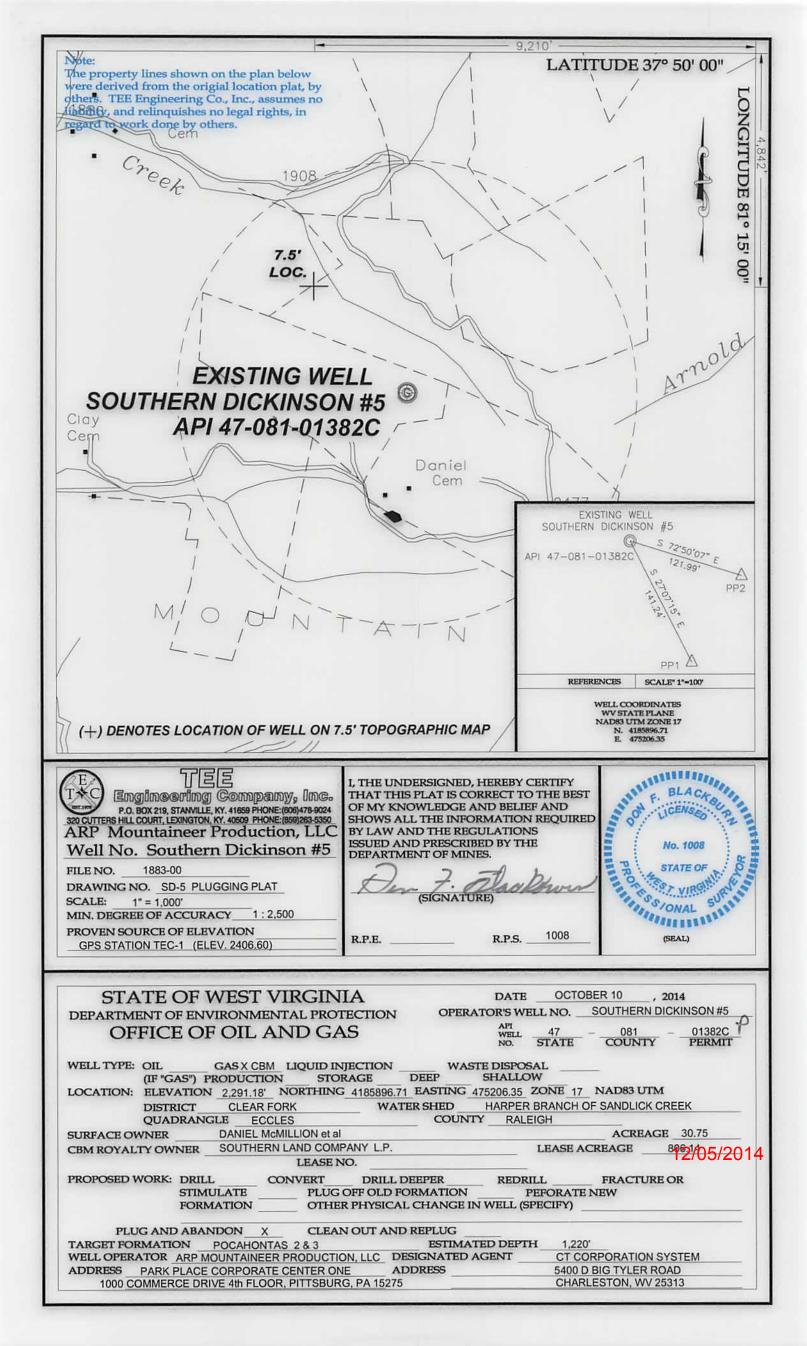


Received

OCT 2 4 2014 see

Office of Oil and Gas WV Dept. of Environmental Protection





TEE Engineering Company, Inc.



320 Cutters Hill Court, Lexington, KY 40509 P.O. Box 219, Stanville, KY 41659

Phone: 859-263-5350 Fax: 859-263-5345 E-mail: teelex@windstream.net (Lexington) Phone: 606-478-9024 Fax: 606-478-9019 E-mail: tblackburn@mikrotec.com (Stanville)

October 22, 2014

Mr. Gene Smith West Virginia Department of **Environmental Protection** Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304-2345

Re: ARP Mountaineer Production, LLC - Application for Plugging Permit 47-081-01382C Well Name - SD #5

Dear Mr. Smith,

On behalf of ARP Mountaineer Production, LLC, please find attached for the above referenced plugging permit application the following:

- 1.) Original Plugging Permit Application
- 2.) Notification Mail Receipts.

Please note that the permit fee has been paid directly by ARP Mountaineer Production, LLC. Should there be any questions regarding this matter, please contact me at our Stanville office (606-478-9024 ext 450) or contact Rocky Stilwell (276-963-2976 ext 241).

Sincerely.

Tim W. Blackburn, V.P.

~ W. 6/2

TEE Engineering Co., Inc.

REGEIVED
Office of Oil and Gas

OCT 7, 4 2014

WV Department of Environmental Protection