



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

May 09, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3900616, issued to SHALE GAS 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 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: 1
Farm Name: MARKS, PERRY M.
API Well Number: 47-3900616
Permit Type: Plugging
Date Issued: 05/09/2016

Promoting a healthy environment.

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.

1) Date _____, 20____
2) Operator's
Well No. Perry Marks #1 _____
3) API Well No. 47-39 - 00616

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 / Liquid injection ____/ Waste disposal ____/
(If "Gas, Production or Underground storage ____) Deep ____/ Shallow ____

5) Location: Elevation 776.8 Watershed Aarons Branch
District Union County Kanawha Quadrangle Charleston West

6) Well Operator Shale Gas Production LLC 7) Designated Agent Doug Douglass
Address 929 Charleston Road Address 929 Charleston Road
Spencer, WV 25276 Spencer, WV 25276

8) Oil and Gas Inspector to be notified Name Terry Urban
Address P.O. Box 1207
Clendenin, WV 25045
9) Plugging Contractor Name Contractor Services Inc. of WV
Address 929 Charleston Road
Spencer, WV 25276

10) Work Order: The work order for the manner of plugging this well is as follows:

*Prep location; move in, rig up.
pull tubing packer. If no release, TIF w 1 1/2",
Cement from bottom to packer depth.
If packer released, recover 3 1/2", TIF w 1 1/2", cement to bottom
of 7"-1889'.
- Try to pull and recover 600' of 5 3/16" - set cement plugs accordingly.
- CBL 7" casing, attempt to recover noncemented casing; if
not recoverable; perforate casing. TIF w tubing - cement to
cut point of 7"-approx 100' below. - cut & recover 7" - CTS
Set plugs according to inspector. TIF w casing & lay down. Erect monument.*

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

Work order approved by inspector *[Signature]* Date 4-11-16
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APR 18 2016
WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. KAN-616

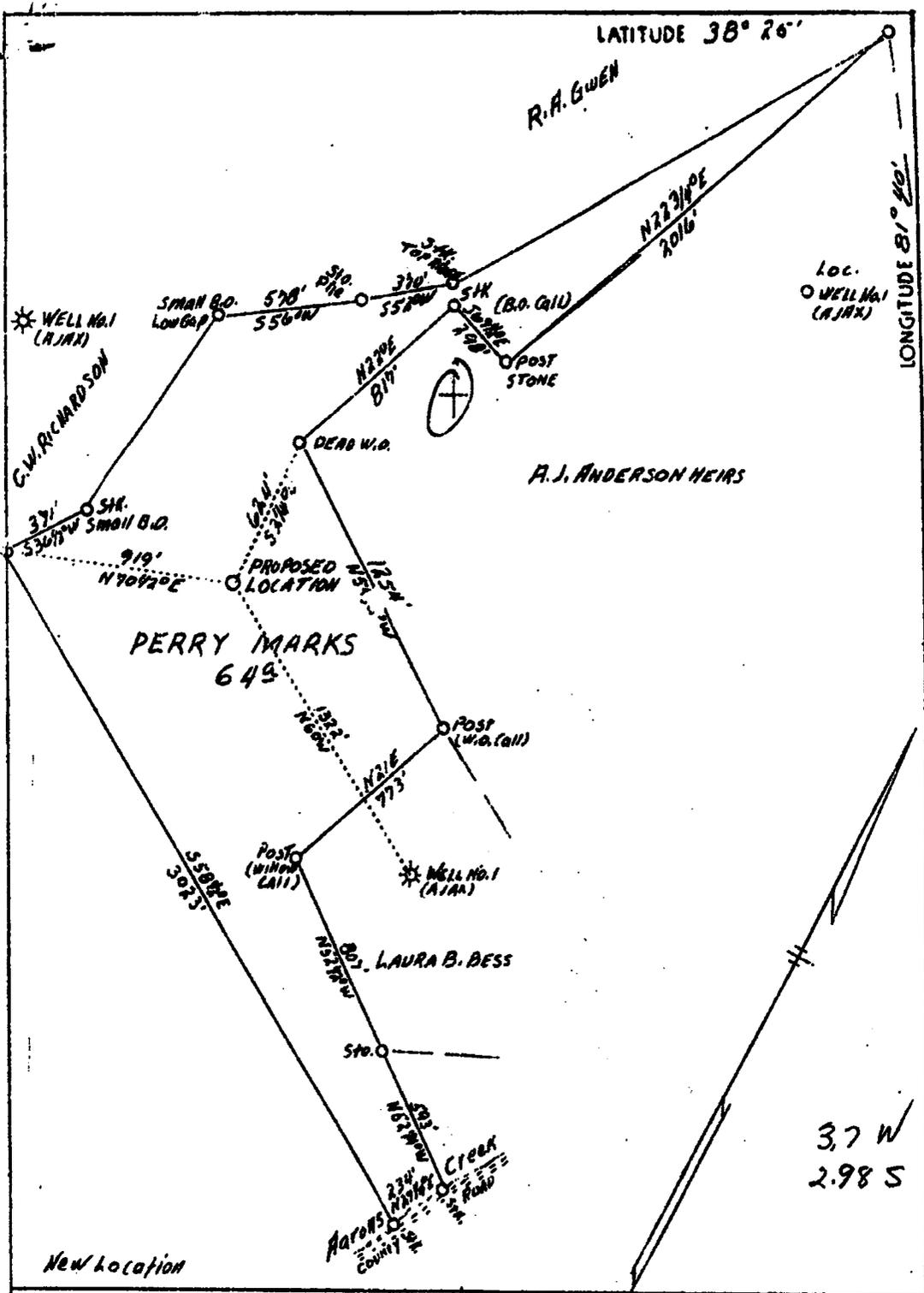
Oil or Gas Well Gas
(Kind)

Company.....	<u>Ajax Pipe Line Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Packers
Address.....	<u>P. O. Box 1606, Charleston, W. Va.</u>	Size			Kind of Packer.....
Farm.....	<u>Perry Marks</u> Acres <u>64</u>	16.....			
Location (waters).....	<u>Aaron's Branch</u>	13.....			Size of.....
Well No.....	<u>1</u> Elev. <u>776.8</u>	10.....			Depth set.....
District.....	<u>Union</u> County <u>Kanawha</u>	8 1/4.....	<u>480'</u>		
The surface of tract is owned in fee by.....	<u>Perry Marks</u>	6 3/4 <u>7" OD</u>	<u>1889'</u>	<u>1889'</u>	
Address.....	<u>Dunbar, W. Va.</u>	5 3/16.....	<u>600'</u>	<u>600'</u>	
Mineral rights are owned by.....		3.....			Perf. top.....
Address.....		2.....			Perf. bottom.....
Drilling commenced.....	<u>Apr. 15, 1939</u>	Liners Used.....	<u>None</u>		Perf. top.....
Drilling completed.....	<u>June 27, 1939</u>				Perf. bottom.....
Date shot.....	<u>June 27, 1939</u> Depth of shot.....				
Open Flow /10ths Water in.....	Inch				
/10ths Merc. in.....	Inch				
Volume.....	<u>150,000</u> Cu. Ft.	CASING CEMENTED.....	SIZE.....	No. Ft.....	Date.....
Rock Pressure.....	<u>585</u> lbs. hrs.				
Oil.....	bbls., 1st 24 hrs.	COAL WAS ENCOUNTERED AT.....	FEET.....	INCHES.....	
Fresh water.....	feet.....		FEET.....	INCHES.....	
Salt water.....	feet.....		FEET.....	INCHES.....	

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Red Clay			0	20			
Sand			20	40			
Slate			40	50			
Sand			50	120			
Base Lime			120	200			
Sand			200	250			
Broken Lime			250	350			
Slate & Shells			350	400			
Sand			400	425			
Slate & Shells			425	450			
Coal			450	453			
Sand			453	560			
Slate			560	580			
Sand			550	650			
Slate			650	680			
Sand			680	730			
Slate Black			730	800			
Sand			800	845			
Slate			845	925			
Sand			925	950			
Slate			950	975			
Sand			975	1000			
Black Slate			1000	1040			
Salt Sand			1040	1200			
Slate			1200	1205			
Sand			1205	1555			
Slate			1555	1560			
Sand Maxon			1560	1610			
Slate			1610	1620			
Little Lime			1620	1650			
Pencil Cave			1650	1655			
Big Lime			1655	1815			
Slate			1815	1822			
Injun			1822	1875			
Slate			1875	1885			
Lime & Shells			1885	1960			
Black Slate			1920	2300			
Coffe Shale			2300	2310			
Berea			2310	2375			
White Slate			2375	2400			
Slate & Shells			2400	2590			
Lime Hard			2590	2690			

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate & Shells			2690	3155			
Brown Shale			3155	3165			
Slate & Shells			3165	3325			
Lime Shell			3325	3340			
Slate & Shells			3340	3510			
Brown Shale			3510	3540			
Shell Dark			3540	3550			
Shale			3550	3570			
Slate & Shells			3570	3780			
Brown Shale			3780	3810			
White Shale			3810	3840			
Shale Brown			3840	3990			
Slate			3990	4020			
Broken Shale			4020	4053			

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New location

Company	Ajax Pipe Line Co.
Address	Box 1606, Charleston, W.Va.
Farm	Perry Marks
Acres	64
Well (Farm) No.	One
Serial No.	9
Elevation (SL)	776.8 (Stadia)
Quadrangle	Charleston S. W.
County	Kanawha
District	Union
Engineer	Robert S. Hyde
Eng. Reg. No.	646
Date	Feb. 25, 1939
Scale	1" = 500'

STATE OF WEST VIRGINIA
 Department of Mines
 OIL & GAS DIVISION
 Charleston

WELL LOCATION MAP

File No. Kan-616

x Denotes location of well on U. S. Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

WW-4A
Revised 6-07

1) Date: _____
2) Operator's Well Number
Perry Marks #1 _____

3) API Well No.: 47 - 39 - 00616

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

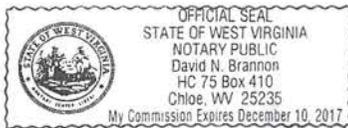
4) Surface Owner(s) to be served:	✓ 5) (a) Coal Operator
(a) Name <u>Richard Snyder</u>	Name _____
Address <u>160 Oak Street</u>	Address _____
<u>Dunbar, WV 26504</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Terry Urban</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 1207</u>	Name _____
<u>Clendenin, WV 25045</u>	Address _____
Telephone <u>304-549-5915</u>	_____

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 this 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 this 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 Shale Gas Production, LLC
 By: [Signature]
 Its: Managing Member
 Address 929 Charleston Road
Spencer, WV 25276
 Telephone 304-927-5228

Subscribed and sworn before me this 12th day of April 2016
David N. Brannon Notary Public April 18 2016
 My Commission Expires December 10, 2017

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Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. 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 Officer at depprivacyoffier@wv.gov.

WV Department of
Environmental Protection

WW-9
(2/15)

API Number 47 - 39 - 0616
Operator's Well No. Perry Marks #1

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Shale Gas Production, LLC OP Code _____

Watershed (HUC 10) Aarons Branch Quadrangle Charleston West

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No May use steel above ground pit.

If so, please describe anticipated pit waste: brine; oil

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20

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 _____)

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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 [Signature]
Company Official (Typed Name) J. Scott Freshwater
Company Official Title Managing Member

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Office of Oil and Gas

Subscribed and sworn before me this 12th day of April, 2016 APR 18 2016

[Signature]
My commission expires December 10, 2017



Shale Gas Production, LLC

Proposed Revegetation Treatment: Acres Disturbed .5 Prevegetation pH 5.5

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type _____

Fertilizer amount 0.25 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Orchard Grass	25
Red Top Clover	15

Seed Type	lbs/acre
Ladino Clover	5
KY 31	40

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Perry Marks*
Comments: _____

Title: Field Insp. d & e

Date: 4-11-16

Field Reviewed? () Yes () No

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WV Department of
Environmental Protection



39 006 160

Perry Marks well

Gas Well

Gas Well

Cem

Creek

Family Memorial Cem

City Park

Koxalana

800

900

860

800

APR 1974
U.S. Geological Survey
Environmental Protection

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-39-00616 WELL NO.: Perry Marks #1
 FARM NAME: Perry Marks
 RESPONSIBLE PARTY NAME: Shale Gas Production LLC
 COUNTY: Kanawha DISTRICT: Union
 QUADRANGLE: Charleston West
 SURFACE OWNER: Richard Snyder
 ROYALTY OWNER: James Carney
 UTM GPS NORTHING: 4247465
 UTM GPS EASTING: 435889 GPS ELEVATION: 776.8

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

Mapping Grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Ly Ogn
Signature

Land Manager
Title

April 12, 2016
Date