



**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 22, 2015

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-9500589, issued to HG ENERGY, 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: 11  
Farm Name: LEMASTERS, A. D.  
**API Well Number: 47-9500589**  
**Permit Type: Plugging**  
Date Issued: 07/22/2015

**Promoting a healthy environment.**

**07/24/2015**

## 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

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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.

9500589P

WW-4B  
Rev. 2/01

- 1) Date June 4, 2015
- 2) Operator's  
Well No. AD Lemasters 11
- 3) API Well No. 47-065 - 0585

**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 x / Gas x / Liquid injection \_\_\_\_ / Waste disposal \_\_\_\_ /  
 (If "Gas, Production x or Underground storage \_\_\_\_ ) Deep \_\_\_\_ / Shallow x

5) Location: Elevation 1235' Watershed Left Hand Fork  
 District McElroy County Tyler Quadrangle Centerpoint 7.5'

6) Well Operator HG Energy, LLC 7) Designated Agent Diane White  
 Address 5260 Dupont Road Address 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
 Name Mike Goff Name To be Determined Upon Approval of Permit  
 Address P. O. Box 134 Address \_\_\_\_\_  
Pullman, WV 26421

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

- See Attached Page -

Received  
Office of Oil & Gas  
JUN 15 2015

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

Work order approved by inspector Michael Goff Date 6/8/2015

07/24/2015



9500589A

WW-4B  
Rev. 2/01

1) Date: June 4, 2015  
2) Operator's Well Number AD Lemasters 11  
3) API Well No: 47 - 095 - 0589  
State County Permit

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 X Gas x Liquid Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_  
(If "Gas", Production x Underground Storage \_\_\_\_\_ ) Deep \_\_\_\_\_ Shallow x  
5) LOCATION: Elevation: 1235' Watershed: Left Hand Fork  
District: McElroy County: Tyler Quadrangle Centerpoint 7.5'  
6) WELL OPERATOR: HG Energy, LLC 4.94E+08 7) DESIGNATED AGENT Diane White  
Address 5260 Dupont Road Address 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101  
8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) PLUGGING CONTRACTOR  
Name Mike Goff Name To Be Determined Upon Approval of Permit  
Address P. O. Box 134 Address \_\_\_\_\_  
Pullman, WV 26421 Address \_\_\_\_\_

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

TD- 3,105'

Manners of plugging;

- Plug #1 3050' - 2950'
- Attempt to pull 5 3/16" casing
- Perforate 5 3/16" @ 2400'-2500' (1 shot every 10', 11 shots if necessary)
- Set plug #2 @ 2400'-2500'
- Free point, part and pull 5 3/16" - est 2200'
- Plug #3 at casing cut approx 2250'-2150'
- Attempt to pull 6 5/8" casing
- Plug #4 at casing shoe - 1890'-1790'
- Free point, part and pull 6 5/8" - est 1600'
- Plug #5 at casing cut - est 1650'-1550'
- Plug #6 @ elevation and thru coal 1275'-1000' (if casing can't be pulled thru coal strata, perforate 6 5/8" casing at 1275'-1000') One shot every foot thru coal
- Plug #7 @ 10" casing shoe 650' - 550'
- Plug # 8 at casing cut est 350' - 250'
- Plug # 9 at 100' - 0'

MDC  
6/8/2015

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JUN 15 2015

6% Gel between all plugs  
Monument min. 6" metal pipe, 30" above surface, 10' in well below surface, sealed w/cement & API ID

07/24/2015

Well: A.D. Lemasters #11

Monument min. 6" dia. metal pipe, 30" above surface, 10' in well below surface, sealed with cement, API id.

Elevation 1235'

Casing Information		
Size	Depth	Weight
10"	303' to 593'	#/ft.
6 5/8"	1836'	#/ft.
5 3/16"	2537'	#/ft.

Freepoint Cut and Pull Casing	
Size	Approx. Depth
5 3/16"	2200
6 5/8"	1600
10"	0

Cement Plugs		
NO.	Bottom	Top
1	3050	2950
2	2500	2400
3	2250	2150
4	1890	1550
5	1650	1550
6	1275	1000
7	650	550
8	350	250
9	100	0

Bottom Hole Cement Level Calculations

# Sacks Used                      Cement Depth  
 32                                      379.2864

Hole Size            Casing Size            Depth  
 8.35                      0                      450

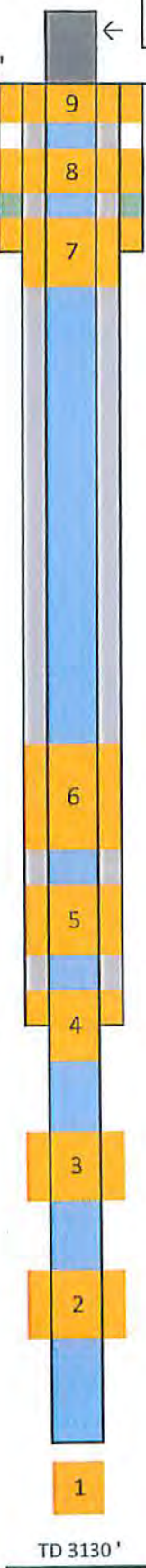
diameter delta      Conv. Factor      bbls / ft.  
 69.7225              1029.4              0.067731

cubic ft. per vertical ft. depth  
 0.380276837

Sacks per vertical ft. depth  
 0.452529436      ← Edit Yield Options

Yield options

50/50 posmix 6% gel = 1.64  
 Neat w/ salt flakes = 1.19  
 50/50 w/ 2% gel = 1.27



Note: 6% gel between all plugs

MAG  
 6/8/2015  
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 Office of Oil & Gas  
 JUN 15 2015  
 Freepoint, part and pull 5 3/16"  
 approx. 2200'

Perforate 2500' - 2400' if necessary



**SOUTH PENN NATURAL GAS COMPANY— COMPLETION**

SERIAL No. \_\_\_\_\_ FARM A. D. Lemasters WELL No. 11  
 ELEVATION \_\_\_\_\_ N. 122 S. \_\_\_\_\_ E. \_\_\_\_\_ W. 4  
 LEASE No. \_\_\_\_\_ ACRES 151  
 WATERS OF Indian Creek MAP No. \_\_\_\_\_  
 DISTRICT McElroy COUNTY Tyler STATE W. Va.  
 DRILLING COMMENCED 4-13-28 COMPLETED 6-18-28 DEPTH 3130

SANDS	TOP	BOYTON	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME	1040			10	593
Stray Sand	2340	2450		6 7/8	999
Dordon Sand	3100	3119		6-5/8	1836
Lst Pay Oil	3105			5-3/16	2537

PACKERS AND DEPTH SET

INITIAL PROD. 15 Bbls. per Week SAND Gordon DEPTH 3105  
 GAS TEST 1.6 W 1" SAND \_\_\_\_\_ DEPTH \_\_\_\_\_  
 SHOT \_\_\_\_\_ QUARTS \_\_\_\_\_ SAND \_\_\_\_\_ DEPTH \_\_\_\_\_  
 REMARKS \_\_\_\_\_

REPORTED BY Shirley DIST. ABANDONED \_\_\_\_\_

9500589A

95005891

WW-4A  
Revised 6-07

1) Date: June 4, 2015  
2) Operator's Well Number  
AD Lemasters 11  
3) API Well No.: 47 - 095 - 0589

**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>James &amp; Betty McCoy</u>	Name <u>NA</u>
Address <u>HC 62, Box 80-C</u>	Address _____
<u>Jacksonburg, WV 26377</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NA</u>
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector _____	(c) Coal Lessee with Declaration
Address _____	Name <u>NA</u>
Telephone _____	Address _____

**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.

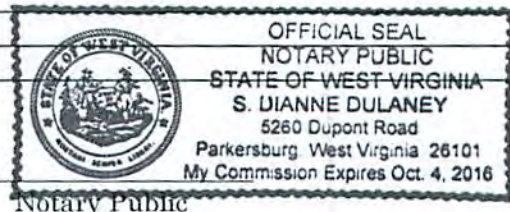
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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-4B. 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.

Received  
Office of Oil & Gas

JUN 15 2015

Well Operator HG Energy, LLC  
 By: Diane White *Diane White*  
 Its: Agent  
 Address 5260 Dupont Road  
Parkersburg, WV 26101  
 Telephone 304-420-1119



Subscribed and sworn before me this 4th day of June

My Commission Expires Oct. 4, 2016

**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](mailto:depprivacyoffier@wv.gov).

07/24/2015



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 HG Energy, LLC OP Code 494497948

Watershed North Fork of Fishing Creek Left Hand Fork Quadrangle Pine Grove 7.5"

Elevation 1235' County Tyler District McElroy

Description of anticipated Pit Waste: Fluids encountered while plugging subject well

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 \_\_\_\_\_ )

MAG  
6/8/2015

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain \_\_\_\_\_ )
- Swabbing
- Plugging

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.

Received  
Office of Oil & Gas

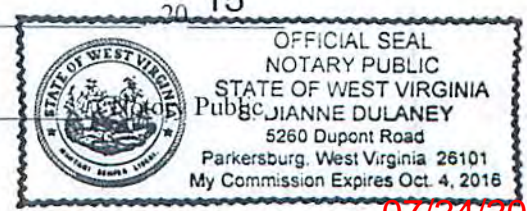
Company Official Signature Diane White JUN 15 2015

Company Official (Typed Name) Diane White

Company Official Title Agent

Subscribed and sworn before me this 4th day of June 2015

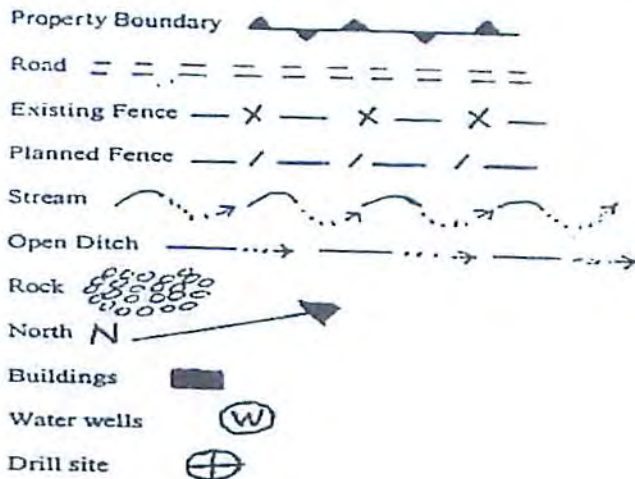
*[Signature]*



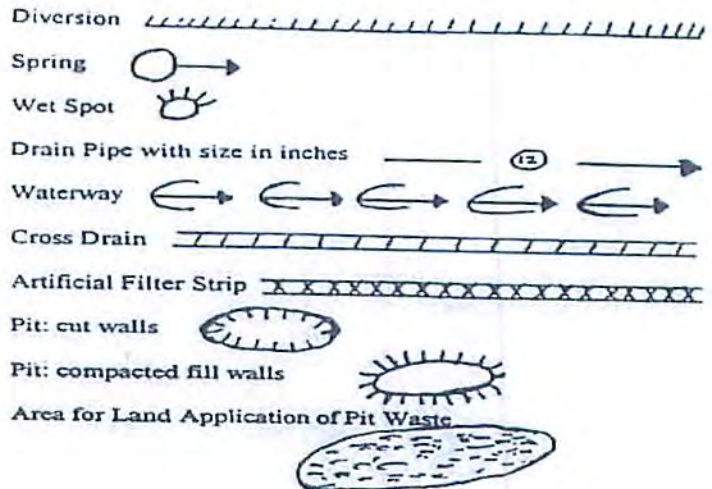
My commission expires Oct. 4, 2016

07/24/2015





LEGEND



Proposed Revegetation Treatment: Acres Disturbed 0.6 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre
Tall Fescue		40
Ladino Clover		5

Seed Type	Area II	lbs/acre
Tall Fescue		40
Ladino Clover		5

Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

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JUN 15 2015

Plan Approved by: Michael Daff

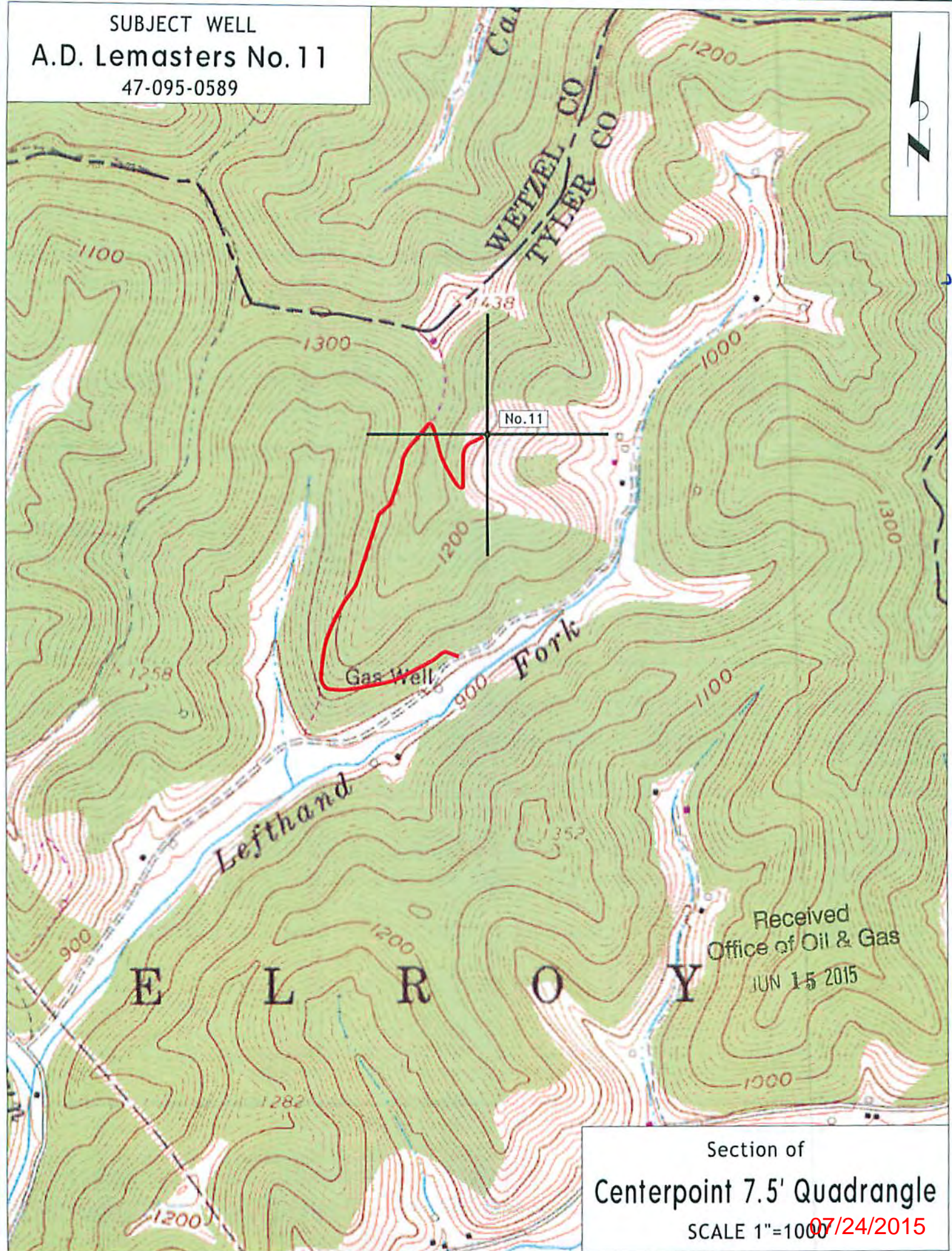
Comments: Presseed & Mulch any disturbed areas.

Title: Oil & Gas Inspector Date: 6/8/2015

Field Reviewed? (  ) Yes (  ) No



SUBJECT WELL  
A.D. Lemasters No.11  
47-095-0589



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Office of Oil & Gas  
JUN 15 2015

Section of  
Centerpoint 7.5' Quadrangle  
SCALE 1"=1000' 07/24/2015



9500589P

WW-7  
8-30-06

West Virginia Department of Environmental Protection  
Office of Oil & Gas

**WELL LOCATION FORM: GPS**

API: 47- 095 - 0589 WELL NO: 11

FARM NAME: A.D. Lemasters

RESPONSIBLE PARTY NAME: H.G. Energy, LLC

COUNTY: Tyler DISTRICT: McElroy

QUADRANGLE: Centerpoint 7.5'

SURFACE OWNER: James & Betty McCoy

ROYALTY OWNER: American Energy Partners et al.

UTM GPS NORTHING: 4,368,777 (NAD 83)

UTM GPS EASTING: 527,150 (NAD 83) GPS ELEVATION: 369 m. = 1210.4

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & 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	<input type="checkbox"/>	Post Processed Differential	<input type="checkbox"/>
		Real-Time Differential	<input type="checkbox"/>
Mapping Grade GPS	<input checked="" type="checkbox"/>	Post Processed Differential	<input checked="" type="checkbox"/>
		Real-Time Differential	<input type="checkbox"/>

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Office of Oil & Gas  
JUN 15 2015

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.

Diane White Diane C. White  
Signature

Designated Agent  
Title

May 27, 2015  
Date

07/24/2015