



---

**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. Huffinan, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

December 09, 2014

**WELL WORK PERMIT**  
**Secondary Recovery Well**

This permit, API Well Number: 47-3305852, 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: JT WILLIAMS 14  
Farm Name: FLETCHER, FREDERICK & WILC  
**API Well Number: 47-3305852**  
**Permit Type: Secondary Recovery Well**  
Date Issued: 12/09/2014

**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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.

FORM WW-3 (B)  
1/12



1) Date: 10/15/2014  
 2) Operator's Well No. J. T. Williams 14  
 3) API Well No.: 47 - Harrison - s  
 State County Permit  
 4) UIC Permit No. UIC2R03301AP

**STATE OF WEST VIRGINIA  
 NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
 FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**

5) WELL TYPE: Liquid Injection  / Gas Injection (not storage)  / Waste Disposal   
 6) LOCATION: Elevation: 1406' Watershed: Tenmile Creek  
 District: Tenmile 9 County Harrison Quadrangle Wolf Summit 7.5' 692  
 7) WELL OPERATOR: HG Energy, LLC 8) DESIGNATED AGENT Diane White  
 Address 5260 Dupont Road Address 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101  
 9) OIL & GAS INSPECTOR TO BE NOTIFIED 10) DRILLING CONTRACTOR  
 Name Sam Ward Name To Be Determined Upon Approval of Permit  
 Address P. O. Box 2327 Address \_\_\_\_\_  
Buckhannon, WV 26201

11) PROPOSED WELL WORK Drill  / Drill deeper  / Redrill  / Stimulate   
 Plug off old formation  / Perforate new formation  Convert   
 Other physical change in well (specify) \_\_\_\_\_

12) GEOLOGIC TARGET FORMATION Fifth Sand Depth 2985 Feet (top) to 3000 Feet (bottom)

13) Estimated Depth of Completed Well, (or actual depth of existing well): 3050 Feet

14) Approximate water strata depths: Fresh 625 Feet Salt 1125 Feet

15) Approximate coal seam depths: 630'

16) Is coal being mined in the area? Yes \_\_\_\_\_ No \_\_\_\_\_

17) Virgin reservoir pressure in target formation 1250 psig Source Estimated

18) Estimated reservoir fracture pressure 2650 psig (BHFP)

19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom hole pressure 2400 psi

20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES  
Fresh water, produced water, bactericides and other chemicals as needed to maintain water quality and improve oil recovery.

21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters

22) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL \_\_\_\_\_

23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL -UP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For Drilling	Left In Well		
Conductor									Kinds <u>S200</u> <u>10/16/2014</u>
Fresh Water	7"	LS ST&C	17#	X		725'	725'	CTS	
Coal									Sizes <u>2.375" x 4.5"</u>
Intermediate									
Production	4 1/2"	J-55	10.5#	X		3020'	3020'	200	Depths set <u>2700'</u>
Tubing	2 3/8"	J-55	4.6#	X		2800'	2800'		
Liners									Perforations Top Bottom

24) APPLICANT'S OPERATING RIGHTS were acquired from John T Williams, et ux  
 by deed \_\_\_\_\_ / lease X / other contract \_\_\_\_\_ / dated 02/17/1898  
Harrison County Clerk's office in Lease Book 105 of record in the Page 90

**Office of Oil & Gas**  
 Received  
 OCT 17 2014



7013 1090 0002 3242 9306

U.S. Postal Service™  
**CERTIFIED MAIL™ RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

OFFICIAL USE

Postage	\$ 1.61
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.61



Sent To  
 Murray Coal  
 Street, Apt. No., or PO Box No. 46226 National Rd  
 City, State, ZIP+4 St Clairsville OH 43950

PS Form 3800, August 2006 See Reverse for Instructions

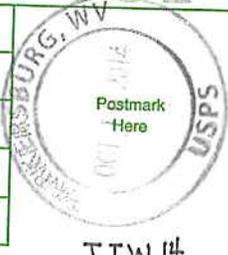
7013 1090 0002 3242 9290

U.S. Postal Service™  
**CERTIFIED MAIL™ RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

OFFICIAL USE

Postage	\$ 1.61
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.61



Sent To  
 Frederick Fletcher & Betty Wilcox  
 Street, Apt. No., or PO Box No. 577 SR 21  
 City, State, ZIP+4 Naples NY 14512

PS Form 3800, August 2006 See Reverse for Instructions

WW-2B1  
(5-12)

Well No. J. T. Williams 14

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Sturm Environmental  
Sampling Contractor Sturm Environmental

Well Operator HG Energy, LLC  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone 304-420-1119

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

- None Identified -

Received  
Office of Oil & Gas

IF THERE ARE ANY WATER WELLS OR SPRINGS W/IN 2000', THEY SAMPLE AT LEAST ONE OF THEM BEFORE SHUDDING. YOU THEN MUST PROVIDE A COPY OF THE RESULTS TO THE WV DEP, OFFICE OF OIL & GAS AND THE WELL OWNER WITHIN 30 DAYS OF RECEIVING THE RESULTS.  
OCT 17 2014  
gwm

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 Tenmile Creek Quadrangle Wolf Summit 7.5'

Elevation 1406' County Harrison District Tenmile

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

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

Will a synthetic liner be used in the pit? Yes . If so, what mil.? 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 \_\_\_\_\_ )

SDW  
10/16/2014

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air, Fresh Water

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

Additives to be used? Water, soap, KCl

Will closed loop system be used? No

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

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust Native soil, cement, lime

-Landfill or offsite name/permit number? \_\_\_\_\_

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 Diane White

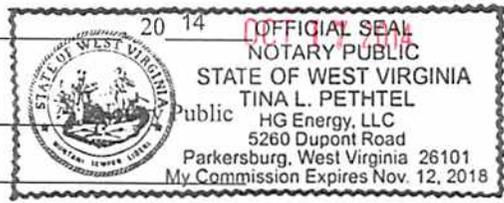
Company Official (Typed Name) Diane White

Company Official Title Agent

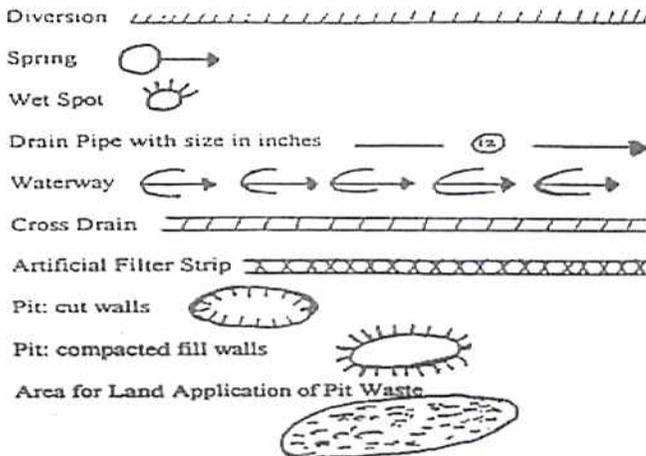
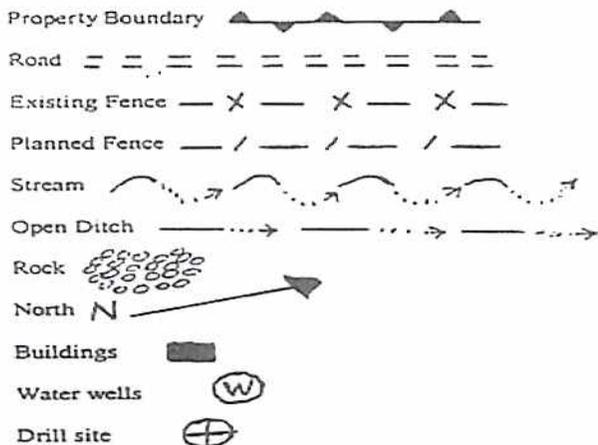
Received  
Office of Oil & Gas

Subscribed and sworn before me this 15th day of October

Tina L. Pethel  
My commission expires Nov 12, 2018



LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1.1 acres Prevegetation pH \_\_\_\_\_  
 Lime 2 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

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

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Sent DWarratt

Comments: Pre-seed/mulch all disturbed areas as soon as possible. Upgrade ETS as needed per regulation.

Title: Oil & Gas Inspector

Date: 10/16/2014

Field Reviewed?  Yes  No

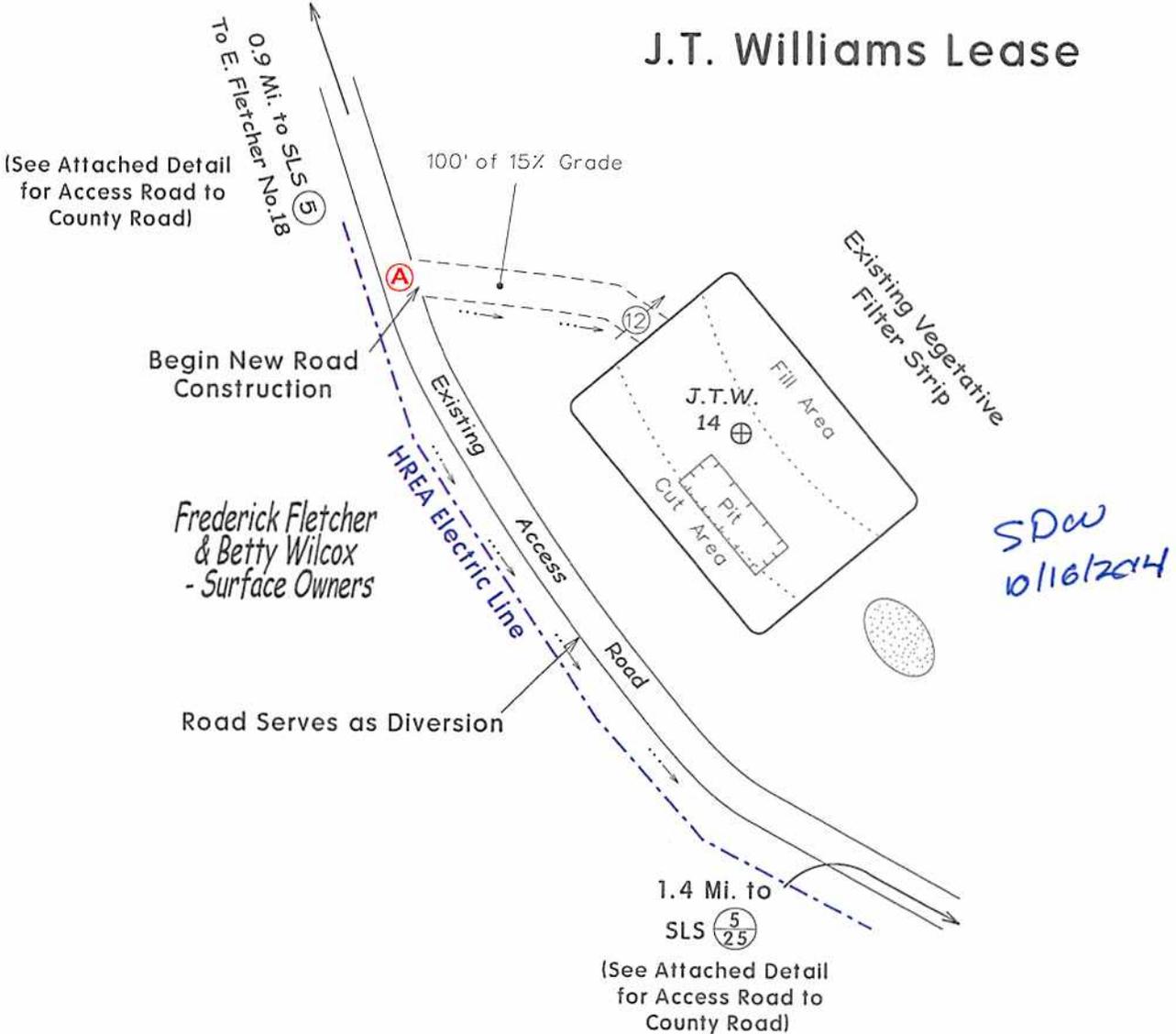
Received  
 Office of Oil & Gas  
 OCT 17 2014

# Reclamation Plan For:

## J.T. Williams No. 14



**NOTE**  
 REFER TO THE WVDEP  
 EROSION AND SEDIMENT CONTROL  
 FIELD MANUAL VER. MAY 2012 FOR  
 BMPs CONTROLLING EROSION AND  
 SEDIMENT FROM SOIL-DISTURBING  
 OPERATIONS.

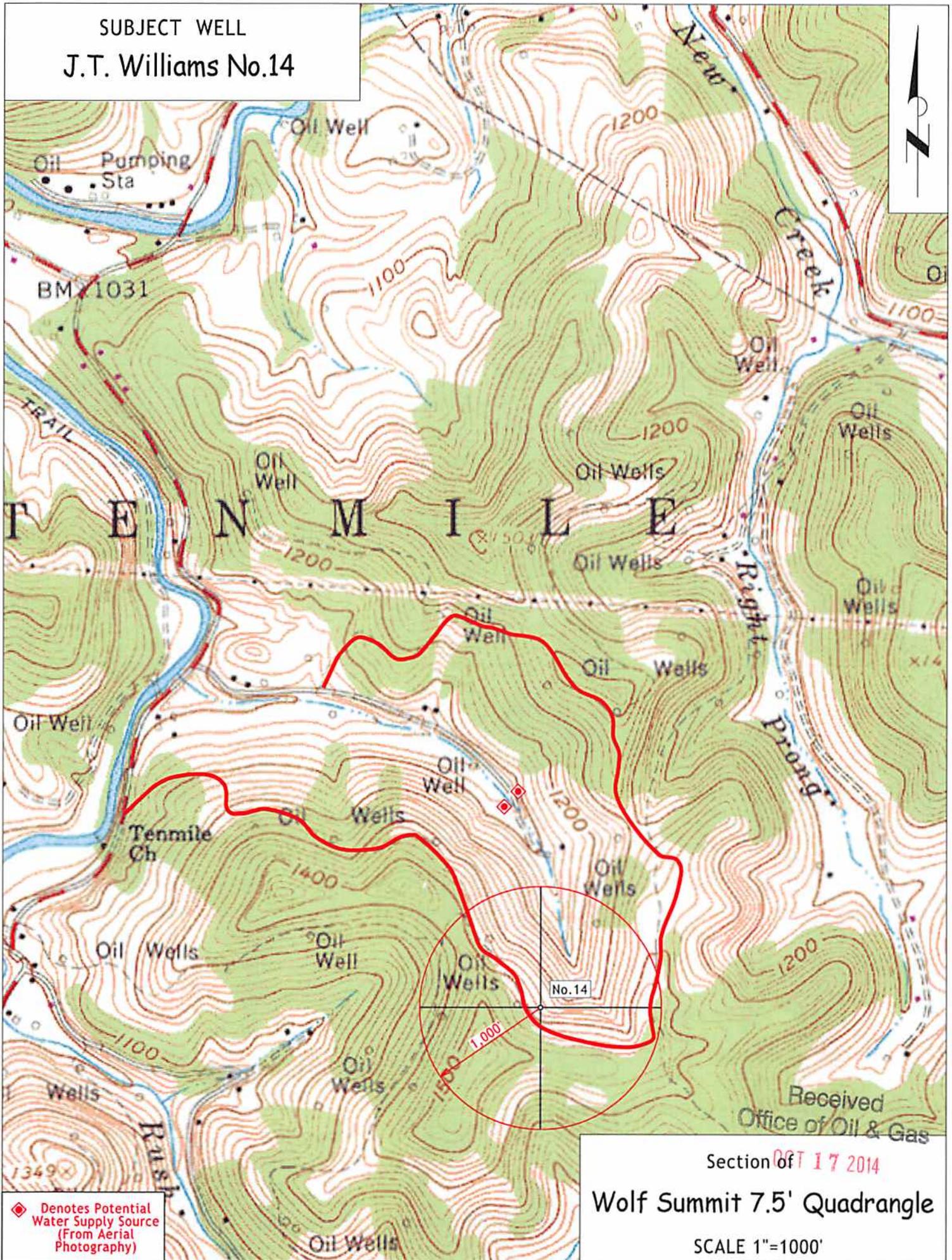


### Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- ACCESS ROAD FROM Co. Rd. 5 TO PT. A IS EXISTING. ROAD WILL BE UPGRADED TO WVDEP STANDARDS AND STRUCTURES INSTALLED AS SHOWN.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- ALL ROAD GRADES <5% EXCEPT AS NOTED.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

Received  
 Office of Oil & Gas  
 OCT 17 2014

SUBJECT WELL  
J.T. Williams No.14



◆ Denotes Potential Water Supply Source (From Aerial Photography)

Section of OCT 17 2014  
Wolf Summit 7.5' Quadrangle  
SCALE 1"=1000'





**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

33058525

CK  
2807  
650.00

October 15, 2014

Mr. Jeff McLaughlin  
WVDEP  
Division of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

RE: J. T. Williams No. 14  
Ten Mile District, Harrison County  
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, WW-3(B1), mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to drill a production well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

cc: Frederick Fletcher & Betty Wilcox – Certified  
Murray Coal – Certified  
Sam Ward – Inspector

Received  
Office of Oil & Gas  
OCT 17 2014