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**west virginia** department of environmental protection

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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

March 09, 2015

**WELL WORK PERMIT**  
**Vertical Well**

This permit, API Well Number: 47-3305867, 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: W.F. WILLIAMS 232  
Farm Name: HUFFMAN, BRIAN V.

**API Well Number: 47-3305867**

**Permit Type: Vertical Well**

Date Issued: 03/09/2015

## 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. 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.

WW - 2B  
(Rev. 8/10)

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**WELL WORK PERMIT APPLICATION**

1) Well Operator: HG Energy, LLC 33 9 692

<u>494497948</u>	<u>Harrison</u>	<u>Tenmile</u>	<u>Wolf Summit 7.5'</u>
Operator ID	County	District	Quadrangle

2) Operator's Well Number: W. F. Williams 232      3) Elevation: 1168'

4) Well Type: (a) Oil x or Gas \_\_\_\_\_  
 (b) If Gas: Production \_\_\_\_\_ / Underground Storage \_\_\_\_\_  
 Deep \_\_\_\_\_ / Shallow \_\_\_\_\_

5) Proposed Target Formation(s): Fifth Sand Proposed Target Depth: 3065' TMD

6) Proposed Total Depth: 3065' Feet Formation at Proposed Total Depth: Fifth Sand

7) Approximate fresh water strata depths: 80'

8) Approximate salt water depths: 1270'

9) Approximate coal seam depths: 424'

10) Approximate void depths,(coal, Karst, other): NA

11) Does land contain coal seams tributary to active mine? NA

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)  
Drill and stimulate production well in the Fifth Sand, well to be drilled directionally. Stimulation will be small hydraulic fracture.

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor						
Fresh Water	7"	LS	17#	499'	499'	CTS
Coal						
Intermediate						
Production	4 1/2"	J-55	10.5#	3175'	3175'	150 sks
Tubing						
Liners						

*SDW*  
*1/26/15*

Packers: Kind: \_\_\_\_\_  
 Sizes: \_\_\_\_\_  
 Depths Set \_\_\_\_\_

**Received**  
**Office of Oil & Gas**

FEB 04 2015

03/13/2015

WW-2A  
(Rev. 6-14)

1.) Date: January 20, 2015  
2.) Operator's Well Number W. F. Williams 232  
State County Permit  
3.) API Well No.: 47- Harrison

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:  
(a) Name Brian Huffman ✓ Address 768 Lick Run Road  
Salem, WV 26426  
(b) Name Orville Myers ✓ Address 653 Lick Run Road  
Salem, WV 26426  
(c) Name \_\_\_\_\_ Address \_\_\_\_\_  
6) Inspector \_\_\_\_\_ Address \_\_\_\_\_ Telephone \_\_\_\_\_

5) (a) Coal Operator  
Name \_\_\_\_\_ Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_ Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name Wolf Run Mining ✓ Address 2708 Cranberry Square  
Morgantown, WV 26505

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

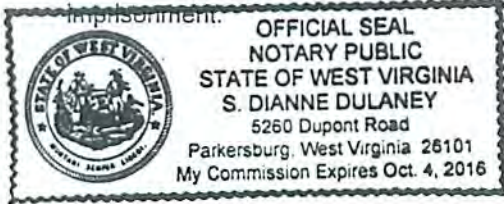
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_ on the above named parties by:

- \_\_\_\_\_ Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- \_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, 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 and imprisonment.



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

Subscribed and sworn before me this 20th day of January, 2015

*S. Dianne Dulaney*  
\_\_\_\_\_  
Notary Public

Received  
Office of Oil & Gas  
FEB 04 2015

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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov)

3305267

7013 1090 0002 3242 9771

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Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>



WFW 232

Sent To  
 Orville Myers  
 Street, Apt. No.;  
 or PO Box No. 653 Lick Run Road  
 City, State, ZIP+4 Salem WV 26426

PS Form 3800, August 2006 See Reverse for Instructions

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Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>



WFW 232

Sent To  
 Brian Huffman  
 Street, Apt. No.;  
 or PO Box No. 768 Lick Run Rd  
 City, State, ZIP+4 Salem WV 26426

PS Form 3800, August 2006 See Reverse for Instructions

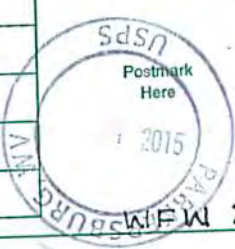
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<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>



WFW 232

Sent To  
 Wolf Run Mining  
 Street, Apt. No.;  
 or PO Box No. 2708 Cranberry Square  
 City, State, ZIP+4 Morgantown WV 26505

PS Form 3800, August 2006 See Reverse for Instructions

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
-----------------------	-----------------------	---------	-----------

\*\*\* See Attached Sheet \*\*\*

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Diane White  
 By: Its: HG Energy, LLC  
Diane White, Agent

Received  
Office of Oil & Gas  
FEB 04 2015

3305867

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

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- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Williams, W F Et Ux	South Penn Oil Company	1/8	92/49

Merger and Conveyance dated July 3, 1963, from South Penn Oil Company to Penzoil Company, Kanawha County, Book 153, Page 35,

Assignment, Conveyance and Bill of Sale dated December 28, 1998, from Pennzoil Company to Pennz Energy Exploration and Production, Wetzel County, Book 12, Page 177.

Certificate of Merger filed with the WV Secretary of State, December 31, 1999, whereby Pennz Energy Exploration and Production, successor in interest to; to Penzoil Company, merged with Devon Energy Production Company, LP, Wetzel County, Book 12, Page 278.

Deed, Assignment and Bill of Sale dated June 1, 2000, from Devon Energy Production Company, LP to East Resources, Inc., recorded in Wetzel County, Book 370, Page 580.

Assignment, Conveyance and Bill of Sale, dated January 1, 2011, from East Resources, Inc., to HG Energy, LLC, Wetzel County, Book 118A, Page 253.

Upon information and belief, Operator's lease and/or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including the use of access roads, pipelines and utilities.

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

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- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- US Fish and Wildlife Service
- County Floodplain Coordinator

Received  
Office of Oil & Gas  
FEB 04 2015

Well Operator: HG Energy, LLC  
By: Diane C. White *Diane White*  
Its: Accountant

WW-2B1  
(5-12)

Well No. WF Williams 232

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 underling 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.

Surface Owners with Water Sources Identified for Sampling / Analysis :

\* Brian Huffman  
768 Lick Run Road  
Salem WV 26426

Received  
Office of Oil & Gas

FEB 04 2015

03/13/2015



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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy, LLC OP Code 494497948

Watershed (HUC 10) Branch of Lick Run Quadrangle Wolf Summit 7.5'

Elevation 1168' County Harrison District Tenmile

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

Will a pit be used for drill cuttings? Yes x No \_\_\_\_\_

If so, please describe anticipated pit waste: Fluids encountered while drilling subject well.

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number 25-561 )
- \_\_\_\_ Reuse (at API Number \_\_\_\_\_)
- \_\_\_\_ Off Site Disposal (Supply form WW-9 for disposal location)
- \_\_\_\_ Other (Explain \_\_\_\_\_)

*S DeW  
1/26/2015*

Will closed loop system be used? No

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

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

Additives to be used in drilling medium? Water, Soap, KCl

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

FEB 04 2015

Subscribed and sworn before me this 20th day of January

*S. Dianne Dulaney*

My commission expires Oct 4, 2016



03/13/2015

Form WW-9

Operator's Well No. WF Williams 232

Proposed Revegetation Treatment: Acres Disturbed 1.1 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

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

Sediment control should be in place at all times.

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Sgt DWanotte

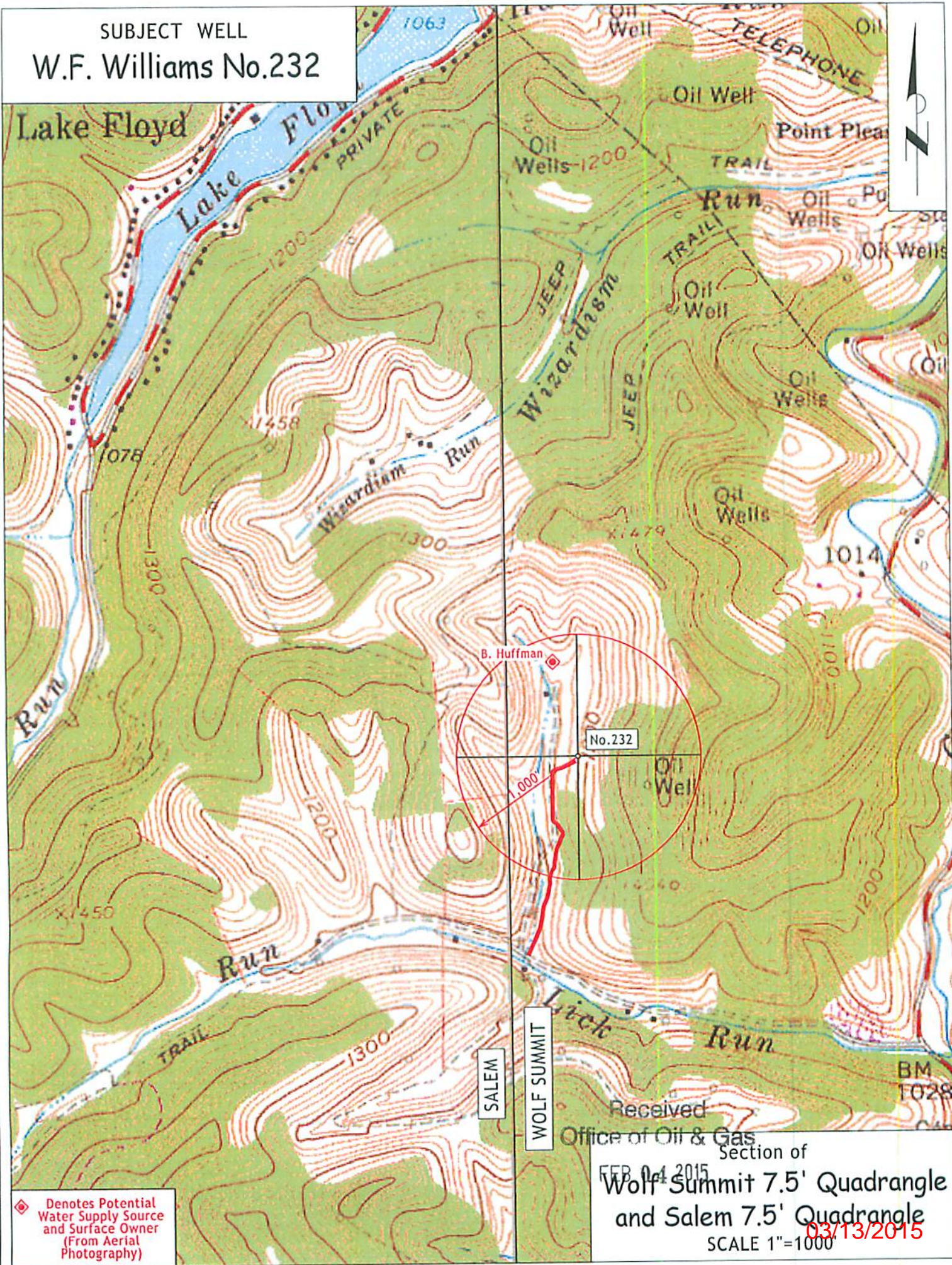
Comments: \_\_\_\_\_


Title: COG Inspector Date: 1/26/2015

Field Reviewed? ( ) Yes (  ) No existing pad

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Office of Oil & Gas  
FEB 04 2015

SUBJECT WELL  
W.F. Williams No.232



 Denotes Potential Water Supply Source and Surface Owner (From Aerial Photography)

Received  
 Office of Oil & Gas  
 Section of  
 Wolf Summit 7.5' Quadrangle  
 and Salem 7.5' Quadrangle  
 SCALE 1"=1000  
 FEB 04 2015  
 03/13/2015

(BOT. HL: LON:-80°29'56.0") LON:-80°29'52.9"

11235'

LON: 80°27'30"

7285'

LAT:39°16'18.0"

(BOTTOM HOLE: LAT:39°16'20.9")

1 - Well ties and Latitude and Longitude were measured by Topcon Hiper GA survey grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).

2 - Surface owners, adjoining information, Lease names, & line mapping obtained from HGE GIS system. No survey was performed to determine lines within the Waterflood Unit-reference: HGE GIS system.

3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

SURVEY NOTES

UTM Coordinates (Zone 17N-NAD 1983)	
Surface	N-4,347,054m. E-543,316m.
Bottom Hole	N-4,347,142m. E-543,240m.

LOCATION REFERENCES	
UTM 27	N 38°36' E 511' EX: WELL
	N 70°36' W 83.9' 11" MAPLE
	Brg. Direction is prop. well to the ref.

LAT: 39°17'30"  
**MAP OF**  
**H.G. ENERGY, LLC**  
**-WATERFLOOD UNIT-**  
**W.F. WILLIAMS 232**



⊕ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

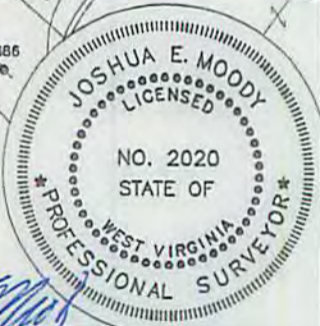
JOB # 13-014  
 DRAWING # 13LAKEFLOYD FOLDER  
 SCALE 1" = 1500'  
 MINIMUM DEGREE OF ACCURACY 1/2500  
 PROVEN SOURCE OF ELEV. BENCH MARK H-80

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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

MOODY LAND SURVEYING, LLC  
 ST. MARYS, WV 26170



JOSHUA E. MOODY, P.S. 2020

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

DATE 1/19/15  
 OPERATOR'S WELL W.F. WILLIAMS #232

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  HORIZONTAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1168' WATERSHED BRANCH OF LICK RUN API WELL # 47-033-05867  
 DISTRICT TEN MILE COUNTY HARRISON STATE WV COUNTY PERMIT  
 QUADRANGLE WOLF SUMMIT 7.5'

SURFACE OWNER BRIAN V. HUFFMAN ACREAGE 102.35 ACRES +/-  
 OIL & GAS ROYALTY OWNER CLYDE WILLIAMS ET AL LEASE ACREAGE 102 ACRES +/-  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION   
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 40°30' W 383')  
 PLUG & ABANDON  CLEAN OUT & REPLUG   
 TARGET FORMATION 5TH SAND ESTIMATED DEPTH MD= 3,065'  
 WELL OPERATOR H.G. ENERGY, LLC DESIGNATED AGENT DIANE WHITE  
 ADDRESS 5260 DuPONT ROAD ADDRESS 5260 DuPONT ROAD  
PARKERSBURG, WV 26101 PARKERSBURG, WV 26101

COUNTY NAME PERMIT

PARKERSBURG, WV 26101  
 ADDRESS 5260 Dupont Road  
 WELL OPERATOR H.G. ENERGY, LLC  
 TARGET FORMATION 5TH SAND  
 PLUG & ABANDON CLEAN OUT & REPLUG  
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 40.30' W 383.)  
 STIMULATE X PLUG OFF OLD FORMATION  
 PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR  
 LEASE ACREAGE 102 ACRES +/-  
 SURFACE OWNER BRIAN V. HUFFMAN  
 QUADRANGLE WOLF SUMMIT 7.5.  
 DISTRICT TEN MILE  
 COUNTY HARRISON  
 COUNTY PERMIT # 02867

STATE COUNTY PERMIT # 02867  
 STATE COUNTY PERMIT # 02867  
 W.F. WILLIAMS #232 OPERATOR'S WELL  
 DATE 1/18/15  
 JOSHUA E. MOODY, P.S. 2020

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS  
 WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS  
 MOODY LAND SURVEYING, LLC  
 ST. MARYS, WV 26170  
 JOSHUA E. MOODY, P.S. 2020  
 DATE 1/18/15



BENCH MARK H-80  
 PROVEN SOURCE OF ELEV.  
 ACCURACY 1/2500  
 MINIMUM DEGREE OF SCALE 1" = 1200'  
 DRAWING # 13AKEFLOYD FOLDER  
 JOB # 13-014

THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.  
 REQUIRED BY LAW AND THE REGULATIONS ISSUED AND DESCRIBED BY  
 THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION  
 I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO  
 DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.



UTM 5Z N 29°36' E 81.1 EX: WELL E 24°37' 14.2M W 70°26' W 83.9 11.1 MAPLE Bgd. Direction is prop. wall to the left.		LOCATION REFERENCES 12529
UTM Coordinates (Zone 17N-DAD 18B) N-4,347,024m E-243,318m		
Bottom Hole N-4,347,142m E-243,240m		
Surface N-4,347,024m E-243,318m		

1 - Well site and latitude and longitude were measured by Topcon Hi-per 6A survey grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).  
 2 - Surface owner obtained information from H.G. Energy, LLC. A line mapping obtained from H.G. Energy, LLC. No survey was performed to determine lines within the Watershed Unit-reference: H.G. Energy, LLC.  
 3 - No title opinion was provided to the surveyor during this survey. This survey is subject to a complete title opinion.

W.F. WILLIAMS 232  
 H.G. ENERGY, LLC  
 MAP OF  
 LAT: 39.17.30"  
 LONG: 80.52.30"  
 12529

03/13/2015