



**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

August 31, 2015

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-8702434, 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: 3  
Farm Name: CHAMBERS, C. B.  
**API Well Number: 47-8702434**  
**Permit Type: Plugging**  
Date Issued: 08/31/2015

**Promoting a healthy environment.**

**09/04/2015**

## 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

---

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.

8702434P

WW-4B  
Rev. 2/01

- 1) Date August 4, 2015
- 2) Operator's  
Well No. C. B. Chambers 3
- 3) API Well No. 47-007 - 203

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

5) Location: Elevation 1027' Watershed Edgle Fork  
District Smithfield County Roane Quadrangle Looneyville 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 Joe Taylor Name To Be Determined Upon Approval of Permit  
Address 1478 Claylick Road Address \_\_\_\_\_  
Ripley, WV 25271

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

\*\* See Attached Sheet \*\*

**RECEIVED**  
**Office of Oil and Gas**  
  
**AUG 13 2015**  
  
**WV Department of  
Environmental Protection**

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

Work order approved by inspector  Date 8-11-15

**09/04/2015**

870234P

WW-4B - Conti  
Rev. 2/01

1) Date: August 4, 2015  
2) Operator's Well Number CB Chambers 3  
3) API Well No: 47 - 087 - 2434  
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 \_\_\_\_\_ Gas X Liquid Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_  
(If "Gas", Production \_\_\_\_\_ Underground Storage \_\_\_\_\_ ) Deep \_\_\_\_\_ Shallow x

5) LOCATION: Elevation: 1027' Watershed: Edgle Fork  
District: Smithfield County: Roane Quadrangle Looneyville 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 Joe Taylor Name To Be Determined Upon Approval of Permit  
Address 1478 Claylick Road Address \_\_\_\_\_  
Ripley, WV 25271

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

TD- 2,095'

Manners of plugging:

Pull 5 1/2" casing liner (If unable to pull, free point, part and pull as much as possible. Place 100' plug across shoe and stub. Erforate for additional plug placement)

- Plug #1 -  
2000' - 1900'  
Located above Big Injun and across 6 5/8" casing shoe  
Free point, part and pull 6 5/8" casing at approx 1500'
- Plug #2 -  
Approx 1550' - 1450'  
Located at 6 5/8" casing stub
- Plug #3 -  
1075' - 900'  
Located at elevation and 8 1/4" casing shoe
- Plug #4 -  
Approx 650' - 550'  
Located at 8 1/4" casing stub and below fresh water
- Plug #5 -  
100' - 0'  
Surface

Recover all possible casing. If casing can not be recovered, perforate for plug placement.

RECEIVED  
Office of Oil and Gas  
AUG 13 2015

Monument:  
6" minimum diameter metal pipe  
30" above surface  
10' in well below surface  
Sealed with cement  
API identification (1/2") height numbering

WV Department of  
Environmental Protection

6% Gel between all plugs

09/04/2015

Well: C.B. Chambers #3

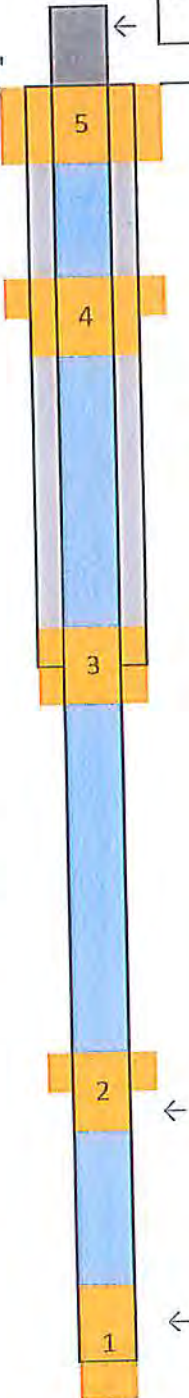
Monument min. 6" dia. metal pipe, 30" above surface, 10' in well below surface, sealed with cement, API id.

Elevation 1027'

| Casing Information |       |        |
|--------------------|-------|--------|
| Size               | Depth | Weight |
| 8 1/4"             | 930'  | #/ft.  |
| 6 5/8"             | 1935' | #/ft.  |
| 5 3/16"            | 1350' | #/ft.  |

| Freepoint Cut and Pull Casing |               |
|-------------------------------|---------------|
| Size                          | Approx. Depth |
| 5 1/5"                        | 1350'         |
| 6 5/8"                        | 1500'         |
| 8 1/4"                        | 600'          |

| Cement Plugs |        |      |
|--------------|--------|------|
| NO.          | Bottom | Top  |
| 1            | 2000   | 1900 |
| 2            | 1550   | 1450 |
| 3            | 1075   | 975  |
| 4            | 650    | 550  |
| 5            | 100    | 0    |



Bottom Hole Cement Level Calculations

# Sacks Used                      Cement Depth  
70                                      2208.649

Hole Size            Casing Size    Depth  
6.5                    4.5              2668

diameter delta    Conv. Factor    bbls / ft.  
22                    1029.4        0.021372

cubic ft. per vertical ft. depth  
0.119991257

Sacks per vertical ft. depth  
0.152388896      ← 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

TD 2095'

*[Handwritten Signature]*  
8-11-15

RECEIVED  
Office of Oil and Gas  
AUG 13 2015  
WV Department of  
Environmental Protection  
09/04/2015

|                     |                 |                 |                   |                |   |
|---------------------|-----------------|-----------------|-------------------|----------------|---|
| Case No.            | Acres           | Farm Name       | C. B. Chambers    | Well No.       | 3 |
| N. S. 19 E. W. 38-9 |                 | Location Made   |                   | Purchased From |   |
| Civil District      | Smithfield      | Rig Completed   | Sept. 28, 1910    | Date Purchased |   |
| County              | Roane           | Dr'g Commenced  | Oct. 29, 1910     | Sold to        |   |
| State               | W. Va.          | Dr'g Completed  | Dec. 5, 1910      | Date Sold      |   |
| GAS<br>OIL          | Rights Owned By | Dr'g Contractor | S. P. Dr'g. Tools | Date Abandoned |   |

| FORMATION    |      |        |                  | CASING RECORD |              |                          |                         |                    |                   |
|--------------|------|--------|------------------|---------------|--------------|--------------------------|-------------------------|--------------------|-------------------|
| Kind         | Top  | Bottom | Steel Line Meas. | Tests         | Size         | Bottom Casing Steel Line | Put In Well Tally Meas. | Pulled Tally Meas. | Cemented          |
| Conductor    |      | 11     |                  |               | 10"          |                          | 210'                    | 210'               | Date              |
| Dunkard Sand | 920  | 1020   |                  |               | 8 1/2"       |                          | 930'                    | 930'               | Size Csg.         |
| Salt Sand    | 1587 | 1885   |                  |               | 6 5/8"       |                          | 1935'                   |                    | Top Csg.          |
| Water        | 1635 | 1695   |                  |               | 5 1/2"<br>C. |                          | 1349                    |                    | Bot. Csg. 7-19-57 |
| Big Lime     | 1920 | 2050   |                  |               |              |                          |                         |                    |                   |
| Big Injun    | 2050 | 2095   |                  |               |              |                          |                         |                    |                   |
| Gas          | 2051 |        |                  |               |              |                          |                         |                    |                   |
| Oil          | 2085 | 2095   |                  |               |              |                          |                         |                    |                   |

| PACKERS AND SHOES                   |      |           |          |  |
|-------------------------------------|------|-----------|----------|--|
| Kind                                | Size | Depth Set | Date Set |  |
| 5 1/2" x 6 5/8" x 16"<br>Moore Wall |      | 1320      | 7-19-57  |  |

| TORPEDO RECORD |          |            |          |        |         |
|----------------|----------|------------|----------|--------|---------|
| Date           | No. Qts. | Size Shell | Top Shot | Bottom | Results |
| Dec. 8, '10    | 20       |            |          |        |         |
| May 15, '22    | 60       |            | 2075     | 2095   |         |

|       |      |  |  |  |  |
|-------|------|--|--|--|--|
| T. D. | 2095 |  |  |  |  |
|-------|------|--|--|--|--|

RECEIVED  
Office of Oil and Gas  
AUG 18 2015  
WV Department of  
Environmental Protection

Remarks:  
Rush Run

|               |       |                 |                 |   |
|---------------|-------|-----------------|-----------------|---|
| Initial Prod. | Sand  | * At Completion | * 30 Days After | * |
| Oil           | Injun | 20 Bbls.        |                 |   |
| Gas           |       |                 |                 |   |

APPROVED \_\_\_\_\_ Supt.

\* Oil in Barrels  
\* Gas in M. Cu. Ft.  
TESTS, REPORTS AND REMARKS ON REVERSE SIDE

CK# 3127  
100.00

1) Date: August 4, 2015  
2) Operator's Well Number  
CB Chambers 3  
3) API Well No.: 47 - 087 - 2434

**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:  
(a) Name Russell Schoolcraft, Jr. ✓  
Address 4045 Clay Road  
Spencer, WV 25276  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Joe Taylor  
Address 1478 Claylick Road  
Ripley, WV 25271  
Telephone 304-380-7469

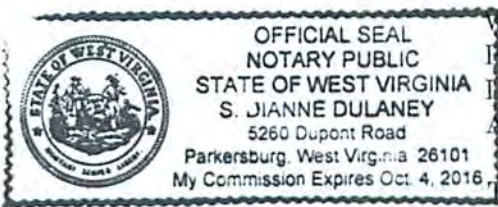
5) (a) Coal Operator  
Name NA  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name NA  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name NA  
Address \_\_\_\_\_

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

**RECEIVED**  
**Office of Oil and Gas**  
**AUG 13 2015**

**WV Department of Environmental Protection**

Subscribed and sworn before me this 4th day of August, 2015  
S. Jianne Dulaney Notary Public  
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).

09/04/2015

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 Edgle Fork Quadrangle Looneyville 7.5'

Elevation 1027' County Roane District Smithfield

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

Will a synthetic liner be used in the pit? 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 \_\_\_\_\_ )

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.

Company Official Signature Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

RECEIVED  
Office of Oil and Gas

AUG 13 2015

WV Department of  
Environmental Protection

Subscribed and sworn before me this 4th day of August, 2015

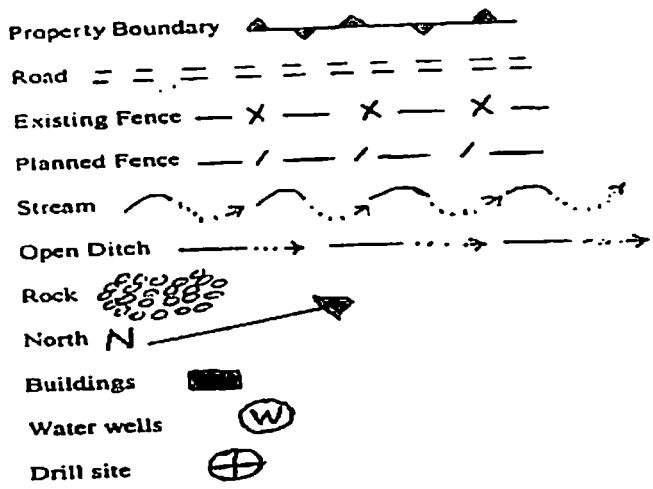
[Signature]

My commission expires Oct. 4, 2016

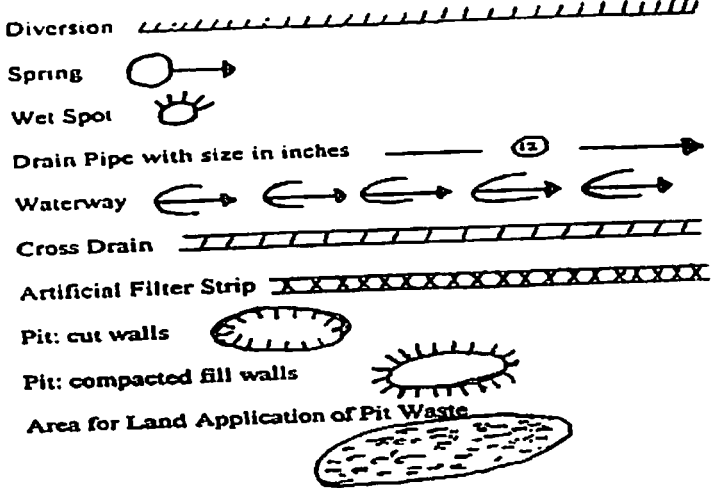


09/04/2015





**LEGEND**



Proposed Revegetation Treatment: Acres Disturbed .07 acres 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        |

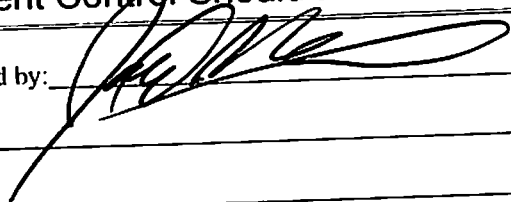
Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

**\*\* Sediment Control Should Be in Place at all Times \*\***

**RECEIVED**  
Office of Oil and Gas

AUG 13 2015

Plan Approved by: 

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

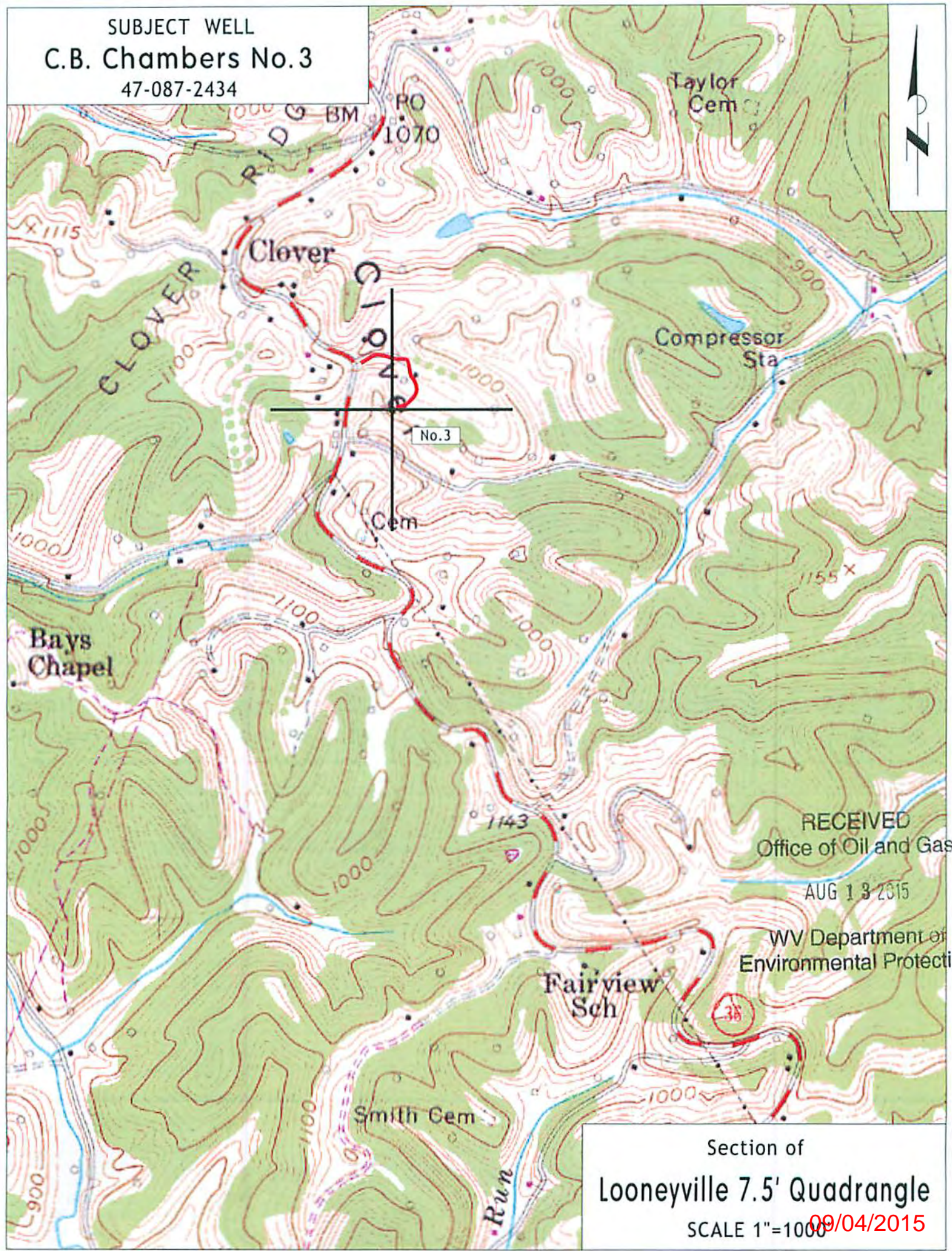
WV Department of  
Environmental Protection

Title: OGG Inspector

Date: 8-11-15

Field Reviewed? ( ) Yes (  ) No

SUBJECT WELL  
C.B. Chambers No.3  
47-087-2434



RECEIVED  
Office of Oil and Gas  
AUG 13 2015

WV Department of  
Environmental Protection

Section of  
Looneyville 7.5' Quadrangle  
SCALE 1"=1000' 09/04/2015

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

API: 47- 087 - 2434 WELL NO: 3

FARM NAME: C.B. Chambers No.3

RESPONSIBLE PARTY NAME: H.G. Energy, LLC

COUNTY: Roane DISTRICT: Smithfield

QUADRANGLE: Looneyville 7.5'

SURFACE OWNER: Russell Schoolcraft Jr.

ROYALTY OWNER: H.G. Energy, LLC et al.

UTM GPS NORTHING: 4,285,745 (NAD 83)

UTM GPS EASTING: 475,242 (NAD 83) GPS ELEVATION: 313 m. (1027')

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"/>            |

RECEIVED  
Office of Oil and Gas  
AUG 13 2015  
WV Department of  
Environmental Protection

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

July 30, 2015  
Date