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 west virginia department of environmental protection
 

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Office of Oil and Gas  
 601 57<sup>th</sup> Street, S.E.  
 Charleston, WV 25304  
 (304) 926-0450  
 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, May 13, 2019

WELL WORK PLUGGING PERMIT  
 Vertical Plugging

HG ENERGY, LLC  
 5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for 1  
 47-043-00398-00-00

This well work permit 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 any additional specific 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. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of 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.

Per 35 CSR 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- 0450.

James A. Martin  
 Chief

Operator's Well Number: 1  
 Farm Name: SANDRA ROGERS BROYLES  
 U.S. WELL NUMBER: 47-043-00398-00-00  
 Vertical Plugging  
 Date Issued: 5/13/2019

## 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.



47-043-00398P

WW-4B - Conti  
Rev. 2/01

1) Date: March 4, 2019 **05/17/2019**  
2) Operator's Well Number  
O E Escue # 1 (D&P)  
3) API Well No: 47 - 043 - 0398  
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 \_\_\_\_\_ Observation \_\_\_\_\_  
(If "Gas", Production x Underground Storage \_\_\_\_\_ ) Deep \_\_\_\_\_ Shallow x

5) LOCATION: Elevation: 920' Watershed: Hazlett Fork  
District: Duval County: Lincoln Quadrangle Garrett's Bend 7.5'

6) WELL OPERATOR: HG Energy II Appalachia, LLC 494519932 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 Jeffery L Smith Name To Be Determined Upon Approval of Permit  
Address 5369 Big Tyler Road Address \_\_\_\_\_  
Cross Lanes, WV 25313 \_\_\_\_\_

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

TD- 2,425'

Manners of plugging:

Tag bottom, flush well with fresh water *SPOT GEL IN SHOT HOLE.*  
Plug No 1 2400' to 2300', cement plug # 1 *WOC & TAG PLUG, ADD CEMENT & GEL HOLE, 2.000M*  
Plug No 2 located from 2000' to 1900', cement plug # 2, free point, cut & pull 6 5/8" - est 1000'  
Plug No 3 1050' to 950' - adjusted to cover casing cut  
Plug No 4 740' - 640', free point, cut & pull 8 1/4" - est 200' - if present  
Plug No 5 250' - 150' - adjusted to cover casing cut  
Plug No 6 100' - surface

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

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

6% Gel between all plugs

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WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
WELL RECORD

47-043-00398P

OF ESCUE (D+P #1)

Permit No. Lin 398  
St. Albans Quad.  
Company  
Address  
Farm  
Location  
Well No  
District  
Surface  
Mineral  
Commenced  
Completed  
Date shot  
Volume  
Oil

Cambridge Gas Company  
Charleston, W.Va.  
Donna Escue et al Acres 130  
---  
1 Elev. ---  
Duval Lincoln County  
---  
Dona Escue et al  
Sept. 2, 1942  
Oct. 29, 1942  
Oct. 30, 1942 Depth 2409-2425  
60,000 C.F.  
4 bbls. pr. day

Oil Well  
CASING & TUBING  
13 29 -  
10 217 Pulled  
8 1/2 686 05/17/2019  
6 5/8 1946  
2 Tub 2424

Red Mud	0	40
Gray Sand	40	85
Slate	85	120
Red Rock	120	160
Broken Sand	160	178
Red Rock	178	220
Lime Break	220	275
Sand	275	315
White Slate	315	329
Coal	329	332
White Slate	332	340
Gray Sand	340	400
White Slate	400	440
Gray Sand	440	480
Black Slate	480	515
Sand	515	545
Slate	545	555
Broken Sand	555	594
Coal	594	597
Slate Dark	597	651
Dark Sand	651	670
Black Lime	670	692
Slate & Shells	692	800
Sand	800	867
Black Slate	867	1010
Sand	1010	1060
Slate	1060	1070
Black Lime	1070	1090
Slate & Shells	1090	1105
Salt Sand	1105	1267
Slate Break	1267	1272
Salt Sand	1272	1328
Slate Break	1328	1338
Salt Sand	1338	1445
Slate	1445	1485
Black Lime	1485	1530
Sand White	1530	1523
Slate	1623	1643
Sand	1643	1692
Little Lime	1692	1721
Pencil Cave	1721	1725
Big Lime	1725	1900
Injun	1900	1920
Red Rock	1920	1928
Injun	1923	1943
Lime Shell	1943	1963
White Slate	1963	1985
Slate & Shells	1985	2090
Shell	2090	2140
Slate White	2140	2385
Brown Shale	2385	2406
Berea	2406	2425
TOTAL DEPTH		2425

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WW-4A  
Revised 6-07

1) Date: March 5, 2019  
2) Operator's Well Number  
O E Escue 1 (D&P)

3) API Well No.: 47 - 043 - 00398

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

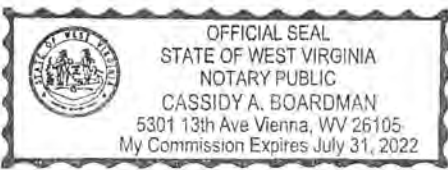
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Sandra Roberts Broyles</u>	Name <u>NA</u>
Address <u>1909 Garrett's Bend Road</u>	Address _____
<u>Sod, WV 25564</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NA</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Jeffery L. Smith</u>	(c) Coal Lessee with Declaration
Address <u>5369 Big Tyler Road</u>	Name <u>NA</u>
<u>Cross Lanes, WV 25313</u>	Address _____
Telephone <u>681-313-6743</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 HG Energy, LLC  
 By: Diane White *Diane White*  
 Its: Agent  
 Address 5260 Dupont Road  
Parkersburg, WV 26101  
 Telephone 304-420-1119

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MAR 15 2019

Subscribed and sworn before me this 5th day of MARCH

Cassidy Boardman Notary Public  
My Commission Expires 7/31/2022

WV Department of Environmental Protection

**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).

47-043-00398P  
05/17/2019

WW-9  
(5/16)

API Number 47 - 043 - 00398  
Operator's Well No. \_\_\_\_\_

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) Hazlett Fork Quadrangle Garrett's Bend 7.5'

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

If so, please describe anticipated pit waste: Fluids encountered while plugging the well

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Any well effluent will be contained in tanks until disposed of off site at an approved disposal site.)

Will closed loop system be used? If so, describe: No

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

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

Additives to be used in drilling medium? NA

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

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

-Landfill or offsite name/permit number? To be determined upon approval of the plugging permit

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 April 1, 2016, 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.

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Company Official Signature Diane White

MAR-15 2019

Company Official (Typed Name) Diane White

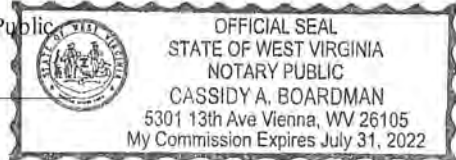
Company Official Title Agent

WV Department of  
Environmental Protection

Subscribed and sworn before me this 5th day of MARCH, 2019

Cassidy Boardman Notary Public

My commission expires 7/31/2022



Form WW-9

Operator's Well No. \_\_\_\_\_

Proposed Revegetation Treatment: Acres Disturbed 1.8 Acres Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10/20/20

Fertilizer amount 500 lbs/acre

Mulch Straw 2 Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

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

- Sediment Control Will Be In Place At All Times -

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Jeffrey Smith

Comments: All sediment control to be removed prior to release

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Title: Oil & Gas Inspector Date: 3-11-19

Field Reviewed?  Yes  No



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

Operator Name: HG Energy, LLC  
Watershed (HUC 10): Hazlett Fork Quad: Garrett's Bend 7.5'  
Farm Name: \_\_\_\_\_

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

NA

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

NA

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

NA

4. Summarize all activities at your facility that are already regulated for groundwater protection.

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NA

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

WW-9- GPP  
Rev. 5/16

Page 2 of 2  
API Number 47 - 043 - 00398  
Operator's Well No. \_\_\_\_\_

NA

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

NA

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

NA

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

NA

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Signature: Diane White

Date: 3/5/19

47-043-00398P



# Reclamation Plan For:

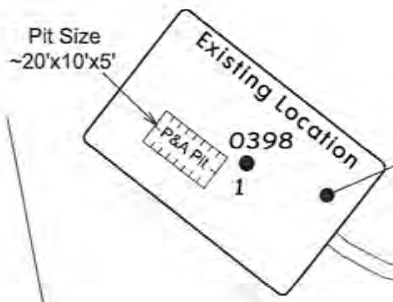
## O.E. Escue No. 1 (D&P)

47-043-0398

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**NOTE:**  
Location is existing. Only minimal earthwork will be required to P&A existing well. Any disturbed areas will be revegetated as per the attached WW-9.

**O.E. Escue Lease**  
Sandra Rogers Broyles  
- Surface

Approximately 0.8 mi. of  
Existing Access Road

**O.E. Escue Lease**  
Vernon & Kathy Adams  
- Surface

Brook Road

Hayzlett

59

County Road

Fork

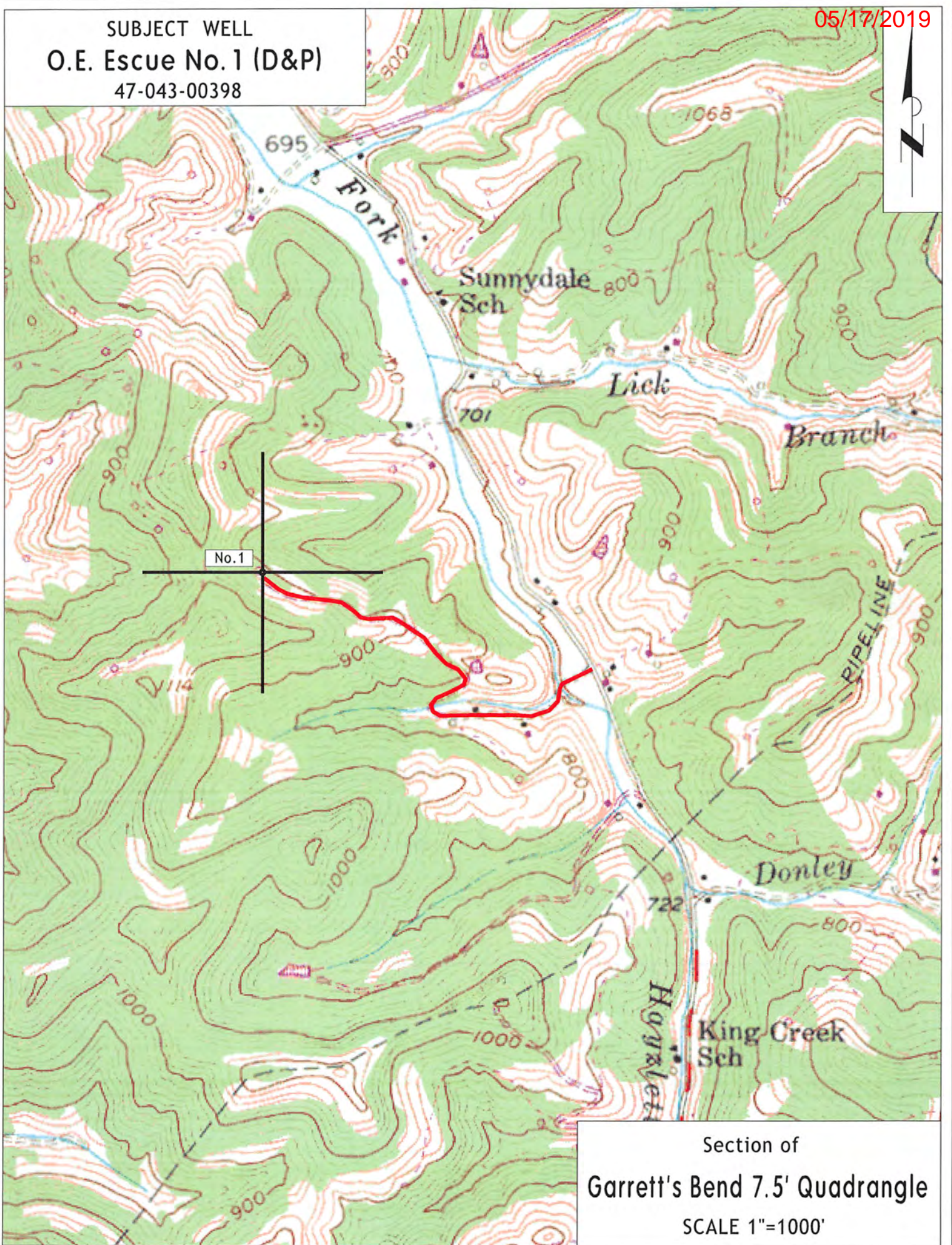
### Notes:

- REQUESTED PERMIT IS FOR PLUGGING AN EXISTING WELL
- ALL ACCESS ROADS ARE EXISTING AND WILL BE UPGRADED IN ORDER TO ACCOMODATE WELL WORK EQUIPMENT AND THEN WILL BE RECLAIMED TO WVDEP STANDARDS.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

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

05/17/2019

SUBJECT WELL  
O.E. Escue No. 1 (D&P)  
47-043-00398



Section of  
Garrett's Bend 7.5' Quadrangle  
SCALE 1"=1000'

WW-7  
8-30-06



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

API: 47- 043 - 00398 WELL NO: 1 (D&P)

FARM NAME: O.E. Escue No.1 (D&P)

RESPONSIBLE PARTY NAME: H.G. Energy, LLC

COUNTY: Lincoln DISTRICT: Duval

QUADRANGLE: Garrett's Bend 7.5'

SURFACE OWNER: Sandra Rogers Broyles

ROYALTY OWNER: HG Energy, LLC

UTM GPS NORTHING: 4,237,931 (NAD 83)

UTM GPS EASTING: 421,142 (NAD 83) GPS ELEVATION: 280 m. (918')

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 & 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.

Diane White  
Diane C. White

Designated Agent  
Title

2/8/2019  
Date

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