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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

June 17, 2013

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

This permit, API Well Number: 47-4303467, 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: C.C. GRIFFITH NO. 123  
Farm Name: MCCLURE, ANDY J. & REBECCA  
**API Well Number: 47-4303467**  
**Permit Type: Secondary Recovery Well**  
Date Issued: 06/17/2013

# 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 within 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 20 mil thickness synthetic liner.
5. No land application of pit fluids.









4303467

WW-2B1

Well No. C. C. Griffith No. 123

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.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

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

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

Contractor Name Sturm Environmental Services  
 Well operator's private laboratory

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 please indicate such.

Special Note:

Water sampling was completed through out the Griffithsville area for the UIC permit review late in 2012. Per Jamie Peterson, WVDEP, the timing of that large UIC sampling was sufficient for this Griffithsville project.

RECEIVED

MAY 10 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection  
06/21/2013



4303467

Form WW-9  
Rev. 10/94

Page 3 of 3  
API Number 47- 043 -         

Operator's Well No. C. C. Griffith No. 123

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 HG Energy, LLC OP Code 494497948

Watershed Porter Fork Quadrangle Griffithsville 7.5' 385

Elevation 913' County Lincoln 43 District Duval 02

Description of anticipated Pit Waste: Fluids encountered in drilling shallow well:

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

Will a synthetic liner be used in pit? Yes          If so, what mil? 10 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         )

Drilling medium anticipated for this well? Air, fresh water, oil based, etc. Air, Fresh Water  
- If oilbased, what type? Synthetic, petroleum, etc. NA

Additives to be used? Water, Soap, KCI

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

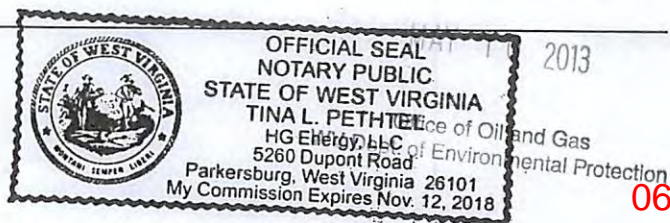
Company Official Signature Diane C White  
Company Official (Typed Name) Diane C. White  
Company Official Title Accountant

Subscribed and sworn before me this 24 day of April 2013

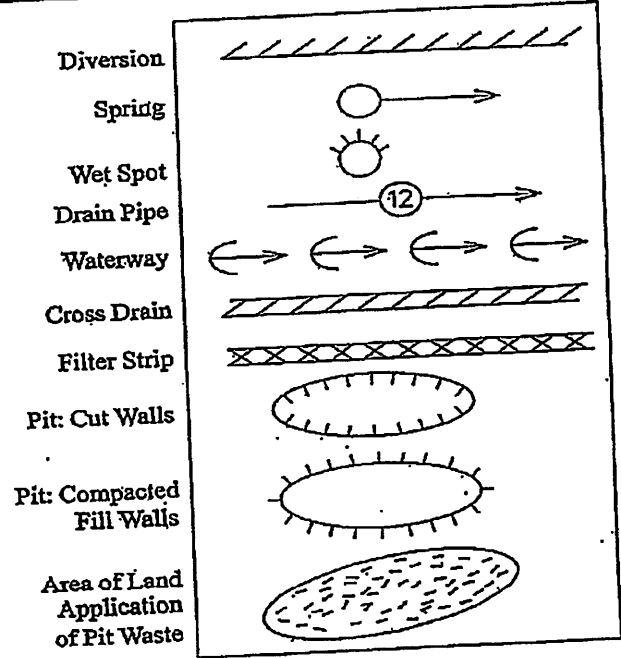
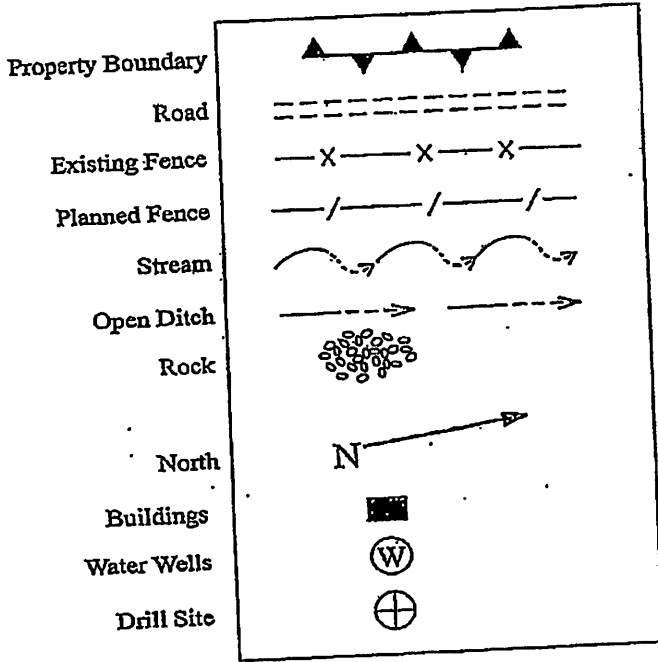
Tina L Peth Notary Public **Received**

My commission expires Nov 12, 2018

Form WW-9



Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 1.0 Ac. Prevegetation pH \_\_\_\_\_  
Area II Approx. 1.0 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5  
 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)  
 Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

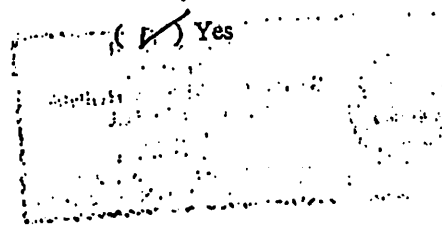
Attach:  
 Drawing(s) of road, location, pit and proposed area for land application  
 Photocopied section of involved 7.5' topographic sheet.

Plan approved by: Rogel D. Tripp  
 Comments: \_\_\_\_\_

Title: District Inspector

Date: May 2, 2013

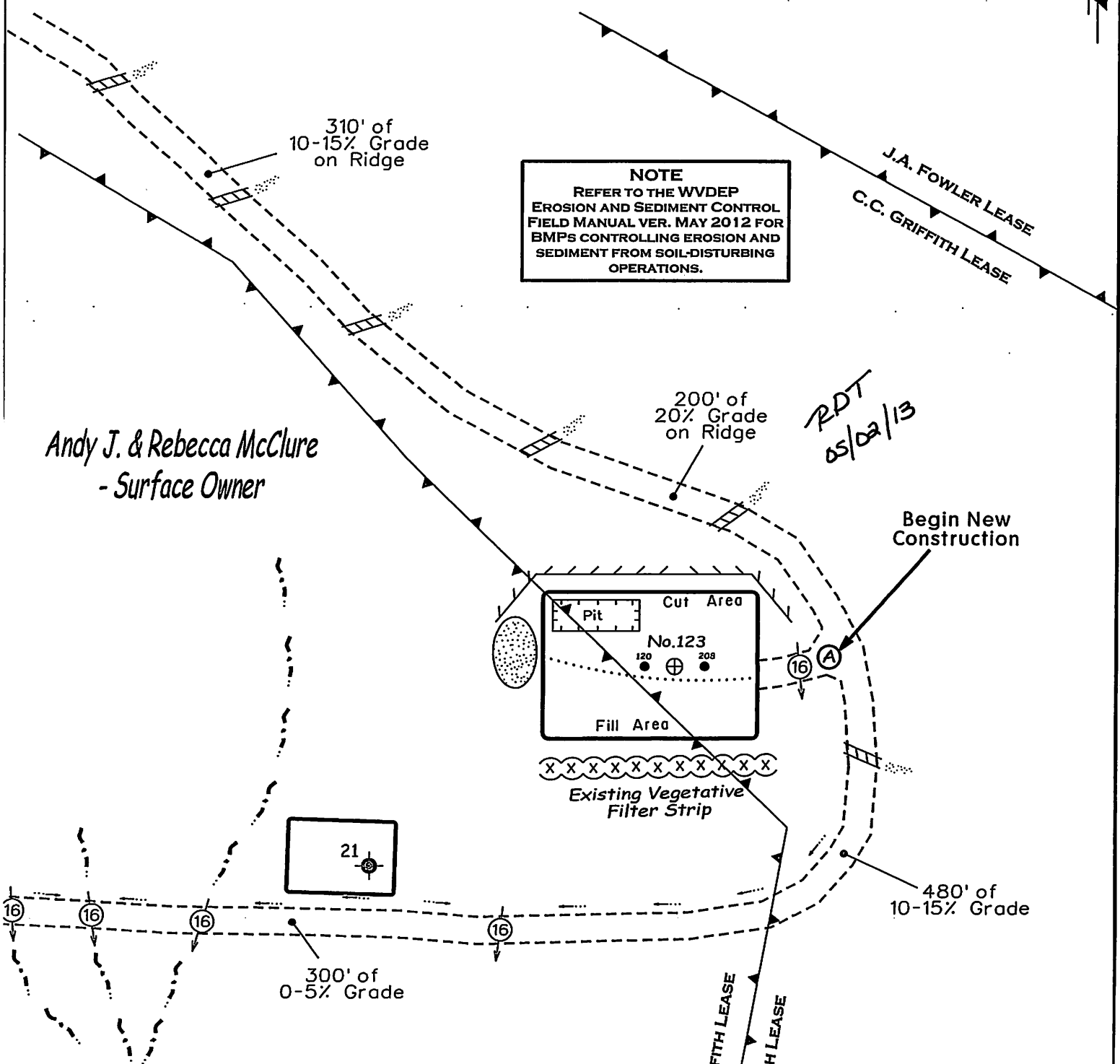
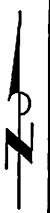
Field Reviewed?



( ) No **Received**

MAY 10 2013

# Reclamation Plan For: C.C. Griffith No. 123

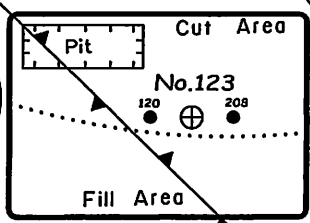


**NOTE**  
REFER TO THE WVDEP  
EROSION AND SEDIMENT CONTROL  
FIELD MANUAL VER. MAY 2012 FOR  
BMPs CONTROLLING EROSION AND  
SEDIMENT FROM SOIL-DISTURBING  
OPERATIONS.

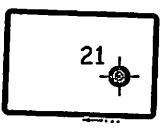
*Andy J. & Rebecca McClure  
- Surface Owner*

*RDT  
05/02/13*

**Begin New Construction**



X X X X X X X X X X X X X X X X  
**Existing Vegetative Filter Strip**



**Notes:**

- Requested permit is for drilling of new well.
- Portions of Access road from St. Rt. 3 to Pt. (A) is existing. Structures will be maintained or upgraded as needed.
- 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.

AUSTIN GRIFFITH LEASE  
C.C. GRIFFITH LEASE

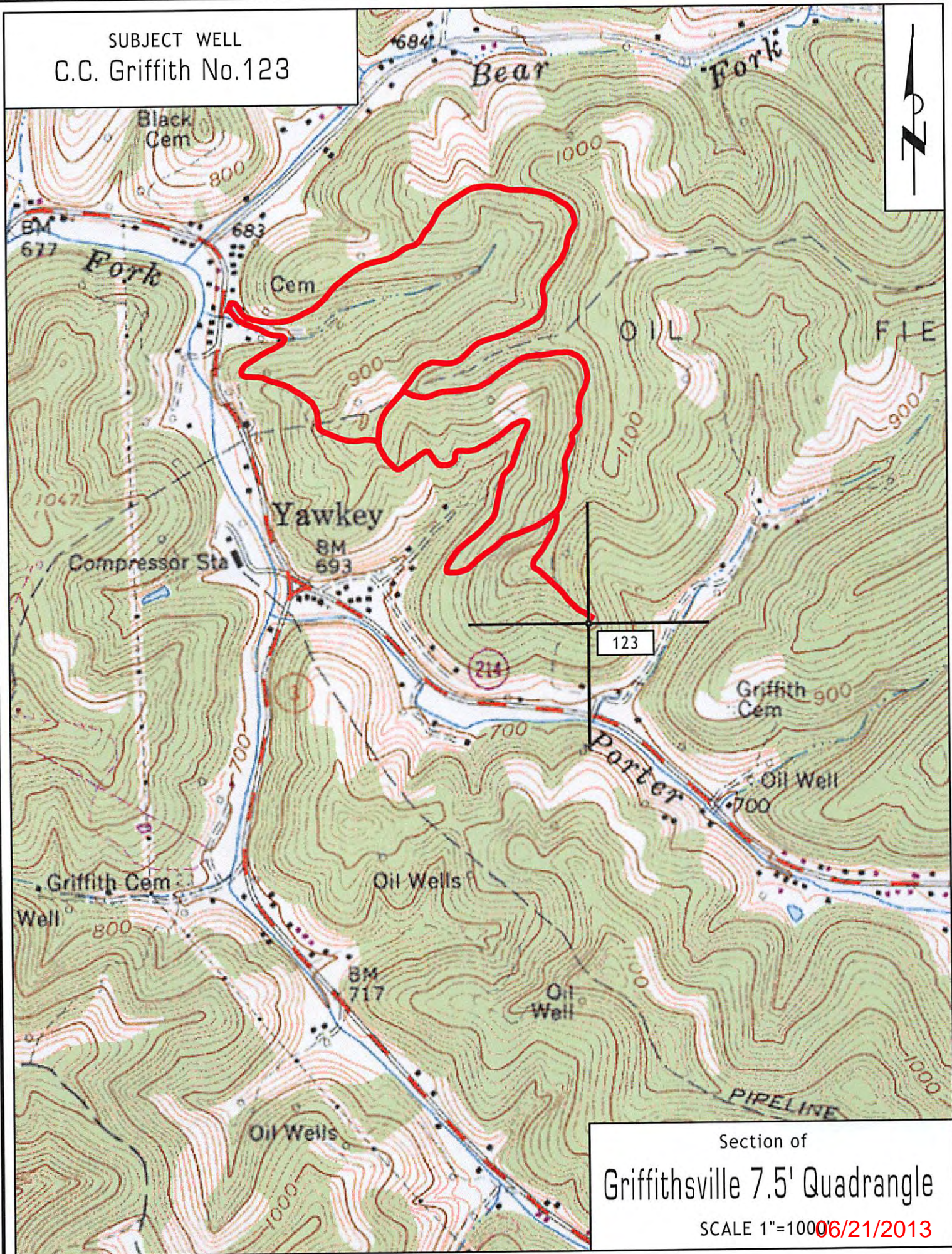
**Received**  
*Andy J. & Rebecca McClure  
- Surface Owner*  
MAY 10 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

**06/21/2013**  
**Note: Drawing not to Scale**



SUBJECT WELL  
C.C. Griffith No.123



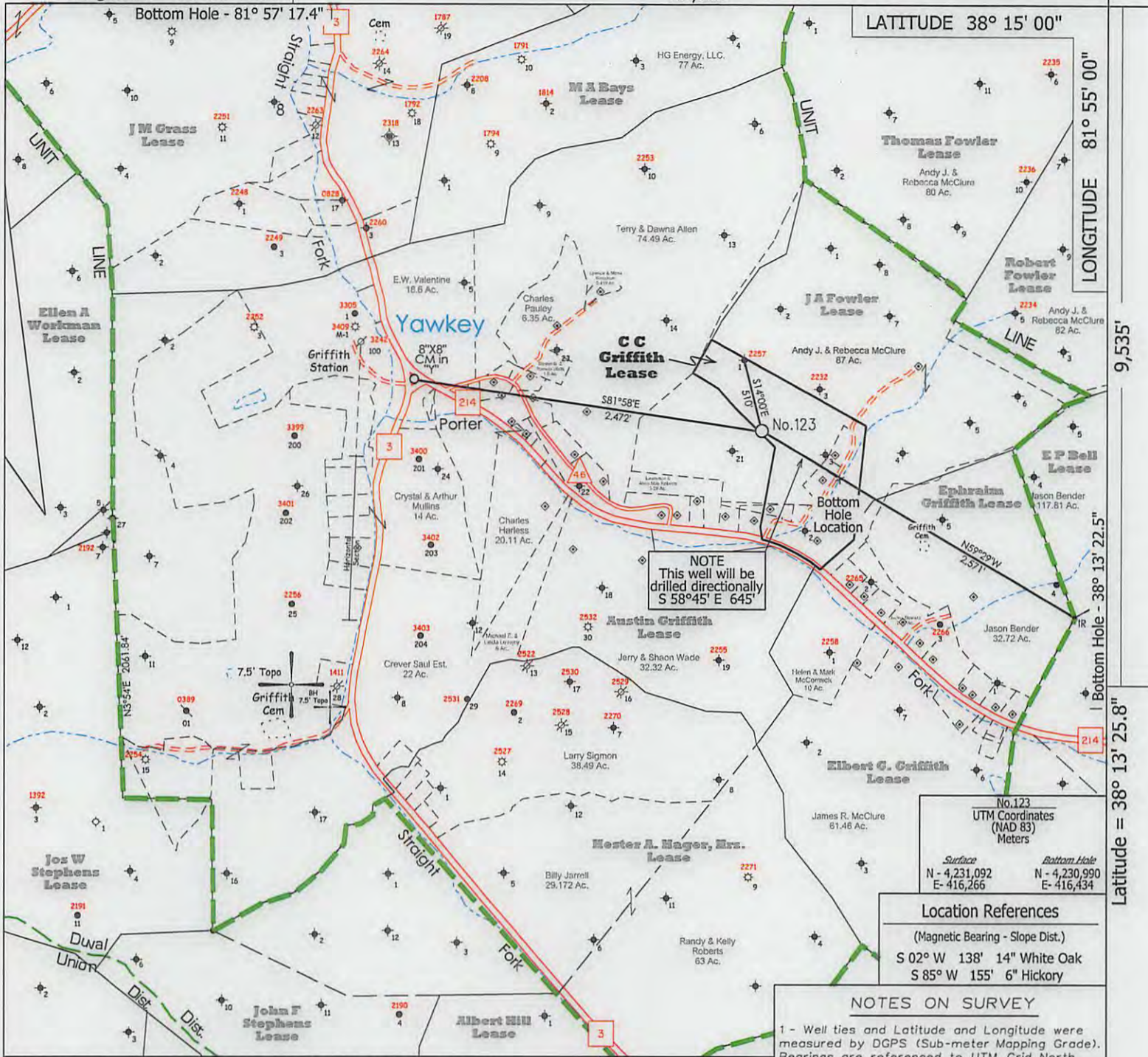
Section of  
Griffithville 7.5' Quadrangle  
SCALE 1"=1000 06/21/2013



Longitude = 81° 57' 24.4"

11,515'

LATITUDE 38° 15' 00"



LONGITUDE 81° 55' 00"

9,535'

Bottom Hole - 38° 13' 22.5"

Latitude = 38° 13' 25.8"

NOTE  
This well will be drilled directionally  
S 58°45' E 645'

No.123  
UTM Coordinates  
(NAD 83)  
Meters

Surface	Bottom Hole
N - 4,231,092	N - 4,230,990
E - 416,266	E - 416,434

Location References  
(Magnetic Bearing - Slope Dist.)  
S 02° W 138' 14" White Oak  
S 85° W 155' 6" Hickory

NOTES ON SURVEY  
1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).  
2 - Surface owner information obtained from the Lincoln County Assessor's tax records.

⬢ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2003 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.  
+ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. 1046-55  
MAP NO. N S E W  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY Sub-Meter  
PROVEN SOURCE OF ELEVATION DGPS Survey (Sub-Meter Mapping Grade)

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 PRESCRIBED BY THE DEPARTMENT OF MINES.  
(SIGNED) [Signature]  
TIMOTHY P. ROUSH PS 793



WEST VIRGINIA  
Division of Environmental Protection  
Office of Oil and Gas  
601 57th Street  
Charleston, West Virginia 25301



DATE February 27, 2013  
FARM C.C. Griffith No.123  
API WELL NO. 47-043-034675

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION X WASTE DISPOSAL \_\_\_  
(IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
LOCATION: ELEVATION 926' WATERSHED Porter Fork  
DISTRICT Duval COUNTY Lincoln  
QUADRANGLE Griffithsville 7.5'  
SURFACE OWNER Andy J. & Rebecca McClure ACREAGE 87 Ac.  
OIL & GAS ROYALTY OWNER HG Energy, LLC., et al LEASE ACREAGE 20 Ac. 06/21/2013  
LEASE NO. 71090-50

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_  
Well will be drilled directionally S 58°45' E 645'

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_ 2,629' MD  
TARGET FORMATION Berea ESTIMATED DEPTH 2,503' TVD

WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Mike Kirsch  
ADDRESS 5260 DuPont Road Parkersburg, WV 26101 ADDRESS 5260 DuPont Road Parkersburg, WV 26101

FORM IV-6



4303467



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

CK# 2182  
\$650<sup>00</sup>

April 24, 2013

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

RE: C. C. Griffith No. 123  
Duval District, Lincoln County  
West Virginia

Dear Mr. Peterson:

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 liquid injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

*Diane C White*

Diane C. White

Enclosures

cc: Andy & Rebecca McClure – Certified  
Ralph Triplett – Inspector

Received

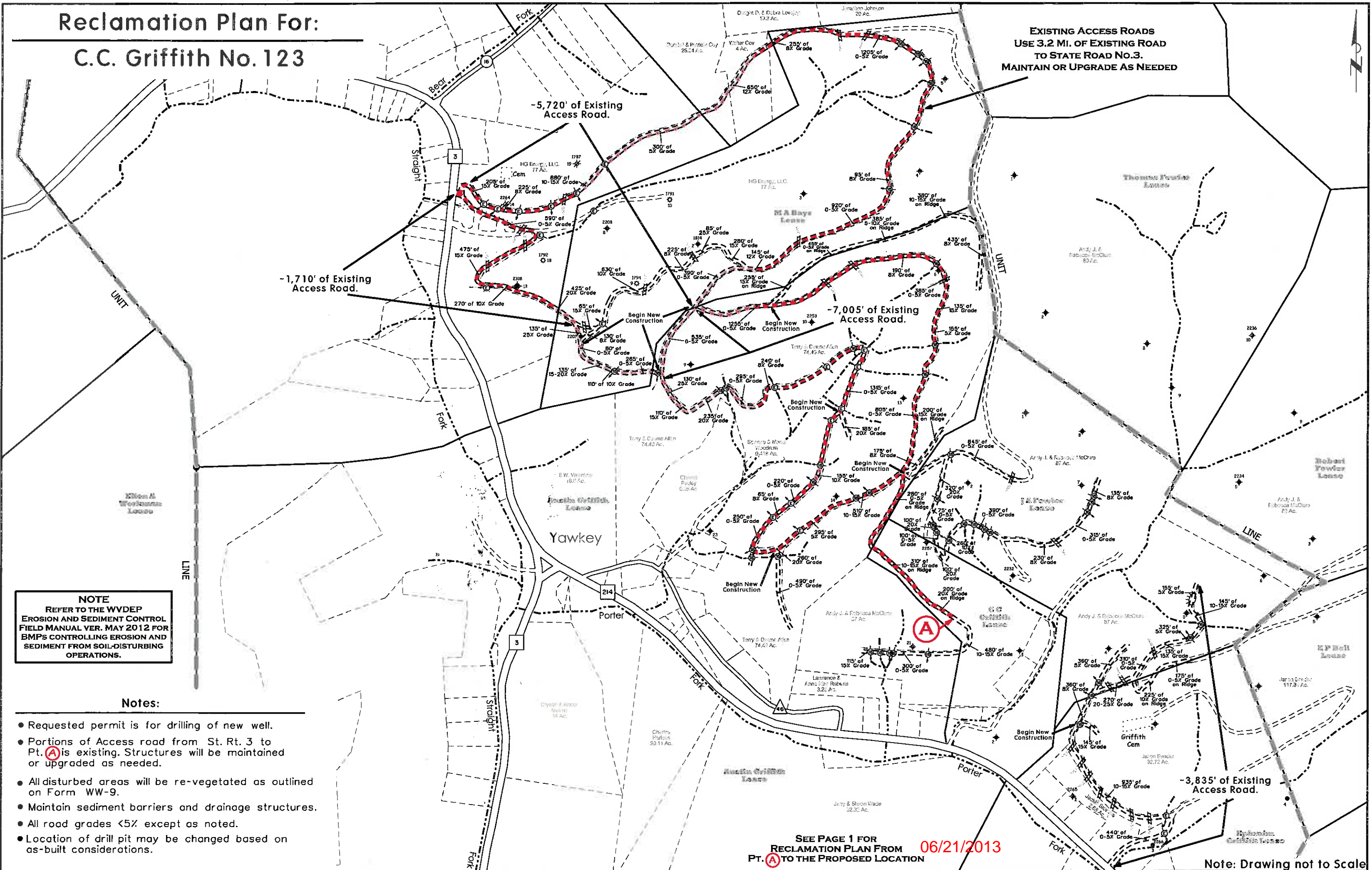
MAY 10 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

06/21/2013

# Reclamation Plan For: C.C. Griffith No. 123

EXISTING ACCESS ROADS  
USE 3.2 MI. OF EXISTING ROAD  
TO STATE ROAD NO.3.  
MAINTAIN OR UPGRADE AS NEEDED



**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.
- Portions of Access road from St. Rt. 3 to Pt. A is existing. Structures will be maintained or upgraded as needed.
- 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.

SEE PAGE 1 FOR  
RECLAMATION PLAN FROM  
PT. A TO THE PROPOSED LOCATION 06/21/2013

Note: Drawing not to Scale