



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

PERMIT MODIFICATION APPROVAL

August 27, 2013

HG ENERGY, LLC
5260 DUPONT ROAD
PARKERSBURG, WV 26101

Re: Permit Modification Approval for API Number 4303462 , Well #: EPHRAIM GRIFFITH NO **115**
Well Site & Access Road Change

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith *JNM*
Regulatory/Compliance Manager
Office of Oil and Gas



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

July 2, 2013

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

RDT
07/07/13

RE: Ephraim Griffith No. 115 – Revised (API # 47-043-3462)
Duval District, Lincoln County
West Virginia

Dear Mr. McLaughlin:

HG Energy is requesting a revision for the Ephraim Griffith 115 well permit. The land owner requested a change in the access route to the well site; offering HG the use of his road to eliminate the need for an additional new road on his property. The mutually agreed upon revision affects the route to the well and also changes the site of the well by about 65 feet as reflected on the reclamation plan and the plat.

Enclosed are Forms WW-3A, WW-3B, WW-9, WW-3(B1), Mylar of plat, reclamation plan and topo map for the revision. If you need further information please let me know.

Very truly yours,

Diane C White

Diane C. White

Enclosures

cc: Jason & Ashley Bender - Certified
Ralph Triplett – Inspector

Received

AUG 12 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

09/06/2013

4303462 M



1) Date:	July 2, 2013		
2) Operator's Well No.	Ephraim Griffith No. 115 - Rev		
3) API Well No.	47	043	- 3462
	State	County	Permit
4) UIC Permit No.	UIC2R04301AP		

**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) Surface Owner(s) To Be Served

(a) Name Jason & Ashley Bender ✓
 Address 20 Open Harvest Drive
Yawkey, WV 25573

(b) Name _____
 Address _____

(c) Name _____
 Address _____

6) Inspector Ralph Triplett
 Address 5539 McClellan Hwy
Branchland, WV 25506
 Telephone 389-0350

7 (a) Coal Operator
 Name NA
 Address _____

7 (b) Coal Owner(s) With Declaration Of Record
 Name NA
 Address _____

7(c) Coal Lessee With Declaration Of Record
NA

TO THE PERSON(S) NAMED ABOVE: You should have received this form and the following documents:

- (1) The Application for a Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is To be determined

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON FORM WW-3(A) DESIGNATED TO YOU. 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 Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan 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 the mailing or delivery to the Chief.

Received
AUG 12 2013
Office of Oil and Gas
WV Dep. of Environmental Protection

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document 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	<u>HG Energy, LLC</u>
Address	<u>5260 Dupont Road</u> <u>Parkersburg, WV 26104</u>
By:	<u>Diane C. White</u>
Its:	<u>Accountant</u>

Signature *Diane White*

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 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: deprivacyofficer@wv.gov

09/06/2013

WW-3B
10/07



1) Date July 2, 2013
 2) Operator's Well No. Ephraim Griffith No. 115 - Rev
 3) API Well No. 47 - 043 - 3462
 State County Permit
 4) UIC Permit No. UIC2R04301AP

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 972' Watershed Porter Fork
 District Duval 02 County Lincoln 43 Quadrangle Griffithsville 7.5' 385
- 7) WELL OPERATOR: HG Energy, LLC 494497948
5260 Dupont Road
Parkersburg, WV 26101
- 8) DESIGNATED AGENT: Mike Kirsch
5260 Dupont Road
Parkersburg, WV 26101
- 9) OIL & GAS INSPECTOR TO BE NOTIFIED: Name Ralph Triplett
 Address 5539 McClellan Hwy
Branchland, WV 25506
- 10) DRILLING CONTRACTOR: Name _____
 Address _____
- 11) PROPOSED WELL WORK: Drill Drill Deeper Redrill Stimulate
 Plug Off Old Formation Perforate New Formation Convert
 Other Physical Change in Well (specify) _____
- 12) Geological target formation Berea Depth 2,442 Ft. (Top) to 2,463 Ft. (Bottom)
- 13) Estimated depth of completed well (or actual depth of existing well) 2563' Ft.
- 14) Approximate water strata depths: Fresh 350 Ft. Salt 1,042 Ft.
- 15) Approximate coal seam depths: 400 Ft.
- 16) Is coal being mined in the area? Yes No
- 17) Virgin reservoir pressure in target formation: 1,250 psig. Source Estimated
- 18) Estimated reservoir fracture pressure: 2,650 psig.
- 19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom Hole Pressure 2,400 psi
- 20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES and other chemicals as needed to maintain water quality and improve oil recovery. Fresh water, produced water, bactericides
- 21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters
- 22) SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL _____

23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	7"	L.S.	17#	X		500'	500'	Cement to Surface	Tension
Coal									Sizes
Intermediate									2.375" x 4.5"
Production	4 1/2"	J-55	10.5#	X		2563'	2563'	150 sacks	Depths Set
Tubing	2 3/8"	J-55	4.6 #	X		2250'	2250'		2150'
Liners									Perforations
									Top Bottom

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 Office of Oil and Gas
 Dept. of Environmental Protection

RDT
 07/07/13

24) APPLICANTS OPERATING RIGHTS were acquired from Ephraim & Nance Griffith
 by Deed Lease Other Contract Dated June 18, 1904 of record in the
Lincoln County Clerk's Office in Book 36 at Page 81

WW-2B1

Well No. phraim Griffith No. 115 - Rev

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

Received
AUG 1 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

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.

09/06/2013

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'

Elevation 972' County Lincoln District Duval

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.? 20 Mil.

Proposed Disposal Method For Treated Pit Wastes:
X 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

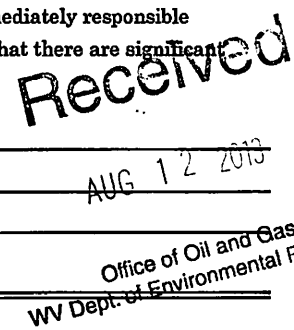
Additives to be used? Water, Soap, KCl

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.

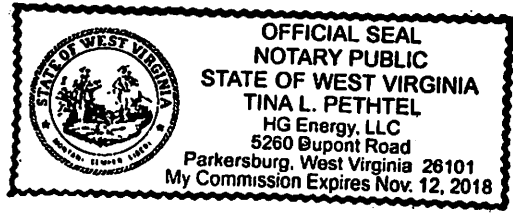
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is 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



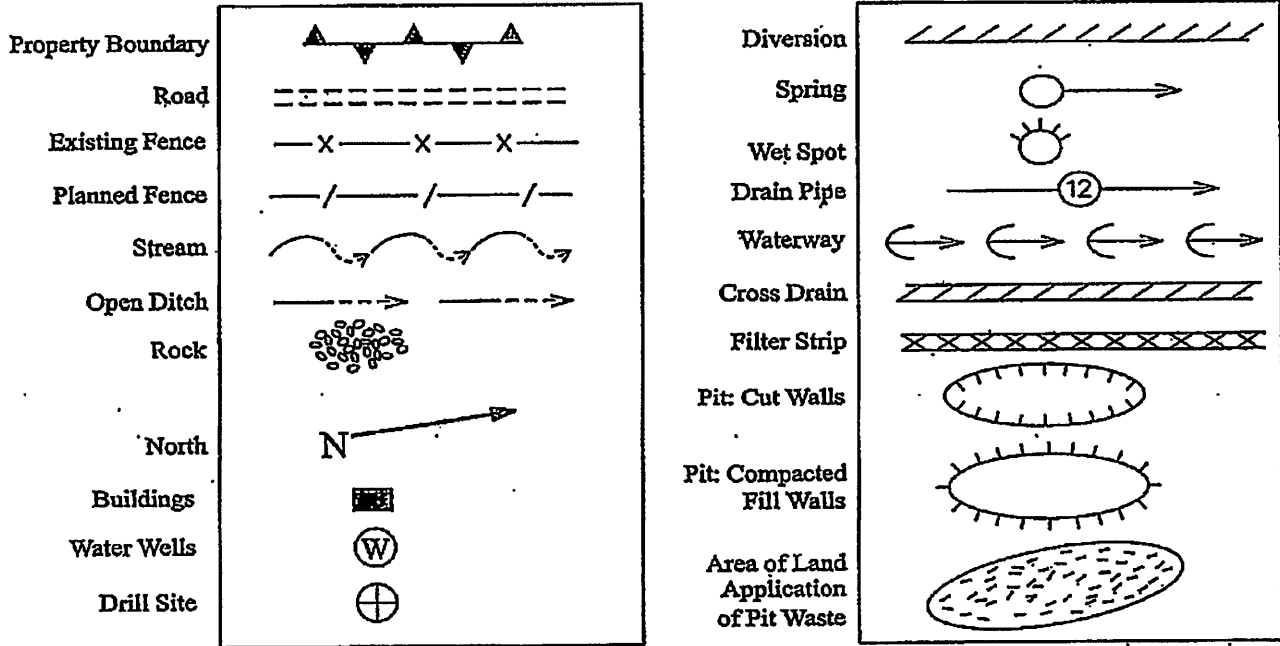
Subscribed and sworn before me this 2 day of July 2013
Tina L. Pettel Notary Public

My commission expires NOV. 12, 2018



WW9-Rank

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>		<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.	Seed Type	Lbs./Ac.
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.

Received
 AUG 12 2013
 Office of Oil and Gas
 WV Dept. of Environmental Protection

Plan approved by: Ronald D. Triplett

Comments: _____

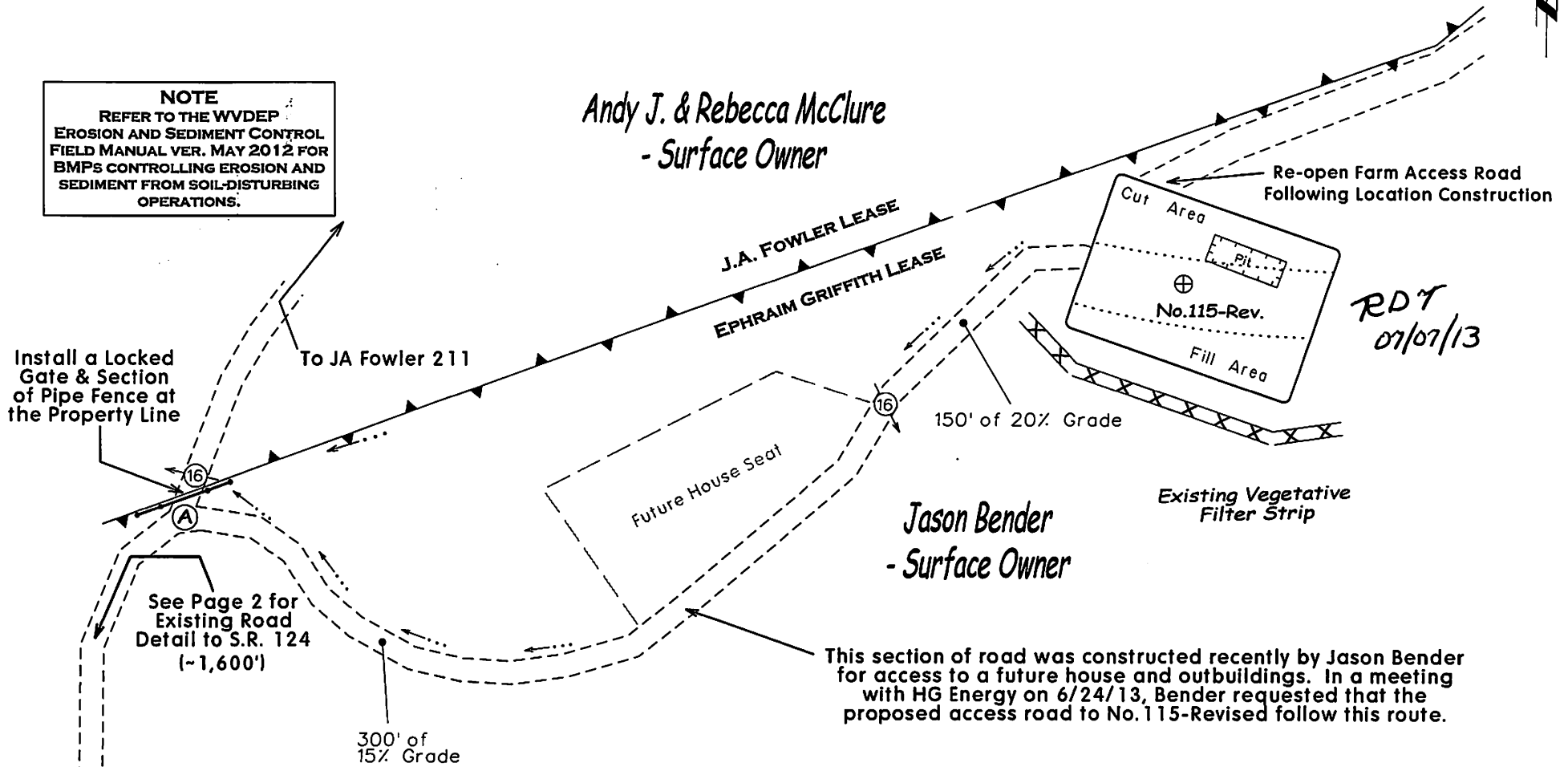
Title: District Dispatch Date: July 7, 2013

Field Reviewed? () Yes () No

Reclamation Plan For: Ephraim Griffith No. 115-Revised

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



Existing Vegetative Filter Strip

Jason Bender
- Surface Owner

This section of road was constructed recently by Jason Bender for access to a future house and outbuildings. In a meeting with HG Energy on 6/24/13, Bender requested that the proposed access road to No. 115-Revised follow this route.

Notes:

- Requested permit is for drilling of new well.
- Portions of Access road from St. Rt. 214 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.

WV Dept. of Environmental Protection
Office of Oil and Gas

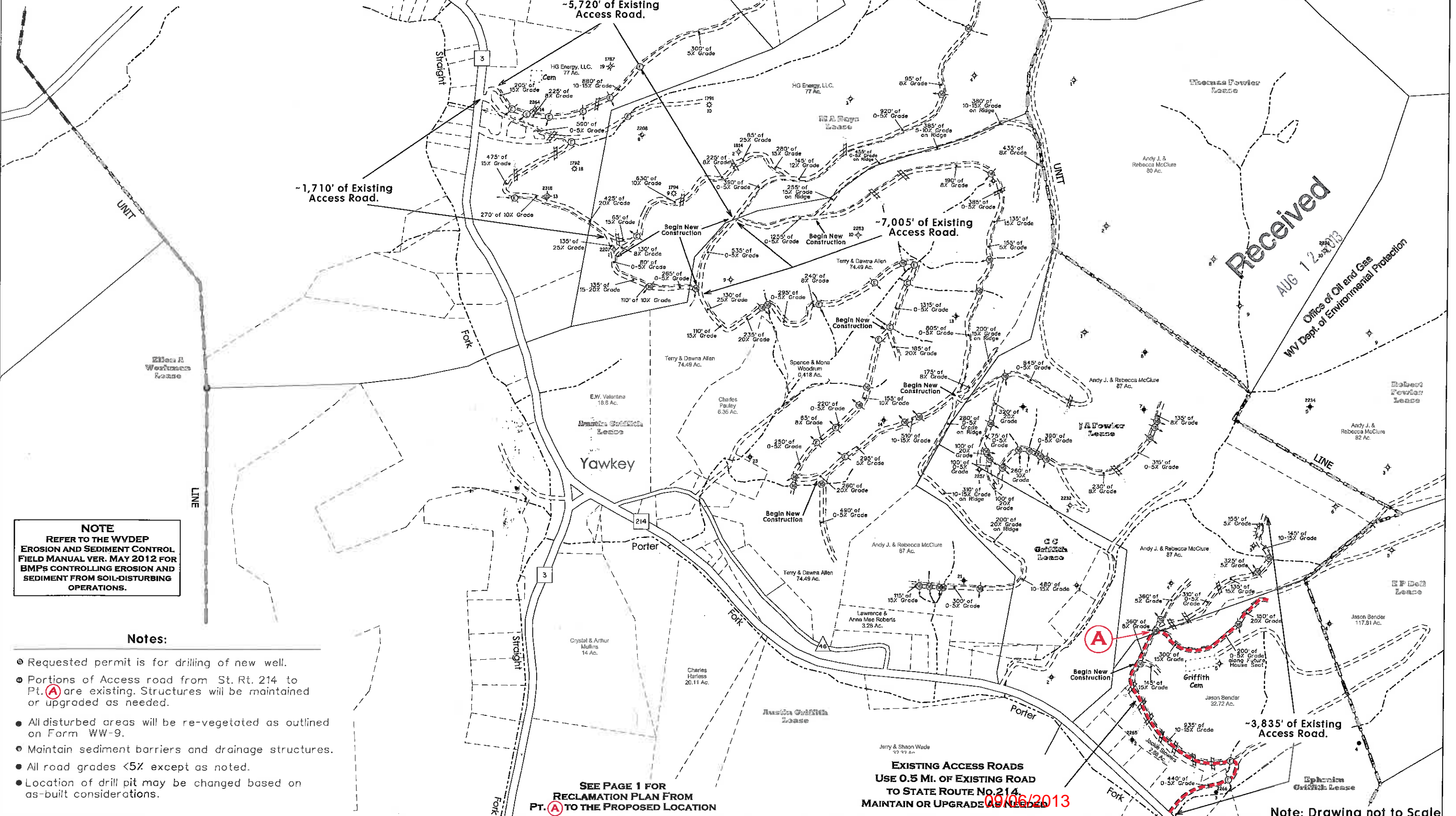
AUG 12 2013

Received

Note: Drawing not to scale

4303462M

Reclamation Plan For: 2013 Griffithsville Development Ephraim Griffith No. 115-Rev.



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:

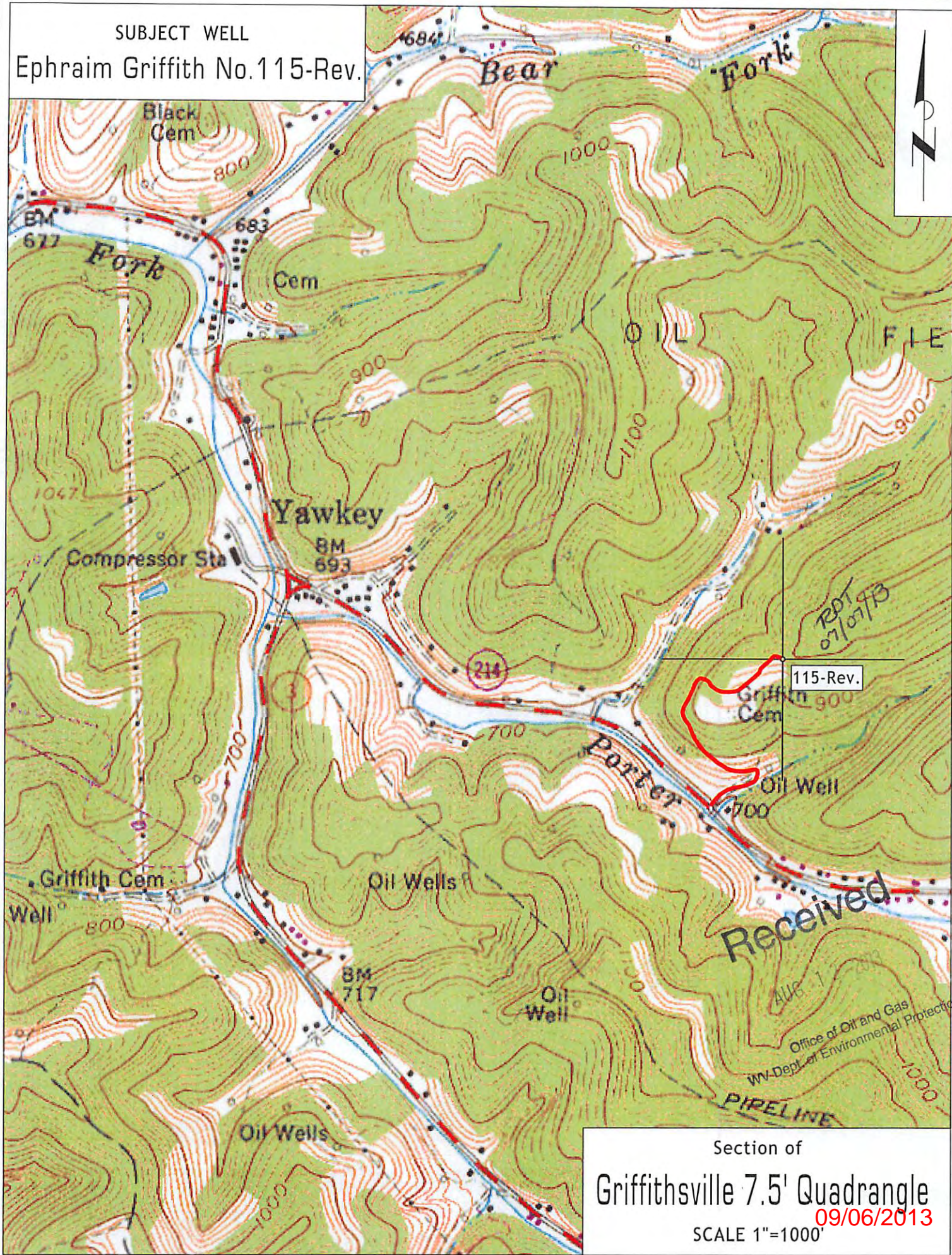
- Requested permit is for drilling of new well.
- Portions of Access road from St. Rt. 214 to Pt. (A) are existing. Structures will be maintained or upgraded as needed.
- All disturbed areas will be re-vegetated as outlined on Farm WW-9.
- Maintain sediment barriers and drainage structures.
- All road 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

EXISTING ACCESS ROADS
USE 0.5 MI. OF EXISTING ROAD
TO STATE ROUTE NO 214.
MAINTAIN OR UPGRADE AS NEEDED

Note: Drawing not to Scale

SUBJECT WELL
Ephraim Griffith No.115-Rev.



115-Rev.

Received
AUG 1 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

Section of
Griffithsville 7.5' Quadrangle
SCALE 1"=1000'
09/06/2013

Longitude = 81° 57' 04.4"

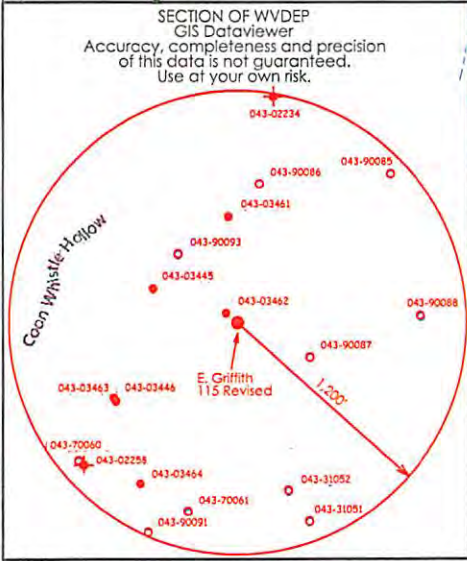
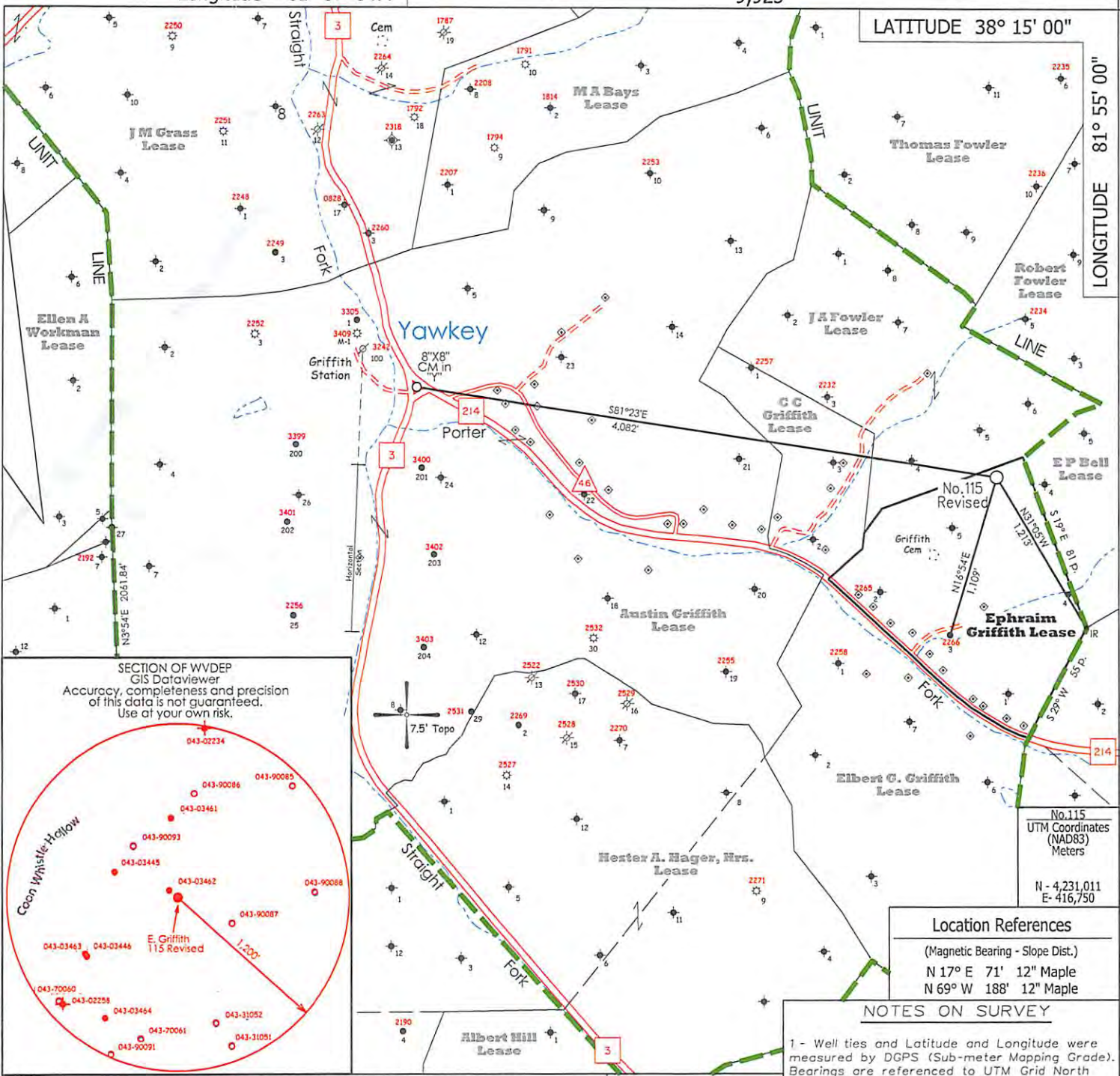
9,925'

LATITUDE 38° 15' 00"

LONGITUDE 81° 55' 00"

9,785'

Latitude = 38° 13' 23.3"



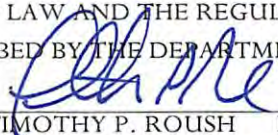
No. 115
UTM Coordinates
(NAD83)
Meters
N - 4,231,011
E - 416,750

Location References
(Magnetic Bearing - Slope Dist.)
N 17° E 71' 12" Maple
N 69° W 188' 12" Maple

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. 1046-48
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) 
TIMOTHY P. ROUSH PS 793



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

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION WASTE DISPOSAL ___
(IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 973' WATERSHED Porter Fork
DISTRICT Duval COUNTY Lincoln
QUADRANGLE Griffithville 7.5'
SURFACE OWNER Jason Bender, et ux ACREAGE 32.72 Ac.
OIL & GAS ROYALTY OWNER HG Energy, LLC., et al LEASE ACREAGE 42.46
LEASE NO. 71091-50
PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ___
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION Berea ESTIMATED DEPTH 2,563'
WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Mike Kirsch
ADDRESS 5260 DuPont Road Parkersburg, WV 26101 ADDRESS 5260 DuPont Road Parkersburg, WV 26101

DATE June 27, 2013
FARM Ephraim Griffith No.115-Revised
API WELL NO. 47-043-03462M


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AUG 12 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

FORM IV-6