



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

October 16, 2013

WELL WORK PERMIT

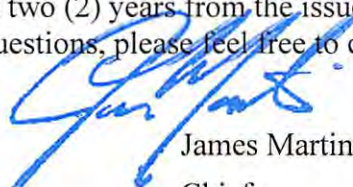
Re-Work

This permit, API Well Number: 47-10901093, issued to ENERVEST OPERATING L. L. C., 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: Y&O COAL #107 (WYO. POCA #
Farm Name: HEARTWOOD FORESTLAND FU

API Well Number: 47-10901093

Permit Type: Re-Work

Date Issued: 10/16/2013

Promoting a healthy environment.

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.
4. The WR- 35 needs to note the partial plugging of this well addressing the active UIC permit.

10901693R

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: EnerVest Operating, L.L.C. 109 07 466

309999	Wyoming	Slab Fork	McGraws
Operator ID	County	District	Quadrangle

2) Operator's Well Number: Y&O Coal #107 API # 47-109-01093 3) Elevation: 1877'

4) Well Type: (a) Oil _____ or Gas X

(b) If Gas: Production X / Underground Storage _____

Deep _____ / Shallow X

5) Proposed Target Formation(s): Ravenclyff/Gordon Proposed Target Depth: 1362'-1400' 3607'-3637'

6) Proposed Total Depth: 6563 Feet Formation at Proposed Total Depth: Devonian Shale

7) Approximate fresh water strata depths: + 1130'

8) Approximate salt water depths: + 1380'

9) Approximate coal seam depths: No Record

10) Approximate void depths,(coal, Karst, other): None Recorded

11) Does land contain coal seams tributary to active mine? None Recorded

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Abandon Lower Devonian Shale disposal zone (5710'-6210') & Upper Devonian Shale producing zone 4330'-5400' with cement.

Complete and fracture stimulate the Gordon 3607' to 3637' and Ravenclyff 1362'-1410'.

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	20"				20'	
Fresh Water						
Coal						
Intermediate	9-5/8"		36#		1094'	509
Production	4-1/2"		11.6#		6548'	1501
Tubing						
Liners						

Received

Packers: Kind: _____

Sizes: _____

Depths Set _____

SEP 16 2013

10901093 R

PARTIAL PLUGGING

Y&O Coal #107
API# 47-109-01093
Wyoming County, WV

RECEIVED
Office of Oil and Gas

OCT 16 2013

WV Department of
Environmental Protection

Well Data

Casing: 4-1/2", 11.6# set at 6,548'
Tubing: 2-3/8" with Arrow I-X packer set at 5,691'
Disposal Perfs: 5,710' to 6,210' (Lower Devonian Shale)
Prod. Perfs: 4,380' to 4,890' (Upper Devonian Shale) & 5,060' to 5,400' (Middle Devonian Shale)

Proposed new zones: Lower Gordon (3,677' to 3,687')
Upper Gordon (3,607' to 3,617')
Ravencliff (1,362' to 1,374' & 1,400' to 1,410')

Procedure:

1. Pull tubing and packer
2. Set cement plug from PBTD to \pm 3,800'
3. Set CIBP on top of cement plug
4. Pressure test casing
5. Run new CBL log under pressure
6. If bond log allows perform 3 stage foam frac completion for proposed zones
7. Flow back frac and clean up N2
8. Run tubing in well to \pm 3,600'
9. Turn well in line.

WW-2B1
(5-12)

Well No. Y&O Coal #107

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 Services
Sampling Contractor _____

Well Operator EnerVest Operating, L.L.C.
Address 300 Capitol Street, Suite 200
Charleston, WV 25301
Telephone 304-343-5505

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.

Received

SEP 16 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

1901093 R

Farm name: GEORGIA-PACIFIC CORP. Operator Well No.: Y & O 107

LOCATION: Elevation: 1877.00 Quadrangle: MCGRAWS

District: SLAB FORK County: WYOMING
Latitude: 12475 Feet South of 37 Deg. 42Min. 30 Sec.
Longitude 8425 Feet West of 81 Deg. 27 Min. 30 Sec.

Company: SONAT EXPLORATION CO.
P. O. BOX 766
CHARLESTON, WV 25323-0000

Agent: DANA R. BLACKSHIRE

Inspector: RODNEY G. DILLON
Permit Issued: 05/23/89
Well work Commenced: 7/2/89
Well work Completed: 10/25/89
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 6563'
Fresh water depths (ft) ±1130'

Salt water depths (ft) ±1380'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
20"	20'	20'	
9-5/8"	1094'KB	1094'KB	509
4-1/2"	6548'KB	6548'KB	1501
2-3/8" tbg.		3991'KB	

OPEN FLOW DATA

4380-4890'
5060-5400'

Producing formation Devonian Shale Pay zone depth (ft) 5710-6210'
Gas: Initial open flow 49 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 39 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 1400 psig (surface pressure) after 48 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Julie Ward
For: SONAT EXPLORATION CO.

By: Julie Ward
Date: 11/22/89

WYOM 1093

Foam and 85,000 lbs 20/40 sand.

Middle Devonian Shale: Perforated 5060-5400'. Pumped 500 gals 9% HCL + 1 gal A-200 + 5 gal U-42 followed by 1000 gals 25% Methanol + additives. Pumped 100,000 SCF Nitrogen to establish injection at 36,000 SCFM. Frac'd with 59,500 gals Foam and 110,000 lbs 20/40 sand.

Lower Devonian Shale: Perforated 5710-6210'. Pumped 500 gals 9% HCL + 1 gal A-200 + 5 gal U-42 followed by 1000 gals 25% Methanol + additives. Pumped 160,000 SCF Nitrogen to establish injection. Frac'd with 1000 gal 25% Methanol prepad + 48,000 gals Foam and 70,000 lbs 20/40 sand.

- 2. The well log which is a systematic detailed geological record of all formations, including coal encountered by the wellbore.

<u>FORMATION</u>	<u>TOP FEET</u>	<u>BOTTOM FEET</u>
Princeton	1194'	1244'
Ravencliff	1358'	1414'
Avis	1422'	1470'
Maxon	2152'	2250'
Little Lime	2270'	2438'
Berera	3456'	3474'
Gordon	3598'	3630'

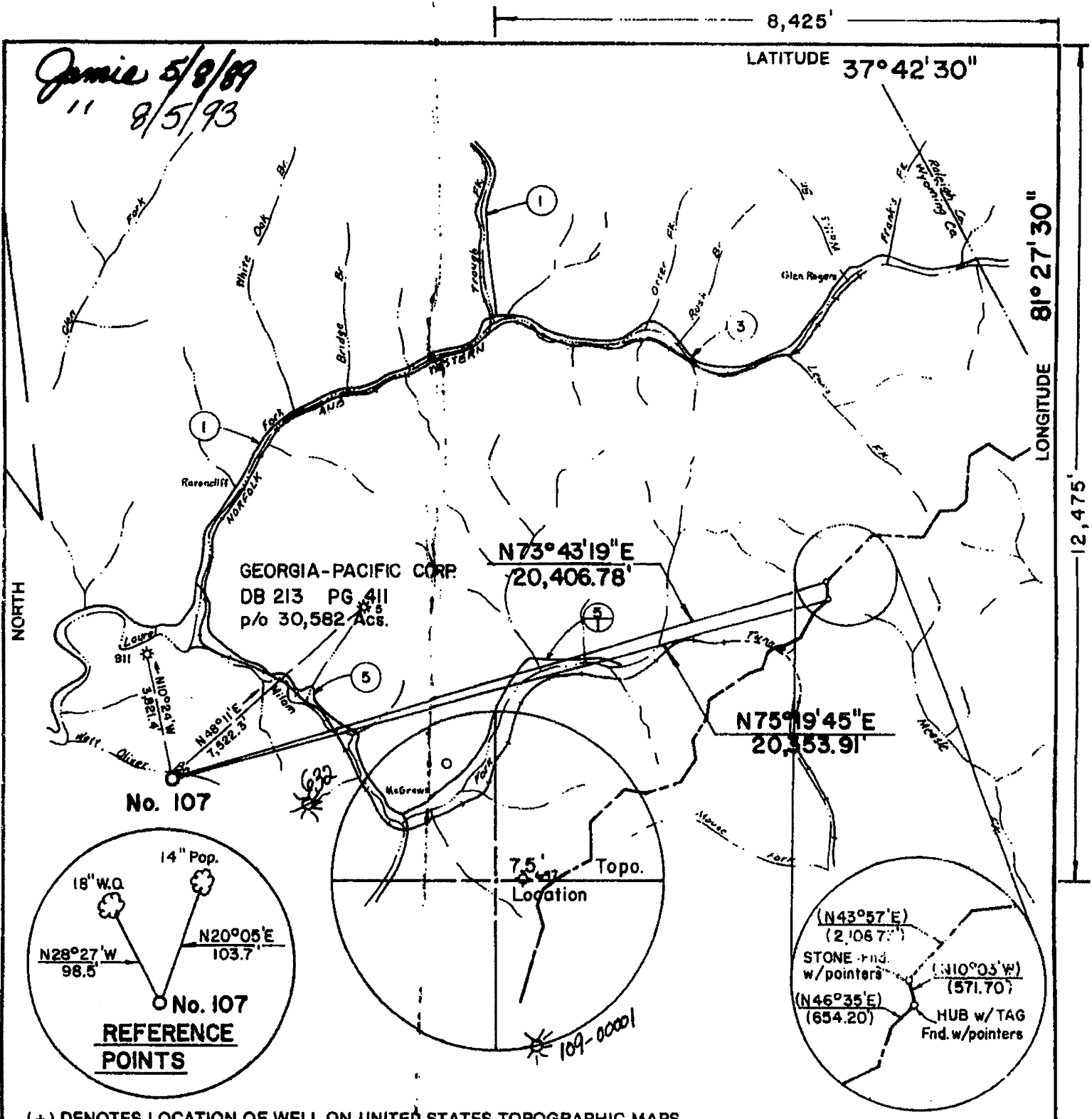
Note: Did not run any coal logs.



DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

6828

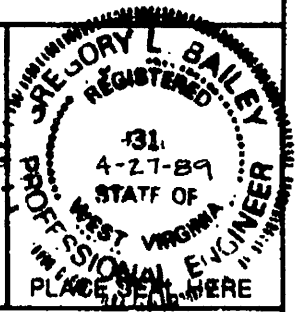
Janie 5/8/89
" 8/5/93



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 4000'
 MINIMUM DEGREE OF ACCURACY 1:2500
 PROVEN SOURCE OF ELEVATION U.S.G.S. BM NO. Z180
 EL. 1785.55' LOCATED 1000' S/W OF GLEN ROGERS HIGH SCHOOL.

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 ENERGY.
 (SIGNED) Gregory L. Bailey
 R.P.E. 9318 I.L.S.



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE APRIL 26, 19 89
 OPERATOR'S WELL NO. 107
 API WELL NO.

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1877 WATERSHED WATT OLIVER BRANCH Frac. cancelled
 DISTRICT SLAB FORK COUNTY WYOMING
 QUADRANGLE McGraws 7.5'
 SURFACE OWNER GEORGIA - PACIFIC CORP. ACREAGE 30,582
 OIL & GAS ROYALTY OWNER Y & O COAL CO. et al LEASE ACREAGE 30,582

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
Repair, Rerod, Maxon, Wear, Gordon
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 6550
 WELL OPERATOR Genl Virginia at 165 DESIGNATED AGENT DANA BLACKSHIRE
 ADDRESS Box 386 ADDRESS P.O. BOX 766
Tullfield, Va. 24241 CHARLESTON, WV 25323

COUNTY NAME WYOM
 PERMIT 1093 F GANC

OK # 268682
\$650.00

10901093R

WW-2A
(Rev. 6-07)

1.) Date: August 21st, 2013
2.) Operator's Well Number Y&O Coal #107
State 47- County 109 Permit 01093
3.) API Well No.:

**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:	5) (a) Coal Operator
(a) Name <u>Heartwood Forestland Fund IV, L.P.</u> ✓	Name <u>None</u>
Address <u>19045 Stone Mountain Rd.</u>	Address _____
<u>Abington, VA 24210</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>No Declaration of Record</u>
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Ross Eller</u>	(c) Coal Lessee with Declaration ✓
Address <u>121 Briehill Drive</u>	Name <u>Rockhouse Land, LLC</u>
<u>Beckley, WV 25801</u>	Address <u>PO Box 1169</u>
Telephone <u>304-932-6844</u>	<u>Pikeville, KY 41501-1169</u>

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

x 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 EnerVest Operating, L.L.C.
 By: Barry K. Lay *Barry K. Lay*
 Its: Vice President - General Manager
 Address 300 Capitol Street, Suite 200
Charleston, WV 25301
 Telephone 304-343-5505

Subscribed and sworn before me this 21st day of August, 2013

[Signature]
Notary Public

Notary Public

Received

My Commission Expires May 3, 2017
 OFFICIAL SEAL
 NOTARY PUBLIC
 STATE OF WEST VIRGINIA
 JERRY L. JACKSON
 400 PENNSYLVANIA AVE
 CHARLESTON, WV 25301
 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



EnerVest Operating, L.L.C.
Eastern Division

1064 Old Route 33, Weston, WV 26452-7722
Phone (304) 517-1102 Fax (304) 517-1107

SENT VIA CERTIFIED US MAIL

September 13, 2013

Rockhouse Land, LLC
P.O. Box 1169
Pikeville, KY 41501-1169

Re: Proposed Y&O Coal #107 Re-Work
Slab Fork District, Wyoming County, WV

To Whom It May Concern:

Pursuant to Section 22B-1-9 of the West Virginia Code, enclosed please find copies of the following documents for the subject proposed well:

- Form WW-2A Notice of Application for a Well Work Permit
- Form WW-2A-1 Information Supplied Under WV Code Chapter 22-6-8(d)
- Form WW-2B Application for a well Work Permit (1 copy)
- Well Location Plat Certified Copy of WVDEP Well Location Plat
- Form WW-9 Reclamation Plan and Site Registration Application (1 copy)

This application is being filed by EnerVest with the Administrator of the Office of Oil and Gas of the West Virginia Department of Environmental Protection. If you have no objections to the re-work of this well, please sign the Voluntary Statement of No Objection on Form WW-2A and return one copy to our office in the enclosed envelope.

Comments as to the location construction or the proposed well work may, pursuant to Section 22B-1-10 of West Virginia Code, be filed by you with the said Administrator within fifteen (15) days after the Application is filed by EnerVest. The address of the Administrator for the purpose of filing comments and obtaining additional information is:

Permit Administrator
West Virginia Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, WV 25301

Received

SEP 16 2013

Persons who may file such comments are: (i) the owners of record of the surface of the tract on which the well is or is to be located, and (ii) the owners of record of the surface

Office of Oil and Gas
WV Dept. of Environmental Protection

Persons who may file such comments are: (i) the owners of record of the surface of the tract on which the well is or is to be located, and (ii) the owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if such surface tract is to be utilized for road or other land disturbance described in the Erosion and Sediment Control Plan referred to above; and (iii) except as and when not required by the laws of West Virginia and the rules of the West Virginia Department of Mines, any coal operator operating coal seams beneath the oil and gas leasehold upon which said well is or is to be located as well as the owner(s) and lessee(s), if any of such coal seams.

Each person so entitled to file comments, including yourself, may request notice of the permit decision if and when you file comments and may further request that the Administrator furnish you with a list of persons who are capable and qualified to test water supplies.

We remain available should you have any questions regarding this matter.

Sincerely,
EnerVest Operating, L.L.C.



Jerry L. Jackson, CPL
Senior District Landman

Enclosures

cc: File

7007 2680 0002 2646 8840

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Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.17

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SEP 13
Postmark Here
11 13

Sent To: Hearwood Forest Fund IV, L.P.
Street, Apt. No. or PO Box No.: 19045 Stone Mountain Road
City, State, ZIP+4: Abingdon, VA 24210

PS Form 3800, August 2006 See Reverse for Instructions

Received

SEP 16 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

10901093R



EnerVest Operating, L.L.C.
Eastern Division

1064 Old Route 33, Weston, WV 26452-7722
Phone (304) 517-1102 Fax (304) 517-1107

SENT VIA CERTIFIED US MAIL

September 13, 2013

Heartwood Forestland Fund IV, L.P.
19045 Stone Mountain Road
Abington, VA 24210

Re: Proposed Y&O Coal #107 Re-Work
Slab Fork District, Wyoming County, WV

To Whom It May Concern:

Pursuant to Section 22B-1-9 of the West Virginia Code, enclosed please find copies of the following documents for the subject proposed well:

- Form WW-2A Notice of Application for a Well Work Permit
- Form WW2-B1 Notice To Surface Owners (2 copies)
- Form WW-2A-1 Information Supplied Under WV Code Chapter 22-6-8(d)
- Form WW-2B Application for a well Work Permit (1 copy)
- Well Location Plat Certified Copy of WVDEP Well Location Plat
- Form WW-9 Reclamation Plan and Site Registration Application (1 copy)

This application is being filed by EnerVest with the Administrator of the Office of Oil and Gas of the West Virginia Department of Environmental Protection. If you have no objections to the re-work of this well, please sign the Voluntary Statement of No Objection on Form WW-2A and return one copy to our office in the enclosed envelope.

Comments as to the location construction or the proposed well work may, pursuant to Section 22B-1-10 of West Virginia Code, be filed by you with the said Administrator within fifteen (15) days after the Application is filed by EnerVest. The address of the Administrator for the purpose of filing comments and obtaining additional information is:

Permit Administrator
West Virginia Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, WV 25301

Received

SEP 16 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if such surface tract is to be utilized for road or other land disturbance described in the Erosion and Sediment Control Plan referred to above; and (iii) except as and when not required by the laws of West Virginia and the rules of the West Virginia Department of Mines, any coal operator operating coal seams beneath the oil and gas leasehold upon which said well is or is to be located as well as the owner(s) and lessee(s), if any of such coal seams.

Each person so entitled to file comments, including yourself, may request notice of the permit decision if and when you file comments and may further request that the Administrator furnish you with a list of persons who are capable and qualified to test water supplies.

We remain available should you have any questions regarding this matter.

Sincerely,
EnerVest Operating, L.L.C.



Jerry L. Jackson, CPL
Senior District Landman

Enclosures

cc: File

7007 2680 0002 2646 8833

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OFFICIAL USE

Postage	\$ 1.52
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.17

HORNER
SEP 13 2011
Postmark Here

Sent To Rockhorse Land LLC
Street, Apt. No. or PO Box No. P.O. Box 1169
City, State, ZIP+4 Pikeville, KY 41501-1169

PS Form 3800, August 2006 See Reverse for Instructions

Received

SEP 16 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Wyoming
Operator EnerVest Operating, L.L.C. Operator's Well Number Y&O Coal #107

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator _____ / owner _____ / lessee X / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

_____ Signature	_____ Date	Company Name By Its	<u>Rockhouse Land LLC, by Rhino Energy WV</u> <u>LLC, its Manager</u> <u>Hubert Rhyno Vice President</u> _____ Signature	_____ Date <u>10-1-13</u> Date
--------------------	---------------	------------------------------	--	---

RECEIVED
Office of Oil and Gas
OCT 04 2013
WV Department of
Environmental Protection

10901093 R

WW-2A1
(Rev. 1/11)

Operator's Well Number Y&O Coal #107

**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
EnerVest Energy Funds XII-A, L.P.	EnerVest Operating, L.L.C.	12.5%	462/400
EnerVest Energy Institutional Fund XII-WIB, L.P.			
EnerVest Energy Fund XII-WIC, L.P.			

**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:
By: Its:

EnerVest Operating, L.L.C.	SEP 16 2013
<i>Barry K. King</i>	Sr. VP i. Gm

Office of Oil and Gas
WV Dept. of Environmental Protection

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EnerVest Operating LLC OP Code _____

Watershed (HUC 10) Walt Oliver Branch of Laurel Fork Quadrangle McGraws, WV 7.5'

Elevation 1877 County Wyoming District Slab Fork

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 _____ No x

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- _____ Land Application
- Underground Injection (UIC Permit Number WP-400 (47-109-02703) LC-19 (47-109-01433))
- _____ Reuse (at API Number _____)
- _____ Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Will closed loop system be used? _____

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

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

Additives to be used in drilling medium? _____

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) _____

-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 Barry Lay
Company Official (Typed Name) Barry Lay
Company Official Title Vice President - General Manager

Subscribed and sworn before me this 21st day of August, 20 13

My commission expires May 3, 2017



Form WW-9

Operator's Well No. Y & O 107

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 700 lbs/acre (500 lbs minimum)


Mulch 2 Tons/acre

Seed Mixtures

Seed Type	Area I		Seed Type	Area II	
		lbs/acre			lbs/acre
KY-31		40	Orchard Grass		15
Alsike Clover		10	Alsike Clover		5
Annual Rye		5			
Red Top		2			

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 
Comments: _____

Title: Oil Gas Inspector Date: 9/12/13
Field Reviewed? () Yes () No

Received

SEP 16 2013

AREA INSTRUCTIONS**WELL NO. Y & O 107**

Begin at the intersection of Wyoming County Routes 5 and 1 at Ravenclyff, WV and proceed west on Route 1 .8 mile to a bridge on the left. Cross the bridge and follow the existing route as shown on the attached topo map. There is a gate with a lock that you can acquire a key to from Mr. Tom Honaker at the Ravenclyff office or by calling 1-304-294-6767.

This road is used to access several wells in the area and is in good condition to the proposed activity.

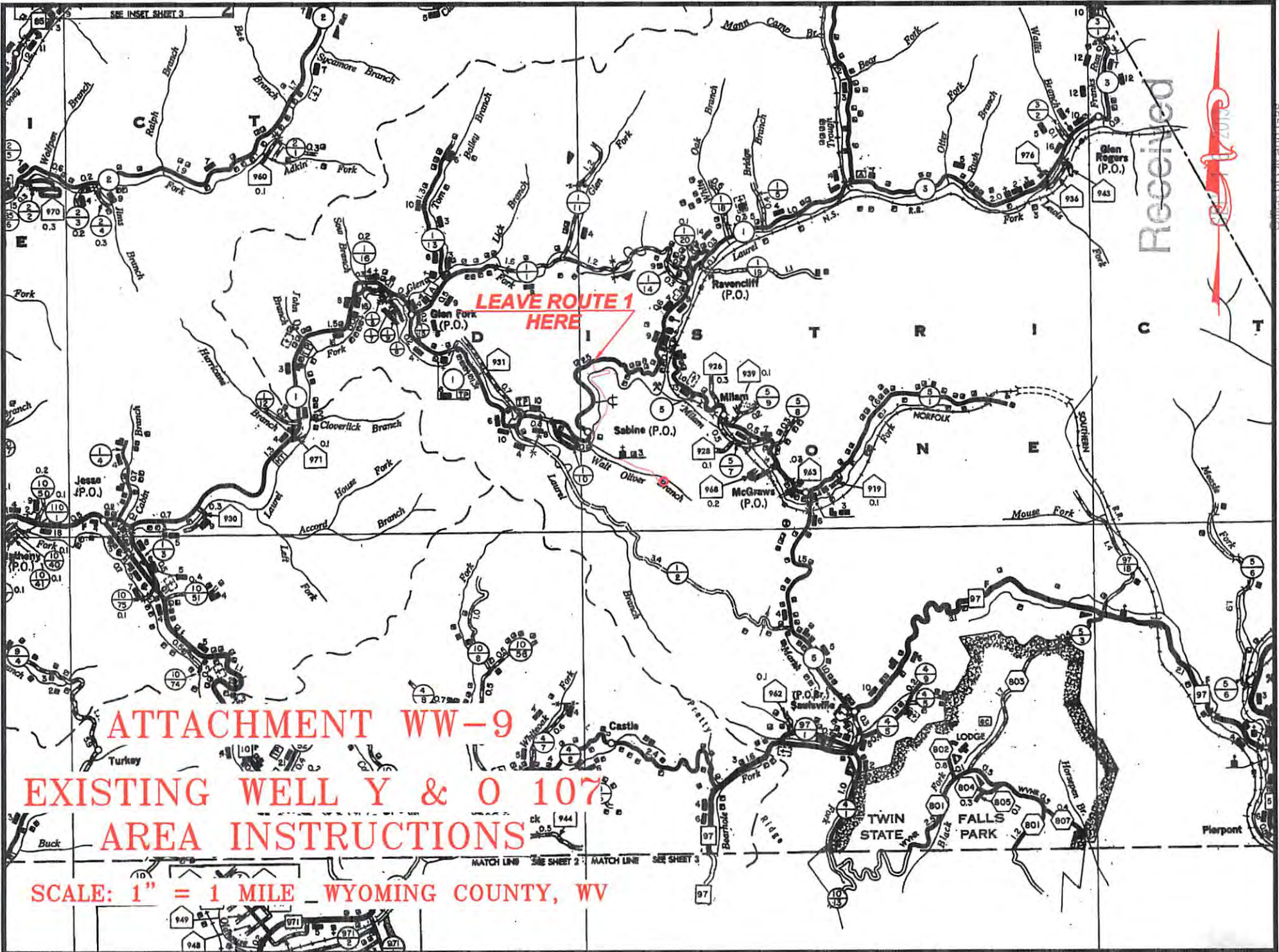
The proposed activity will require grading on the road and clearing the site of grass and some small brush. Excavation to build the site will not be required. Care **MUST** be taken to insure that no material enters the small stream next to the site. The access will not require any more than grading to complete this activity. The road drains well and does not have any significant grades.

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SEP 16 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

10901093R



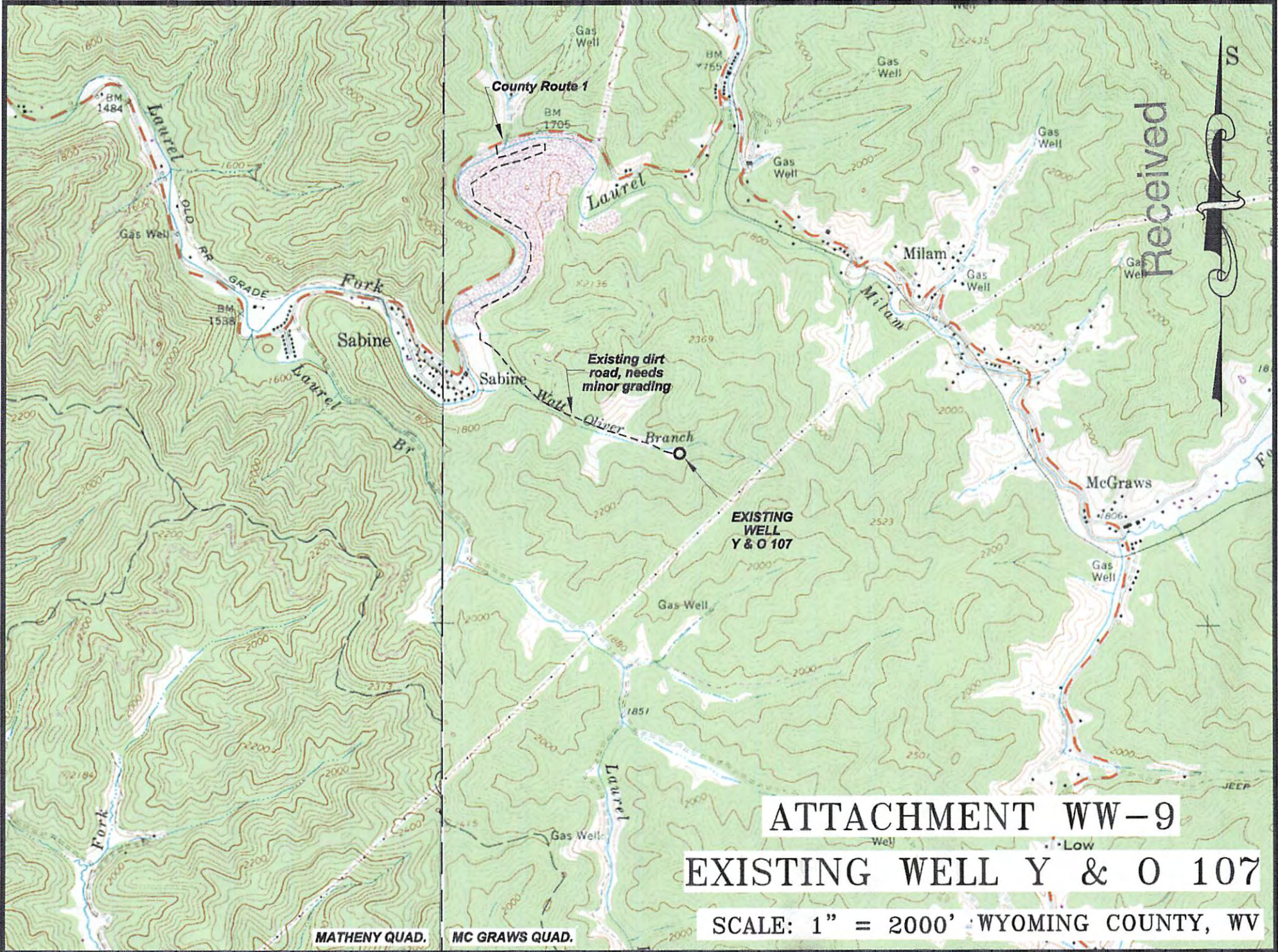
**ATTACHMENT WW-9
EXISTING WELL Y & O 107
AREA INSTRUCTIONS**

SCALE: 1" = 1 MILE - WYOMING COUNTY, WV

Received



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ATTACHMENT WW-9
EXISTING WELL Y & O 107
SCALE: 1" = 2000' WYOMING COUNTY, WV

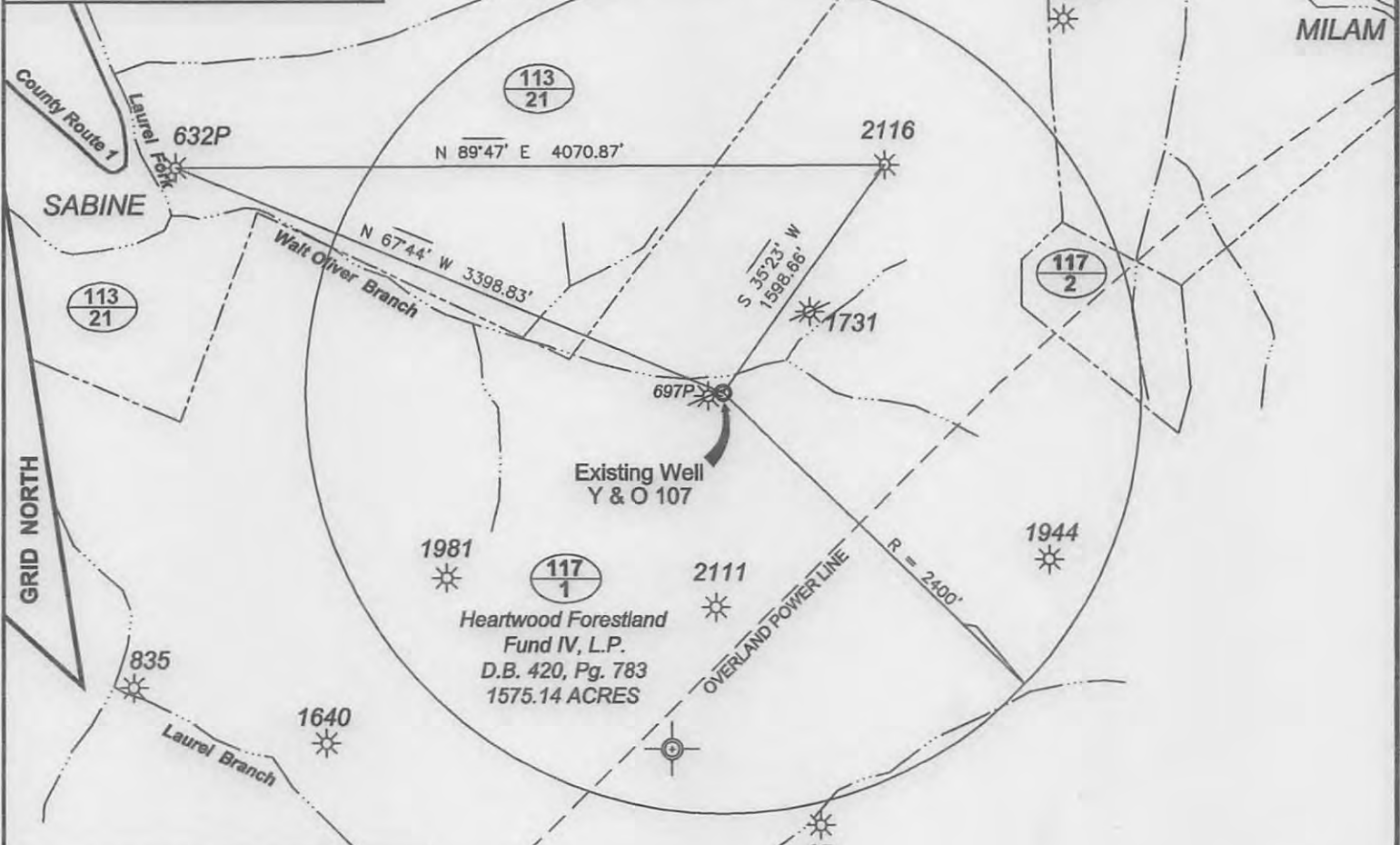
Received

**Existing Well
Y & O 107**

Well site coordinates are:
 N: 245822.4' Latitude: 37°40'26.7"
 E: 1859014.9' Longitude: 81°29'13.6"
 West Virginia
 Coordinate System of 1927, South Zone based upon Differential GPS Measurements.

Plat orientation and well references are based upon the grid north meridian.

UTM, Zone 17, NAD 83 Coordinate
 N: 4169779.09 meters
 E: 457059.40 meters



Ownership	
Coal Owner - West Virginia Mid. Vol., Inc. Coal Lessee - Rockhouse Land, LLC	
Legend	
	Existing Well
	Surface Boundary (Approximate)
	Taxmap/Parcel Number

Ownership

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 Coal Lessee - Rockhouse Land, LLC

Legend

Existing Well

Surface Boundary (Approximate)

Taxmap/Parcel Number

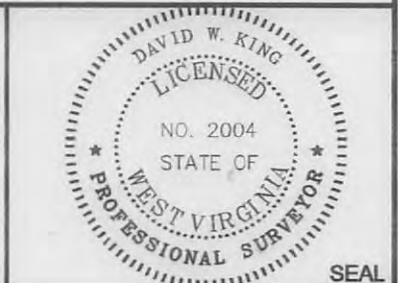
Denotes location of well on United States topographic maps

Note: No known water wells within 1500' of gas well Y & O 107



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 Environmental Protection.

David W. King
 P.S. 2004



FILE NO: 246-22-SF-13
 DRAWING NO: YO-107 PLAT.DWG
 SCALE: 1" = 1000'
 MINIMUM DEGREE OF ACCURACY:
 1:2500
 PROVEN SOURCE OF ELEVATION:
 Existing Well

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

DATE: August 12, 2013
 OPERATOR'S WELL NO. Y & O-107
 API WELL NO.
 47 - 109 - 01093 R
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL OTHER
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1877' WATERSHED: Walt Oliver Branch of Laurel Fork
 QUADRANGLE: Mc Graws 7 1/2' DISTRICT: Slab Fork COUNTY: Wyoming
 SURFACE OWNER: Heartwood Forestland Fund IV, L.P. ACREAGE: 1575.14
 OIL AND GAS ROYALTY OWNER: EnerVest Energy Institutional Fund XII-A, L.P. LEASE NO: ACREAGE: 31559.59
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER 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: Gordon & Ravenclyff ESTIMATED DEPTH: 3660'

WELL OPERATOR: EnerVest Operating Company DESIGNATED AGENT: Barry Lay
 ADDRESS: 300 Capitol Street, Suite 200 ADDRESS: 300 Capitol Street, Suite 200
 Charleston, WV 25301 Charleston, WV 25301