



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

March 17, 2014

WELL WORK PERMIT

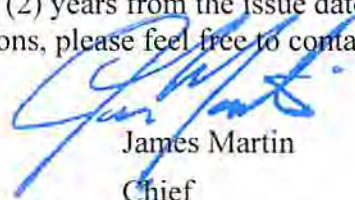
Rework-Secondary Recovery

This permit, API Well Number: 47-3304064, 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: NATHAN GOFF NO. 59
Farm Name: JOHNSON, WM. R. & PAMELA
API Well Number: 47-3304064
Permit Type: Rework-Secondary Recovery
Date Issued: 03/17/2014

Promoting a healthy environment.

03/21/2014

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. 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 of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

3304064SR

Well Operator's Report of Well Work

Farm name: MYERS, ROXANNA M. Operator Well No.: NATHAN GOFF #59

LOCATION: Elevation: 1,037.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 100 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 7900 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 10/07/94
Well work Commenced: 11/06/94
Well work Completed: 12/23/94
Verbal Plugging _____
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2771'
Fresh water depths (ft) 225'

Salt water depths (ft) none
encountered.

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	398'	398'	130 sks.
4-1/2"	2740.5'	2740.5'	460 sks.

OPEN FLOW DATA * Water Injection Well

Producing formation Fifth Sand Pay zone depth (ft) 2645'-2665'
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

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.

For: PENNZOIL PRODUCTS COMPANY
By: [Signature]
Date: 1-12-94

Completion Record

Perforated - Fifth Sand from 2652'-2654'
Treated with 300 gal. 15% HCL, 152 Bbls. gelled water & 5000# 20/40 sand.

Well Log

Shaley Sand	0' - 150'
Sandy Shale	150' - 310'
Pittsburgh Coal	310' - 316'
Sandy Shale	316' - 405'
Shale	405' - 740'
Sand	740' - 770'
Shale	770' - 810'
Sand	810' - 880'
Shale	880' - 910'
Sand	910' - 955'
Shale	955' - 1000'
Sand	1000' - 1100'
Shale	1100' - 1240'
Sand	1240' - 1365'
Shale	1365' - 1400'
Sandy Shale	1400' - 1665'
Limestone (Big Lime)	1665' - 1785'
Sand (Big Injun)	1785' - 1805'
Shale	1805' - 2235'
Sand (Fifty foot)	2235' - 2250'
Shale	2250' - 2370'
Shaky Sand (Gordon)	2370' - 2500'
Shale	2500' - 2645'
Sand (Fifth)	2645' - 2665'
Shale	2665' - 2771'
T.D.	2771'

Shaley

33040645R
: 1

5229 0206 1000 0692 E107

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PARKERSBURG, WV
FEB 26 2014
NG-59

Sent to	American Mountaineer Energy, Inc
Street, Apt. No., or PO Box No.	Rt. 2, Box 406
City, State, ZIP+4	Clarksburg WV 26301

PS Form 3800, August 2006 See Reverse for Instructions

Received
FEB 26 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

03/21/2014



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 JAN 16 2014
 NG 59

Sent To William & Pam Johnson ✓
 Street, Apt. No.; or PO Box No. Rt 4, Box 1000
 City, State, ZIP+4 Salem WV 26426

PS Form 3800, August 2006 See Reverse for Instructions

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Total Postage & Fees	\$ 6.97

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 PARKERSBURG, WV
 JAN 16 2014
 NG 59

Sent To American Mountaineer Energy, Inc.
 Street, Apt. No.; or PO Box No. Rt 2, Box 406
 City, State, ZIP+4 Clarksburg WV 26505

PS Form 3800, August 2006 See Reverse for Instructions

WW-2B1

Well No. Nathan Goff No. 59

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

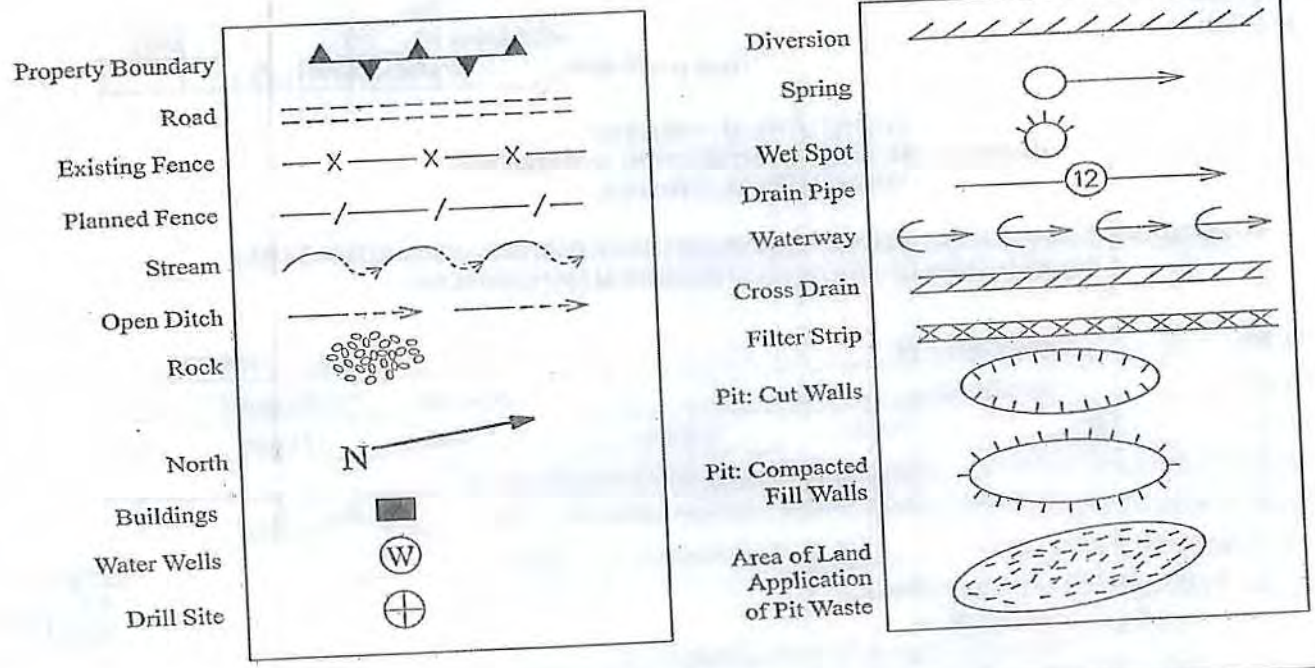
Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101

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.

No known Water Supply Sources are located within 2000' of proposed well.

Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 0.5 Ac. Prevegetation pH _____
Area II Approx. 0.3 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	<u>40</u>	Tall Fescue	<u>40</u>
Ladino Clover	<u>5</u>	Ladino Clover	<u>5</u>

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

Plan approved by: S. P. Warrick
 Comments: Seeds + mulch all disturbed areas. Upgrade ETS as necessary
 Title: Oil & Gas Inspector Date: 7/25/2014

Field Reviewed? Yes No

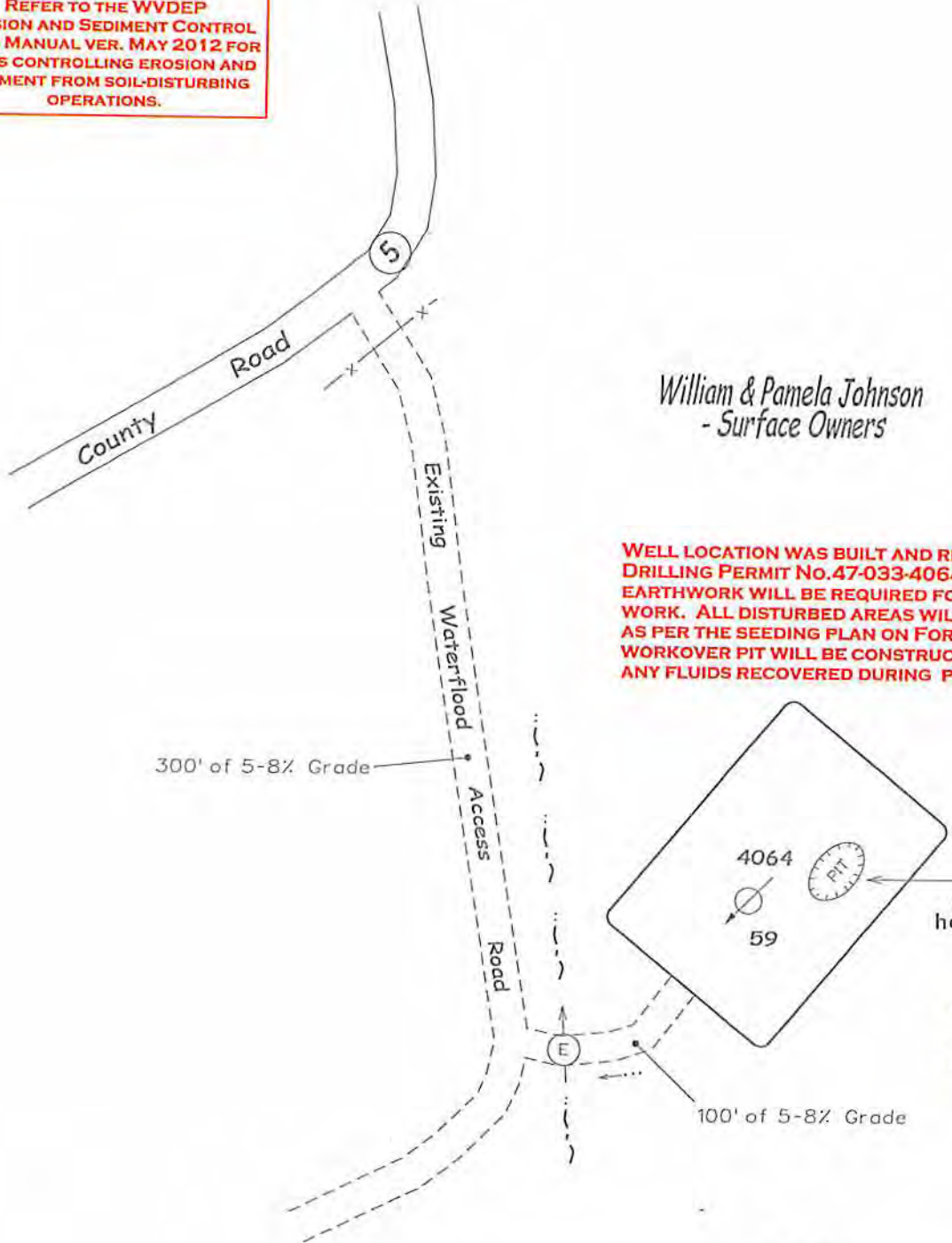
Reclamation Plan For: Nathan Goff No. 59

47-033-4064

Frac Permit 1/13/2014



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



*William & Pamela Johnson
- Surface Owners*

WELL LOCATION WAS BUILT AND RECLAIMED UNDER DRILLING PERMIT No. 47-033-4064. ONLY MINIMAL EARTHWORK WILL BE REQUIRED FOR PROPOSED WELL WORK. ALL DISTURBED AREAS WILL BE RE-VEGETATED AS PER THE SEEDING PLAN ON FORM WW-9. A SMALL WORKOVER PIT WILL BE CONSTRUCTED TO CONTAIN ANY FLUIDS RECOVERED DURING PROPOSED WELL WORK.

NOTE:
Pit fluids will be hauled for disposal

*SDW
2/23/2014*

Notes:

- Requested permit is for re-frac of existing well.
- Location and access roads from Co. Rd. 5 to the well are existing. Structures shown will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Sediment barriers and drainage structures will be installed.
- All road grades <5% except as noted.

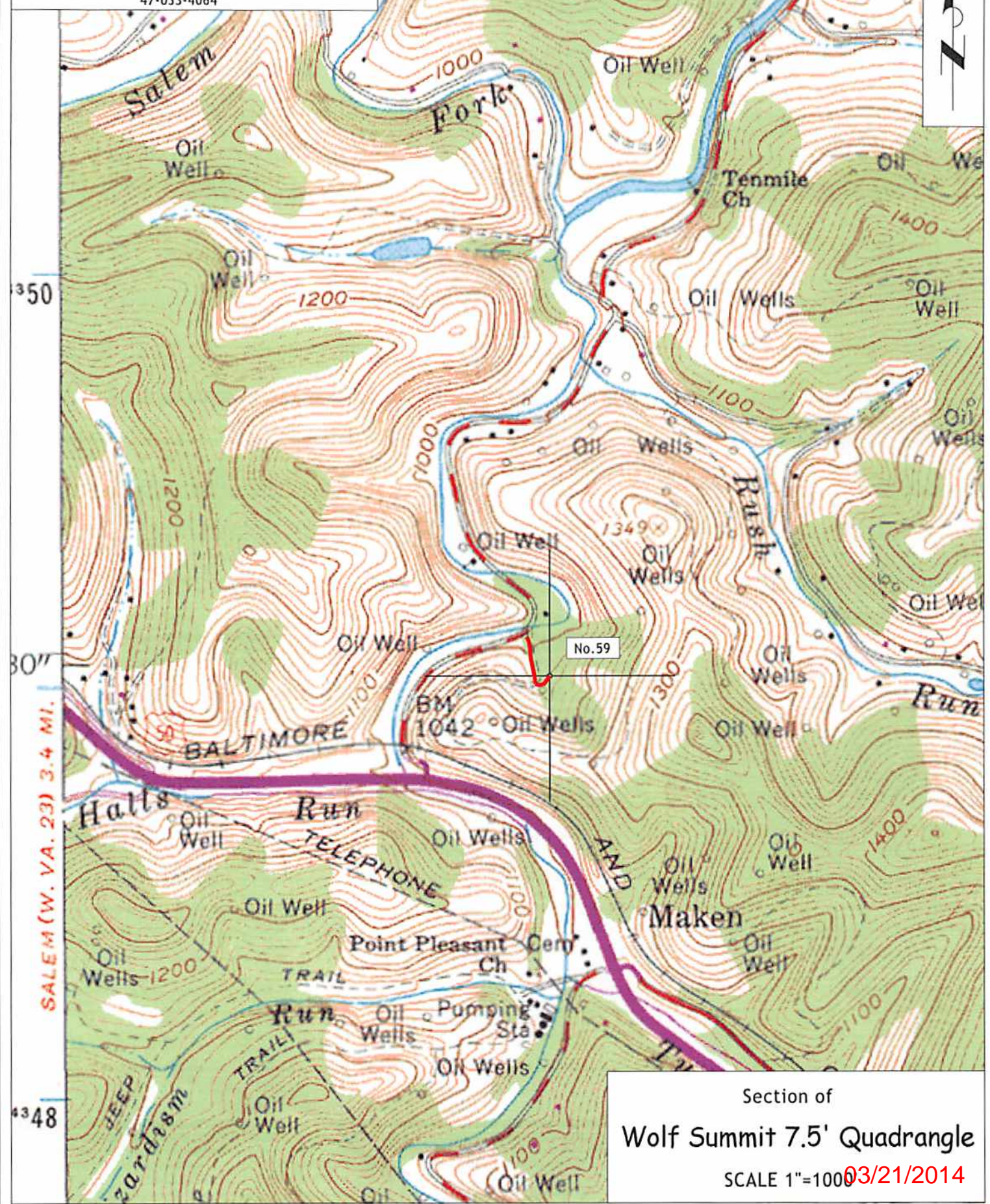
- Existing Culvert

Note: Drawing not to Scale

03/21/2014

SUBJECT WELL Nathan Goff No.59

47-033-4064



350

300

48

SALEM (W. VA. 23) 3.4 MI.

Section of
Wolf Summit 7.5' Quadrangle

SCALE 1"=1000 03/21/2014

Longitude = 80° 29' 10.2"

7,875'

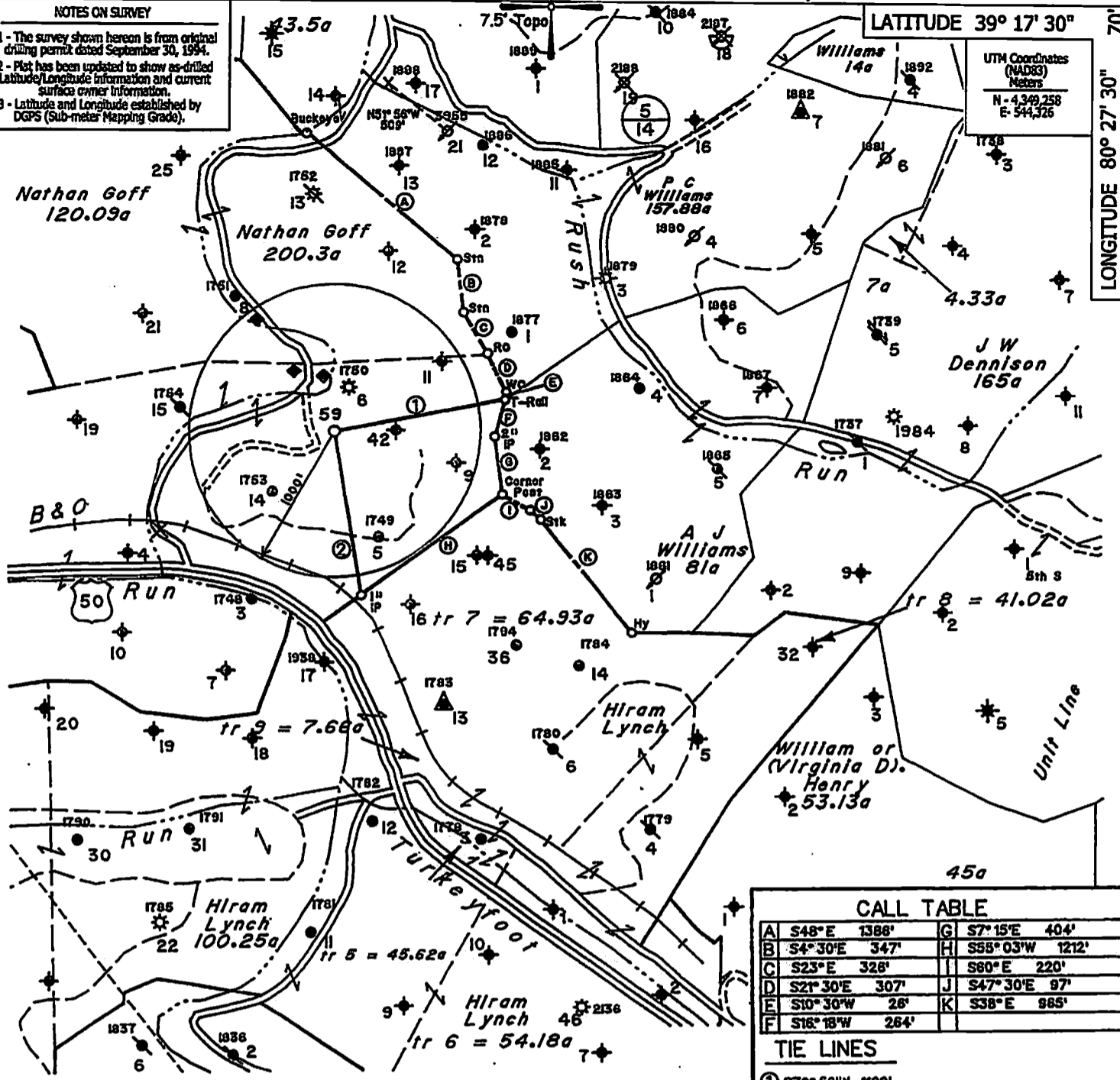
LATITUDE 39° 17' 30"

LONGITUDE 80° 27' 30" Latitude = 39° 17' 29.3"

NOTES ON SURVEY

- 1 - The survey shown hereon is from original drilling permit dated September 30, 1994.
- 2 - Plat has been updated to show as-drilled Latitude/Longitude information and current surface owner information.
- 3 - Latitude and Longitude established by DGPS (Sub-meter Mapping Grade).

UTM Coordinates (NAD83) Meters
 N - 4 349 258
 E - 544 326



CALL TABLE		
A	S48°E 1386'	G S7°15'E 404'
B	S4°30'E 347'	H S58°03'W 1212'
C	S23°E 328'	I S80°E 220'
D	S21°30'E 307'	J S47°30'E 97'
E	S10°30'W 28'	K S38°E 885'
F	S18°18'W 264'	

TIE LINES

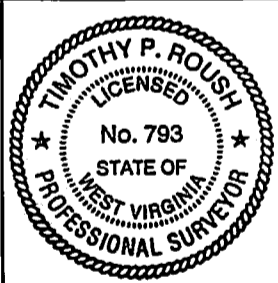
- ① S79°58'W 1192'
- ② N7°50'W 1151'

- DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. _____
 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



DATE January 13, 2014
 FARM Nathan Goff No.59
 API WELL NO. 47 - 033 - 04064 **WKS**

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 1,037' WATERSHED Tenmile Creek
 DISTRICT Tenmile COUNTY Harrison
 QUADRANGLE Wolf Summit 7.5'
 SURFACE OWNER Wm. R. & Pamela Johnson ACREAGE 91.19 Ac.
 OIL & GAS ROYALTY OWNER HG Energy, LLC, et al LEASE ACREAGE 924 Ac. **03/21/2014**
 LEASE NO. 74512-50

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 Fifth Sand ESTIMATED DEPTH 2,771'

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

FORM IV-6



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

33040645R

Check # 2520
\$1,650.00

January 14, 2014

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

RE: Nathan Goff No. 59 (47-033-4064)
Tenmile District, Harrison County
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, Mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate the above-captioned 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: William & Pam Johnson – Certified
American Mountaineer Energy, Inc. - Certified
Sam Ward - Inspector

RECEIVED
Office of Oil and Gas

FEB 24 2014

WV Department of
Environmental Protection

03/21/2014