



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 25, 2013

WELL WORK PERMIT

Rework-Secondary Recovery

This permit, API Well Number: 47-10301544, 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: H. NOLAN NO. M-17
Farm Name: WV PUBLIC LAND CORP.
API Well Number: 47-10301544
Permit Type: Rework-Secondary Recovery
Date Issued: 10/25/2013

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. 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.
8. If well work related activities require the use of water obtained by withdrawals from waters of this state in amounts that exceed two hundred ten thousand gallons during any thirty day period, the operator is required to consult, and adhere to, the guidance provided by DEP's Water Withdrawal Guidance Tool prior to any water withdrawals.

10-may-93
API # 47-103-01544 S

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

Well Operator's Report of Well Work

Farm name: WVA. PUBLIC LAND CORP. Operator Well No.: H. NOLAND M-17

LOCATION: Elevation: 1,000.00 Quadrangle: CENTER POINT

District: GREEN County: WETZEL
Latitude: 6250 Feet South of 39 Deg. 30Min.
Longitude 1900 Feet West of 80 Deg. 40 Min. Sec. Sec.

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

Agent: JAMES A. CREWS

Inspector: RANDAL MICK
Permit Issued: 05/12/93
Well work Commenced: 9/14/93
Well work Completed: 10/16/93
Verbal Plugging _____
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3050
Fresh water depths (ft) N/A
Salt water depths (ft) N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8	256	256	100 Skts.
4 1/2	2979.00	2979.00	300 Skts.

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

OPEN FLOW DATA

Producing formation Gordon Pay zone depth (ft) 2868 - 2930
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
* Water Injection Well
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. OF 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: 12/6/93

RECEIVED
Office of Oil and Gas
SEP 22 2013
WV Department of Environmental Protection
WV Department of Environmental Protection

TREATMENT:

Perforated: 2893 - 2896 6 Holes
 2900 - 2910 20 Holes

Treated: 300 Gal. 15% HCL Acid, 281 Bbl. Gelled Water &
 1900# 80/100 Sand & 3700# 20/40 Sand

WELL LOG:

Sand & Shale	0 - 535
Sand	535 - 562
Shale	562 - 650
Sand	650 - 700
Sand & Shale	700 - 1130
Sand	1130 - 1240
Sand & Shale	1240 - 1430
Sand	1430 - 1460
Shale	1460 - 1500
Sand	1500 - 1540
Sand & Shale	1540 - 2030
Little Lime	2030 - 2044
Pencil Cave	2044 - 2053
Big Lime	2053 - 2120
Shale	2120 - 2150
Big Injun	2150 - 2300
Shale	2300 - 2868
Stray	2868 - 2873
Gordon	2873 - 2930
T.D.	3050

Received

SEP 23 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

WW-3A
10/07



1) Date: August 13, 2013

2) Operator's Well No. Henry Nolan No. M-17

3) API Well No. 47 103 - 1544

State County Permit

4) UIC Permit No. UIC2R09501AP

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 WV Public Lands Corporati
 Address Charleston, WV 25305
Charleston, WV 25305

(b) Name _____
 Address _____

(c) Name _____
 Address _____

6) Inspector Derek Haught
 Address P. O. Box 85
Smithfield, WV 26178
 Telephone 304-206-7613

7 (a) Coal Operator
 Name NA
 Address _____

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

Name _____
 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 _____

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
Office of Oil and Gas

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

By: Diane C. White
 Its: Accountant

SEP 28 2013

Signature Diane C 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: depprivacyofficer@wv.gov

WW-2B1

Well No. Henry Nolan No. M-17

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

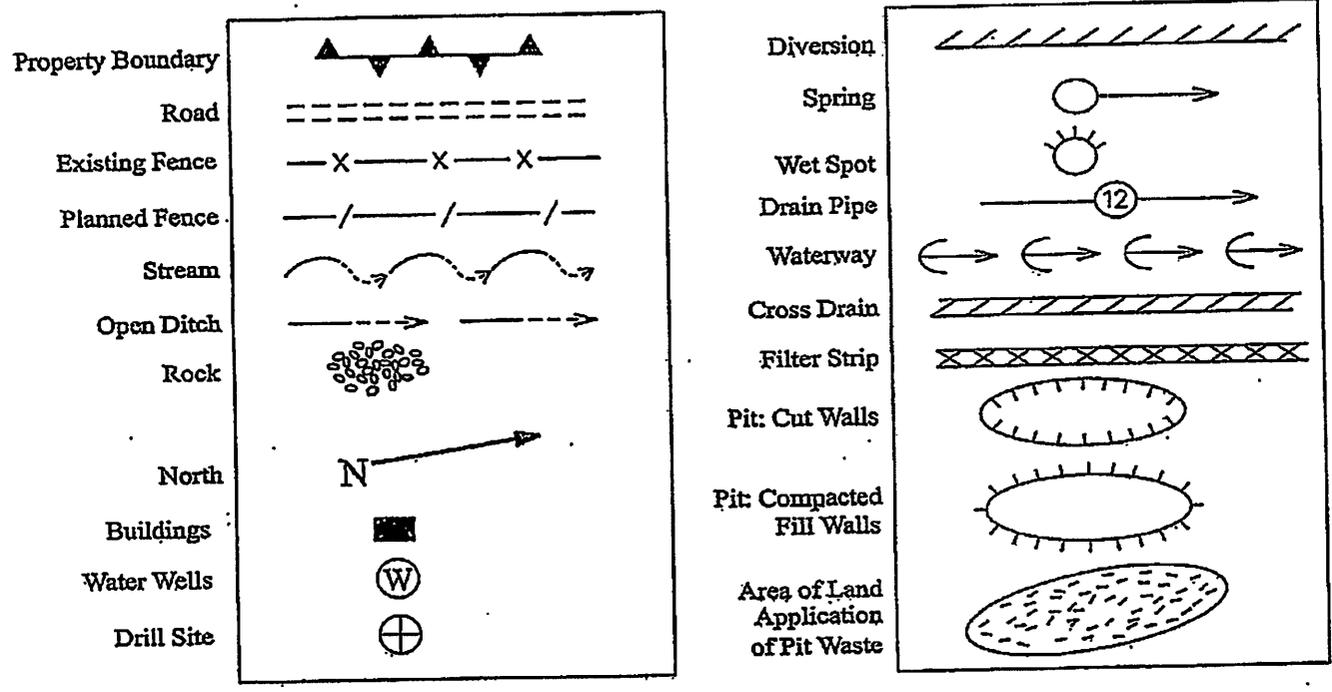
Telephone 304-420-1119

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.

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Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

Legend



Area I
 Proposed Revegetation Treatment: Acres Disturbed Approx. 1.0 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>	
Seed Type	Lbs./Ac.
Tall Fescue	<u>40</u>
Ladino Clover	<u>5</u>

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

Received

SEP 23 2013
 Office of Oil and Gas
 Wyo Dept. of Environmental Protection

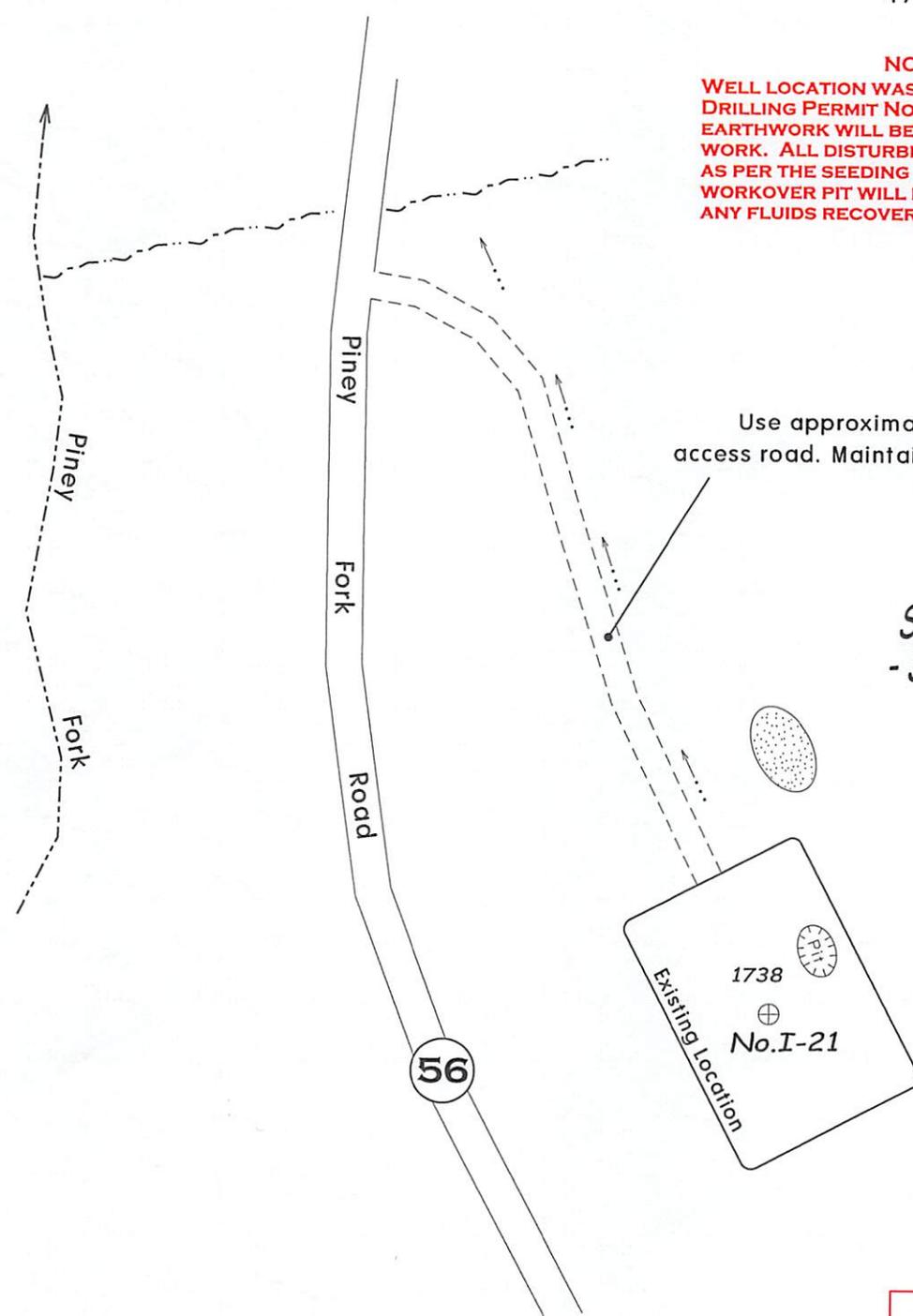
Plan approved by:
 Comments:

Title: Oil + Gas Inspector Date: 8-15-12

Field Reviewed? Yes No

Reclamation Plan For: Henry Noland No.M-17

47-103-1544



NOTE:
 WELL LOCATION WAS BUILT AND RECLAIMED UNDER DRILLING PERMIT No.47-103-1544. 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.

Use approximately 400' of existing access road. Maintain all drainage structures.

*State of W.Va.
 - Surface Owner*

RECEIVED
 Office of Oil and Gas
 SEP 28 2013
 WV Department of
 Environmental Protection

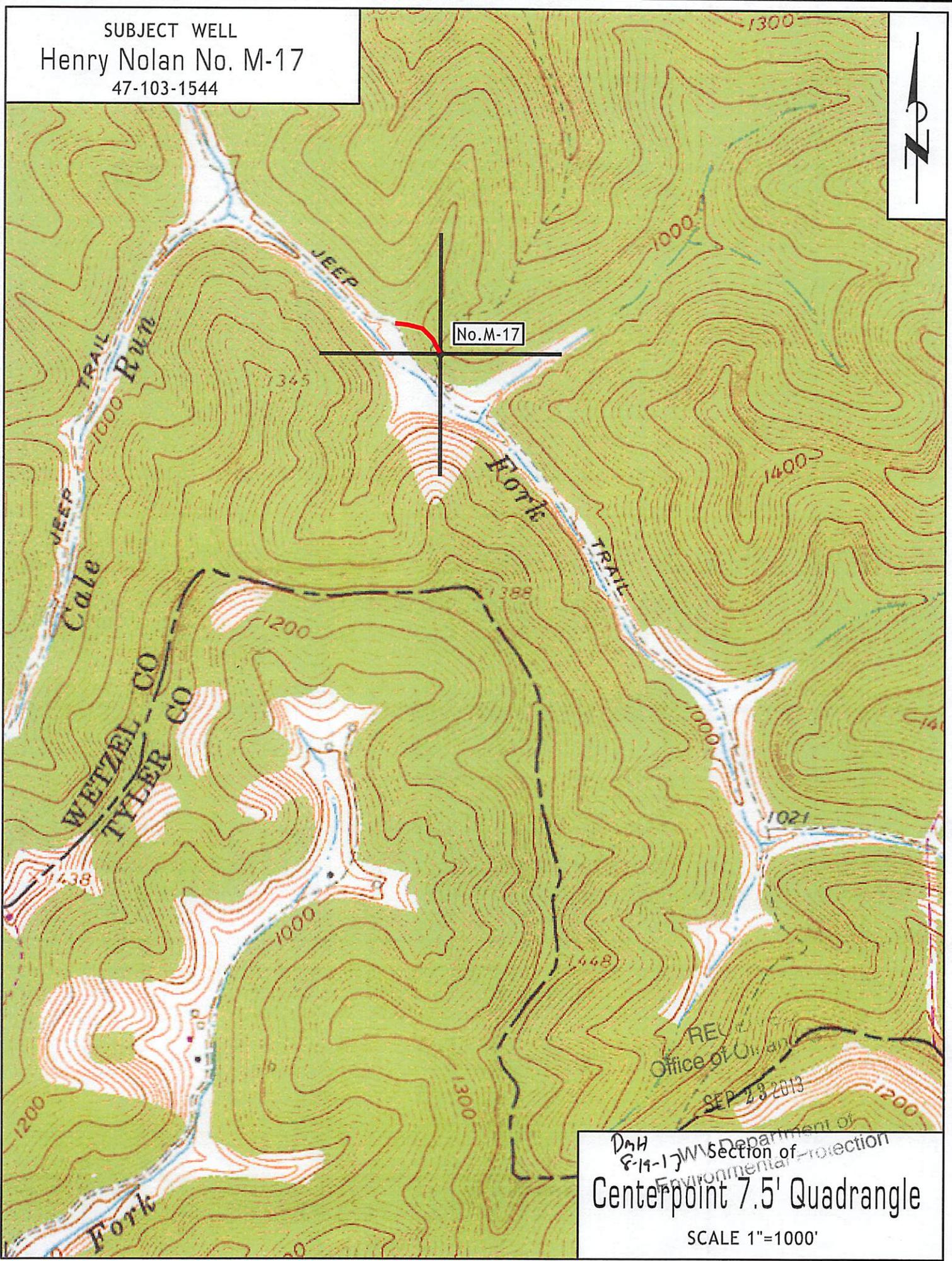
*DAH
 8/19/17*

Notes:

- Requested permit is for workover of existing well.
- Access from County Road to well location is existing. Structures will be maintained.
- 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 work-over pit may be changed based on as-built considerations.

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

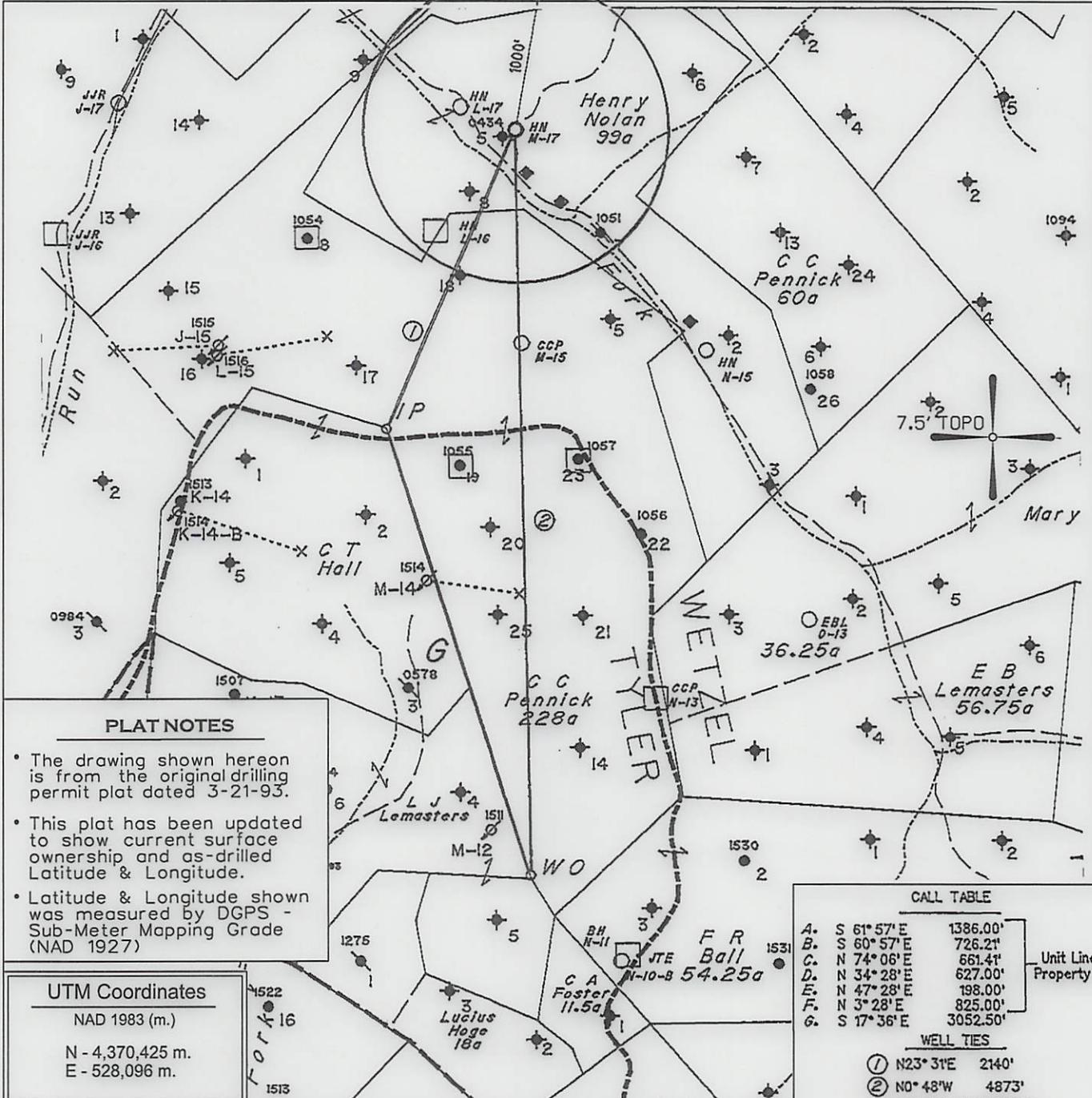
SUBJECT WELL
Henry Nolan No. M-17
47-103-1544



REC
Office of Grant
SEP 23 2013

DWH
8-19-13
Department of
Environmental Protection
Centerpoint 7.5' Quadrangle

SCALE 1"=1000'



PLAT NOTES

- The drawing shown hereon is from the original drilling permit plat dated 3-21-93.
- This plat has been updated to show current surface ownership and as-drilled Latitude & Longitude.
- Latitude & Longitude shown was measured by DGPS - Sub-Meter Mapping Grade (NAD 1927)

UTM Coordinates

NAD 1983 (m.)
 N - 4,370,425 m.
 E - 528,096 m.

CALL TABLE

A.	S 61° 57' E	1386.00'
B.	S 60° 57' E	726.21'
C.	N 74° 06' E	661.41'
D.	N 34° 28' E	627.00'
E.	N 47° 28' E	198.00'
F.	N 3° 28' E	825.00'
G.	S 17° 36' E	3052.50'

WELL TIES

- ① N23° 31'E 2140'
- ② N0° 48'W 4873'

LOCATION REFERENCES

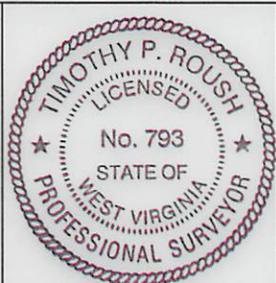
Existing Well

— 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*
 TIMOTHY P. ROUSH PS 793



WEST VIRGINIA
 Division of Environmental Protection
 Office of Oil and Gas
 601 57th Street
 Charleston, West Virginia 25304



DATE August 7, 2013
 FARM Henry Nolan No. M-17
 API WELL NO. 47-103-015445

WELL TYPE: OIL _____ GAS _____ LIQUID INJECTION WASTE DISPOSAL _____
 (IF "GAS") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
 LOCATION: ELEVATION 1,000" WATERSHED Piney Fork
 DISTRICT Green COUNTY Wetzell
 QUADRANGLE Centerpoint 7.5'
 SURFACE OWNER State of West Virginia ACREAGE 28.5 Ac.
 OIL & GAS ROYALTY OWNER HG Energy LLC et al LEASE ACREAGE 160 Ac.
 LEASE NO. 24422-50
 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 Gordon ESTIMATED DEPTH 3,050'
 WELL OPERATOR HG Energy, LLC DESIGNATED AGENT Mike Kirsch
 ADDRESS 5260 Dupont Road ADDRESS 5260 Dupont Road
 Parkersburg, WV 26101 Parkersburg, WV 26101



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

CK #2346 103015445
650⁰⁰

August 13, 2013

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

RE: Henry Nolan No. M-17 (API 47-103-1544)
Green District, Wetzel County
West Virginia

Dear Mr. McLaughlin:

Enclosed are the Forms WW-3A, WW-3B, WW-9, WW-2(B1), mylar of plat, reclamation plan, topo map and copy of the certified mailing receipt for a permit to stimulate the above-captioned injection well. Our check in the amount of \$650 is attached.

If you have any questions regarding this application, please call me at 304-420-1119 or email at dwhite@hgenergyllc.com.

Very truly yours,

Diane C White

Diane C. White

Enclosures

cc: WV Public Lands Corporation – Certified
Derek Haught - Inspector

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SEP 23 2013

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