



**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

May 05, 2015

**WELL WORK PERMIT**  
**Rework-Secondary Recovery**

This permit, API Well Number: 47-3304070, 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 62  
Farm Name: MYERS, ROXANNA M., ETAL  
**API Well Number: 47-3304070**  
**Permit Type: Rework-Secondary Recovery**  
Date Issued: 05/05/2015

## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with 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. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

3304070 SW

FORM WW-3 (B)  
1/12



1) Date: 02/24/2015  
2) Operator's Well No. Nathan Goff 62  
3) API Well No.: 47 - Harrison - 4070  
State County Permit  
4) UIC Permit No. UIC2R03301AP

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: 1193' Watershed: Tenmile Creek  
District: Tenmile County Harrison Quadrangle Wolf Summit 7.5'  
7) WELL OPERATOR: HG Energy, LLC 8) DESIGNATED AGENT Diane White  
Address 5260 Dupont Road Address 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101  
9) OIL & GAS INSPECTOR TO BE NOTIFIED 10) DRILLING CONTRACTOR  
Name Sam Ward Name To Be Determined Upon Approval of Permit  
Address P. O. Box 2327 Address \_\_\_\_\_  
Buckhannon, WV 26201

11) PROPOSED WELL WORK Drill  / Drill deeper  / Redrill  / Stimulate   
Plug off old formation  / Perforate new formation  / Convert   
Other physical change in well (specify) \_\_\_\_\_

12) GEOLOGIC TARGET FORMATION Fifth Sand Depth 2824 Feet (top) to 2842 Feet (bottom)

13) Estimated Depth of Completed Well, (or actual depth of existing well): 2940 Feet

14) Approximate water strata depths: Fresh NA Feet Salt NA Feet

15) Approximate coal seam depths: NA

16) Is coal being mined in the area? Yes \_\_\_\_\_ No \_\_\_\_\_

17) Virgin reservoir pressure in target formation 60 psig Source Estimated

18) Estimated reservoir fracture pressure 1200 psig (BHFP)

19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 bbl/hr Bottom hole pressure 2400 psi

20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES Fresh water, produced  
water, bactericides and other chemicals as needed to maintain water quality and improve oil recovery.

21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters

22) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL \_\_\_\_\_

23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL -UP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For Drilling	Left In Well		
Conductor									Kinds
Fresh Water	8 5/8"	LS	20#			570'	570'	Existing	
Coal									Sizes
Intermediate									
Production	4 1/2"	J-55	10.5#			2918'	2918'	Existing	Depths set
Tubing									
Liners									Perforations
									Top Bottom

24) APPLICANT'S OPERATING RIGHTS were acquired from Guy D. Goff et al  
by deed \_\_\_\_\_ / lease X / other contract Received dated 02/24/2015 Sept. 11, 1898 of record in the  
Harrison County Clerk's office in Lease Book 326 Page 274

MAR 18 2015

SPW  
2/10/15

RECEIVED  
WV Division of  
Environmental Protection

APR 15 1996

Permitting  
Office of Oil & Gas

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

Well Operator's Report of Well Work

7,700' 3304070SW

17-Oct-94  
API # 47-033-4070

MAY 8 1996

Farm name: MYERS, ROXANNA M. ETAL

Operator Well No.: NATHAN GOFF #62

LOCATION: Elevation: 1,193'  
District: TENMILE  
Latitude: 13,900 Feet south of  
Longitude: 7,700 Feet west of

Quadrangle: WOLF SUMMIT  
County: HARRISON  
39 Deg 20 Min 0 Sec.  
80 Deg 27 Min 30 Sec.

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

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT

Permit Issued: -10/17/94

Well work Commenced: 11/9/94

Well work Completed: 4/5/95

Verbal plugging

permission granted on:

Rotary X Cable          Rig         

Total Depth (feet) 2,954'

Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N

Coal Depths (ft):         

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8	570'	570'	185 SKS
4 1/2"	2918.35'	2918.35'	450 SKS
Received			
MAR 18 2015			

OPEN FLOW DATA

\* Water Producer

Office of Oil and Gas  
WV Dept. of Environmental Protection

Producing formation Fifth Sand Pay zone depth (ft) 2824'-2842'  
 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: 4/12/96

HAR 4070

05/08/2015

**Treatment :** Perforated Fifth Sand 2832-2834 (12 Holes) Treated Via 4 1/2" CSG  
300 gal 15% HCl Acid, 146 BBL gelled water & 5000 lb 20/40 Sand.

**Well Log :**

Sand & Shale	0	-	1505'
Sand	1505'	-	1549'
Shale	1549'	-	1746'
Sand	1746'	-	1823'
Sand & Shale	1823'	-	1950'
Sand	1950'	-	1975'
Shale	1975'	-	2407'
Sand	2407'	-	2418'
Shale	2418'	-	2500'
Sand	2500'	-	2529'
Sand & Shale	2529'	-	2585'
Sand	2585'	-	2607'
Shale	2607'	-	2614'
Sand	2614'	-	2663'
Sand & Shale	2663'	-	2824'
Fifth Sand	2824'	-	2842'
T.D.	2954'		

05/08/2015

33040705W

CK# 2955  
\$650<sup>00</sup>

FORM WW-3 (A)  
1/12



1) Date: February 24, 2015  
2) Operator's Well No. Nathan Goff 62  
3) API Well No.: 47 - 033 - 4070  
State County Permit  
4) UIC Permit No. UIC2R03301AP

STATE OF WEST VIRGINIA  
NOTICE OF LIQUID INJECTION OF 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 William R. Johnson  
Address RR 4, Box 1000  
Salem, WV 26426  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Sam Ward  
Address P. O. Box 2327  
Buckhannon, WV 26201  
Telephone 304-389-7583  
7) (a) Coal Operator  
Name Murray Energy  
Address 46226 National Road  
St Clairsville, OH 43950  
7) (b) Coal Owner(S) With Declaration Of Record  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
7) (c) Coal Lessee with Declaration Of Record  
Name \_\_\_\_\_  
Address \_\_\_\_\_

TO THE PERSONS 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 \_\_\_\_\_ 20 15 .

THE REASON YOU HAVE RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION [(FORM WW-3(B))] DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE 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.

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 White  
Its: Agent  
Signature: Diane White

MAR 18 2015

3304070SW

7014 0510 0000 4074 9178

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Postmark Here

NG62

Sent To: Murray Energy  
 Street, Apt. No., or PO Box No.: 46226 National Road  
 City, State, ZIP+4: St Clairsville OH 43950

PS Form 3800, August 2006 See Reverse for Instructions

7014 0510 0000 4074 9123

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**OFFICIAL USE**

Postage	\$ 1.61
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>

Postmark Here

NG62

Sent To: William R Johnson  
 Street, Apt. No., or PO Box No.: RR 4, Box 1000  
 City, State, ZIP+4: Salem WV 26426

PS Form 3800, August 2006 See Reverse for Instructions

Received

MAR 18 2015

Office of Oil and Gas  
WV Dept. of Environmental Protection

05/08/2015

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 Name HG Energy, LLC OP Code 494497948

Watershed Tenmile Creek Quadrangle Wolf Summit 7.5'

Elevation 1193' County Harrison District Tenmile

Description of anticipated Pit Waste: Fluids encountered while stimulating subject well

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

Will a synthetic liner be used in the pit? Yes \_\_\_\_\_ If so, what mil.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- 4070  Other (Explain \_\_\_\_\_ )

SDW  
2/11/15

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

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

Additives to be used? Water, Soap, KCl

Will closed loop system be used? No

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

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust Native soil, cement, lime and 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.

Received

Company Official Signature Diane White

MAR 18 2015

Company Official (Typed Name) Diane White

Company Official Title Agent

Office of Oil and Gas  
WV Dept. of Environmental Protection

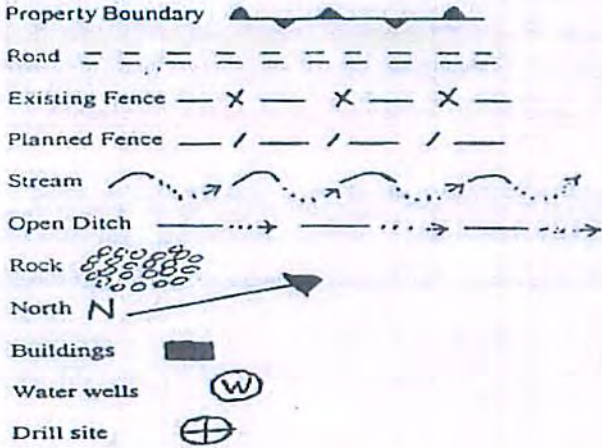
Subscribed and sworn before me this 24rd day of February

2015

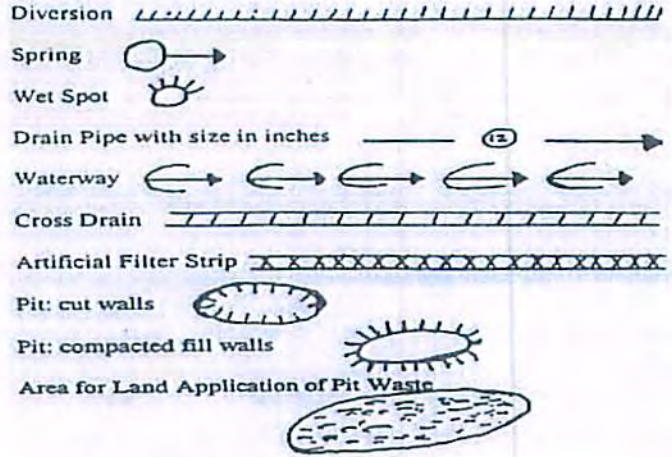
[Signature]  
My commission expires Oct. 4, 2016







LEGEND



Proposed Revegetation Treatment: Acres Disturbed .3 acres Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

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

Mulch Straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
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.

**\*\*Sediment Control in place at all times\*\***

Plan Approved by: S. D. Warrick

Received

Comments: \_\_\_\_\_

MAR 18 2015

Title: OOG Inspector

Date: 2/10/15

Office of Oil and Gas  
WV Dept. of Environmental Protection

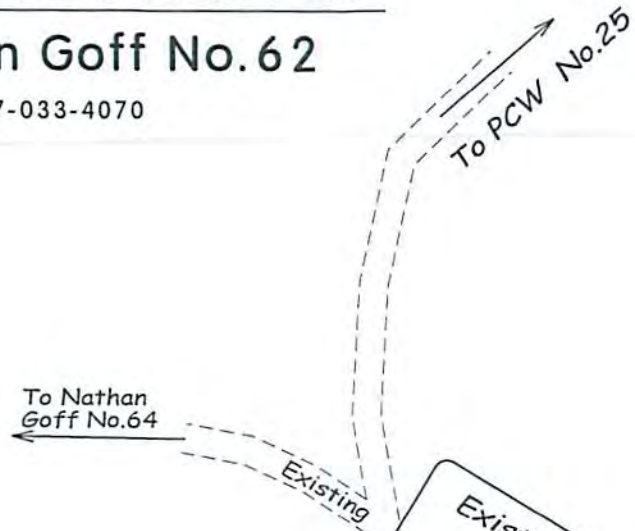
Field Reviewed? ( ) Yes ( X ) No

3304070SW

# Reclamation Plan For: Nathan Goff No.62

47-033-4070

## Frac Permit 2/19/2015



*William R. Johnson  
- Surface Owner*

*S Dew  
2-16/15*

**Received**

MAR 18 2015

Office of Oil and Gas  
WV Dept. of Environmental Protection

**NOTE:**  
This permit is to fracture an existing well. No new construction will be needed. All structures shown are existing and will be maintained.

Existing Vegetative Filter Strip

(See Attached Detail for Access Road to County Road)

### Nathan Goff Lease

0.8 Mi. to  
SLS (5)

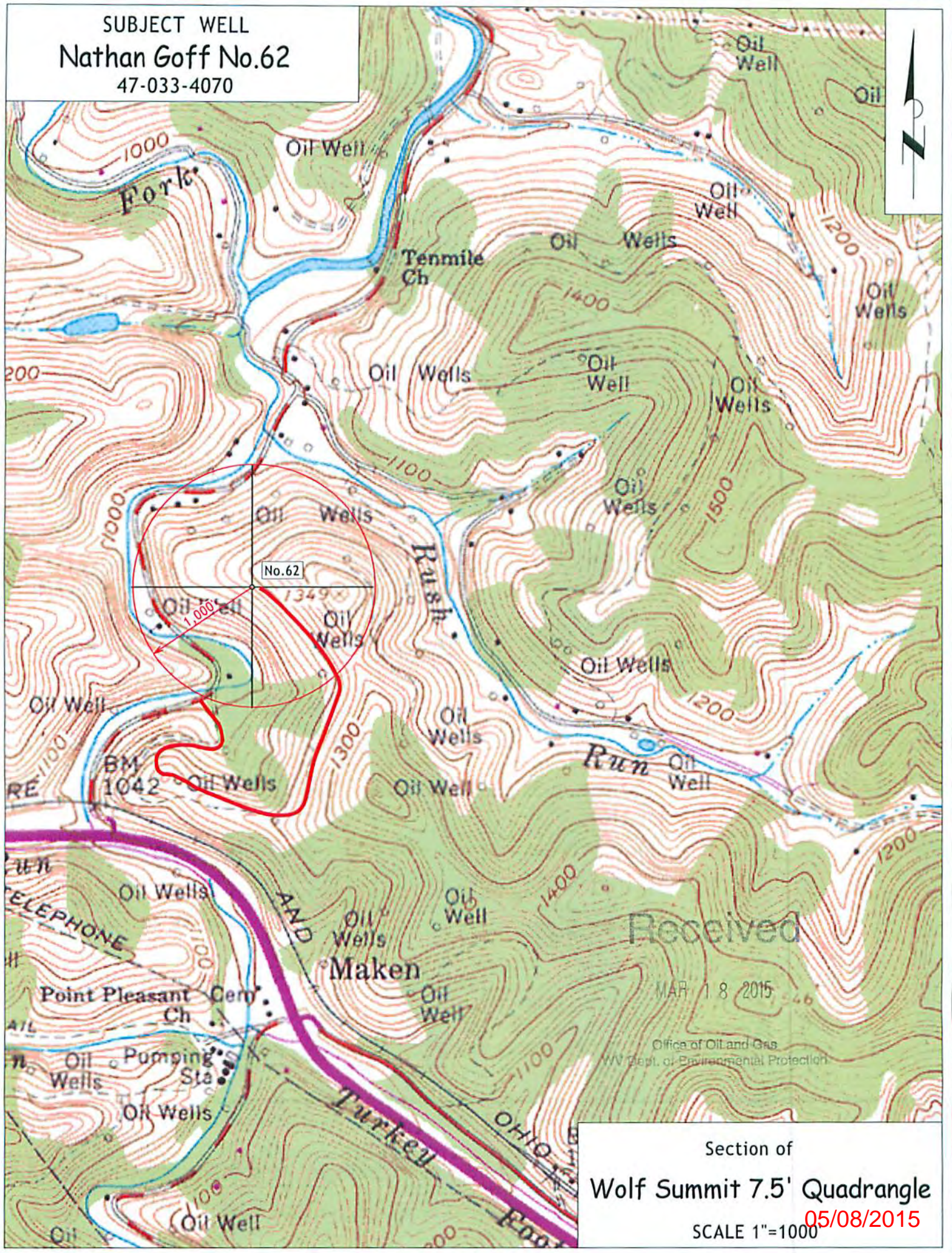
**Notes:**

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

- Requested permit is for stimulation of existing well.
- Access road from Co. Rd. 5 to 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.

Note: Drawing not to Scale

SUBJECT WELL  
Nathan Goff No.62  
47-033-4070



Received

MAR 18 2015

Office of Oil and Gas  
WV Dept. of Environmental Protection

Section of  
Wolf Summit 7.5' Quadrangle  
SCALE 1"=1000  
05/08/2015

Longitude - 80° 29' 08.0"

7,700'

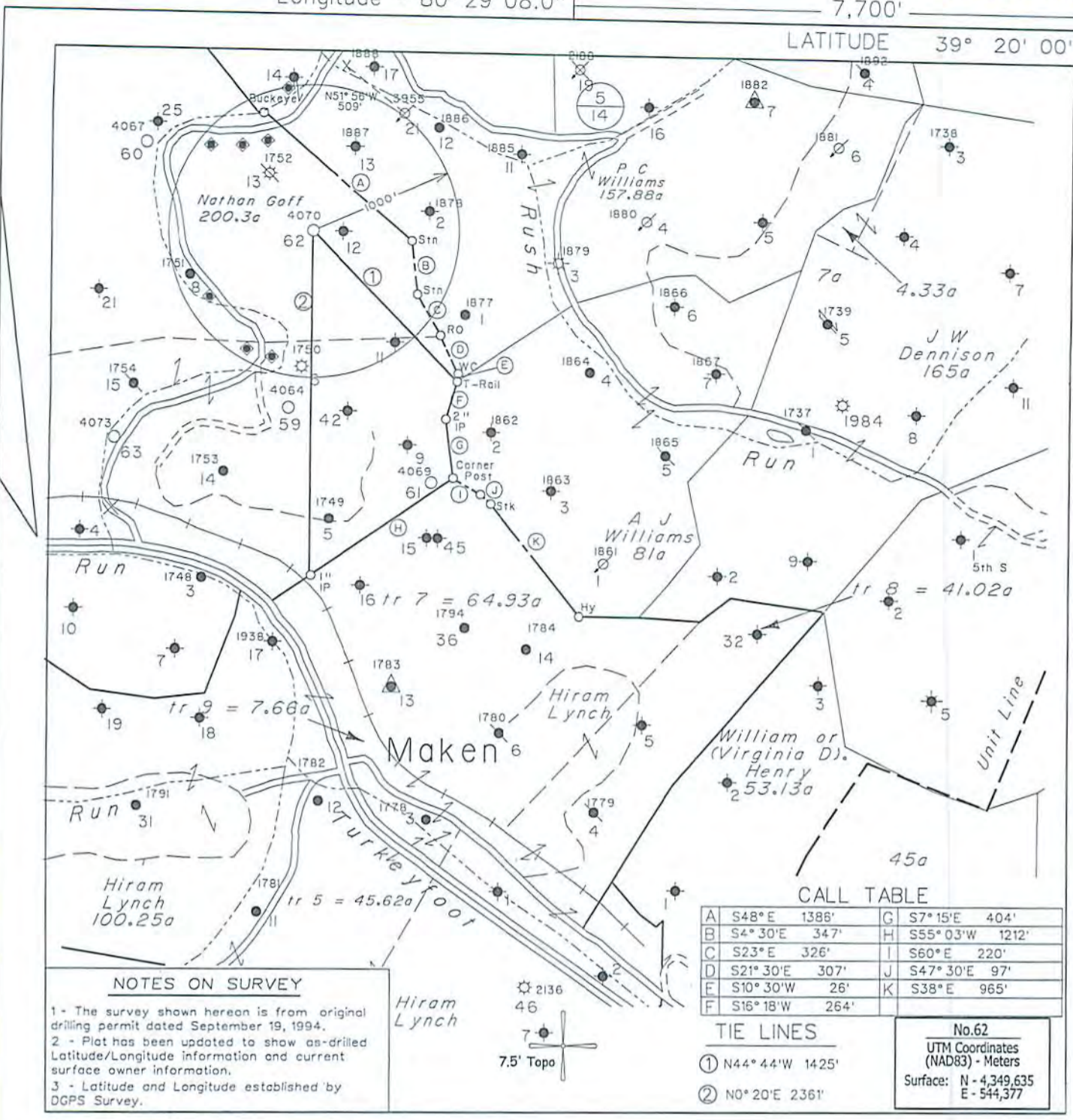
3304070 SW

LATITUDE 39° 20' 00"

LONGITUDE 80° 27' 30"

14,000'

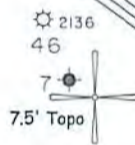
Latitude - 39° 17' 41.5"



NOTES ON SURVEY

- 1 - The survey shown hereon is from original drilling permit dated September 19, 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 Survey.

Hiram Lynch



CALL TABLE					
A	S48° E	1386'	G	S7° 15' E	404'
B	S4° 30' E	347'	H	S55° 03' W	1212'
C	S23° E	326'	I	S60° E	220'
D	S21° 30' E	307'	J	S47° 30' E	97'
E	S10° 30' W	26'	K	S38° E	965'
F	S16° 18' W	264'			

TIE LINES

- ① N44° 44' W 1425'
- ② N0° 20' E 2361'

No. 62  
 UTM Coordinates (NAD83) - Meters  
 Surface: N - 4,349,635  
 E - 544,377

✦ 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 DGPS**  
 PROVEN SOURCE OF ELEVATION **DGPS Survey**

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)  PS 793  
 TIMOTHY P. ROUSH



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



DATE **February 19, 2015**  
 FARM **Nathan Goff No.62**  
 API WELL NO. **47-033-04070 SW**

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_ CORE \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION **1,193'** WATERSHED **Tenmile Creek**  
 DISTRICT **Ten Mile** COUNTY **Harrison**  
 QUADRANGLE **Wolf Summit 7.5'**

SURFACE OWNER **Wm. R. Johnson** ACREAGE **91.19 Ac.**  
 OIL & GAS ROYALTY OWNER **HG Energy, LLC et al.** LEASE ACREAGE **924 Ac.** **05/08/2015**  
 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 **2,940'**  
 WELL OPERATOR **HG Energy LLC.** DESIGNATED AGENT **Diane White**  
 ADDRESS **5260 DuPont Road** ADDRESS **5260 DuPont Road**  
**Parkersburg, WV 26101** **Parkersburg, WV 26101**

Longitude - 80° 29' 08.0"

7,700'

LATITUDE 39° 20' 00"

LONGITUDE 80° 27' 30"

14,000'

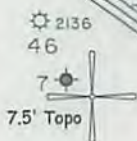
Latitude - 39° 17' 41.5"



NOTES ON SURVEY

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- 2 - Plat has been updated to show as-drilled Latitude/Longitude information and current surface owner information.
- 3 - Latitude and Longitude established by DGPS Survey.

Hiram Lynch



CALL TABLE

A	S48°E	1386'	G	S7°15'E	404'
B	S4°30'E	347'	H	S55°03'W	1212'
C	S23°E	326'	I	S60°E	220'
D	S21°30'E	307'	J	S47°30'E	97'
E	S10°30'W	26'	K	S38°E	965'
F	S16°18'W	264'			

TIE LINES

- ① N44°44'W 1425'
- ② N0°20'E 2361'

No.62  
 UTM Coordinates  
 (NAD83) - Meters  
 Surface: N - 4,349,635  
 E - 544,377

⊕ 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 DGPS**  
 PROVEN SOURCE OF ELEVATION **DGPS Survey**

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 25304



DATE **February 19, 2015**  
 FARM **Nathan Goff No.62**  
 API WELL NO. **47-033-04070SW**

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_ CORE \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION **1,193'** WATERSHED **Tenmile Creek**  
 DISTRICT **Ten Mile** COUNTY **Harrison**  
 QUADRANGLE **Wolf Summit 7.5'**

SURFACE OWNER **Wm. R. Johnson** ACREAGE **91.19 Ac.**  
 OIL & GAS ROYALTY OWNER **HG Energy, LLC et al.** LEASE ACREAGE **924 Ac. 05/08/2015**  
 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 **2,940'**

WELL OPERATOR **HG Energy LLC.** DESIGNATED AGENT **Diane White**  
 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

3304070SW  
CK# 2955  
650<sup>00</sup>

February 24, 2015

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

RE: Nathan Goff No. 62 (47-033-4070)  
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 White*

Diane C. White

Enclosures

cc: William R. Johnson – Certified  
Murray Energy, Inc. - Certified  
Sam Ward - Inspector

Received

MAR 18 2015

Office of Oil and Gas  
WV Dept. of Environmental Protection

05/08/2015