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

June 11, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8703885, issued to TRIAD HUNTER, 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: M. J. SNODGRASS 103
Farm Name: SNODGRASS, M. J.
API Well Number: 47-8703885
Permit Type: Plugging
Date Issued: 06/11/2015

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.

4708703885

WW-4A
Revised 6-07

1) Date: 1/20/2015
2) Operator's Well Number
M.J. Snodgrass # 103

3) API Well No.: 47 - 087 - 3885 P

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: Lee Boggs
Address: 1562 Tariff Road
Left Hand, WV 25251
(b) Name:
Address:
(c) Name:
Address:

5) (a) Coal Operator
Name: N/A
Address:
(b) Coal Owner(s) with Declaration
Name: N/A
Address:
Name:
Address:
(c) Coal Lessee with Declaration
Name: N/A
Address:

6) Inspector: Ed Gainer
Address: P.O. Box 821
Spencer, WV 25276
Telephone: (304) 389-7582

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

(1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
(2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. 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 permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat 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 mailing or delivery to the Chief.

Well Operator: Triad Hunter, LLC
By: Rocky Roberts
Its: Senior V.P. Appalachian Operations
Address: 125 Putnam Street
Marietta, Ohio 45750
Telephone: (740) 374-2940

Subscribed and sworn before me this 22nd day of January, 2015
Elizabeth R Tebay Notary Public
My Commission Expires 2-29-16

ELIZABETH R. TEBAY
NOTARY PUBLIC
State Of The State of Ohio
My Commission Expires
2-29-16

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 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 depprivacyoffier@wv.gov.

Received
Office of Oil & Gas
MAR 16 2015

4708703885

87-3885P

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

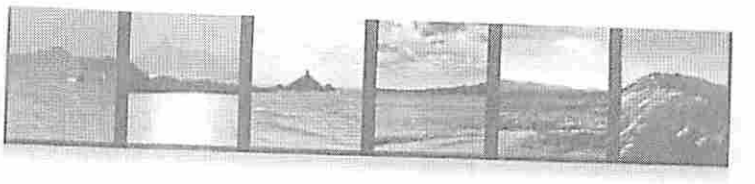
Postmark Here

MAY 11 2015

Sent To: Lee Boggs
Street, Apt. No., or PO Box No.: 1562 Tariff Rd
City, State, ZIP+4: Left Hand WV 25251

PS Form 3800, August 2006 — See Reverse for Instructions

7014 0150 0000 9042 1323



Lee Boggs

M.J. Snodgrass

#15, #23, #103, #104

(4 wells)

915 Greenbag Road
Morgantown, WV 26508
Toll Free 888.292.0001
Fax 304.292.0283

MFB
Expert Solutions.
www.morgantownprinting.com

903 Quarrier St. Suite 310
Charleston, WV 25301
Toll Free 888.292.0001
Fax 304.345.0644

4708703885

WW-4B
Rev. 2/01

1) Date January 20, 2015
2) Operator's
Well No. M.J. Snodgrass # 103
3) API Well No. 47- 087 - 3885 P

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil _____/ Gas _____/ Liquid injection X / Waste disposal _____/
(If "Gas, Production ____ or Underground storage ____) Deep ____/ Shallow____

5) Location: Elevation 924' GL Watershed Trace Fork
District Smithfield County Roane Quadrangle Tariff

6) Well Operator Triad Hunter, LLC
Address 125 Putnam Street
Marietta, Ohio 45750

7) Designated Agent Kim Arnold
Address P.O. Box 154
Waverly, WV 26184

8) Oil and Gas Inspector to be notified
Name Ed Gainer
Address P.O. Box 821
Spencer, WV 25276

9) Plugging Contractor
Name N/A
Address

10) Work Order: The work order for the manner of plugging this well is as follows:

150' - 200' Bottom hole plug in casing Across perfs
100' - Cut plug (4.5" csg.) Bond Log Cement Top at 1576'.
100' - Elevation plug @ 925'
100' - Surface casing plug @ 300'.
100' - 150' Surface Plug in 7" casing.

Note! 1. All cement plugs - Class A cement.
2. Gel spacers between all cement plugs.
3. No coal seams reported.

ERECT MONUMENT W/API # AFFIXED GCS

Received
Office of Oil & Gas
MAR 16 2015

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector _____ Date 3/9/15

IV-35
(Rev 8-81)

47 087 03885

Date November 14, 1984
Operator's
Well No. 103
Farm M. J. Snodgrass
API No. 47 - 087 - 3885-Li

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas ___ / Liquid Injection X / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 924.2' Watershed Trace Fork
District: Smithfield County Roane Quadrangle Tariff 7.5'

COMPANY Pennzoil Company
ADDRESS P.O. Box 1588, Parkersburg, W.Va. 26102
DESIGNATED AGENT James A. Crews
ADDRESS P.O. Box 1588, Parkersburg, W.Va.
SURFACE OWNER Lee Boggs
ADDRESS Left Hand, W.Va.25251
MINERAL RIGHTS OWNER W. Gary Ayers
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Homer Dougherty ADDRESS Linden Rt.,Box 3A Looneyville,WV
PERMIT ISSUED 5-30-84
DRILLING COMMENCED 6-19-84
DRILLING COMPLETED 6-26-84
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8			
7	298	298	90 sks.
5 1/2			
4 1/2	2053	2053	100 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Injun Depth 2005 feet
Depth of completed well 2051 feet Rotary X / Cable Tools ___
Water strata depth: Fresh 160-200 feet; Salt 1710-1784 feet (estimate)
Coal seam depths: RKB Is coal being mined in the area? RKB No

OPEN FLOW DATA
Producing formation Water Injection Well Pay zone depth ___ feet
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 measurement) after ___ hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig(surface measurement) after ___ hours shut in

(Continue on reverse side)

FORM IV-35
(REVERSE)

4708703885

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Fractured: Big Injun 10/18/84

Perf: 1990-2000/10H

w/250 gls. 15% HCL, 180 BW, 1500# 20/40 sd

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand, Shale	0	156	
Silt	156	320	
Shale	320	554	
Sand,Shale,Silt	554	1782	
Little Lime	1782	1842	
Blue Monday	1842	1853	
Pencil Cave	1853	1867	
Big Lime	1867	1980	
Big Injun	1980	2002	
Pocono Shale	2002	2051	
Total Depth		2051	

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MAR 16 2015

(Attach separate sheets as necessary)

Pennzoil Company
Well Operator

By: Curtis A Lucas

Date: November 14, 1984

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

4708703885

WW-9
Rev. 5/08

Page 1 of 2
API Number 47 - 087 - 3885 P
Operator's Well No. M.J. Snodgrass # 103

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 Triad Hunter, LLC OP Code 4944494833

Watershed Trace Fork Quadrangle Tariff

Elevation 924' GL County Roane District Smithfield

Description of anticipated Pit Waste: oil, saltwater, and freshwater

Will a synthetic liner be used in the pit? "No Pit".

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application
_____ Underground Injection (UIC Permit Number_____)
_____ Reuse (at API Number_____)
_____ Off Site Dispposal (Supply form WW-9 for disposal location)
X Other (Explain Fluids collected in surface tank and hauled to Ovapa Injection Facility.

Proposed Work For Which Pit Will Be Used:

_____ Drilling _____ Swabbing
_____ Workover _____ Plugging
_____ Other (Explain_____

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 _____

Company Official (Typed Name) Rocky Roberts

Company Official Title Senior V.P. Appalachian Operations

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Office of Oil & Gas
MAR 16 2015

Subscribed and sworn before me this 22nd day of January, 2015

Elizabeth R. Tebay Notory Public

ELIZABETH R. TEBAY
NOTARY PUBLIC
In and For The State of Ohio
My Commission Expires
2-29-16

My commission expires 2-29-16

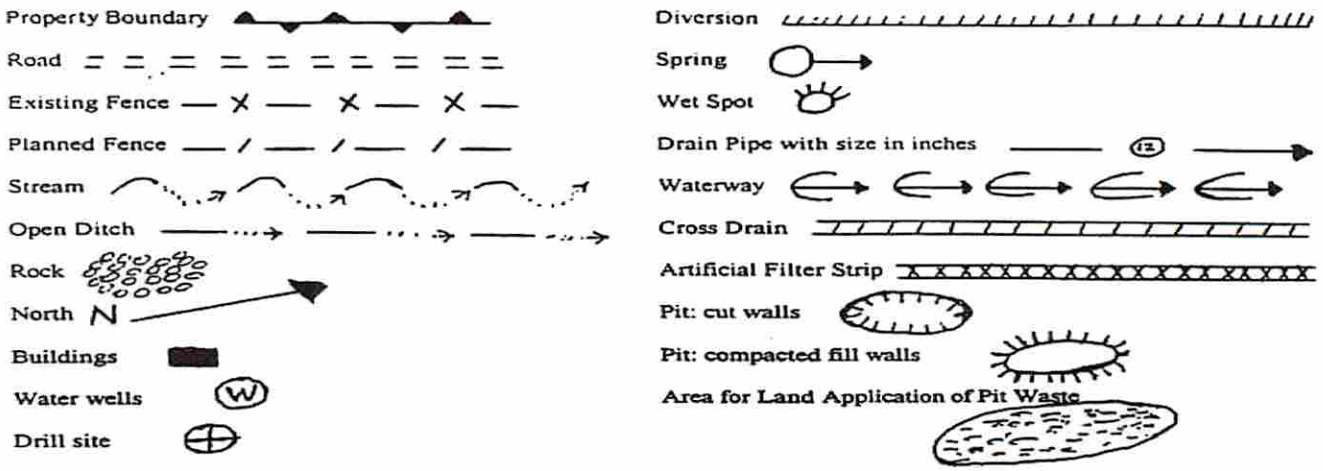
Form WW-9

87-3885P

Operator's Well No. M.J. Snodgrass # 103

4708703885

LEGEND



Proposed Revegetation Treatment: Acres Disturbed one (1) Prevegetation pH 5.5

Lime Two (2) Tons/acre or to correct to pH 6.5

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

Mulch (50 bales) 2.5 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	30%		
Rye (Annual & BT)	35%		
Timothy (Climax)	25%		
Clover (Med. Red)	10%		

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: Inspector Date: 3/9/15

Field Reviewed? ( ) Yes (X) No

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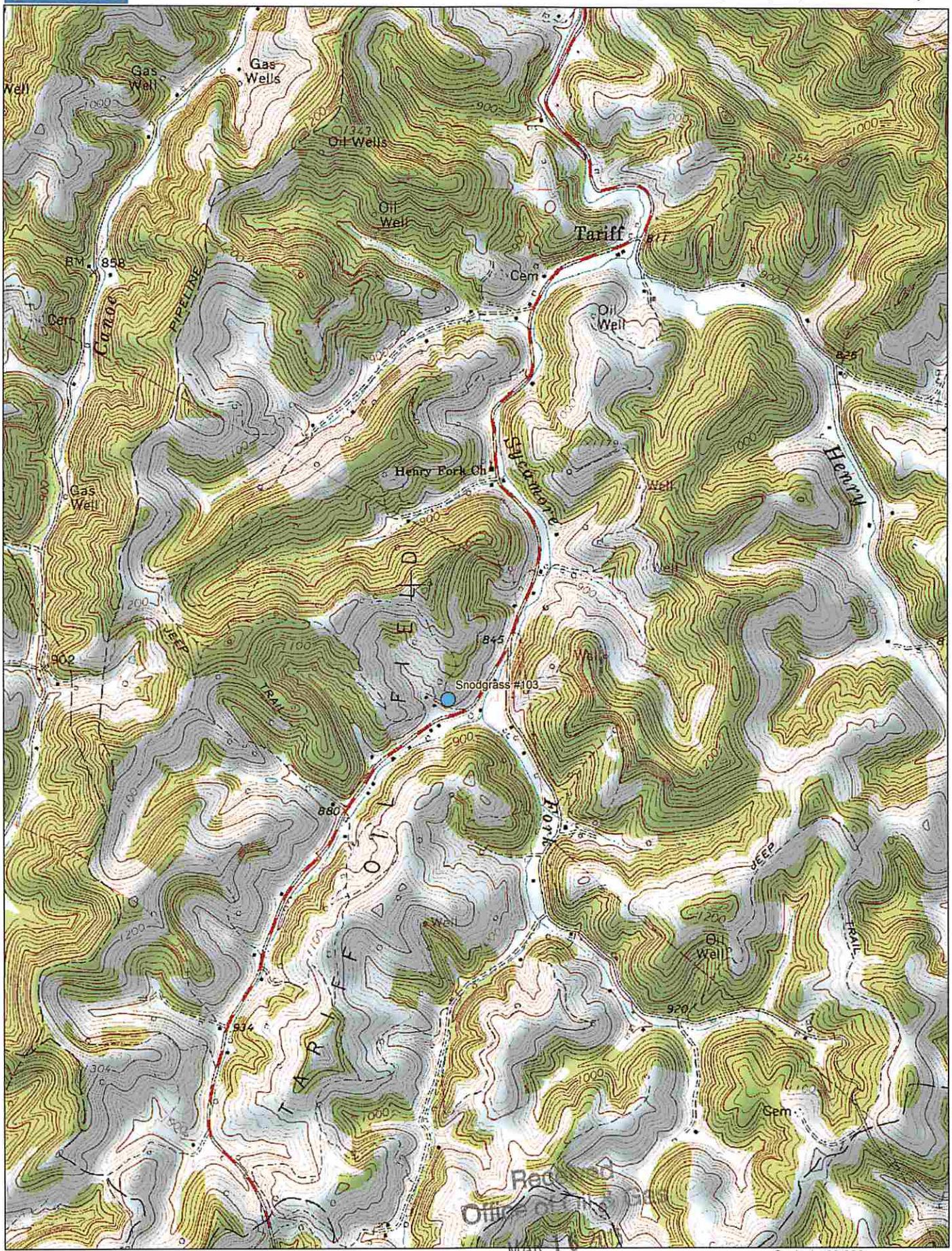
Office of Oil & Gas
MAR 16 2015

DeLORME

4708703885

XMap® 7



Data use subject to license.

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www.delorme.com

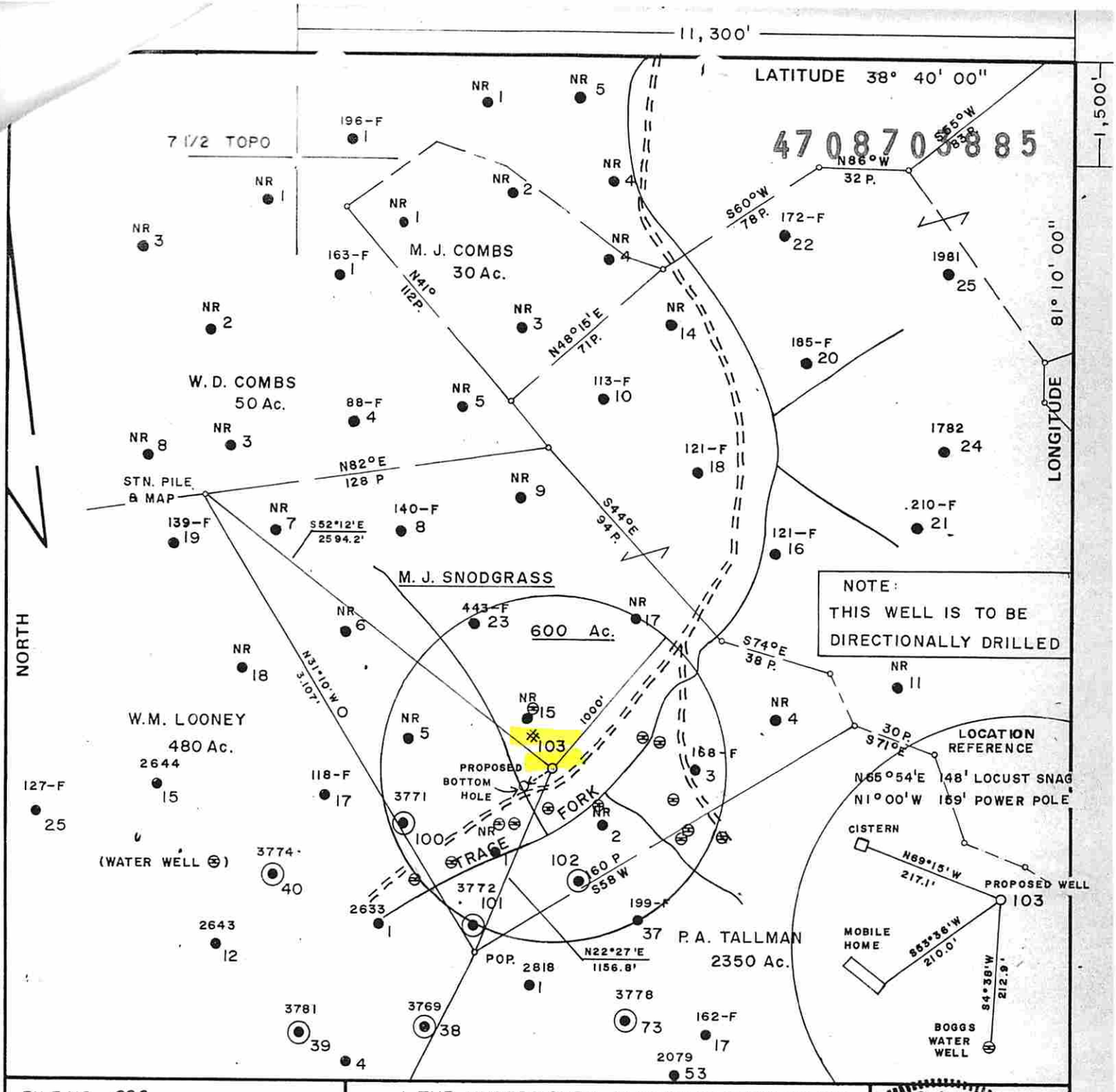
TN

MN (8.6°W)

Scale 1 : 20,800

1" = 1,733.3 ft

Data Zoom 13-3



FILE NO. 690
MAP 62/72 SQS 553/54 W34
SCALE 1" = 800
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION WM. LOONEY #30 1076.73'

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) Curtis A. Lucas

CURTIS A. LUCAS LLS 275

CURTIS A. LUCAS LICENSED NO. 275 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER AND SURVEYOR

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

FORM IV-6
(8-78)

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE MAY 2, 19 84
FARM M. J. SNODGRASS NO. 103
API WELL NO.
47 - 087
STATE COUNTY PERMIT

CORRECTED PLAT

Received
Office of Oil & Gas
MAR 16 2015

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION X WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 924' WATER SHED TRACE FORK
DISTRICT SMITHFIELD COUNTY ROANE
QUADRANGLE TARIFF 7 1/2
SURFACE OWNER LEE BOGGS ACREAGE 59 Ac.
OIL & GAS ROYALTY OWNER W. GARY AYERS LEASE ACREAGE 600 Ac.
LEASE NO. 60929-50
PROPOSED WORK: DRILL X 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 BIG INJUN ESTIMATED DEPTH 2005'
WELL OPERATOR PENNZOIL COMPANY DESIGNATED AGENT JAMES A. CREWS
ADDRESS P. O. BOX 1588 ADDRESS P. O. BOX 1588
PARKERSBURG, W. V. 26101 PARKERSBURG, W. V. 26101

WW-7
8-30-06

4708703885

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-087-03885 P **WELL NO.:** 103

FARM NAME: M.J. Snodgrass

RESPONSIBLE PARTY NAME: Triad Hunter, LLC

COUNTY: Roane **DISTRICT:** Smithfield

QUADRANGLE: Tariff

SURFACE OWNER: Lee Boggs

ROYALTY OWNER: TUW Anna Lee Collins

UTM GPS NORTHING: 4279360

UTM GPS EASTING: 482042 **GPS ELEVATION:** 938

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

Mapping Grade GPS X: Post Processed Differential X

Real-Time Differential ____

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

RECEIVED
Office of Oil and Gas
MAR 26 2015
WV Department of
Environmental Protection

Signature Title Date

Geologist 3/17/15

I

Operator: TRIAD HUNTER, LLC

API: 8703885

WELL No: M. J. SNODGRASS 103

Reviewed by: GCS Date: 6/9/15

15 Day End of Comment: 03/24/15

CHECKLIST FOR FILING A PERMIT

Plugging

- [x] WW-4B
- [x] Inspector signature on WW-4B
- [x] Completion / Well Records of Previous Work
- [x] WW-4A (Notarized)
- [x] Certified Mail Receipts, Waivers, or Affidavits of Personal Service
- [ ] Surface Owner Waiver
- [ ] Coal Owner / Lessee /Operator Waiver
- [x] WW-9 (Page 1) (Notarized)
- [x] Inspector Signature on WW-9 (Optional)
- [x] Topographic Map of location of well
- [x] WW-7

OR

- [ ] Mylar Plat (Surface owner on plat matches WW-4A)
- [x] Bond
- [x] Company is Registered with the SOS
- [x] Worker's Compensation / Unemployment Insurance account is OK
- [ ] $100.00 check ($0.00 if no pit)