




---

 west virginia department of environmental protection
 

---

Office of Oil and Gas  
 601 57<sup>th</sup> Street, S.E.  
 Charleston, WV 25304  
 (304) 926-0450  
 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Tuesday, September 18, 2018  
 WELL WORK PLUGGING PERMIT  
 Vertical Plugging

NNE RESOURCES LLC  
 707 VIRGINIA STREET EAST, SUITE 1200

CHARLESTON, WV 25301

Re: Permit approval for 1  
 47-061-00529-00-00

This well work permit 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 any additional specific 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. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of 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.

Per 35 CSR 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- 0450.

James A. Martin  
 Chief

Operator's Well Number: 1  
 Farm Name: TENNANT, NANCY  
 U.S. WELL NUMBER: 47-061-00529-00-00  
 Vertical Plugging  
 Date Issued: 9/18/2018

## 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. This well is under a consent order and must be plugged under the terms of that agreement.

- 1) Date July 16, 2018
- 2) Operator's  
Well No. Nancy Tennant 1
- 3) API Well No. 47-061-00529

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 X / Gas X / Liquid injection      / Waste disposal      /  
(If "Gas, Production X or Underground storage     ) Deep      / Shallow     

5) Location: Elevation 1,093' Watershed Dunkard Creek  
District Clay County Monongalia Quadrangle Blacksville

6) Well Operator NNE Resources LLC 7) Designated Agent Hollie M. Medley  
Address 707 Virginia Street East, Suite 1200 Address 48 Donley Street, Suite 601  
Charleston, WV 25301 Morgantown, WV 26501

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Gayne Knitowski Name CONSERV Inc.  
Address P.O. Box 108 Address 929 Charleston Road  
Gorman, WV 26720 Spencer, WV 25276

RECEIVED  
Office of Oil and Gas  
JUL 30 2018  
WV Department of  
Environmental Protection

- 10) Work Order: The work order for the manner of plugging this well is as follows:
- Perform necessary earth work to establish access and work area for rig
  - Ensure all necessary E & S controls are installed
  - RIH with open ended tubing to determine PBTD
  - Attempt to remove all casing by pulling a minimum of 150% of casing string weight
  - If casing will not pull out, cut and remove as much casing as possible
  - Log well to determine casing and coal
  - Spot expandable cement from PBTD to 100' below coal to set a solid cement plug
  - Set a solid cement plug 100' above coal
  - WOC expandable cement to harden
  - Top off well to surface with class A cement with no more than 3% CaCl2 and no other additives
  - Place a well monument with API number
  - Reclaim site

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

Work order approved by inspector  Date 7/20/2018

SCOPE OF OPERATION

1. Safety is the highest priority. Control costs and avoid unnecessary expenditures.
2. Attempt to cut or pull all recoverable casing.
3. TIH with 1 1/2" tubing to estimated TD of 2,000'.
4. Pump cement and gel plugs per state requirements.
5. ~~Bury and plate a well~~ monument with WV State API number <sup>SET</sup> to WV STATE CODE.   
NO OFFSET MARKER.

PROCEDURE

RJM BOND LOGS ON 5" CASING FIND FREE POINT

- 1) Safety is the number one priority. Well site safety meetings will be held before each major operation
- 2) MIRU construction equipment and remove any tanks, separators, well lines, meter runs, etc.
- 3) MIRU service rig & needed BOP equipment
- 4) TOOH strapping rods and tubing
- 5) TIH strapping tubing to ~~2,000'~~ <sup>TD.</sup>
- 6) Pump 20 sks of Class A cement (150' cement plug), displace cement plug
- 7) TOOH with tubing
- 8) RIH with mechanical ripper or casing cutter to ~~1,620'~~ <sup>FREE POINT</sup> and attempt to rip and retrieve 5 3/16" casing.
- 9) TOOH with production casing and tally out
- 10) Attempt to pull 1-1/2 times intermediate casing string weight to establish free point
- 11) If casing integrity is such that substantial pulling is unsafe, contact DEP prior to moving on to Step 12.
- 12) RIH and perforate intermediate casing below free point
- 13) RIH with mechanical ripper or casing cutter to rip intermediate casing above free point and perforations
- 14) TIH with tubing
- 15) Pump cement from 1,650' to above intermediate perforations
- 16) TOOH with tubing
- 17) TOOH with intermediate casing
- 18) RIH with tubing
- 19) Cement to surface

RECEIVED  
Office of Oil and Gas  
JUL 30 2018  
WV Department of  
Environmental Protection

09/21/2018

- 20) ~~Cut all casing 36 inches below GL.~~ Install a monument to WV state requirements
- 21) RDMO all service equipment providers and reclaim location to WV State requirements

#### Well Record Procedure

Northeast Natural Energy LLC researched the proposed well for plug and abandonment using the following information centers:

- The DEP office at 601 - 57th Street, Charleston, WV 25304.
- The DEP online database for Oil and Gas Wells for production and well data.
- Titlemaps.com for lease information.
- Research well files provided by previous operator

#### PERSONNEL / PHONE LIST

Production Manager	John Landis	Office: (304) 212-0434 Mobile: (304) 216-6854
Construction Foreman	Mike Shreve	Mobile: (304) 918-3050
Regulatory Manager	Hollie Medley	Office: (304) 212-0422 Mobile: (304) 543-8932
WV State Inspector	Gayne Knitowski	Mobile: (304) 546-8171

RECEIVED  
Office of Oil and Gas

JUL 30 2018

WV Department of  
Environmental Protection



Nancy Tennant 1  
Monongalia County, WV  
API Number: 4706100529  
AFE Number: TBD  
Plugging Procedure

June 27, 2018

**Discussion**

Approval is requested to perform the initial plugging on the Nancy Tennant 1 Well. The Nancy Tennant 1 is a vertical well located in Monongalia County, WV. The Nancy Tennant 1 was drilled to a depth of approximately 2,000'. Production from this well has been very low for numerous years. The Nancy Tennant 1 is recommended to be plugged and abandoned.

**WELL DATA**

Location (Surface)	Lat. 39.663' / Long. -80.161'
TD	2,000'
PBTD	NA
Packer	NA
Marker Joint	NA

The actual TD of this well is unknown, so it has been estimated to be approximately 2,000' based off of the depth of the production casing.

**CASING AND TUBULAR DATA**

STRING	SIZE	WEIGHT/GRADE	DEPTH	THREAD	TOC
Surface	10"	N/A	610'	N/A	N/A
Intermediate	8 1/4"	N/A	825'	N/A	N/A
Production	5 3/16"	N/A	1,942'	N/A	N/A

RECEIVED  
Office of Oil and Gas  
JUL 30 2018  
WV Department of  
Environmental Protection

09/21/2018

CAPACITIES

SIZE	WEIGHT	CAPACITY (GAL/FT.)	CAPACITY (BBL/FT.)
10**	N/A	4.192	0.0998
8 1/4**	N/A	2.738	0.0652
6 5/8"	N/A	1.536	0.0365
5 3/16**	N/A	1.038	0.0247
2 3/8"	4.7#	0.16239	0.00387

SIZE	WEIGHT	CAPACITY (CU FT/FT.)	CAPACITY (BBL/FT.)
10**	N/A	0.5603	0.0998
8 1/4**	N/A	0.3659	0.0652
6 5/8"	N/A	0.2052	0.0365
5 3/16**	N/A	0.1387	0.0247
2 3/8"	4.7#	0.02171	0.00387

\* The asterisks represent sizes where estimates were used to produce the capacity data. For the 10" casing the capacity of a 35.75#/ft 10 3/4" casing was used. For the 8 1/4" casing capacities a 20#/ft 8 5/8" casing was used. For the 5 3/16" casing capacities a 13#/ft 5 1/2" casing was used.

WELLHEAD EQUIPMENT

COMPONENT	SIZE & RATING
Manufacturer	N/A
Tubing Spool	N/A
Casing Spool	N/A
Bradenhead	N/A

DRIVING DIRECTIONS**From Morgantown:**

Travel on US-19 N to Star City.  
 Continue on US-19 N for 3-4 miles.  
 Turn left onto Route 7.  
 Travel down Route 7 for approximately 10 miles.  
 Turn left onto Jakes Run Rd/County Hwy-29 and travel for 8-9 miles.  
 Turn left onto McCurdysville Rd.  
 The well is located just below the road.

RECEIVED  
Office of Oil and Gas

JUL 30 2018

WV Department of  
Environmental Protection





FORM-OP-77  
Reverse

API (PERMIT) NUMBER	FARM NAME	OPERATOR'S WELL NUMBER
47-061-0516	Albert Tennant	1 16195
47-061-0517	Albert Tennant	3 96
47-061-0465	J. G. Conaway	2 97
47-061-0475	D. J. Eddy	3 98
47-061-0477	D. J. Eddy	6 99
47-061-0478	D. J. Eddy	7 16200
47-061-0479	D. J. Eddy	8 16201
47-061-0480	D. J. Eddy	9 202
47-061-0482	D. J. Eddy	11 03
47-061-0483	D. J. Eddy	12 4
47-061-0484	D. J. Eddy	13 5
47-061-0485	D. J. Eddy	14 6
47-061-0486	D. J. Eddy	15 7
47-061-0487	D. J. Eddy	16 8
47-061-0448	J. S. Walker	2 9
47-061-0449	J. S. Walker	3 16210
47-061-0450	J. S. Walker	4 11
47-061-0504	Moore and Eddy	2 12
47-061-0505	Moore and Eddy	4 13
47-061-0506	Moore and Eddy	5 14
47-061-0507	Moore and Eddy	6 15
47-061-0488	E. W. Eddy	2 16
47-061-0525	Himrod Tennant	6 17
47-061-0526	Himrod Tennant	7 18
47-061-0546	Noah Wright	1 19
47-061-0523	Malinda Tennant	3 20
47-061-0522	Erza Tennant	2 21
47-061-0443	John W. Wright	14 22
47-061-0529	Nancy Tennant	1 23
47-061-0530	Nancy Tennant	2 24
47-061-0531	Nancy Tennant	3 25
47-061-0518	Alpha Tennant	1 26
47-061-0514	Minnie V. Sturm	1 27

WW-4A  
Revised 6-07

1) Date: July 16, 2018  
2) Operator's Well Number  
Nancy Tennant 1

3) API Well No.: 47 - 061 - 00529

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

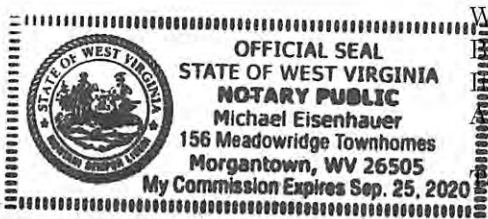
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name MEPCO, LLC	Name _____
Address 103 Corporate Drive, Suite 102	Address _____
Morgantown, WV 26501	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name Murray American Energy Inc.
	Address 46226 National Road
	St. Clairsville, OH 43950
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector Gayne Knitowski	(c) Coal Lessee with Declaration
Address P.O. Box 108	Name _____
Gormanian, WV 26720	Address _____
Telephone 304.546.8171	

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 NNE Resources LLC  
 By: Hollie Medley  
 Title: Regulatory Manager  
 Address: 48 Donley Street, Suite 601  
 Morgantown, WV 26501  
 Telephone: 304.212.0422

RECEIVED  
Office of Oil and Gas

JUL 30 2018

Subscribed and sworn before me this 16 day of July, 2018  
 \_\_\_\_\_ Notary Public  
 My Commission Expires 9.25.2020

WV Department of Environmental Protection

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 [deprivacyoffier@wv.gov](mailto:deprivacyoffier@wv.gov).

WW-9  
(5/16)

API Number 47 - 061 - 00529  
Operator's Well No. \_\_\_\_\_

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name NNE Resources LLC OP Code 494511469

Watershed (HUC 10) Dunkard Creek Quadrangle Blacksville

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

Will a pit be used? Yes  No

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 (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Freshwater/Gel

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? Bentonite

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

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) \_\_\_\_\_

-Landfill or offsite name/permit number? \_\_\_\_\_

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 Hollie M. Medley  
Company Official (Typed Name) Hollie M. Medley  
Company Official Title Regulatory Manager

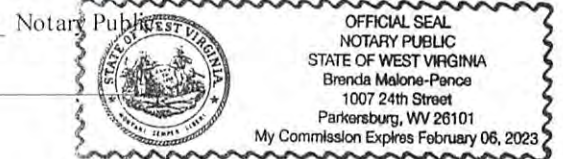
RECEIVED  
Office of Oil and Gas  
JUL 30 2018

WV Department of  
Environmental Protection

Subscribed and sworn before me this 23rd day of July, 2018

Brenda Malone-Pence

My commission expires February, 06, 2023



Form WW-9

Operator's Well No. \_\_\_\_\_

Proposed Revegetation Treatment: Acres Disturbed 0.2 +/- Prevegetation pH TBD

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	46	Orchard Grass	46
Red Clover	8	Red Clover	8
Tertraploid Perennial Rye	16	Tertraploid Perennial Rye	16
Timothy 15 Annual Rye	15	Timothy 15 Annual Rye	15

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Mary J Ruth*

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

Reclaim SITE ASAP

Title: Inspector

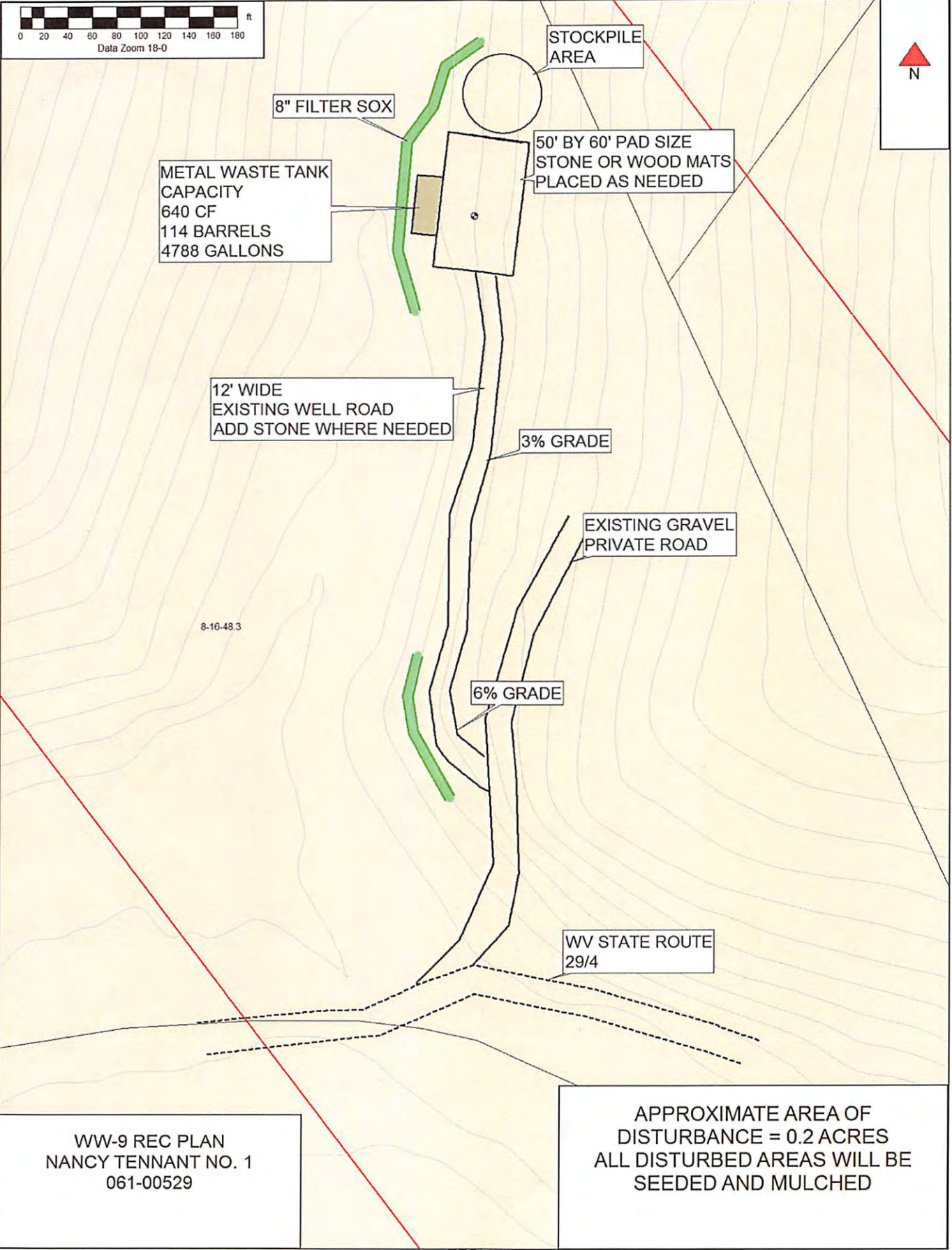
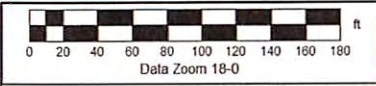
Date: 7/23/2018

Field Reviewed? (  ) Yes (  ) No

RECEIVED  
Office of Oil and Gas

JUL 30 2018

WV Department of  
Environmental Protection



WW-9 REC PLAN  
NANCY TENNANT NO. 1  
061-00529

APPROXIMATE AREA OF  
DISTURBANCE = 0.2 ACRES  
ALL DISTURBED AREAS WILL BE  
SEEDED AND MULCHED

Data use subject to license.

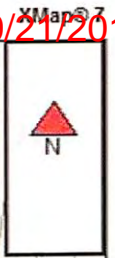
© DeLorme. XMap® 7.

www.delorme.com

RECEIVED  
Office of Oil and Gas

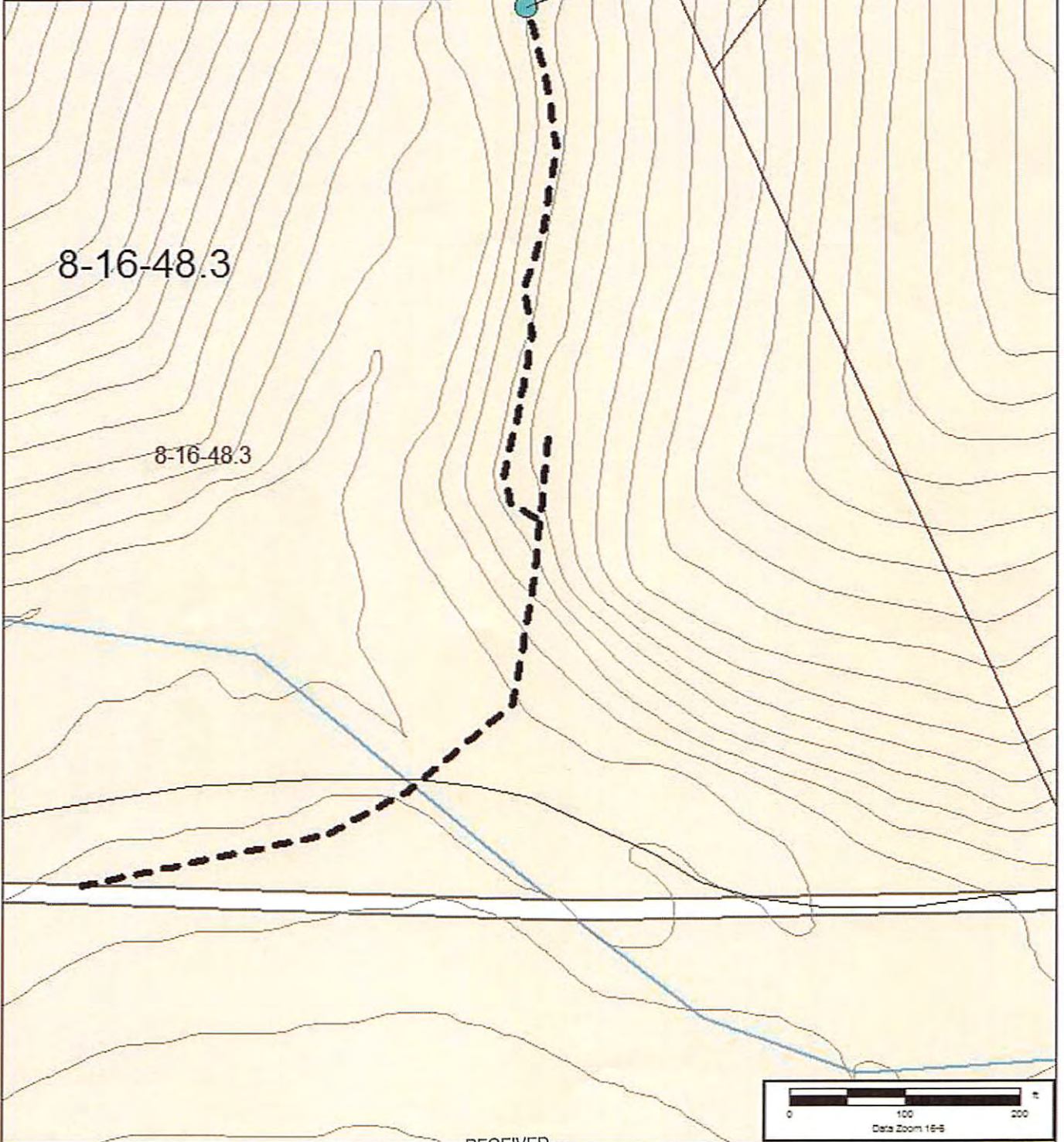
JUL 30 2018

WV Department of  
Environmental Protection



Nancy Tennant No. 1  
 UTM NAD 83:  
 EASTING: 571989.9  
 NORTHING: 4390694.1  
 ELEVATION: 1093'  
 BLACKSVILLE 7.5' USGS QUAD

Nancy Tennant No. 1



Data use subject to license.

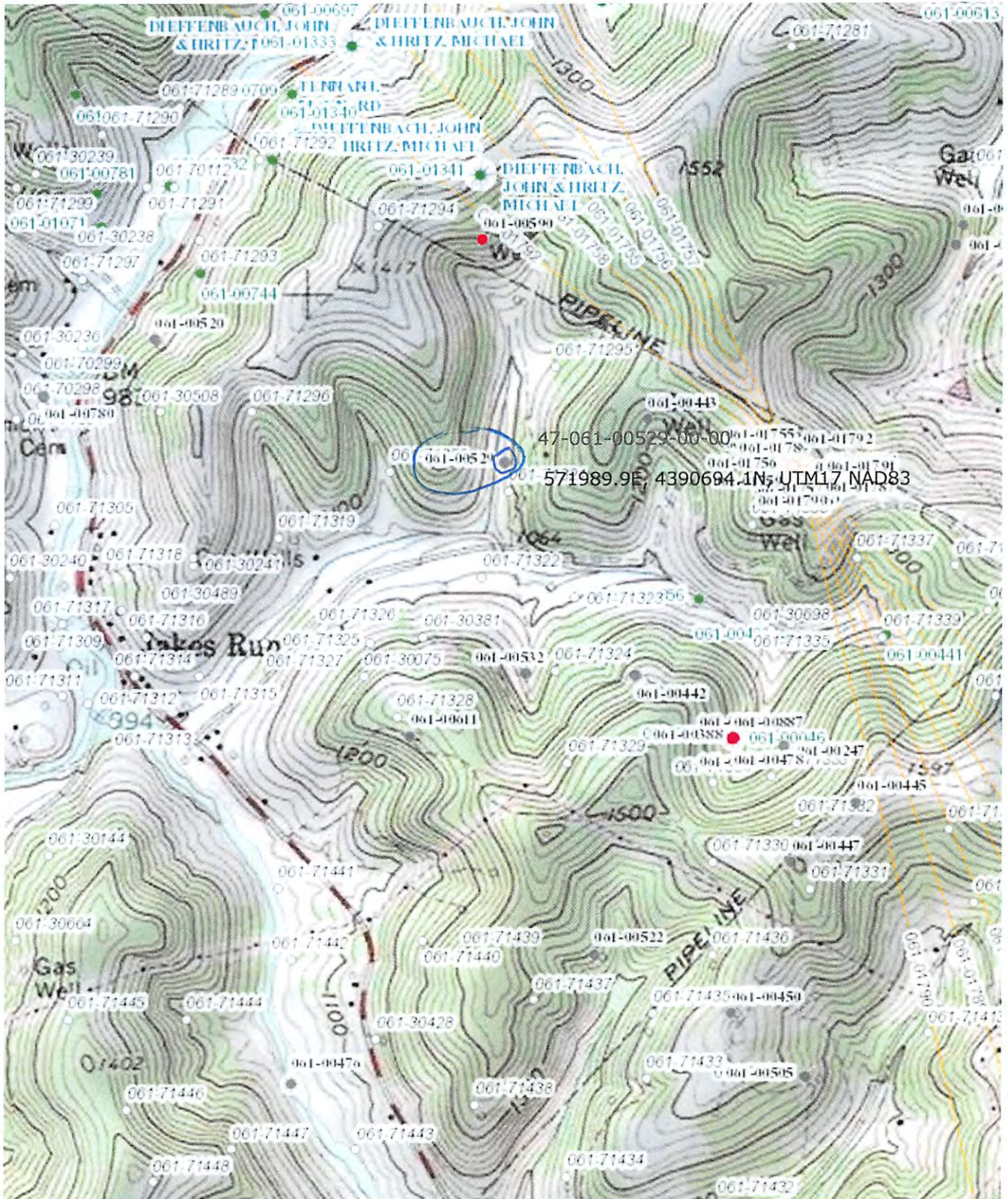
© DeLorme. XMap® 7.

www.delorme.com

RECEIVED  
Office of Oil and Gas

JUL 30 2018

WV Department of  
Environmental Protection



WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-061-00529 WELL NO.: 1

FARM NAME: Nancy Tennant

RESPONSIBLE PARTY NAME: NNE Resources LLC

COUNTY: Monongalia DISTRICT: Clay

QUADRANGLE: Blacksville

SURFACE OWNER: MEPCO, LLC

ROYALTY OWNER: NNE LLC, et al

UTM GPS NORTHING: 4390694.1

UTM GPS EASTING: 571989.9 GPS ELEVATION: 1,093'

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:

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

Survey grade GPS  : Post Processed Differential

Real-Time Differential

Mapping Grade GPS  : Post Processed Differential

Real-Time Differential

- 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.

Hollmeyer  
Signature

Regulatory Manager

Title

7-16-18

Date

RECEIVED  
Office of Oil and Gas

JUL 30 2018

WV Department of  
Environmental Protection