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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Tuesday, June 29, 2021  
WELL WORK PLUGGING PERMIT  
Not Available Plugging

VIKING INTERNATIONAL RESOURCES CO., INC.  
1300 FORT PIERPONT DR., SUITE 201  
MORGANTOWN, WV 26508

Re: Permit approval for MULLENAX 11  
47-085-08512-00-00

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

A blue ink signature of James A. Martin, Chief, is written over the printed name and title.

Operator's Well Number: MULLENAX 11  
Farm Name: HEATHER M. MULLENS, ET   
U.S. WELL NUMBER: 47-085-08512-00-00  
Not Available Plugging  
Date Issued: 6/29/2021

Promoting a healthy environment.

07/02/2021

H

47-085-08512P

## 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. 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.

07/02/2021

4708508512P

WW-4B  
Rev. 2/01

1) Date 5/27, 2021  
2) Operator's Well No. Mullenax #11  
3) API Well No. 47-085-08512

47-085-08512P

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

5) Location: Elevation 1060' Watershed Gillespie Run  
District Grant County Ritchie Quadrangle Cairo

6) Well Operator Virco 7) Designated Agent Brittany Woody  
Address 1300 Fort Pierpont Dr., Suite 201 Address 1300 Fort Pierpont Dr., Suite 201  
Morgantown, WV 26508 Morgantown, WV 26508

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Derek Haught Name NA  
Address PO Box 85 Address \_\_\_\_\_  
Smithville, WV 26178

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

See Attachment

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

Work order approved by inspector Derek M. Haught Date 5/26/21

07/02/2021

**Well Info:**

Well Name – N.U. Mullenax #11  
 API – 47-085-0-8512  
 Location – 39.133025, -81.198502  
 County, State – Ritchie, WV  
 Elevation – 1060 ft  
 TD – 1905 ft  
 Well Casing Record –

Casing Size	Casing Depth	Comment
	16'	Conductor
10"	260 ft	Pulled – Open Hole 12"
8-1/4"	1160 ft	Pulled 900 ft – Open Hole 9-3/4"
6-5/8"	1580 ft	Left in well – Open Hole 7-7/8"
4-1/2"	1903 ft	Calculated TOC @ 377ft

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**Perforations –**

- Shot Interval: 1714' – 1724'

**Comments –**

- Hole diameter sizes are assumptions. No record of hole sizes in well file.
- Company was planning to drill deeper this well. They cleaned out the original hole to TD and ran 1903 ft of 4 1/2" 10.50 lb/ft casing. Cemented 4 1/2" casing with 100 sacks Class A w/ 2% Gel, 2% Salt - 1.36 cu. Ft./ sx. Calculated TOC @ 377 ft. Drilled out bottom of 4 1/2" casing and hit metal in the hole. Could not make any new hole so the DD attempt was abandoned. Decision was made to P&A well.

**Purpose:**

Provide a procedure for safely and effectively plugging & abandoning a well.

**Scope:**

This procedure pertains to all SWN Production Company, LLC (SWN) personnel and third parties involved in or near the following procedure on a SWN location in the SW Appalachia Division.

**HSE:**

- Must wear 4-Gas Monitor at all times, powered on, and calibrated up to date
- Complete JSEA, LOTO, and Hot Work documents as needed
- Follow proper PPE requirements per "2015 HSE Handbook". Verify pressure control equipment integrity
- Always express STOP work authority if deemed necessary
- Hold pre-job safety meeting
- Must follow SWN Conventional Well P&A Minimum Requirements Document
- Access road and location to be constructed per WVDEP regulations and pre-seeded
- All tubulars pulled from the well need to be NORM tested. Contractor gets all salvage pulled from the well
- All fluids circulated from the wellbore are to be disposed of properly and documentation provided



### Responsibilities:

- Production Engineer(s) – Responsible for providing a working procedure specified for the well that the work is being performed on. Responsible for coordinating work and seeing that it is finished in a timely manner.

### Procedure for Setting Downhole Plug:

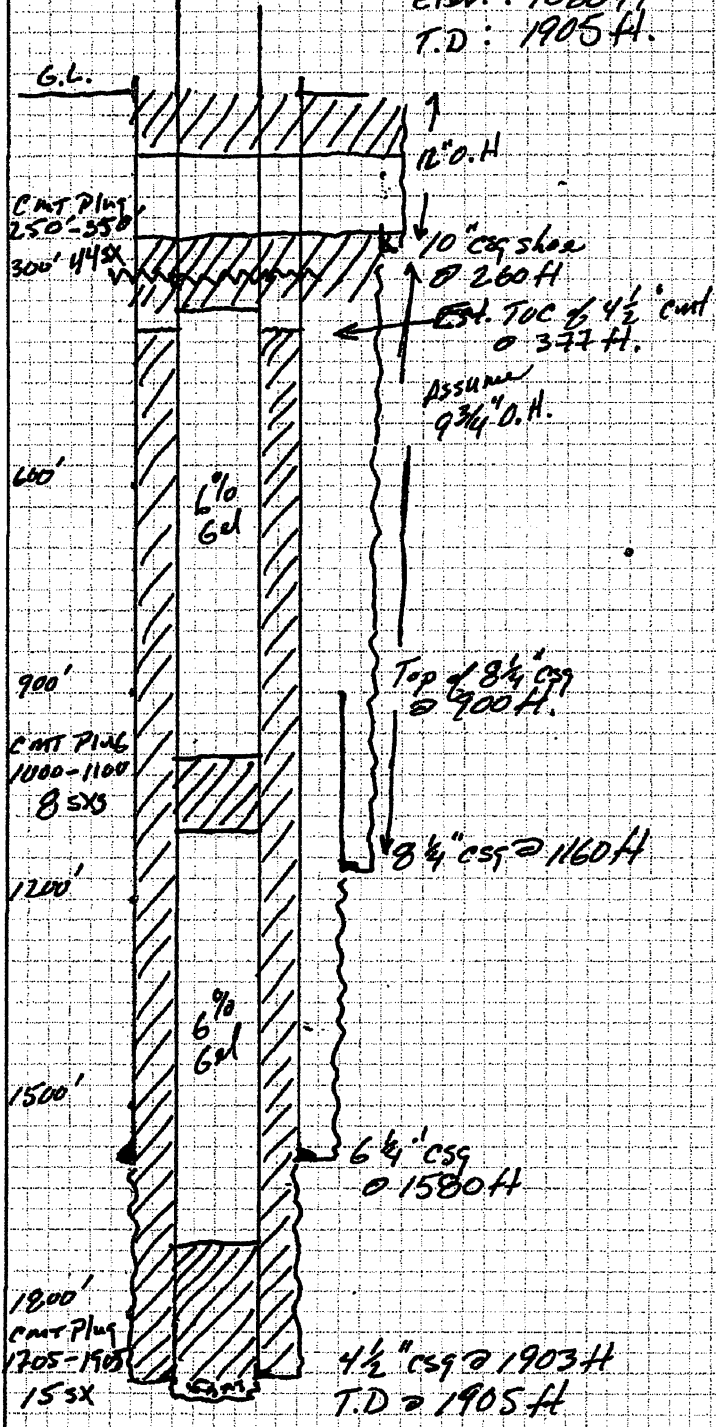
1. Verify all HSE requirements are understood and followed
2. Verify proper documentation is included in working procedure
3. MIRU plugging rig and equipment. Install all sediment and erosion controls and secondary containment.
4. Dig out around wellhead and set 4-5 ft of 20" conductor if 16" is not found. Hand cement outside of conductor with bag cement.
  - a. This is to control and capture inadvertent returns from the backside of the 6-1/4" casing
5. Check pressures and bleed off if present.
6. Check TD with cable tools
  - a. **NOTE: If TD is significantly different from the well record TD notify WVDEP Inspector as well as SWN manager and engineer**
7. TIH w/ work string to TD, pump tubing capacity, pump 30 bbls of 6% gel, spot cement plug from 1900 - 1700 ft ( 15 sacks - Class A)
8. TOO H w/ work string to 1100 ft, spot cement plug from 1100 ft - 1000 ft ( 8 sacks - Class A)
9. TOO H w/ work string above cement plug and flush tubing to ensure cement is clear of pipe. WOC
10. Check TOC @ 1000 ft , reset plug if needed, if not TOO H w/ work string
11. RU & find free point on 4 1/2" casing (Est. free point @ 300 -350 ft), and cut/ rip casing (around 325 ft) and pull 4-1/2" casing and NORM Test
12. RU & find free point on 6 1/4" casing (Est. free point @ 300 -350 ft), and cut/ rip casing (around 300 ft)
13. TOO H w/ 6 1/4" casing and NORM test
14. TIH w/ work string to set cement plug across 4-1/2" & 6-1/4" casing cuts to 350ft. Spot cement plug from 350 ft – 250 ft (44 sacks – Class A)
15. TOO H w/ work string to 100 ft. Spot cement plug from 100 ft - Surface ( 67 sacks - Class A)
16. TOO H w/ work string, top off well with cement if needed
17. Erect monument per WVDEP regulations
18. RDMO equipment, dispose of circulated fluids properly, reclaim location and access road per WVDEP regulations

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NAME: Mullenax II  
 API #: 47-085-08512  
 County/State: Ritchie, WV  
 Elev.: 1060 ft  
 T.D.: 1905 ft.

casing	Depth	O.H.	Comment
16"	16'		Left in well
10"	260'	12"	Pulled
8 3/4"	1160'	9 3/4"	Pulled 900'
6 3/4"	1580'	7 7/8"	Left in well
4 1/2"	1903'	6"	Cut w/ 100 SXS Class A - 136 ft <sup>3</sup> (12)



Note: When bottom of 4 1/2" csq was drilled out to deepen well no hole could be made. Iron in hole. Abandoned drill deeper attempt.

Cement plugs

- ① Check TD of cable tools. T.H. of working string to T.D. Pump 30 bbls of 6% gel (4% csq capacity). Spot cement plug from 1905 ft - 1705 ft (100 ft x .0895 ft<sup>3</sup>/ft → 18 ft<sup>3</sup> → 15 SXS Class A)
- ② Spot cement plug from 1100 ft - 1000 ft (100 ft → 8.95 ft<sup>3</sup> → 8 SXS Class A)
- ③ Cut 4 1/2" csq @ 300 ft and 700 ft. Cut 6 3/4" csq @ 300 ft and 700 ft
- ④ Spot cement plug from 350 ft - 250 ft (100 ft → 5.2 ft<sup>3</sup> → 44 SXS Class A)
- ⑤ Spot cement plug from 100 ft - surface (100 ft → 7.9 ft<sup>3</sup> → 67 SXS Class A)

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THUNDER CORPORATIC

Lease No.	Acres	Name N. H. Mullennax	Well No. 11
N.	S.	E.	W.
District Grant	Loc. Made Dr'g Start 11-15-19		Purchase From Date Purchase
County Ritchie	Dr'g Finish 12-23-19		Sold to
State W. Va.	Dr'g Cont'OR C. Jackson		Date Sold
Rights Owner	Deepened	Abandoned	

FORMATION					CASING RECORD				
Kind	Top	Bottom	M'ure line	Tests	Size	Bottom (line)	Bottom (caly)	Pulled	Can
Salt Sand	1840	1900			16" Cond.		16'		
pay salt sand	1885	1895			10"		260'	260'	
Oil		1885			8 1/4"		1160'	900'	
					6 1/4"		1580'		
T.D.		1900			3 1/2"				
					9 1/4"		502'		

PACKERS AND SHOES			
Kind	Size	Depth Set	Date
disc. Wall	6" of 9 1/4	502'	2-1932
swedge	4 7/8	on top of	
nipple	X 3 1/2	packer	

TORPEDO RECORD				
Date	No. Ocs	Shell	Top	Bottom
12-23-19	40	X 5'	1885	1895

DRILLING DREPER				
Start	Finish	Int. Dep.	Fin'h	Cor

ABANDONMENT RECORD				
Mat'l	From	To	PLUG	
			Size	Kind
Depth				

Int. Prod.	Sand	I. P.	30 Days
Oil			
Gas			

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Office of Chief  
JAN 18 2025  
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WW-4A  
Revised 6-07

1) Date: 5/27/21  
2) Operator's Well Number  
Mullenax N.U. #11

3) API Well No.: 47 - 085 - 08512

**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 <u>Heather M. Mullens</u>	Name <u>N/A</u>
Address <u>311 Whitehall Way</u>	Address _____
<u>Cary, NC 27511</u>	_____
(b) Name <u>Rebecca L. Dimit</u>	(b) Coal Owner(s) with Declaration
Address <u>194 Highland Meadows Dr.</u>	Name _____
<u>Davisville, WV 2614</u>	Address _____
(c) Name <u>Christopher H. Border</u>	Name _____
Address <u>105 Highland Meadows Dr.</u>	Address _____
<u>Davisville, WV 26142</u>	_____
6) Inspector <u>Derek Haught</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 85</u>	Name _____
<u>Smithville, WV 26178</u>	Address _____
Telephone <u>304-206-7613</u>	_____

**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.

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Well Operator Virco  
 By: Brittany Woody  
 Its: Senior Regulatory Analyst  
 Address 1300 Fort Pierpont Dr., Suite 207  
Morgantown, WV 26508  
 Telephone 304-884-1610

*Brittany Woody*

Subscribed and sworn before me this 20th day of April, 2021  
Elizabeth A Day  
 My Commission Expires 5/6/2023



**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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

07/02/2021



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Davisville, WV 26142

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Rebecca L. Dimit  
194 Highland Meadows, Dr.  
Davisville, WV 26142

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Heather M. Mullens  
311 Whitehall Way  
Cary, NC 27511

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47-085-08512 P

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WW-9  
(5/16)

JUN 3 2021

API Number 47 - 085 - 08512  
Operator's Well No \_\_\_\_\_

WV Department of  
Environmental Protection

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

Operator Name Virco OP Code 7434

Watershed (HUC 10) Gillespie Run Quadrangle Cairo

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  Any well effluent will be contained in tanks before disposing off-site

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 TBD pending selection of plugging contractor )
- 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. N/A

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

Additives to be used in drilling medium? N/A

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

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

-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 *Brittany Woody*  
Company Official (Typed Name) Brittany Woody  
Company Official Title Senior Regulatory Analyst

Subscribed and sworn before me this 2<sup>nd</sup> day of April, 2021

My commission expires 5/16/2023



07/02/2021

Proposed Revegetation Treatment: Acres Disturbed ONE Prevegetation pH 5.5

Line Two Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 50 Bales 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
		Orchard Grass	30%
		Rye (annual @BT)	35%
		Timothy (Climax)	25%
		Clover (Med.Red)	10%

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: Derek M. Haught

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

Title: Oil & Gas Inspector

Date: 5/26/21

Field Reviewed? ( X ) Yes ( ) No

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

Operator Name: Virco  
Watershed (HUC 10): Gillespie Run Quad: Cairo  
Farm Name: \_\_\_\_\_

- 1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

Plug to abandon operations.

- 2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

Containment will be in place around the well. A portable pit will be used for fluids.

- 3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

N/A

- 4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

- 5. Discuss any existing groundwater quality data for your facility or an adjacent property.

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N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

No waste materials will be used for the deicing of area or equipment. Waste materials, if any, will not be used for material fill on the property.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

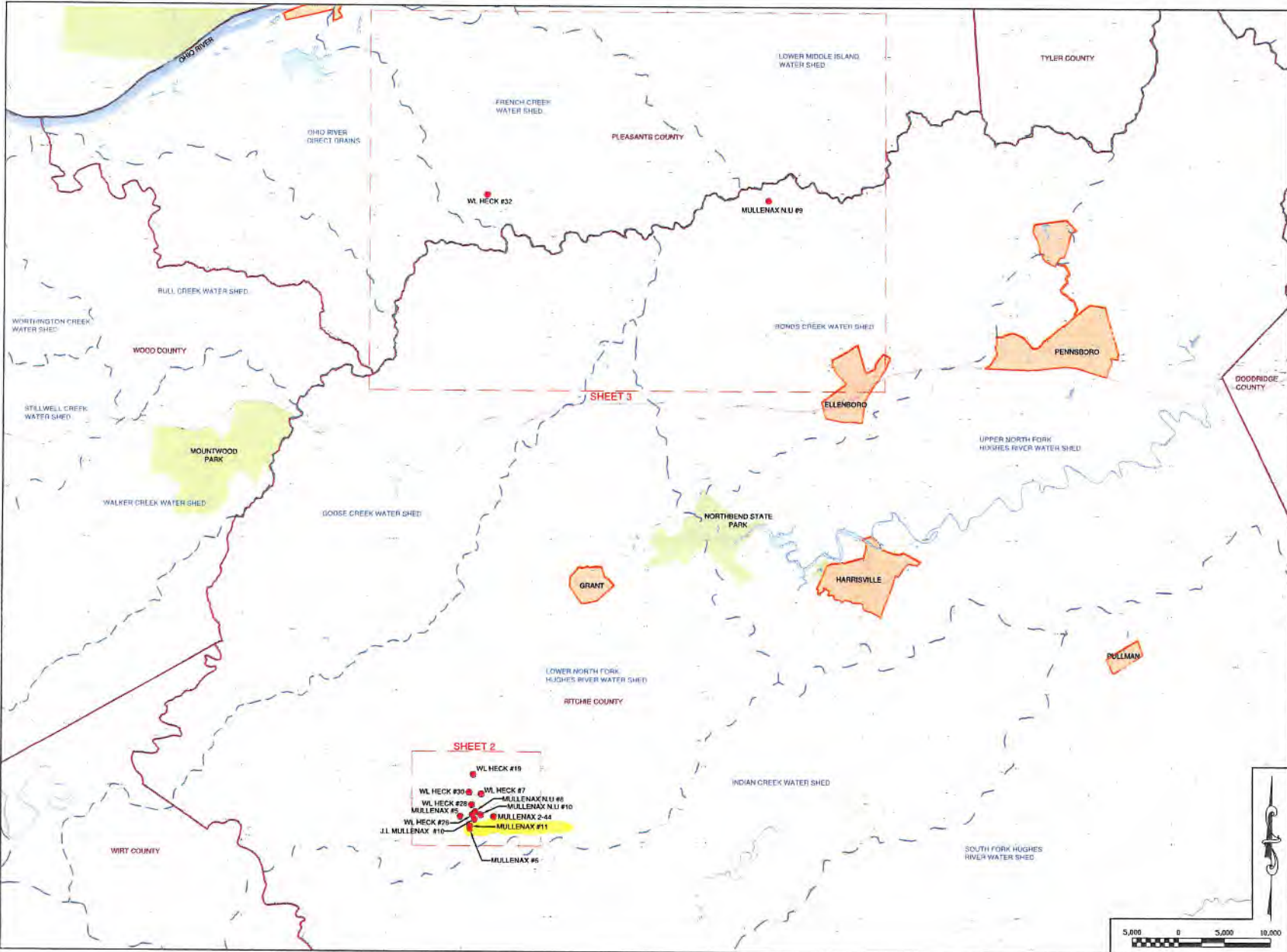
All employees are assigned spill protection training. Spill kits and containment are available and utilized on every work site.

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

Inspections will be done before and during operations by designated employees.

Signature: Brittany Moody

Date: 5/27/21



**PROJECT LOCATION**

LOCATION MAP NOT TO SCALE

6		
5		
4		
3		
2		
1		

NO.	DATE	DESCRIPTION

PREPARED FOR:

DOODRIDGE COUNTY

PREPARED BY:

2581 DAVISSON RUN ROAD, SUITE 103  
CLARKSBURG, WV 26301  
WWW.ASCENTCONSULTINGENGINEERS.COM  
(304) 203-3403

PROJECT NUMBER:	2412	DRAWN:	CMK
DATE:	4-13-21	DESIGN:	ZLA
SCALE:	AS SHOWN	CHECKED:	MRN

TITLE: **OVERALL PLUGGING MAP**

PLAN STATUS: SHEET NO. 1

C:\P\115\_5\_1\Drawings\2412\Project Map SWN\Drawings\2412-Overall Plugging Map.dwg  
 PLOT DATE/TIME: 4/17/2021 10:42 AM

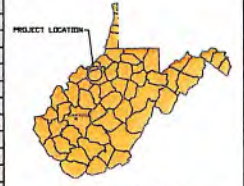
47-085-08512P

RITCHIE COUNTY

LOWER NORTH FORK  
HUGHES RIVER WATER SHED



WELL PAD NAME	LATITUDE	LONGITUDE
W.L. HECK #7	39.4271900°	-81.1940580°
W.L. HECK #26	39.1363300°	-81.1975990°
W.L. HECK #19	39.1485240°	-81.1975990°
W.L. HECK #28	39.1393810°	-81.1979710°
W.L. HECK #30	39.1430980°	-81.1990880°
J.L. MULLENAX #5	39.1357520°	-81.2022570°
MULLENAX N.U. #5	39.1321400°	-81.1984600°
MULLENAX N.U. #8	39.1373060°	-81.1964830°
MULLENAX N.U. #10	39.1362910°	-81.1944340°
MULLENAX N.U. #11	39.1330252°	-81.1985020°
J.L. MULLENAX #10	39.1349442°	-81.1968081°
MULLENAX 2-44	39.1358390°	-81.1894260°



LOCATION MAP NOT TO SCALE

NO.	DATE	DESCRIPTION
6		
5		
4		
3		
2		
1		

PREPARED FOR:  
**SWN**  
Southwestern Energy<sup>®</sup>

SEAL:

PREPARED BY:  
**ASCENT**  
Consulting & Engineering  
2361 DAVISSON RUN ROAD, SUITE 103  
CLARKSBURG, WV 26301  
WWW.ASCENTCONSULTINGENGINEERS.COM  
(304) 833-3463

PROJECT NUMBER:	2412	DRAWN:	CMK
DATE:	4-13-21	DESIGN:	ZLA
SCALE:	AS SHOWN	CHECKED:	MRN

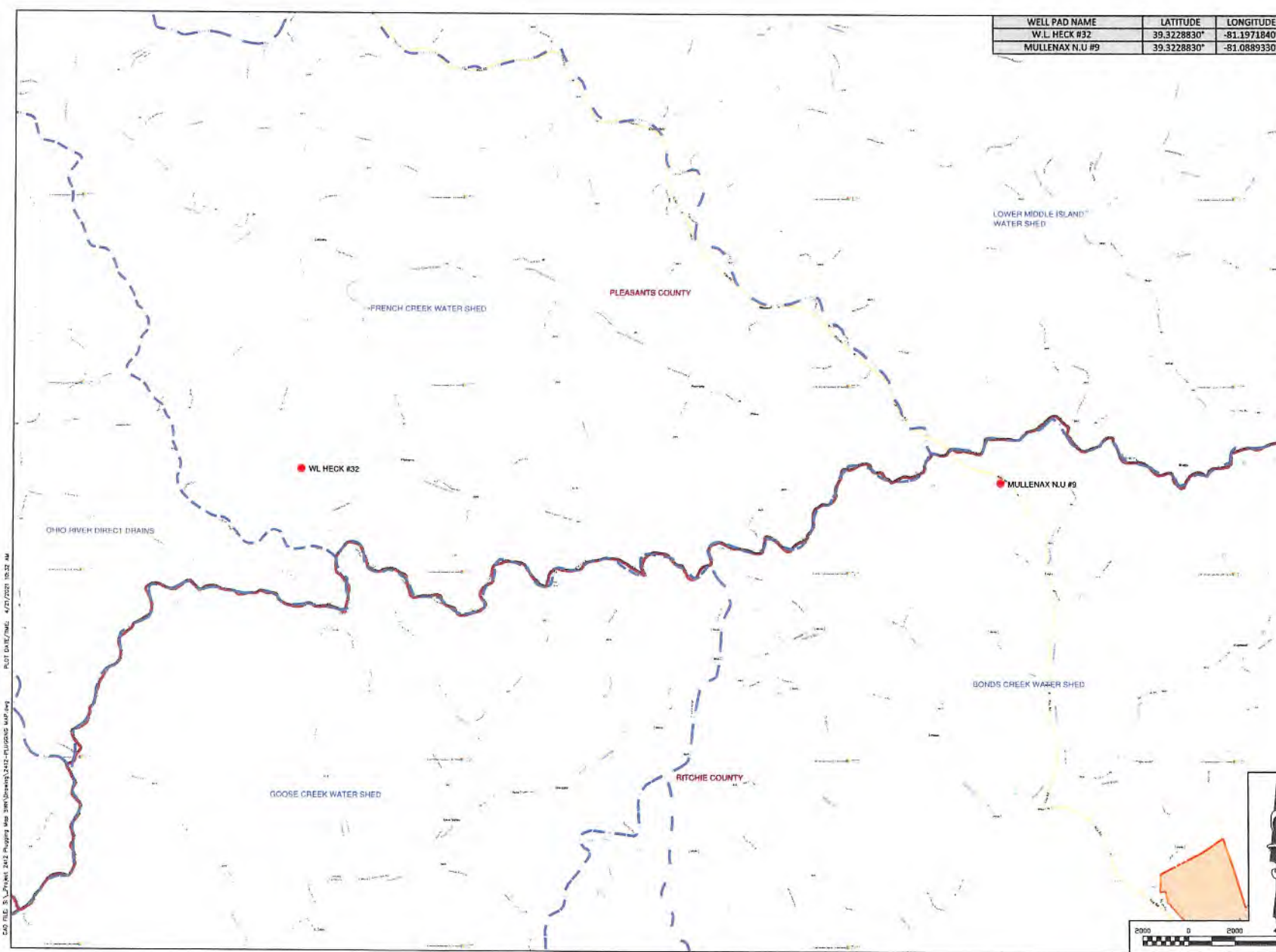
TITLE:  
**PLUGGING MAP**  
PLAN STATUS:

SHEET No:  
2



CAD FILE: S:\\_Project\_2412\Map\Map 2412.mxd  
 DATE: 4/27/2021 10:31 AM  
 PLOT DATE: 4/27/2021 10:31 AM

47-085-08512P



WELL PAD NAME	LATITUDE	LONGITUDE
W.L. HECK #32	39.3228830°	-81.1971840°
MULLENAX N.U. #9	39.3228830°	-81.0889330°



LOCATION MAP NOT TO SCALE

6		
5		
4		
3		
2		
1		
NO.	DATE	DESCRIPTION

PREPARED FOR:  
**SWn**  
 Southwestern Energy®

SEAL:

PREPARED BY:  
  
 2361 DAVISSON RUN ROAD, SUITE 103  
 CLARKSBURG, WV 26301  
 WWW.ASCENTCONSULTINGENGINEERS.COM  
 (304) 553-3443

PROJECT NUMBER:	2412	DRAWN:	CMK
DATE:	4-13-21	DESIGN:	ZLA
SCALE:	AS SHOWN	CHECKED:	MRN

TITLE:  
**PLUGGING MAP**  
 PLAN STATUS: SHEET NO.  
 3

C:\B\B\2112\2112 Plugging Map 2021\Drawings\2412-PLUGGING MAP.dwg PLOT DATE/TIME: 4/27/2021 10:32 AM

47-085-08512 R



WW-7  
8-30-06



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

API: 47-085-08512 WELL NO.: 11  
 FARM NAME: Mullenax ~~N.U.~~  
 RESPONSIBLE PARTY NAME: Virco  
 COUNTY: Ritchie DISTRICT: Grant  
 QUADRANGLE: Cairo  
 SURFACE OWNER: Heather M. Mullens, Rebecca L. Dimit, & Christopher H. Border  
 ROYALTY OWNER: Heather M. Mullens, Rebecca L. Dimit, & Christopher H. Border  
 UTM GPS NORTHING: 4,331,916.40  
 UTM GPS EASTING: 483,194.30 GPS ELEVATION: 1060'

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 \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_

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.

Brittany Moody  
Signature

Senior Regulatory Analyst

Title

5/27/21  
Date

RECEIVED  
Office of Oil and Gas  
MAY 28 2021  
WV Department of  
Environmental Protection

07/02/2021