

west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary 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 10 47-085-08511-00-00

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.

A. Marnn ames

Operator's Well Number: MULLENAX 10 Farm Name: HEATHER M. MULLENS, ET U.S. WELL NUMBER: 47-085-08511-00-00 Not Available Plugging Date Issued: 6/29/2021

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. <u>Failure to adhere to the specified permit</u> 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.

WW-4B Rev. 2/01	4708508511 1) Date 2021 2) Operator's Well No. Mullenax N.U. #10 3) API Well No. 47-085 -08511
DEPARTMENT OF ENVIR	ST VIRGINIA RONMENTAL PROTECTION OIL AND GAS
APPLICATION FOR A PERM	11T TO PLUG AND ABANDON
	d injection/ Waste disposal/ derground storage) Deep/ Shallow Watershed Gillespie Run
5) Location: Elevation 990' District Grant	County Ritchie Quadrangle Cairo
6) Well Operator Virco Address 1300 Fort Pierpont Dr., Suite 201	7) Designated Agent Brittany Woody Address 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508	Morgantown, WV 26508
8) Oil and Gas Inspector to be notified Name Derek Haught	9)Plugging Contractor 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



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

Work	order	approved by	/ inspector	_ Dersk M. Haught	Date	5/26/21
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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.
- Dig out around wellhead and set 4-5 ft of 20" conductor. Hand cement outside of conductor with bag cement.
 - 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 to find top of fish approximately 1566ft
 - 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 1550ft, pump tubing capacity, pump 25 bbls of 6% gel, spot cement plug from 1550 ft 1250 ft (50 sacks Class A)
- TOOH w/ work string above cement plug and flush tubing to ensure cement is clear of pip. WOC
- 9. Check TOC @ 1250 ft , reset plug if needed, if not TOOH w/ work string to 1000 ft
- 10. Pump 40 bbls of 6% gel then spot cement plug from 1000 ft 900 ft (17 sacks Class A)
- 11. TOOH w/ work string. Find free point on 6 1/4" casing (Est. free point @ 600 -700 ft), and cut/ rip casing (around 650 ft)
- 12. TOOH w/ 6 1/4" casing pulling several joints
- 13. TIH w/ work string to set cement plug across casing cut to 700ft. Pump 40 bbls of 6% gel ahead and spot cement plug from 700 ft 600 ft (44 sacks Class A)
- 14. TOOH w/ work string. Pull remaining 6-1/4" casing and NORM test.
- 15. TIH w/ work string to 300 ft, if well has not circulated pump 6% gel until wellbore circulates. Then spot cement plug from 300 ft 200 ft (44 sacks Class A),
- 16. TOOH w/ work string to 100 ft. Spot cement plug from 100 ft Surface (67 sacks Class A)
- 17. TOOH w/ work string, top off well with cement if needed
- 18. Erect monument per WVDEP regulations
- 19. RDMO equipment, dispose of circulated fluids properly, reclaim location and access road per WVDEP regulations

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Production Company P&A

Well Info:

Well Name - N.U. Mullenax #10 API - 47-085-0-8511 Location - 39.136291, -81.194434 County, State - Ritchie, WV Elevation - 990 ft TD - 1732 ft Well Casing Record -

Casing Size	Casing Depth	Comment
	16 ft	Conductor
10"	125 ft	Pulled – Open Hole 12"
8-1/4"	940 ft	Pulled – Open Hole 9-3/4"
6-1/4"	1345 ft	Left in well – Open Hole 7-7/8"
2-3/8"	165 ft	Length of Fish in hole – Open Hole 6"

Perforations -

Shot Interval: 1714' – 1724'

Comments -

- Hole diameter sizes are assumptions. No record of hole sizes in well file: Aronmental Protection
 Top of Fish (TOF) 1566 ft

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 0
- 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

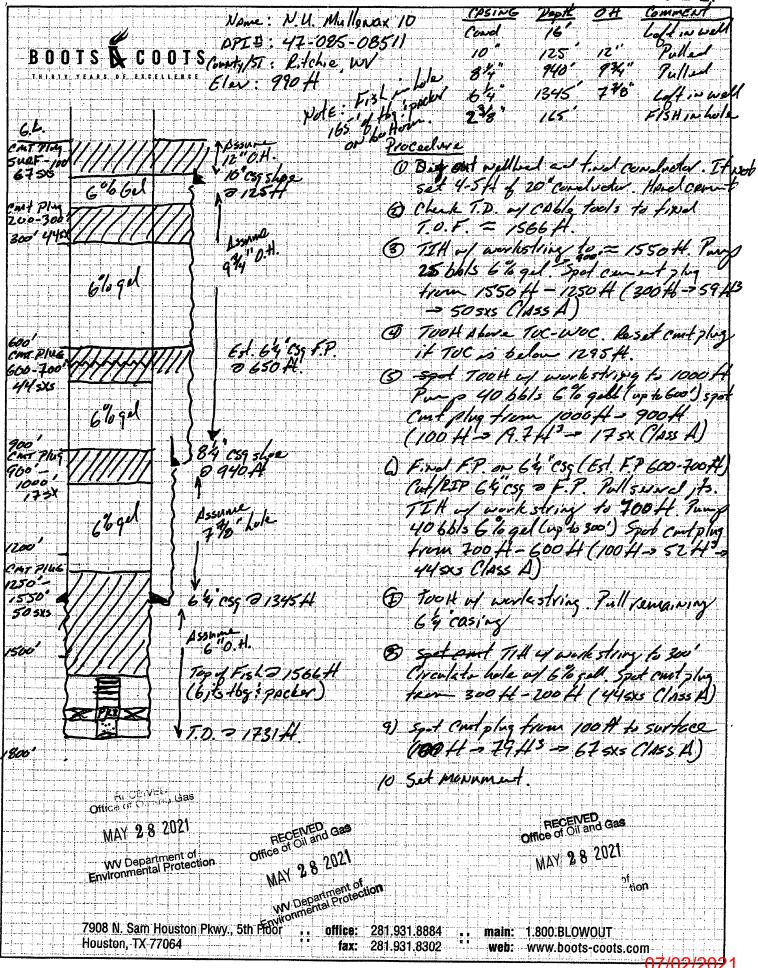
Responsibilities:

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WR-35				470	8508 #47-085	-Jeh-96 085+1 N
• •••••	Division	tate of Wes of Environ ction of Os	nmental Pi	ia cotection	`	
	Well Ope	erator's Re	eport of W	Well Work		
Farm name:	HILL, LLOYD		Operator	Well No.: M	ULLENAX	10
LOCATION:	Elevation: 990.0	00 Quadı	rangle: HA	ARRISVILLE		
	District: GRAN Latitude: 11700 Longitude 8600	r) Feet Sout Feet West	Co th of 39 t of 81	Deg. 10Min. Deg. 10Min. Deg. 10 Mir	HIE 0 Sec. 1.0 Sec	•
ROU	IED ENERGY CORPOR TE 1, BOX 30-A		Casing	Used in	Left	Cement
	ROLEUM, WV 26161	L-0000	& Tubing	Drilling	in Well	Fill Up Cu. Ft.
-	MAS H. FLUHARTY		Size			
Inspector: Permit Issue Well work Co		3/98	10"	125	N daal dam dah gar ba sin sin dan sin s	
Well work Co Verbal Plugo Permission			8- ¹ 4"	940		
Rotary Total Depth	Cable Rig (feet)	J	6- ¹ 4"	1345	1345	
Salt water of	depths (ft)					
	ng mined in area			 		
Coal Depths		(1/N):				
OPEN FLOW DA	ATA	·				I
Produci	ing formation nitial open flow_			Pay zone d	epth (ft)	1714-24
Fi	inal open flow	MCF/	'd Fi	nal open fl	OW	Bb1/d Bb1/d
T: Static	ime of open flow rock Pressure	between in psig	itial and (surface	final test pressure)	.s after	Hours Hours
Second	producing format	ion		Pay zone d	epth (ft)	
Gas: II	nitial open flow_ nal open flow	MCF/	d Oil: In	itial open	flow	Bbl/d Bbl/d
T	lme of open flow	between in	itial and	final test	S	Hours
Static	rock Pressure	psig	(surface	pressure)	after	Hours
INTERVALS, F LOG WHICH I INCLUDING CC	CK OF THIS FORM FRACTURING OR ST IS A SYSTEMATIC DAL ENCOUNTERED B	IMULATING, DETAILEØ	PHYSICA GEOLOGICA	L CHANCE	ETC. 21	THE WELL
RECEIVED Office of Oil an	d Gas For	: ALLIED E	NERGY COR	PORATION		
MAY 28	2021	By: <u>Jon</u> Date:	M. Makee	ver, Presid	ent	
WV Departm Environmental	nent of Protection				07	/02/2021

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47085085119 85-851100

DRILL DOWN SUMMARY N. U. MULLENAX #10 (P#8511) GRANT DISTRICT, RITCHIE COUNTY official of the set of

DATE DESCRIPTION

03/2005 SWABBED TUBING TO TD @1732'. MIRU COOPER SR. TRIED TO PULL TUBING AND PACKER (OPEN-HOLE). TUBING PARTED, LEFT PACKER AND TUBING IN HOLE. UNABLE TO FISH; RDMO SERVICE RIG.

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

WW-4A Revised 6-07

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1)						<u></u>	_		<u> </u>	~	who	1
2)	Operator's W	ell Num	ber									
Midle	enav NIL #10											

3) API Well No.: 47 - 085 - 08511

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

4) Surface Ow	ner(s) to be served:	5) (a) Coal Operator	
(a) Name	Heather M. Mullens	Name	N/A
Address	311 Whitehall Way	Address	
	Cary, NC 27511		
(b) Name	Rebecca L. Dimit	(b) Coal Owr	ner(s) with Declaration
Address	194 Highland Meadows Dr.	Name	
	Davisville, WV 26142	Address	
(c) Name	Christopher H. Border	Name	
Address	105 Highland Meadows, Dr.	Address	
	Davisville, WV 26142		
6) Inspector	Derek Haught	(c) Coal Less	ee with Declaration
Address	PO Box 85	Name	
	Smithville, WV 26178	Address	
Telephone	304-206-7613		

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	Virco
-9.50	By:	Brittany Woody
RECEIVED Office of Oil and Gas	Its:	Senior Regulatory Analyst
MAY 28 2021	Address	1300 Fort Pierpont Dr., Suite 201
MAY 28 LOCI		Morgantown, WV 26508
WV Department of Environmental Protection	Telephone	304-884-1610
Environme Subscribed and sworn before me	this 20th de	ver April 2021
My Commission Expires 5	e (2023)	Notary Public OFFICIAL SEAL
Oil and Gas Privacy Notice		ELIZABETH A DAY 632 Winery Road Buckhannon, WV 26201
The Office of Oil and Gas processes v	our nersonal informe	My Commission Expires May 06, 2023

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 <u>depprivacyoffier@wv.gov</u>.



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WV Department of Environmental Protection

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Office of C	Oil and Gas

WW-9 JUN 3 2021 08511 API Number 47 - 085 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? No Yes Any well effluent will be contained in tanks before disposing off-site Will a pit be used? Yes If so, please describe anticipated pit waste No V Will a synthetic liner be used in the pit? Yes 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 systembe 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 Title Senior Regulatory Analyst	
Subscribed and swom before methics 20th, day or ADVI	20 Stransman
And the and syon before the the	Notary Public, State Of West Virginia ELIZABETH A DAY
My commission expires 5 6 2023	632 Winery Road Buckhannon, WV 26201 My Commission Expires May 06, 2023
	07/02/2021

(5/16)

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Form WW-9		Operator's Well	Operator's Well No		
Proposed Revegetation Treatment	nt: Acres Disturbed ON	E Prevegetation pH 5	.5		
Lime Two		to pH <u>6.5</u>			
Fertilizer type 10-20-	20				
Fertilizer amount 500		lbs/acre			
Mulch 50 Bales		Tons/acre			
		Seed Mixtures			
Temp	orar y	Permanet	iat		
Seed Type	lbs/acre	Seed Type Orchard Grass	lbs/acre 30%		
		Rye (annual @BT)	35%		
		Timothy (Climax)	25%		
		Clover (Med.Red)	10%		

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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. Haugh	t
Comments:	
DECENED Gas	
HEGEIVED Office of Oil and Gas MAY 28 2021 WV Department of WV Department of Environmental Protection	
WV Department of tion Environmental Protection	
Title: Oil & Gas Inspector	Date: 5/26/21
Field Reviewed? ()Yes	()No

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WW-9- GPP Rev. 5/16 Page _____ of ____ API Number 47 - 085 ___ 08511 Operator's Well No._____

Quad: Cairo

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

Operator Name: Virco

Watershed (HUC 10): Gillespie Run

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.

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

N/A		
	RECEIVED Gas	
	Office of Oil and Gas MAY 2.8 2021	
	MAY 28 2021	
	WV Department of WV Departmental Protection Environmental Protection	
	Environnie	

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.

WW-9- GPP Rev. 5/16

08511 API Number 47 - 085 Operator's Well No.

1P

N/A

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

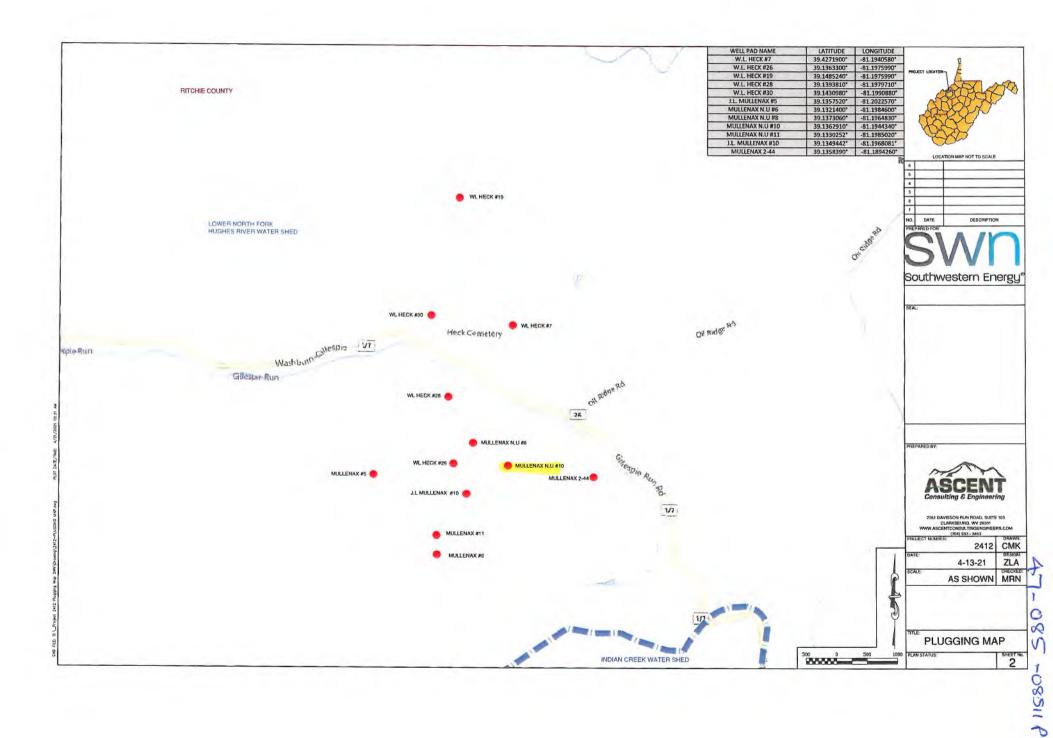
No waste materials will be used for the deicing of area or equipment. Waste materials, if any, will not be used for material fill on the property.

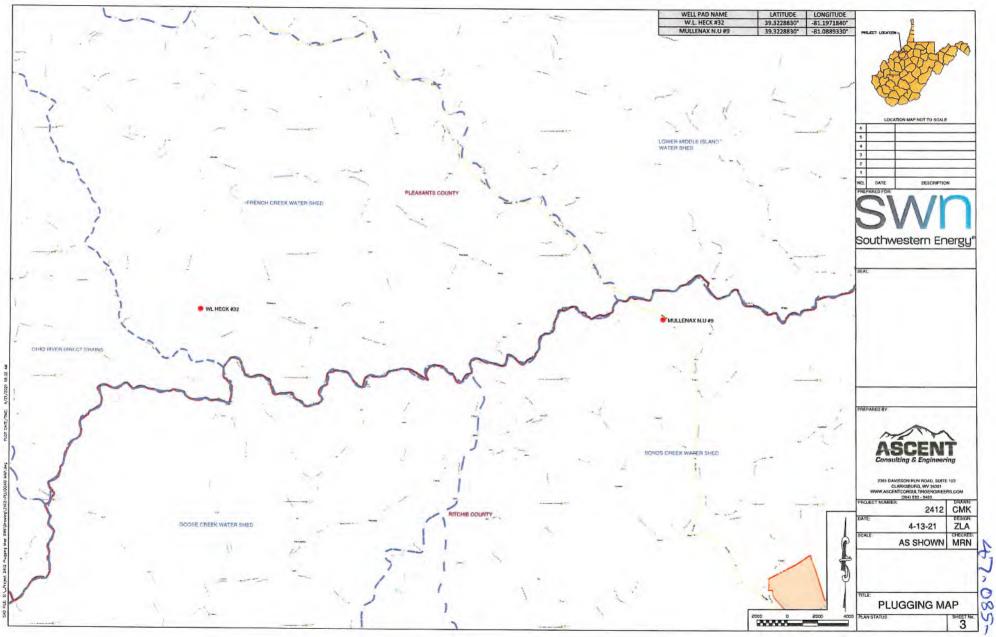
7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

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 oper	
	RECEIVED Office of Oil and Gas MAY 28 2021 WAY Department of Environmental Protection
Signature: BAttlany Abody	Environmenter
Date: 5272	





2-08211P

4708508511

WW-7	
8-30-06	



nvironmental Protection	
nd Gas	
FORM: GPS	
WELL NO.: 10	
DISTRICT: Grant	
ecca L. Dimit, & Christopher H. Border	
ecca L. Dimit, & Christopher H. Border	
GPS ELEVATION: 990'	

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 X

WV Department of Environmental Protection

Office of Oil and Gas

MAY 2 8 2021

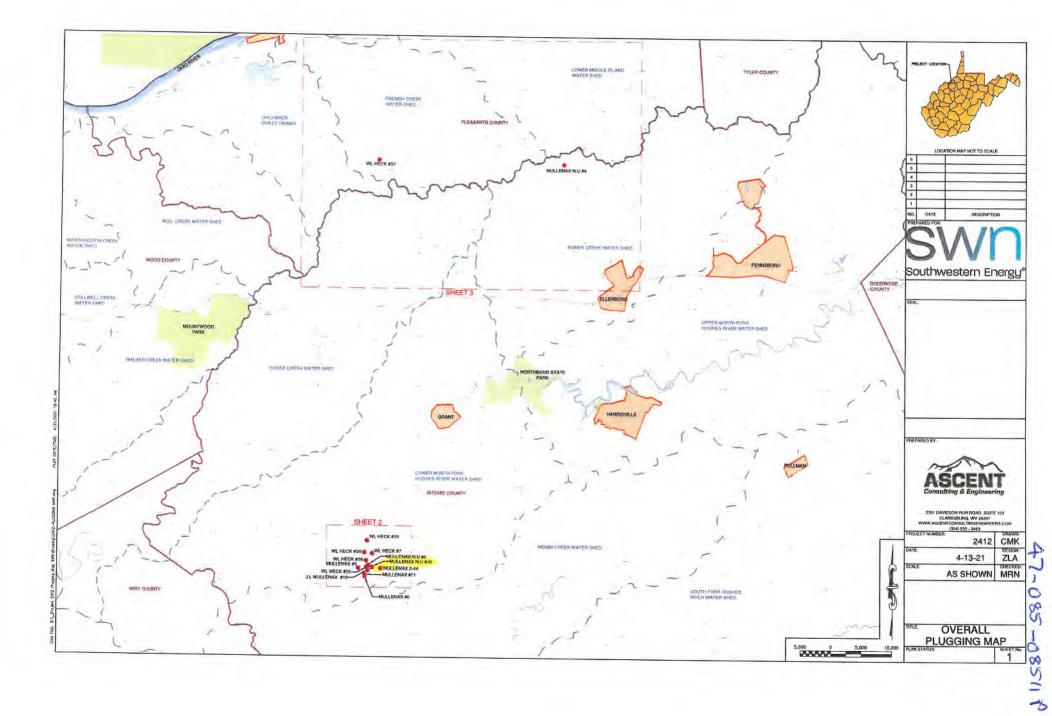
Mapping Grade GPS ____: Post Processed Differential ____

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.

Rettony Moody	Senior Regulatory Analyst	5/27/21
Signature	Title	Date
		07

07/02/2021



Mullingx NU#10

47085085119

11/10/2016

PLUGGING PERMIT CHECKLIST

Plugging Permit

WW-4B WW-4B signed by inspector

in in signed

_WW-4A

SURFACE OWNER WAIVER or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERITFIED

COAL OWNER/COAL OPERATOR/COAL LESSEE WAIVERS or PROOF THAT APPLICATION WAS SENT

WW-9 PAGE 1 (NOTARIZED)

WW-9 PAGE 2 with attached drawing of road, location, pit and proposed area for land application

WW-9 GPP PAGE 1 and 2 if well effluent will be land applied

RECENT MYLAR PLAT OR WW-7

WELL RECORDS/COMPLETION REPORT

TOPOGRAPHIC MAP OF WELL, SHOWING PIT IF PIT IS USED

MUST HAVE VALID BOND IN OPERATOR'S NAME

CHECK FOR \$100 IF PIT IS USED

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07/02/2021