

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 Vertical Plugging

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

Re: Permit approval for MULLENAX 4-125 47-085-09140-00-00

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 Martin

Operator's Well Number: MULLENAX 4-125 Farm Name: PAYNE, ALVIN & L. CARLIN U.S. WELL NUMBER: 47-085-09140-00-00 Vertical 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-4 Rev.	B 2/01		W	4708509140 ate
		DEPARTMENT OF ENVIR	ST VIRGINIA RONMENTAL PROTECT OIL AND GAS	ION
		APPLICATION FOR A PERM	AIT TO PLUG AND AN	BANDON
4)	Well Type: 0:	1/ Gas x/ Liquid	l injection	/ Waste disposal/
		as, Production <u>x</u> or Uno		
5)	Location: Ele		Watershed Gillesp	
	Dis	strict Grant	County Ritchie	Quadrangle Cairo
6)	Well Operator	Virco	7)Designated Ag	ent Brittany Woody
		1300 Fort Pierpont Dr., Suite 201	Addr	ass 1300 Fort Pierpont Dr., Suite 201
		Morgantown, WV 26508		Morgantown, WV 26508
8)	Oil and Gas In Name Derek H	nspector to be notified aught	9)Plugging Cont: Name NA	ractor
	Address PO	Box 85	Address	
	Smit	hville, WV 26178		
	Print Party and			

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

See Attachment

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MAY 2 8 2021

WV Department of Environmental Protection

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

5/26/21 Date

07/02/2021

Well Name:	J.L. Mullenax #4-125	Casing	<u>Depth</u>	<u>OH</u>	Comment	Shot interval
API#:	47-085-09140	Cond.	?			1947' - 1967'
County/St.	Ritchie,WV	10"	??	12"	Pulled	
Elev.	1121 ft.	8 1/4"	1210 '	9 3/4"	Pulled	
TD	1992 ft.	6 1/4"	1770'	8"	Left in well	

Comments:	Hole diameter sizes are assumptions. No record of hole sizes in well file
	Access road and location to be constructed per WVDEP Regs 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
	Contractor will follow all SWN HSER requirements

** Company was planning to drill deeper this well. They cleaned out the original hole to TD (1980 ft.) and then make another 12 ft. to 1992 ft. Tubing was ran to the new TD and the open-hole was cemented back will 125 sacks Class A w/ 2% gel,1/4 #/sk flocele. Pulled tubing above estimated cement top WOC, tagged TOC @ 1412 ft. Bailed 6 1/4" casing dry and hand mixed another 25 sacks of Portland cement . Spotted additional cement w/ bailer . Plug back depth is between 1117 ft. - 1265 ft. (Cement top is 500ft. - 600 ft up inside the 6 1/4" casing)

Procedures

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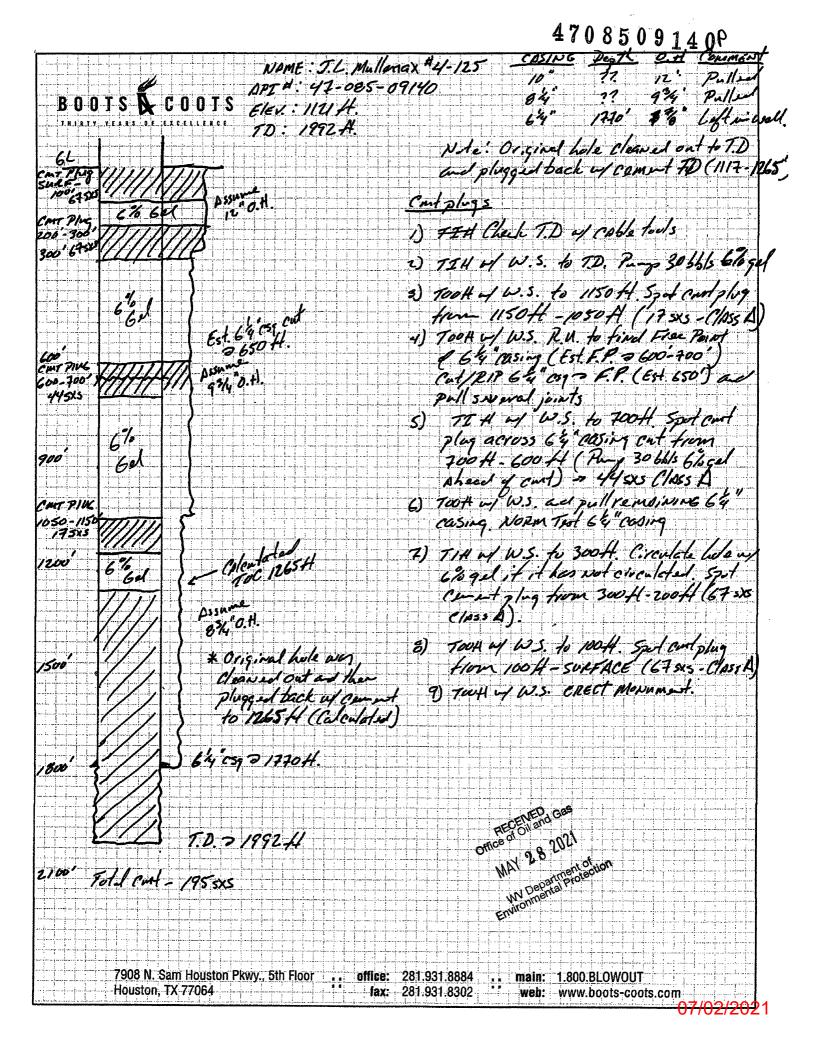
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- 1) MIRU all plugging equipment, install all sediment and erosion controls and secondary containment
 - 2) Dig out around wellhead and set 4-5 ft. of 20" conductor if 16" conductor is not found. Hand cement outside of conductor with bag cement
 - (This is to control and capsure inadvertant returns from the backside of the 6 1/4" casing)
- 3) Check pressures and bleed off if present.
 - 4) Check well TD with cable tools to determine actual plug back depth . Note : If TD is significantly different from the well record TD notify WVDEP Inspector
 - 5) TIH with workstring to TD. Pump 30 bbls. of 6% Gel, TOOH with worstring to 1150 ft.
 - 6) Spot cement plug from 1150 ft 1050 ft. (17sacks Class A), TOOH with worstring
- 7) RU and find free point on 6 1/4" casing (Estimate F.P. @ 600 ft. 700 ft.). CUT/RIP 6 1/4" casing @ F.P. (Est. 650 ft.) and pull severalm joints of 6 1/4" casing.
 - 8) TIH with workstring to set cement plug across 6 1/4" casing cut to 700 ft. Pump 30 bbls of 6% Gel and spot cement plug from 700 ft. 600 ft. (44 sacks -Class A)
 - TOOH with workstring and then pull remaining 6 1/4" casing out of the wellbore.
 - 10) TIH with workstring to 300 ft. If wellbore has not circulate pump 6% Gel until well circulates. Spot cement plug from 300 ft. 200 ft. (67 sacks-Class A)
 - 11) TOOH with workstring to 100 ft. Spot cement plug from 100 ft. Surface . (67 sacks -Class A)
 - 12) TOOH with workstring, top off wellbore with cement if needed
 - 13) Erect monument per WVDEP Regs.
 - 14) RDMO equipment, dispose of circulated fluids properly
 - 15) Reclaim location and access road to WVDEP Regs.

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. WR-35 Rev (5-01)

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DATE: API#: 9140-DD

State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operato	r's Report of We	ell Work	1	
Well Operato Farm name: J.L. Mullenax (Payne A LOCATION: Elevation: <u>1121 Gl</u>	.) Oper	ator Well No.:	# 4-125	Office of Oll
LOCATION: Elevation: 1121 Gl	Quad	Irangle:	Cairo /	Ary 0 1 2006
District:Grant	Cou	nty: Ritč	hie a m	Department of mental Protection
Latitude: Feet South of Longitude Feet West of	Deg.	Min.	Seoniniron	mennen
LongitudeFeet West of	Deg.	Min.	Sec.	Protect
				scion
Company: Virco, Inc.	• 4			
	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. Box 100 .				
Reno, Ohio 45773	6 1/4"	1370'	1370'	Hung
Agent: Llyod Todd		•		
Inspector: Steve Mossor	1			
Date Permit Issued: 2/03/2005	1			
Date Well Work Commenced: 3/07/2005				
Date Well Work Completed: 4/01/2005	1			
Verbal Plugging:				
Date Permission granted on:	1			
Rotary Cable Rig	1			•
Total Depth (feet): 1990' (1980')				
Fresh Water Depth (ft.): N/A				
	1			
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? NO		•		
Coal Depths (ft.): N/A				
	1			ŀ
OPEN FLOW DATA				
Producing formation N/A	Day an	na danth (A)	27 / 2	
Gas: Initial open flow MCF/d Oil: Final open flow MCF/d F Time of open flow between initial and fi	Initial open flo			6
Final open flow MCE/d E	inal open flow	WD	DI/Q	(D) Car
Time of open flow between initial and fi	mai open now	B	01/a	ellerano al
Static rock Pressurepsig (surfac			6	NON DE ANT
psig (surrac	æ pressure) afte	er Hou	ITS AU	and antreation
Second producing formation	Pay zone	e depth (ft)	Offic	WIN 28 2021 Protocology
Gas: Initial open flow MCF/d Oil:	Initial open flor	w Ri	ol/d	NUMBI
runal open tiow MCF/d F	inal open flow	í Ri	ol/d	Wind!
Time of open flow between initial and fi	nal tests	Hours	-	AL.

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.

_____psig (surface pressure) after _____

Hours

Hours

Signed:

Static rock Pressure

By: Ben Smel żer Date: 4/27/06

Time of open flow between initial and final tests

*Decision made to not deepen well.

07/02/2021

· · ·	Lease No		Acres	. <u>.</u> THU	NDER_CORP	ORATI. Mullenax	· ·::.			
· · · · · · · · · · · · · · · · · · ·						, MULICIAX			Well No. 850	
		<u>. Е.</u>	W.	Loc.			Purchase		000	2140
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	State W.				Cont ^t or	-1)-12	Date Sold			-
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		FORMA		r		Construction of the local division of the lo	SING RECOR			
	Kind	Top	Bottom	M'ure Line	Tests	Size	Bottom (line)	Bottom (taly)		ed C
	Salt	1916				10"			x	
	011		1951			8 1/4"		1210'	1210	,
					•	6 1/4"	13# top	1370'		
	T.D.		1980			6 1/4"	17#	400'		
• I								1770'	1	1
88984 mgana an an air agus 1988 B'1984 mga			-		A					+
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	GAS	1	1					ļļ	<u> </u>	

WW-4A Revised 6-07

1)	Date:	-	2	M	121	2
2)	Operator's	Well	Num	ber	1	
	Mullenax 4					

3) API Well No.: 47 -

_ 09140

470,85091408

085

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	Carlin Lee Payne	Name	N/A
	Address	1121 US Highway 11 Lot 32	Address	
		Gouverneur, NY 13642		
	(b) Name	Alvin Payne	(b) Coal Own	ner(s) with Declaration
	Address	121 1/2 W. Ottawa St	Name	
		Richwood, OH 43344	Address	
	(c) Name		Name	
	Address		Address	
6)	Inspector	Derek Haught	(c) Coal Less	see 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:

- 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.

RECEIVED Office of Oil and Gas	Well Operator	Virco
MAY 2 8 2021	By:	Brittany Woody
MAT 40 2021	Its:	Senior Regulatory Analyst
WV Department of	Address	1300 Fort Pierpont Dr., Suite 201
WV Department of Environmental Protection		Morgantown, WV 26508
	Telephone	304-884-1610
Subscribed and sworn before My Commission Expires	he this Roth de	Appf April 2021 Notary Public OFFICIAL SEAL
Oil and Gas Privacy Notice	5 pe/202	Notary Public, State Of West Virginia ELIZABETH A DAY 632 Winery Road Buckhannon, WV 26201
The Office of Oil and Gas process	ses your personal informa	ation, such as name, address and phone My Complesion Explice 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. If you have any questions about our use of your personal information.



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WV Department of Environmental Protection

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WW-9	JUN 3 2021	
(5/16)	WV Department of Environmental Protection	API Number 47 _ 085 09140 Operator's Well No
	STAT DEPARTMENT OI OFFI	TE OF WEST VIRGINIA F ENVIRONMENTAL PROTECTION ICE OF OIL AND GAS DISPOSAL & RECLAMATION PLAN
Operator Name	Virco	OP Code 7434
Watershed (HU	C 10) Gillespie Run	Quadrangle Cairo
	ate using more than 5,000 bbls of water to	o complete the proposed well work? Yes No ell effluent will be contained in tanks before disposing off-site
lf so, p	please describe anticipated pit waste	
Will a	synthetic liner be used in the pit? Yes	No 🖌 If so, what ml.?
Propos	sed Disposal Method For Treated Pit Was	stes:
	Underground Injection (UIC Reuse (at API Number	provide a completed form WW-9-GPP) Permit Number TBD pending selection of plugging contractor) m WW-9 for disposal location)
Will closed loop	p systembe used? If so, describe: N/A	
Drilling medium	n anticipated for this well (vertical and h	orizontal)? 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 d	isposal method? Leave in pit. landfill, rei	moved offsite, etc. N/A
		will be word? (compared lime now durt) N/A
-If left	in pit and plan to solidify what medium	will be used : (centent, nine, sawdust) far

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 o btaining 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 imprison

Company Official Signature	
Company Official (Typed Name) Brittany Woody	
Company Official Title Senior Regulatory Analyst	
Subscribed and swan before we this 20 day of XDVIL	20 20 Destation OFFICIAL SEAL
Lesphoth & Cay	Notary Public, State Of West Virginia
My commission expires 5/6/2020	Buckhannon, WV 26201 My Commission Expires May 06, 2023

Form W	/W-9	
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Operator's Well No._____

Proposed Revegetation Treat	ment: Acres Disturb	Ded ONE Prevegetation pl	1 5.5	
Lime Two		correct to pH 6.5		
Fertilizer type 10-2	20-20			
Fertilizer amount 5	00	lbs/acre		
Mulch 50 Bales		2.5 Tons/acre		
		Seed Mixtures		
Temporar y		Perma	Permanent	
Seed Type	lbs/acre	Seed Type Orchard Grass	lbs/acre 30%	
		Rye (annual @BT)	35%	
		Timothy (Climax)	25%	
	1	Clover (Med.Red)	10%	

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:	
	Office of Oil and Ga
	MAY 2 8 2021
	WV Department of Environmental Protection
Title Oil & Gas Inspector	Date: 5/26/21
Field Reviewed? (Yes (

4708509140

WW-9- GPP Rev. 5/16 Page _____ of ____ API Number 47 - 085 ____ 09140 Operator's Well No._____

Ouad: 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 Office of Oil and Gas
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4. Summarize all activities at your facility that are already regulated for groundwater protection.

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

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

07/02/2021

WW-9- GPP Rev. 5/16

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09140

Page _____ API Number 47 - 085 Operator's Well No. _____

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.

 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. office of NAY 2.8 2021 tary Mody Signature: Date:



WW-7
8-30-06



West Virginia Department of Office of Oil	
WELL LOCATION	
API: 47-085-09140	WELL NO.: 4
FARM NAME: J.L. Mullenax	
RESPONSIBLE PARTY NAME: VIRCO	
	DISTRICT: Grant
QUADRANGLE: Cairo	
surface owner: Alvin Payne &	Carlin Lee
ROYALTY OWNER: Alvin Payne &	
UTM GPS NORTHING: 4,331,513.00)
UTM GPS EASTING: 483,531.60	GPS ELEVATION: 1121'

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: 1. 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

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

Environm 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	N	M
Signature	0.0	

Senior Regulatory Analyst Title

Date

Office

07/02/2021

J.L. Mullenax #4

11/10/2016

PLUGGING PERMIT CHECKLIST

Plugging Permit WW-4B WW-4B signed by inspector WW-4A SURFACE OWNER WAIVER OF PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERITFIED MAIL COAL OWNER/COAL OPERATOR/COAL LESSEE WAIVERS or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERTIFIED MAIL 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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MAY 28 2021

WV Department of Environmental Protection