

#### 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

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Monday, April 13, 2020 **WELL WORK PLUGGING PERMIT** Vertical Plugging

ROSS AND WHARTON GAS COMPANY, INC. RT. 5, BOX 29

BUCKHANNON, WV 262010000

Re:

Permit approval for 2 47-041-00351-00-00

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.

Operator's Well Number: 2

Farm Name: FRANCIS, W. A.

U.S. WELL NUMBER: 47-041-00351-00-00

James A. Martin

Chief

Vertical Plugging

Date Issued: 4/13/2020

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 conditions may result in enforcement action.</u>

#### **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.

WW-4BRev. 2/01

1) Date Febru	ary 18	3,	2020	
2)Operator	's			
Well No.	W.A. Fr	ancis #2	_	
3) API Well	No.	47-041	- 00351	

Date <u>2-27-20</u>

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

5) Location: Elevation 1284'	Watershed Skin Creek
District Skin Creek	County Lewis Quadrangle Roanoke
6) Well Operator Ross & Wharton Gas Co. In	nc. 7) Designated Agent Mike Ross
Address 354 Morton Ave.	Address P.O. Box 219
Buckhannon, WV 26201	Coalton, WV 26257
8) Oil and Gas Inspector to be notified	
Name Barry Stollings Address 28 Conifer Dr.	Name N/A
Bridgeport, WV 26330	Address
Free point and recover casing's & t	ubular's
6% Gel between plug's	
6% Gel between plug's Set cement plug 4300' to TD (4414	') plug 100' above top perf OC, TAG * ADD CE
6% Gel between plug's Set cement plug 4300' to TD (4414 Set 100' cement plug across casing	g cut
6% Gel between plug's Set cement plug 4300' to TD (4414	g cut show,
6% Gel between plug's Set cement plug 4300' to TD (4414 Set 100' cement plug across casing Set cement plug 2300' to 2400' gas	plug 100' above top perf OC, TAG * ADD CEVE OF CUT  is show, casing plug  THIS STRING MAY NOT HAVE DEEN  IF NOT MAY COT & PULL.
6% Gel between plug's  Set cement plug 4300' to TD (4414  Set 100' cement plug across casing  Set cement plug 2300' to 2400' gas  Set cement plug 1600' to 1700' 8" of	plug 100' above top perf OC, TAG ADD COLLER SENOW, casing plug  THIS STRING MAY NOT HAVE DEEN IF NOT MAY COT & PULL.  urface plug).
6% Gel between plug's  Set cement plug 4300' to TD (4414  Set 100' cement plug across casing  Set cement plug 2300' to 2400' gas  Set cement plug 1600' to 1700' 8" of  Set cement plug 100' to surface (su	plug 100' above top perf OC, TAC ADD CEUR OC LE NEW OC STALL ADD CEUR OC LE NEW OC ADD CEUR OCCUPANT O
6% Gel between plug's Set cement plug 4300' to TD (4414 Set 100' cement plug across casing Set cement plug 2300' to 2400' gas Set cement plug 1600' to 1700' 8" of Set cement plug 100' to surface (su	I') plug 100' above top perf OC, TAG * ADD CELL g cut s show, casing plug  THIS STAING MAY NOT HAVE IF NOT MAY COT & PULL. urface plug).  Imment with API number  RECEIVED

Work order approved by inspector Barry Stillep



### DEPARTMENT OF MINES OIL AND GAS DIVISION

Rotery	
Spudder	显
Cable Tools	

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	351	ממ	. V

WELL RECORD

Permit No.			Off or	Ges Well Gas
Company Talkkngton-Brady, Inc.  Address Box 371, Buckhannon, W.Va.	Casing and Tuking	Used in Delling	Left he Well	Packers
Farm W.A. Francis Acres 196	Size			
Location (waters) Skin Creek	16			Kind of Packer
Well No. 2 Riev. 1683 '	13	21	21	
Well No. Skin Creek County Lewis	10		ļ	Stan of
The surface of tract is owned in fee by W.A. Francis	814	1680	1680	
Address R#2, Roanoke, W. Va.	6%	ļ	ļ	Depth set
Mineral rights are owned by W.A. Francis	5 3/16			
Addres R#2, Koanoke, W.V	a .415		4474	
Drilling commenced November 196	3	ļ		Perf. top 4406
Drilling completed January 18,1967	2	<b> </b>	<b></b>	Perf. bottom 4410
Date Shot	Liners Used		<u> </u>	Perf. top
With	***************************************		<u> </u>	Perf. bottom
Open Flow /10ths Water ininch	Attach copy of	comenting reco	rd.	
/10ths Merc. ininch	CASING CEM	ENTED	SIZE	No. PtDate
Volume Cu. Ft.	Amount of com	ent used (bags)		
Rock Pressurebrs.				
Oilbbie., 1st 24 hrs.	COAL WAS E	NCOUNTERE	D AT	FEETINCHES
WELL ACIDIZED (DETAILS)	FEE	TIN	CHES	PHETINCHES
***************************************	FBE			PERTINCHES
WELL FRACTURED (DETAILS) 953 Rbbs. water, 184	+000 cu.ft	nitroge	a. 60,000	lbs. sand
RESULT AFTER TREATMENT (Initial open Flow or bbis.) 834,	000 cu.ft.	25/10 w	ater thru	41/211
ROCK PRESSURE AFTER TREATMENT 1200-48				
Fresh Water Poot			Pest.	
Producing Send Benson	·	Depth 440	00-4414	
Bent er				

			<del></del>		Depta	A . 1171	
Formation	Color	Hard or Bott	Top	Bottem	Off, Gas or Water	Depth	Remarks
Slate			2134	2150			
Red Lime			2150	2162		1	
Slate			2162	2206			
Lime			2206	2222			
Slate			2222	2325			
Sand			2325	2345	Gas	15/10 water	
			ł			thru 2"	165M
Slate			2345	2420	l		
ime			3420	2460			
Sand			2460	2487		1	
Slate & Sh			2487	4400			
Benson San	pa		4400	4414	Gas	4/10 water	
			}	1		thru 2"	84 M
	-		1		i		
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				İ			Office of Oil and Gas
							MAR (19: 20
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							WV Department of Environmental Protection
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## STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION 5

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**WELL RECORD** 

Oil or Gas Well Gas

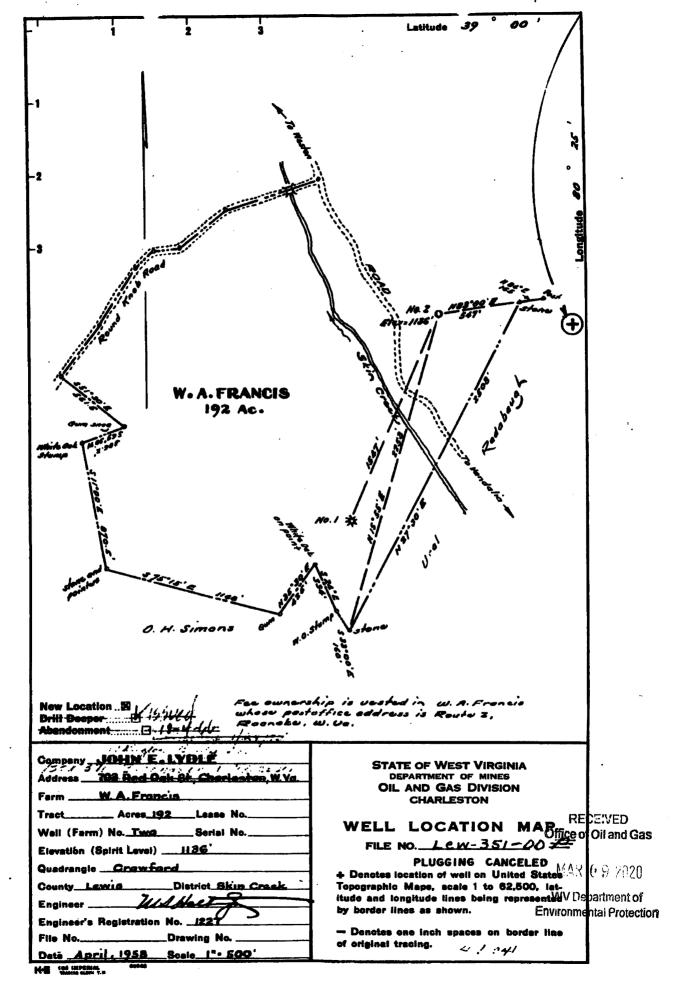
	***************************************				-		(4,000)
Address 703	Red Oak	St., Chas	Wines 2. W. Va.	Casing and Tubing	Used in Drilling	Left in Well	Packers
		8	Acres 204		<del> </del>	<b></b>	
ocation (waters)		Creek		Size	1		
Veli No.	2 Cma ala		Elev. 1284	16	21'6"	07.16.0	Kind of Packer
estrict Skin		-	<u>wis</u>		459'	21'6"	
he surface of tra	act is owned in	fee by Ban	me oke, W. Va.	10	1680	None 1680'	Size of
		·		814	1000	1000	
lineral rights ar			ame	6¾ 5 3/16	<del> </del>		Depth set
-illing sommens		ember 19.		3 8/10			Perf. top
rilling complete		ber 29. 1		2	2140*	2140	Perf. bottom
te Shot 10-2	27-58 From	2122' 1	<u>2130'</u>	Liners Used			Perf, top
ith Nitr							Perf. bottom
pen Flow	/10ths Water i	n	Inch		<u> </u>		
	/10ths Merc.	in	Inch	CASING CEN	ENTED	SIZE	No. FtDate
olume 1.]	150,000		Cu. Ft.	JABING USA	4 12 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15		
ock Pressure	410	lbs		0047 ======		D 45	WEIVER -
ii	None		bbls., 1st 24 hrs.				FEETINCHES
VELL ACIDIZE	DNo						FEETINCHES
				FEE	etinc	THES	_FEETINCHES
VELL FRACTU	RED NO	<del></del>					
ESULT AFTER	R TREATMEN	T					
ROCK PRESSUR	RE AFTER TR		· · · · · · · · · · · · · · · ·				
Fresh Water		Feet		_Salt Water_		F	et
Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depti	Remarks
5011			0	13			
Shale			13	40			
Red Rock	•		40	80			
Red Rock	:		80	110 169			
a fiden	-		169	210			
: Shate			210	247			
Parts .			247	285			
rand Rock	.		285 320	320 345			
	Shells		345	435			
Indiana :			435	469			
332.030			469	485	+742 -148		
	٠		485 542	5#2 548	+142		
i dend			548	569			
- Carte			569	. <b>5</b> 69 <b>5</b> 72			
Mil Merc	.		572	740			
Sand			740 745	745 760			RECE:VE
Shale			760	700 775			Office of Oil an
Line			775	775 800			
Send Slate			1 <b>8</b> 00 i	844			1419
Send			844 868	<b>8</b> 68		\$910ff	2123
Slate	•		980	980 1000	1	and the	٠
			300	<b>T000</b>	4	DF:	WV Departme vironmental Pro
					j.m	REC:	
.					100	WEST	
			L		از ا	5 DEPT	<b>S</b>

Formation	Color	Hard or Soft	Top 5	Bottom	Oil, Gan or Water	Depth Found	Remarks
Lime Slate Lime Sand Slate Sand Slate Sand Slate Red Rock Lime Red Rock Lime Red Rock Little Li Pensil Ge Big Lime Slate & S Lime Slate & S Sand Slate & S Sand Slate & S	me ve d hells		1000 1025 1046 1061 1124 1136 1202 1245 1382 1450 1527 1546 1606 1623 1635 1663 1677 1916 2008 2050 2067 2120	1025 1046 1061 1124 1136 1202 1245 1382 1450 1527 1546 1696 1605 1605 1605 1605 1605 1605 1605 2008 2050 2050 2134			
						i	

APPROVED Environmental Protection

With Course (Title)

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WW-4A Revised 6-07 1) Date: February 18, 2020
2) Operator's Well Number
W.A. Francis #2

3) API Well No.: 47 -

041 - 00351

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

4) Surface Own	ner(s) to be served: 5)	(a) Coal Operator	
(a) Name	US Army Corps of Engineers Stonewall Jackson La	ake Name N/A	
Address	Attn: Jeff Toler 1012 Skin Creek Road	Address	
	Weston, WV 26452		
(b) Name		(b) Coal Owner(s) with Declaration	
Address		Name N/A	
		Address	
(c) Name		Name	
Address		Address	
6) Inspector	Barry Stollings	(c) Coal Lessee with Declaration	
Address	28 Conifer Dr.	Name N/A	
11441655	Bridgeport, WV 26330	Address	
Telephone	1-304-552-4194	radiess	
relephone	1 304 302 4134		
The reason However, ye Take notice accompany Protection, the Applica	that under Chapter 22-6 of the West Virginia Cong documents for a permit to plug and abandon a with respect to the well at the location described	ights regarding the application which are summarized in the ode, the undersigned well operator proposes to file or has file well with the Chief of the Office of Oil and Gas, West Virg on the attached Application and depicted on the attached Fod or certified mail or delivered by hand to the person(s) n	ed this Notice and Application and inia Department of Environmental orm WW-6. Copies of this Notice,
STEET S	OFFICIAL SEAL NOTARY PUBLIC TATE OF WEST VIRGINIA BY: Its: Address	Ross & Wharton Cas Company Inc.  President  354 Morton Ave.	
B	UCKHANNON WV 26201 #	Buckhannon, WV 26201	
My Co	Telephone	1-304-472-4289	
Subscribed and	sworn before me this 36 d	lay of February, 2020 Notary Public	RECE:VED Office of Oil and Gas
My Commission	Expires September 27,	-	MAR 0 9 2020
Oil and Gas Priva	,		WV Department of

Environmental Protection

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 <a href="mailto:depprivacyoffier@wv.gov">depprivacyoffier@wv.gov</a>.

WW-9 (5/16)

API Number	17 - <sup>041</sup>	_ 00351	
Operator's We	ll No.		

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Ross & Wharton Gas Company Inc.	OP Code 306580
Watershed (HUC 10) Skin Creek Quad	Irangle Roanoke
Do you anticipate using more than 5,000 bbls of water to complete the pro	posed well work? Yes No
Will a pit be used? Yes No	EFFLUENT WILL BE CONTAINED BEFORE DISPOSING OF OFFSITE.
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 complet	ted form WW-9-GPP)
Underground Injection (UIC Permit Number_	
Reuse (at API Number Off Site Disposal (Supply form WW-9 for disp	
Other (Explain_	
Will closed loop systembe used? If so, describe:	
Drilling medium anticipated for this well (vertical and horizontal)? Air, fr	eshwater, oil based, etc.
-If oil based, what type? Synthetic, petroleum, etc	
Additives to be used in drilling medium?	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.	
-If left in pit and plan to solidify what medium will be used? (cer	ment, lime, sawdust)
-Landfill or offsite name/permit number?	
Permittee shall provide written notice to the Office of Oil and Gas of any lewest Virginia solid waste facility. The notice shall be provided within 24 lewhere it was properly disposed.	hours of rejection and the permittee shall also disclose
I certify that I understand and agree to the terms and conditions of on April 1, 2016, by the Office of Oil and Cas of the West Virginia Depa provisions of the permit are enforceable by law. Violations of any term or or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined application form and all attachments thereto and that, based on my inquiry the information, I believe that the information is true, accurate, and comsubmitting false information, including the possibility of fine or imprisonm Company Official Signature  Company Official Title  President  Subscribed and sworn before me this  about  day of  February	of the GENERAL WATER POLLUTION PERMIT issued artment of Environmental Protection. I understand that the condition of the general permit and/or other applicable law and am familiar with the information submitted on this of those individuals immediately responsible for o btaining uplete. I am aware that there are significant penalties for nent.  RECE:VED Office of Oil and Gas  MAR 0 9 2070  WV Department of Environmental Protection
Bush & Bush	Notary Public NOTARY PUBLIC
My commission expires September 27, 2020	STATE OF WEST VIRGINIA BRENDA K BUSH 20 GUM STREET BUCKHANNON, WV 26201 My Commission Expires September 27, 2020

Proposed Revegetation Tre	atment: Acres Disturbed 1	Preveg et	ation pH 6.5
Lime 2	Tons/acre or to correct to p	H 6.5	
Fertilizer type	0-20		
Fertilizer amount_	500	lbs/acre	
<sub>Mulch</sub> Hay	Ton	s/acre	
	Se	eed Mixtures	
Т	Гетрогагу		Permanent
Seed Type	lbs/acre	Seed Type	lbs/acre
Fescue	30	Fescue	30
Contractor's Mix		Contractor's Mix	
Maps(s) of road, location, provided). If water from the L, W), and area in acres, o	pit and proposed area for land appl e pit will be land applied, provide of the land application area.		s including this info have been ons (L, W, D) of the pit, and dimen
Maps(s) of road, location, porovided). If water from the L, W), and area in acres, o	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	ons (L, W, D) of the pit, and dimen
provided). If water from the (L, W), and area in acres, of Photocopied section of involved by:	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved and Approved by:	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	ons (L, W, D) of the pit, and dimen
Maps(s) of road, location, porovided). If water from the L, W), and area in acres, or Photocopied section of involved Plan Approved by:	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	ons (L, W, D) of the pit, and dimen
Maps(s) of road, location, provided). If water from the (L, W), and area in acres, or Photocopied section of involved Plan Approved by:	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	ons (L, W, D) of the pit, and dimen
Maps(s) of road, location, provided). If water from the (L, W), and area in acres, or Photocopied section of involved Plan Approved by:	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	ons (L, W, D) of the pit, and dimen
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved and Approved by:	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	ons (L, W, D) of the pit, and dimen
Maps(s) of road, location, provided). If water from the (L, W), and area in acres, o	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.	water volume, include dimension	ons (L, W, D) of the pit, and dimen
Maps(s) of road, location, provided). If water from the (L, W), and area in acres, or Photocopied section of involved Approved by:	e pit will be land applied, provide of the land application area.  olved 7.5' topographic sheet.  Barry Lilly	water volume, include dimension	RECE:VED Office of Oil and G

WW-9- GPP Rev. 5/16

1	Page		of 2_
API Number 47 -	041	-	00351
Operator's Well No	).		

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

GROUNDWATER PROTECTION PLAN

perator Name: Ross & Wharton Gas Company Inc.	
atershed (HUC 10): Skin Creek Quad: Roanoke	
arm Name:	
List the procedures used for the treatment and discharge of fluids. Include a list of all operations t groundwater.	that could contaminate the
N/A	
Describe procedures and equipment used to protect groundwater quality from the list of potential co	ontaminant sources above.
N/A	
List the closest water body, distance to closest water body, and distance from closest Well Headischarge area.	ad Protection Area to the
Skin Creek	
Summarize all activities at your facility that are already regulated for groundwater protection.	
N/A	
	RECE:VED
	Office of Oil and Gas
	MAR 0 9 7020
	WV Department of Environmental Protect

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

WW-9- GPP Rev. 5/16	Page 2 of 2  API Number 47 - 041 - 00351  Operator's Well No.
N/A	
6. Provide a statement that no waste material will be used for	r deicing or fill material on the property.
No material will be used	
<ol> <li>Describe the groundwater protection instruction and trait provide direction on how to prevent groundwater contam</li> </ol>	ning to be provided to the employees. Job procedures shall ination.
8. Provide provisions and frequency for inspections of all Cl	DD alamants and acuiament
8. Provide provisions and frequency for inspections of all GIN/A	P elements and equipment.
Signature: Mule Ross  Date: February 26, 2020	RECE:VED Office of Oil and Gas  MAR (1.9, 2020  WV Department of Environmental Protection





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

## **WELL LOCATION FORM: GPS**

<sub>API:</sub> 47-041-00351	WELL NO.: 2
FARM NAME: W.A. Francis	3
RESPONSIBLE PARTY NAME:	/like Ross
COUNTY: Lewis	Skin Creek
QUADRANGLE: Roanoke	
surface owner: W.A. Fra	ncis
ROYALTY OWNER: US Army Co	orps of Engineers Stonewall Jackson Lake
UTM GPS NORTHING: 431059	90.7
UTM GPS EASTING: 550599.	4 GPS ELEVATION: 1284'
preparing a new well location plat for above well. The Office of Oil and Gas the following requirements:	meters
Real-Tim	ne Differential
Mapping Grade GPS: Post P	
	Fime Differential RECE:VED Office of Oil and Gas
I the undersigned, hereby certify this d	lata is correct to the best of my knowledge and equired by law and the regulations issued and so with the second s
Truke Ross	President Environmental Protection
Signature	Title Date