

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

Wednesday, April 04, 2018 WELL WORK PERMIT Vertical / New Drill

GREYLOCK CONVENTIONAL, LLC 500 CORPORATE LANDING

CHARLESTON, WV 25311

Re: Permit approval for FITZPATRICK 4

47-021-09104-00-00

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.

Please be advised that form WR-35, Well Operators Report of Well Work 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: FITZPATRICK 4

Farm Name:

S & R GAS VENTURES, LTD

U.S. WELL NUMBER: 47-021-09104-00-00

Vertical New Drill

Date Issued: 4/4/2018

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. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
- 4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 5. 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.
- 6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours
- 7. Well work activities shall not constitute a hazard to the safety of persons.
- 8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced, drilling ceased, completion of any other permitted well work and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

ACCT. 501393



WW - 2B (Rev. 8/10)

Depths Set

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

	GIA	ylock Con	ventional, LLC	494521205	Gilmer	Glenville	Glenville 7.5	
	_			Operator II	D County	District	Quadrangle	
2) Operator's	Well Nun	nber: Fitzp	atrick #4		3) Elevation	1043		
4) Well Type:	(a) Oil	or G	as <u>x</u>					
	(b) If Gas	: Prod	uction × / Un	derground St	orage			
		Dee				_		
5) Proposed 1	Target Fo	mation/s): Spenchley, Warren, Gon		Dropped To	D 3 (\50•	
o) Proposea i	iotal Depi	h: 3,208	Feet	Formation at	Proposed To	tal Depth: Speed	hlav	
Approximat	te fresh w	ater strat	a depths: 130"	· ····································	r roposca ro	iai Depiii. 9200	andy	
B) Approximat	te salt wa	ter depths	5. 330	-537		ليحميا		
9) Approximat	e coal ea	am denth	s: none reported	in offset wells				
-, - approximat	C COM SE	an debut	a. India reported	III OII SOL WEIS				
0) Approxima	ate void d	epths,(co	al, Karst, other):	nona reported	in offset wells			
							-	
11) Does land	contain o	oal seam	s tributary to act	tive mine?	10			
(2) Describe -								
12) Describe pr	oposed w	ell work ar	nd fracturing meth	ods in detail (attach additiona	al sheets if need	ied)	
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WV Department of Environmental Protection

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WW-2A (Rev. 6-14)

4) Surface Owner(s) to be served:

S&R Gas Ventures

(a) Name

Address

1). Date: **12 FEBRUARY 2018** 2.) Operator's Well Number Fitzpatrick #4 State County Permit

47- 021 3.) API Well No .:

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE AND APPLICATION FOR A WELL WORK PERMIT

Name

5) (a) Coal Operator

(b) Name Address (c) Name Address	and Fork. WV 26	430	(b) Coal C		- The same of the	_
(b) Name Address						
(c) Name				wherest with	Declaration	_
			Name	min (o) min	Scolaration	
			Address	-		
			- /1001000	1/	\	_
			Name	-Non	Declaran	1
_			Address	1101	JAC (MATHO)	
			Address			
6) Inspector Da	anny Mullins		(c) Coall	ssee with De	claration	
	20 Jack Acres Rd		Name	233CC WIGH DE	Ciaration	
	uckhannon, WV 2		Address	_		
	4-932-6844	0201	- Address			
reiephone 30		TONIO NAS				
Included in the le	TO THE PER	COUR NAM	MED ABOVE T	AKE NOTICE	THAT:	
OR INCIDOES IS THE IE	ase or leases or othe	er continuing o	contract or contra	acts by which I	hold the right to extract oil an	d gas
	formation required by	Chanter 22	Adiala O Cartin			
A III COURT IS IT IS IT	ormadon required by	Chapter 22,	Article 6, Section	n 8(d) of the Co	ode of West Virginia (see pag	e 2)
i certify that	as required under C	hapter 22-8 c	of the West Virgi	nia Code I ha	ve served copies of this notice	ce and
application, a location	piat, and accompan	iying documer	nts pages 1 throu	igh on the	above named parties by:	-
	Personal Service (A	Affidavit attact	hed)		,	
X	Certified Mail (Post	marked posta	I receipt attache	d)		
	Publication (Notice	of Publication	attached)	-/		
I have read a	nd understand Chap	ter 22-6 and	35 CSR 4. and	agree to the	terms and conditions of any	oarmi
issued under this app	ICETION.					
I certify under	penalty of law that	I have person	nally examined	and am familia	r with the information submit	
una application form :	and all attachments.	and that bas	ed on my inquir	u of those indi-	viduals immediately responsi	lad or
obtaining the informat	ion, I believe that the	information is	strue accurate	and complete		ted on
			or submitting fall	se information	including the possibility of fir	ble for
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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 deoptivacyofficerpwy.gov

RECEIVED Office of Oil and Gas

2 2018 APR

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6, Section 8(d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

 Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
ML Fitzpatrick	Equitable Gas Co	1/8	79/216
Farmout from Equitable Gas Co	EAE Predecessor to Greylock Conventional, LLC	1/8	231/375

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby a knowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

WV Division of Water and Waste Management

WV Division of Natural Resources

WV Division of Highways

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

· County Floodplain Coordinator

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MAR 1 2 2018

WV Department of Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be neclessary and further affirms that all needed permits/approvals should be ac quired from the appropriate authority before the affected activity is initiated.

Well Operator: By:Its: Don C Supcoe III

Grevlock Conventional, LLC

Director of Land Operations and Permitting

WW-2B	1
(5-12)	

Well	No.	Fitzpatrick #4	

West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name		Fairway Labs
Sampling Contractor		SLS Land & Energy Development
Well Operator	Greylock Conve	entional, LLC
Address	500 Corporate I	anding
	Charleston, WV	25311
Telephone	304-925-6100	
relebrione	307-323-0100	

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

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MAR 1 2 2018

Possible Water Purveyors for Fitzpatrick #4 Well

5/2

S & R Gas Ventures LTD

P.O. Box 172

Sand Fork, WV 26430

5/3

Laura V. Morris

973 Barnett Run Rd.

Glenville, WV 26351

5/14

Sean & Heather Coleman

1593 Collins Run Rd.

Glenville, WV 26351

5/15

Scott J. & Colleen M. Denelsbeck

141 10th Ave.

Dorothy, NJ 08317

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MAR 1 2 2018



Possible Water Purveyors for Fitzpatrick #4 Well

Selected for Sampling

5/2

S & R Gas Ventures LTD

P.O. Box 172

Sand Fork, WV 26430

5/3

Laura V. Morris

973 Barnett Run Rd.

Glenville, WV 26351

5/14

Sean & Heather Coleman

1593 Collins Run Rd.

Glenville, WV 26351

5/15

Scott J. & Colleen M. Denelsbeck

141 10th Ave.

Dorothy, NJ 08317

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APR 2 2018

WW-9 (5/16)

API Number 47 -	021	-	
Operator's Well No	o. Fitzpatr	ick #4	

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

FLUIDS/ CUTTINGS DISPOSAL & RE	CLAMATION PLAN	
Operator Name Greylock Conventional, LLC	OP Code 494521205	
Watershed (HUC 10) Jakes Run Quadra	ngle Glenville 7.5	
Do you anticipate using more than 5,000 bbls of water to complete the proposition will a pit be used? Yes No	osed well work? Yes	No 🔽
If so, please describe anticipated pit waste: Drill Cuttings		
Will a synthetic liner be used in the pit? Yes No	If so, what ml.? 30	
Proposed Disposal Method For Treated Pit Wastes:		
Reuse (at API Number		
Off Site Disposal (Supply form WW-9 for disposal Other (Explain		
Will closed loop systembe used? If so, describe: No		
Drilling medium anticipated for this well (vertical and horizontal)? Air, fres	hwater, oil based, etc. Air/Fresi	water
-If oil based, what type? Synthetic, petroleum, etc		
Additives to be used in drilling medium? Soap, Klastay		
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc	Leave in pit	
-If left in pit and plan to solidify what medium will be used? (ceme	nt, lime, sawdust) Cement/Lime	
Permittee shall provide written notice to the Office of Oil and Gas of any loa West Virginia solid waste facility. The notice shall be provided within 24 ho where it was properly disposed. I certify that I understand and agree to the terms and conditions of on April 1, 2016, by the Office of Oil and Gas of the West Virginia Depart provisions of the permit are enforceable by law. Violations of any term or coor regulation can lead to enforcement action. I certify under penalty of law that I have personally examined a application form and all attachments thereto and that, based on my inquiry of	the GENERAL WATER POLIment of Environmental Protect and tion of the general permit a modern am familiar with the information of those individuals immediately	LUTION PERMIT issued ion. I understand that the ind/or other applicable law mation submitted on this responsible for o btaining
the information, I believe that the information is true, accurate, and compl submitting false information, including the possibility of fine or imprisonment	ıl.	ARY PUBLIC OFFICIAL SEAL
Company Official Signature	WEST DA	Shane A. Lucas State of West Virginia
Company Official (Typed Name) Don C Supcoe III		Ay Commission Expires January 30, 2023
Company Official Title Director of Land Operations and Permitting	Ene 3	rgy Corporation of America 116 WV Highway 5 East Glenville, WV 26351
Subscribed and sworn before me this 22 day of FUSICIONE	, 20 18 Notary Public	RECEIVED Office of Oil and Gas
My commission expires JANUARY 30, 2023	,	MAR 1 2 2018
Mry commission expires SARSHY 55, 2005		WV Department of Environmental Protection

Lime 3	Tons/acre or to c	orrect to pH 6	.5	
Fertilizer type 10-2	20-20			
Fertilizer amount 1/	/3 TON	lbs/a	acre	
Mulch Hay	2	Tons/acr	e	
		S4N	E-4	
Tar		Seed N	<u>lixtures</u>	Ly.
	mporary		Perma	
Seed Type KY-31	lbs/acre 40		Seed Type Orchard Grass	lbs/acre 15
Alsike Clover	5		Alsike Clover	5
Annual Rye	15		T WOUND CHO TO	
Maps(s) of road, location, pit provided). If water from the pL, W), and area in acres, of the part of the provided in the prov	pit will be land applied the land application an	l, provide wate ea.	on (unless engineered plans includer volume, include dimensions (L,	
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	pit will be land applied the land application an wed 7.5' topographic sl	l, provide wate ea. neet.	r volume, include dimensions (L,	W, D) of the pit, and dimen RECEIVED Office of Oil and (MAR 1 2 201) WV Department Environmental Prote

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

Watershed (HUC 10): Collins Run	Quad: Glenville 7.5
arm Name: FITZERTRICK	
. List the procedures used for the treatment and dischar groundwater.	rge of fluids. Include a list of all operations that could contaminate th
achieve a PH level to 7.0+. Should excessive diluted with fresh water, or disposed of at a V to drop out.	andards. Pit will be tested, and Lime will be applied to e chlorides be present, the fluids will be evaluated VV DEP approved facility. Solids will be allowed time fluids such as fuel, oil, and lubricants will be stored on
2. Describe procedures and equipment used to protect gro	oundwater quality from the list of potential contaminant sources above
leaks and failures.	monitored and inspected every shift for possible I be monitored and inspected every shift for leaks
 List the closest water body, distance to closest water discharge area. 	r body, and distance from closest Well Head Protection Area to the
Collins Run is the closest water body at ap within the area.	proximately 250ft. No known public water intakes
Summarize all activities at your facility that are alread.	y regulated for groundwater protection.
N/A	
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	MAR 1 2 2018
	WV Department of Environmental Protection

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

No known groundwater quality data for the area. Samples have sources within a 1,000' radius of the proposed well.	e been offered for non-public
Provide a statement that no waste material will be used for deicing or fill materia	l on the property.
No waste material will be used for deicing purposes, or fill mate	erial on the property.
Describe the groundwater protection instruction and training to be provided to provide direction on how to prevent groundwater contamination.	the employees. Job procedures shall
All employees will be familiar with the contents of the GPP and routine JSA meetings, the GPP will be discussed. Safe work progroundwater from contamination per company policy.	
Provide provisions and frequency for inspections of all GPP elements and equipments	ment.
ALL GGP elements and acquirements will be inspected upon ender commence until any problem is remediated and documente signature:	





