

#### 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

Monday, November 4, 2024 WELL WORK PERMIT Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC 5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re:

Permit approval for Van Wie 1221 S-9H

47-041-05768-00-00

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

James A. Martin

Operator's Well Number: Van Wie 1221 S-9H

Farm Name: HG Energy II Appalachia, LLC

U.S. WELL NUMBER: 47-041-05768-00-00

Horizontal 6A New Drill

Date Issued: 11/4/2024

API Number: 4704105768

#### PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. 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 § 22-6A-5a (12), 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 one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 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. Also, 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
- 11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, 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.

WW-6B (04/15) 4704105768

OPERATOR WELL NO. Van Wie 1221 S-9H
Well Pad Name: Van Wie 1221

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

1) Well Operato	HG Energy	v II Appala	achia. L	49451993	2 Lew	/is	Freeman	Vadis 7.5'
1) wen Operato	I. TO Enorg	, ii rippuit	- Jina, +	Operator I		inty	District	Quadrangle
2) Operator's W	ell Number: V	an Wie 12	21 S-9H	H W	ell Pad Nan	ne: Van	Wie 1221	
3) Farm Name/S	Surface Owner:	HG Energy I	II Appalach	nia, LLC Publ	c Road Ac	cess: CF	R 11/3 aka	Straight Run Road
4) Elevation, cu	rrent ground:	1256'	El	evation, proj	osed post-	construct	tion: 1251.	7'
21	(a) Gas X Other		Oil		Undergro	und Stora	ige	
	(b)If Gas Sh	iallow	Х	De	ер		Off	RECEIVED ice of OH and Sha
	Н	orizontal	Х					IC1 0 3 2024
6) Existing Pad:								N/ 1
7) Proposed Tar Marcellus at 7	get Formation( 7002' / 7049' and						Pressure(s):	Contract (Sale Properties)
8) Proposed Tot	tal Vertical Dep	oth: 7	7,035'					
9) Formation at	Total Vertical	Depth: _N	//arcellu	S				
10) Proposed To	otal Measured l	Depth:	19,162'	1				
11) Proposed H	orizontal Leg I	ength:	11,424'	1				
12) Approximat	te Fresh Water	Strata Dep	ths:	150', 181',	826'			
13) Method to I	Determine Fres	h Water De	epths:	Nearest offs	et well dat	a, (47-0	17-02906, 2	2480, 4233, )
14) Approximat								
15) Approximat	te Coal Seam D	epths: 220	)' - 225', 42	8'-438', 495'-50	' (Surface casi	ing is being	extended to cov	ver the coal in the DTI Field)
16) Approximat	te Depth to Pos	sible Void	(coal m	ine, karst, ot	ner): None	Э		
17) Does Propo directly overlying				ms Yes		N	o X	
(a) If Yes, pro	vide Mine Info	: Name:						
		Depth:						
		Seam:						
		Owner						

WW-6B	
(04/15)	

API NO. 47-\_\_\_

OPERATOR WELL NO. Van Wie 1221 S-9H
Well Pad Name: Van Wie 1221

18)

#### CASING AND TUBING PROGRAM

4704105768

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120' /	CTS
Fresh Water/Coal	20"	NEW	J-55	94	1225'	1225'	40% Excess, CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2760'	2760'	40% Excess, CTS
Intermediate 2	9 5/8"	NEW	N/L-80 BTC	40	5800'	5800'	40% Excess Tail, CTS
Production	5 1/2"	NEW	P-110 HP	23	19162'	19162'	20% Excess Tail, CTS
Tubing							
Liners							

Kenneth Greynold SDN: CN = Kerneth Greynolds Kenneth Greynolds SDN: CN = Kerneth Greynolds email = Kerneth.L. Greynolds@wv.gov.C = AD O = VV/DEP OU = Oil and Gas
Date: 2024.09.23 13:39:49-0400'

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	26"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	5750		Type 1/Class A	Lend 40% excess, Tail 0% Excess 6
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/ClassA	20% excess yield = 1.19, to I yield 1.24 C
Tubing							
Liners							
	1					- AFIGEW	TIP

Office of Oil and Gas

OCT 0 3 2024

PVV Listerment of Sourcements of the

#### **PACKERS**

Kind:		1000
Sizes:		
Depths Set:		

WW-6B	
(10/14)	

API NO. 47- OPERATOR WELL NO. Van Wie 1221 S-9H
Well Pad Name: Van Wie 1221

4704105768

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 7035'. Drill horizontal leg to estimated 11,424' lateral length, 19,162' TMD. Hydraulically fracture, stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ACP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

The stimulation will be completed with multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list. Maximum pressure not to exceed 12,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 24.95 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.53 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.

Freshwater/Coal - centralized every 3 joints to surface.

Intermediate 1 - Bow Spring on every joint, will also be funning ACP for isolating storage zone

Intermediate 2 - Bow Spring on first 2 joints then every third joint to 100' from surface

Production - Vertical - Run 1 spiral centralizer every 5 joints from the top of the curve to surface, Curve - Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.

DCT 0 3 2024

H

H

24) Describe all cement additives associated with each cement type:

Conductor -N/A, Casing to be drilled in w/ Dual Rotary Rig.

Fresh Water/Coal - "15.6 ppg PNE-1 + 3% bwoc CaCl40% ExcessYield=1,20 / CTS"

Intermediate 1 - \*\*\*\* Storage String \*\*\*\* CTS \*\*\*\*15.4 ppg Laad - Yield 1.24 - D896 Surface Set 100 ib / sack (Mix of Class A and Gypsum to meet Dominion Requirements) B160A - 0.15% BWOB Fluid Loss / D013 - 0.75% BWOB Retarder / D47 - 0.02 gal / sack VSWOB Arch Foam / D202 - 0.15%; BWOB Dispersant / D595 1.6 ib per D8L CentNET\* - 60% Excess15.9 ppg Tail - Yield 1.17 - D896 Surface Set 100 ib / sack (Mix of Class A and Gypsum to meet Dominion Requirements) B160A - 0.15% BWOB Dispersant / D597 - 0.35%; BWOB GasBLCR\* / D013 - 0.35%; BWOB GasBL

Intermediate 2 - "Lead: 15.4 ppg PNE-1 \* 2.5% bwoc CaCl40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS"

Production - "Lead: 14.5 ppg POZ-PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA1707ait: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17020% ExcessLead Yield=1,19Tail Yield=1,94CTS"

25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.

Fresh Water/Coal - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.

Intermediate 1 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.

Intermediate 2 - Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cemen

Production - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement

\*Note: Attach additional sheets as needed.

### HG Energy II Appalachia, LLC Van Wie 1221 Well Pad (N-1H to 5-12H) Cement Additives

		Premium NE-1 is a		01	0.00
		portland cement with	Ingredient name	%	CAS number
		early compressive	Portland cement Calcium oxide	90 - 100 1 - 5	65997-15-1 1305-78-8
		strength properties.	Magnesium oxide	1-5	1309-48-4
mium NE-1	Portland Cement	attength properties.	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7
m-(1/4/5/5	The Party Services				
		Commonly called gel, it is	Ingredient name	%	CAS number
		a clay material used as a	bentonite	90 - 100	1302-78-9
		cement extender and to control excessive free	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7
		water.			
tonite	Extender				
		A powdered, flaked or			
		pelletized material used	Ingredient name	%	CAS number
		to decrease thickening	Calcium chloride	90 - 100	10043-52-4
		time and increase the rate			
um Chloride	Accelerator	of strength development			
um chiofide	Accelerator				
		Graded (3/8 to 3/4 inch)	Ingredient name	%	CAS number
		cellophane flakes used as	No hazardous ingredient		
Flake	Lost Circulation	a lost circulation material.			
I IONE	LOST CITCUIATION				
		FP-13L is a clear liquid			
		organic phosphate			
		antifoaming agent used in cementing operations. It			
		is very effective	Ingredient name	%	CAS number
		minimizing air	Tributyl phosphate	90 - 100	126-73-8
		entrapment and	Tributyl phosphate Office of Colored	MAS	
		preventing foaming	10000		
		tendencies of latex systems.	OCT 0 3 2024		
L3L	Foam Preventer	7.7.			
			Ingredient name	%	CAS number
		Used to retard cement	Sucrose		57-50-1
inulated Sugar	Retarder	returns at surface.		-0.	7.34
		A proprietary product that			
		provides expansive			
		provides expansive properties and improves	Legerdingt name	\varphi_0/.	CAS number
		provides expansive properties and improves bonding at low to	Ingredient name	% 90 - 100	CAS number 37247-91-9
		provides expansive properties and improves	Ingredient name Calcium magnesium oxide	% 90 - 100	CAS number 37247-91-9
1		provides expansive properties and improves bonding at low to moderate temperatures.			1777 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
1		provides expansive properties and improves bonding at low to moderate temperatures. Multi-purpose polymer	Calcium magnesium oxide	90 - 100	37247-91-9
		provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control	Calcium magnesium oxide  Ingredient name		1777 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
1		provides expansive properties and improves bonding at low to moderate temperatures. Multi-purpose polymer	Calcium magnesium oxide	90 - 100	37247-91-9
1 A-170	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss,	Calcium magnesium oxide  Ingredient name	90 - 100	37247-91-9
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.	Calcium magnesium oxide  Ingredient name	90 - 100	37247-91-9
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan,	Calcium magnesium oxide  Ingredient name	90 - 100	37247-91-9
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide), When blended with	Calcium magnesium oxide  Ingredient name	90 - 100	37247-91-9
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be	Calcium magnesium oxide  Ingredient name No hazardous ingredient	90 - 100	37247-91-9
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create	Calcium magnesium oxide  Ingredient name No hazardous ingredient  Ingredient name	90 - 100	37247-91-9 CAS number
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement	Calcium magnesium oxide  Ingredient name No hazardous ingredient	90 - 100	CAS number
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create	Calcium magnesium oxide  Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2)	90 - 100 % 5 - 10	CAS number  CAS number  14808-60-7
	Gas Migration	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a	Calcium magnesium oxide  Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2)	90 - 100 % 5 - 10	CAS number  CAS number  14808-60-7
A-170		provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate	Calcium magnesium oxide  Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2)	90 - 100 % 5 - 10	CAS number  CAS number  14808-60-7
-170	Gas Migration Base	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion	Calcium magnesium oxide  Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2)	90 - 100 % 5 - 10	CAS number  CAS number  14808-60-7
		provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature	Calcium magnesium oxide  Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2)	90 - 100 % 5 - 10	CAS number  CAS number  14808-60-7
-170		provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide	Calcium magnesium oxide  Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2)	90 - 100 % 5 - 10	CAS number  CAS number  14808-60-7
-170		provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry	Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	90 - 100 % % 5 - 10 1 - 5	CAS number  CAS number  14808-60-7 1305-78-8
A-170		provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name  No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide  Ingredient name Organic acid salt	90 - 100 % % 5 - 10 1 - 5	CAS number  CAS number  14808-60-7 1305-78-8
A-170 (Fly Ash)		provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry	Ingredient name  No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide  Ingredient name Organic acid salt	90 - 100 % % 5 - 10 1 - 5	CAS number  CAS number  14808-60-7 1305-78-8
3-170	Base	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiQ2) Calcium oxide  Ingredient name Organic acid salt	90 - 100 % % 5 - 10 1 - 5	CAS number  CAS number  14808-60-7 1305-78-8  CAS number  Trade secret.
	Base	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiQ2) Calcium oxide  Ingredient name Organic acid salt  Ingredient name	90 - 100 %  %  5 - 10 1 - 5  %  40 - 50	CAS number  CAS number  14808-60-7 1305-78-8  CAS number  Trade secret.
A-170 (Fly Ash)	Base	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide  Ingredient name Organic acid salt  Ingredient name Organic acid salt	90 - 100 % % 5 - 10 1 - 5 % 40 - 50	CAS number  14808-60-7 1305-78-8  CAS number  Trade secret.  CAS number
A-170	Base	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	Ingredient name No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiQ2) Calcium oxide  Ingredient name Organic acid salt  Ingredient name Organic acid salt	90 - 100 % 5 - 10 1 - 5 % 40 - 50 % 20 - 30 10 - 20 5 - 10	CAS number  CAS number  14808-60-7 1305-78-8  CAS number  Trade secret.
A-170	Base	provides expansive properties and improves bonding at low to moderate temperatures.  Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name  No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiQ2) Calcium oxide  Ingredient name Organic acid salt  Ingredient name Organic acid salt	90 - 100 %  %  5 - 10 1 - 5  %  40 - 50	CAS number  CAS number  14808-60-7 1305-78-8  CAS number  Trade secret.

15.4 ppg Lead - Yield 1.24 - D896 Surface Set 100 fb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)
B348 - 0.5% BWOB Fluid Loss / D013 - 0.75% BWOB Retarder / D47 - 0.02 gal / sack VBWOB Anti Foam / D202 - 0.15% BWOB
Dispersant / D095 1.5 lb per BBL CemNET\* - 60% Excess

15.9 ppg Tail - Yield 1.17 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements) B160A - 0.15% BWOB Dispersant / B547 – 0.35% BWOB GasBLOK\* / D013 – 0.3% BWOB Retarder / D047 – 0.02 gal / sack Anti Foam /

#### 1221 S-9H Marcellus Shale Horizontal Doddridge County, WV



D801 - 0.03 gal / sack Retarder - 0% Excess 14197244.84N 1734279.91E 1221 S-9H SHL 14197088.94N 1735348.14E 1221 S-9H LP 1251.77 **Ground Elevation** 14186321.85N 1739145.36E 160.371° 1221 S-9H BHL Azm COMMENTS CONDITIONING CEMENT CENTRALIZERS WELLBORE DIAGRAM HOLE CASING GEOLOGY TOP BASE MUD Ensure the hole is clean at Conductor casing = 0.5" wall N/A, Casing to be drilled 30" 157.5# N/A AIR 30" in w/ Dual Rotary Rig thickness LS 120 Conductor Once casing is at setting 15.6 ppg PNE-1 # 3% depth, circulate a minimum Surface casing = 0.438" wall bwoc CaCl Centralized every 3 20" of one hole volume with thickness AIR 26" 740 746 Coal 40% Excess joints to surface 94# J-55 Burst=2110 psi Fresh Water prior to Yield=1.20 / CTS Fresh Water pumping cement. 0 1225 Protection Once casing is at setting 2167 2187 Little Lime See above (LEFT) for Bow Spring on every depth, Circulate and Intermediate casing = 0.480" 2216 2285 AIR / KCL Storage String Cement joint Big Lime condition at TD. Circulate 13-3/8" 68# wall thickness Salt Blend to Meet DTI will also be running. 17.5" minimum of one hole J-55 BTC Injun / Ganta (Storage) 2265 / 2507 2361 / 2847 Burst=3450 psi Requirements for Gas ACP for isolating volume prior to pumping. Storage Field Isolation storage zone: 2760 Intermediate 1 0 cement. 2789 2799 Thirty Foot 2837 2915 Gordon 3102 3066 5th Sand Lead: 15.4 ppg PNE-1 + Once casing is at setting depth, Circulate and 2.5% bwoc CaCl Baw Spring on first 2 3174 3161 Intermediate casing = 0.395" Bayard AIR / KCL condition mud at TD. 9-5/8" 40# 40% Excess / Tail: 15.9 joints then every third wall thickness 12.25 Salt 3634 3666 ppg PNE-1 + 2.5% bwoc Speechley Joint to 100' form Circulate a minimum of one N / L-80 BTC Burst=5750 psi Polymer CaCl surface hale valume prior ta 5072 Benson 5038 zero% Excess. CTS pumping cement. 5324 5444 Alexander TVD: 5675 0 MD: 5800' Inc: Intermediate 2 23 dea. Run 1 spiral centralizer AIR / every 5 joints from the 8.75" 9.0ppg lop of the curve to Lead: 14.5 ppg SOBM surface. POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L 6591 Once on bottom/TD with 6303 Rhinestreet + 0.3% bwoc MPA170 casing, circulate at max Production casing = 0.415" 6591 6736 Cashaqua allowable pump rate for at Tail: 14.8 ppg PNE-1+ wall thickness 5-1/2" least 2x bottoms up, or until Middlesex 6736 6815 0.35% bwoc R3 + 0.75 Burst=16240 psi 11.5ppg-23# returns and pump pressures gal/sk FP13L + 50% Note: Actual centralizer 6815 6884 12.5ppg 8.5" Curve P-110 HP West River indicate the hole is clean. bwoc ASCA1 + 0.5% SOBM Run 1 spiral centralizer schedules may be changed TXP / W461 5884 8925 bwoc MPA170 Circulate a minimum of one Burkett every 3 joints from the due to hole conditions 20% Excess hale volume prior to Tully Limestone 6925 6952 1st 5,5" long joint to the Lead Yield=1.19 pumping cement. top of the curve. 6952 7002 Hamilton Tall Yield=1.94 CTS 7002 7049 Marcellus 11.5ppg-TMD / TVD 19161 7035 12.5ppg 8,5" Lateral (Production) SOBM 7049 Onondaga X X X Χ TD @ +/-7035' TVD 8.5" Hole - Cemented Long String LP @ 7035' TVD / 7737' +/-11424' ft Lateral 5-1/2" 23# P-110 HP TXP / W461 +/-19161 MD MD X X=centralizers X X X X X

My commission expires\_

API Number 47 - 47 0 4 1 0 5 7 6 8

Operator's Well No. Van Wie 1221 S-9H

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

#### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907	
Watershed (HUC 10) Fink Creek Quadrangle Vadis 7.5'	
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 V	
If so, please describe anticipated pit waste: NA	
Will a synthetic liner be used in the pit? Yes No V If so, what ml.?	
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	
Underground Injection (UIC Permit Number	
Reuse (at API Number TBD - At next anticipated well site  Off Site Disposal (Supply form WW-9 for disposal location)	
Off Site Disposar (Supply form w w-5 for disposar location)  Other (Explain	
Will closed loop system be used? If so, describe: Yes, cuttings and fluids will be collected in a closed loop system, re-used or hauled to	an approved disposal site or landfill.
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc	
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	Cont. St.
Additives to be used in drilling medium? Water, Soap, KCI, Barite, Base Oil, Wetting Agents	DCT 5 Gas
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Approved Landfill	3 2024
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA	Shuram
-Landfill or offsite name/permit number? See Attached	, -: m. 27
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associa West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the perm where it was properly disposed.	ted waste rejected at any nittee shall also disclose
I certify that I understand and agree to the terms and conditions of the GENERAL WATER PC on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Prot provisions of the permit are enforceable by law. Violations of any term or condition of the general pelaw or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined and am familiar with the in application form and all attachments thereto and that, based on my inquiry of those individuals is obtaining the information, I believe that the information is true, accurate, and complete. I am away penalties for submitting false information, including the possibility of fine or imprisonment.	tection. I understand that the ermit and/or other applicable formation submitted on this immediately responsible for
Company Official Signature Diane White	
Company Official (Typed Name) Diane White	
Company Official Title Agent	
Subscribed and sworn before me this 19th day of September , 20 24	
Notary Public	OFFICIAL SEAL NOTIATY PUBLIC STATE OF WEST VIRG Mark J Schall IG Energy LC

## Cuttings Disposal/Site Water

Cuttings -Haul off Company:

Eap Industries, Inc. DOT # 0876278 1875 Smith Two State Rd. Atlasburg, PA 15004 1-888-294-5227

Weste Management 200 Rangos Lane Washington, PA 15301, 724-222-3272

Environmental Coordination Services & Recycling (ECS&R) 8237 US Highway 19 Cochranton, PA 16314 814-425-7778

Disposal Locations:

Apex Environnemental, LLC Permit # 06-08488 11 County Road 78 Amsterdam, OH 48908 740-548-4889

Westmoreland Waste, LLC Permit # 100277 111 Conner Lane Belle Vernon, PA 15012 724-929-7694

Sycamore Landfill Inc., Permit #R80-079001 05-2010 4301 Sycamore Ridge Road Hurricane, WV 25526 304-562-2611.

Max Environnemental Technologies, Inc. Facility Permit # PAD004835146 / 901071, 238 Max Lane Yukon, PA 25968 724-722-8500

Max Environnemental Technologies, Inc. Facility Permit # PAD05087072 / 301859 200 Max Drive Bulger, PA 15019 724-796-1571

Waste Management Kelly Run Permit # 100663 1901 Park Side Drive Elizabeth, PA 15087 412-884-7569

Waste Management South Hills (Arnoni) Permit # 100592 31,00 Hill Road Library, PA 15129 724-348-7013 412-384-7569

Waste Management Arden Permit # 100172 200 Rangos Lane Washington, PA 15301 724-222-5272

Waste Management Meadowfill Permit # 1032 1,488 Dawson Drive Bridgeport, WV 26330

Brooke County Landfill Permit # SWF-103-97 / WV 0109029 Rd 2 Box 410 Colliers, WV 26035 304-748-0014 Office of Cit and Cas

OCT 0 3 2024

- WV Department of Environmental Probability

11/08/2024

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185 Rt 1 Box 156A New Martinsville, WV 26035 804-455-3800

Energy Solutions, LLC Permit # UT 2300249 423 West 300 South Suite 200 Salt Lake City, UT 84101

Energy Salutions Services, Inc. Permit # R-73006-L24 1560 Bear Creek Road Oak Ridge, TN 37530

Northern A-1 Environnemental Services Permit ID MID020906814 8947 US 181 North, PO Box 1080 Kalkaska, MI 49646 281-258-9961

### Water Haul off Companies:

Dynamic Structures, Clear Creek DOT # 720485 8790 State Route 7 New Waterford, OH 44445 880-882-0164

Nabors Completion & Production Services Co. PO Box 975682 Dallas, TX 75397-5682

Select Energy Services, LLC PO Box 203997 Dallas, TX 75320-3997

Nuverra Environmental Solutions 11942 Veterans Memorial Highway Masontown, WV 26542

Mustang Olifield Services LLC PO Box 739 St. Clairsville, OH 48950

Wilson's Outdoor Services, LLC 456 Cracraft Road Washington, PA 15801

#### Disposal Locations:

Solidification
Waste Management, Arden Landfill Permit # 1001,72
200 Rangos Lane
Washington, PA 15801
724-225-1889

Solidification/Indineration
Soil Remediation, Inc. Permit # 02-20753
6065 Arrel-Smith Road
Lowelville, OH 44436
880-586-6825

Adams #1 (Buckeye Brine, LLC) Permit # 34-031-2-7177 23986 Airport Road Coshocion, OH 43812 740-575-4484 512-478-6545 CMS of Dalaware Inc. DBA CMS Olifield Serv 301 Commerce Drive Moorestown, NJ 08057

Force, inc. 1380 Rte. 286 Hwy. E, Suite 203 Indians, PA 15701

Salo Construction P.O. Box 544 St. Mary's, WV 26170

Equipment Transport 1 Tyler Court Carlisle, PA 1701E

Myers Well Service, \_\_\_\_ 2001 Ballpark Court Export, PA 15682

Burns Drilling & Excavating 618 Crabapple Road P.O. Box Wind Ridge, PA 16980

Nichios 1-A (SWIW #18) Permit # 3862 300 Cherrington Pkwy, Suite 200 Coraopolis, PA 18108 412-829-7275

Grosella (SWIW #34) Parmit # 4096 Rt. 88 Garrettsville, OH 713-275-4816

Kemble 1-D Well Permit # 8780 7675 East Pike Norwich, Oh 48767 614-648-8898 740-786-6495

11/08/2024

Adams #2 (Buckeye Brine, LLC) 2205 Westover Road Austin TX 78703 Permit # 34-031-2-7178 740-575-4484 612-478-6545

Adams #3 (Buckeye Brine, LLC) Permit #34-031-2-7241-00-00 2630 Exposition, Suite 117 Austin, TX 78703 612-478-6545

Mozena #1 Well (SWIW # 18) Permit # 84-157-2-5511-00-00 5367 E. State Street Newcomerstown, OH 48832 740-763-3966

Goff SWD #1 (SWIW # 27) Permit # 84-119-2-8776-000 300 Cherrington Pkwy, Suite 200 Corappolis, PA 15108 412-829-7275

SOS D#1 (SWIW #12) Permit # 84-059-2-4202-00-00 Silcor Olifield Services, Inc. 2939 Hubbard Road Youngstown, PH 44505

Dudley #1 UIC (SWIW #1)
Permit # 34-121-2-2459-00-00
Select Energy Services, LLC
7994 S. Pleasants Hwy
St. Marys, WV 26170
304-665-2652

OH UIC #1. Bu keya UIC Barnesville 1 & 2 CNX Gas Con...:any, LLC 1000 Consol Energy Drive Permit # 84-013-2-0609-00-00 Permit # 84-013-2-0614-00-00 804-823-6568

4704105768

US Staele 11385 Permit # 47-001-00561 200 Evergreen Drive Waynesburg, PA 15780 304-823-6568

. . . . . . . . . . . . .

Chapin #7 UIC (SWIW #7)
Permit # 34-083-2-4187-00-00
Elkhead Gas& Oil Company
12168 Marne Rd. NE
Newark, OH 48055
740-768-8966

Office of Oil and Gas

OCT 0 3 2024

Environmental Protection

Operator's Well No. Van Wie 1221 S-9H

Proposed Revegetation Treatr	ment: Acres Disturbed 51.82	Prevegetation pl	I
Lime	3 Tons/acre or to correct to pH	6.5	
Fertilizer type 10-	To a series		
Fertilizer amount	500	os/acre	
Mulch Hay	2 Tons/a	acre	
		d Mixtures	
Ter	mporary	Perma	
Seed Type Tall Fescue	lbs/acre 40	Seed Type Tall Fescue	lbs/acre 40
Ladino Clover	5	Ladino Clover	5
Anti-Antique Superior			
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application	oit will be land applied, include di	eation (unless engineered plans include mensions (L $\times$ W $\times$ D) of the pit, and	dimensions (L x W), and area
Maps(s) of road, location, pit provided). If water from the pacreage, of the land application	oit will be land applied, include di on area.	eation (unless engineered plans included mensions (L $\times$ W $\times$ D) of the pit, and	ding this info have been dimensions (L×W), and area
Maps(s) of road, location, pit provided). If water from the pacreage, of the land application Photocopied section of involving Ker	oit will be land applied, include di on area.	mensions ( $L \times W \times D$ ) of the pit, and remains a superscript of the pit, and remains a superscript of the pit, and remains a superscript of the pit, and superscript of t	OCT 0 3 2024
Maps(s) of road, location, pit provided). If water from the pacreage, of the land application Photocopied section of involved Plan Approved by:	oit will be land applied, include dien area.  yed 7.5' topographic sheet.  nneth Greynolds Discor Kennet Greynolds Discor Kennet Greynolds Date: 2024.09.23	mensions ( $L \times W \times D$ ) of the pit, and remains a superscript of the pit, and remains a superscript of the pit, and remains a superscript of the pit, and superscript of t	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  nneth Greynolds N: CN = Kennet Gepnoles@wv.gr	mensions (L $\times$ W $\times$ D) of the pit, and yellow the pit, and the pit, and the pit, and yellow the pit, an	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  nneth Greynolds N: CN = Kennet Gepnoles@wv.gr	mensions (L x W x D) of the pit, and  y, Kennen Greyrous h Greynolds email = Kenneth L. by C = AD 0 = WYDEP OU = Oil and Gas 13-43-41-0400'  easonably possible pe	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  nneth Greynolds N: CN = Kennet Gepnoles@wv.gr	mensions (L x W x D) of the pit, and  y, Kennen Greyrous h Greynolds email = Kenneth L. by C = AD 0 = WYDEP OU = Oil and Gas 13-43-41-0400'  easonably possible pe	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  nneth Greynolds N: CN = Kennet Gepnoles@wv.gr	mensions (L x W x D) of the pit, and  y, Kennen Greyrous h Greynolds email = Kenneth L. by C = AD 0 = WYDEP OU = Oil and Gas 13-43-41-0400'  easonably possible pe	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  nneth Greynolds N: CN = Kennet Gepnoles@wv.gr	mensions (L x W x D) of the pit, and  y, Kennen Greyrous h Greynolds email = Kenneth L. by C = AD 0 = WYDEP OU = Oil and Gas 13-43-41-0400'  easonably possible pe	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  nneth Greynolds N: CN = Kennet Gepnoles@wv.gr	mensions (L x W x D) of the pit, and  y, Kennen Greynolds h Greynolds email = Kenneth L. by C = AD 0 = WYDEP OU = Oil and Gas 13-43-41-0400'  easonably possible pe	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  nneth Greynolds N: CN = Kennet Gepnoles@wv.gr	mensions (L x W x D) of the pit, and  y, Kennen Greynolds h Greynolds email = Kenneth L. by C = AD 0 = WYDEP OU = Oil and Gas 13-43-41-0400'  easonably possible pe	OCT 0 3 2024  WV Delan weed in Environmental Project
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application of the	on area.  yed 7.5' topographic sheet.  Inneth Greynolds Discord Space of Special Space of Special Space of Special Space of Space	mensions (L x W x D) of the pit, and  y, Kennen Greynolds h Greynolds email = Kenneth L. by C = AD 0 = WYDEP OU = Oil and Gas 13-43-41-0400'  easonably possible pe	OCT 0 3 2024  WV Department 1 Process

### HG Energy II Appalachia, LLC

### Site Safety Plan

Van Wie 1221 Well Pad 2891 Straight Run Road, Alum Bridge Doddridge County, WV 26321

January 2024: Version 1

For Submission to
West Virginia Department of Environmental Protection,
Office of Oil and Gas

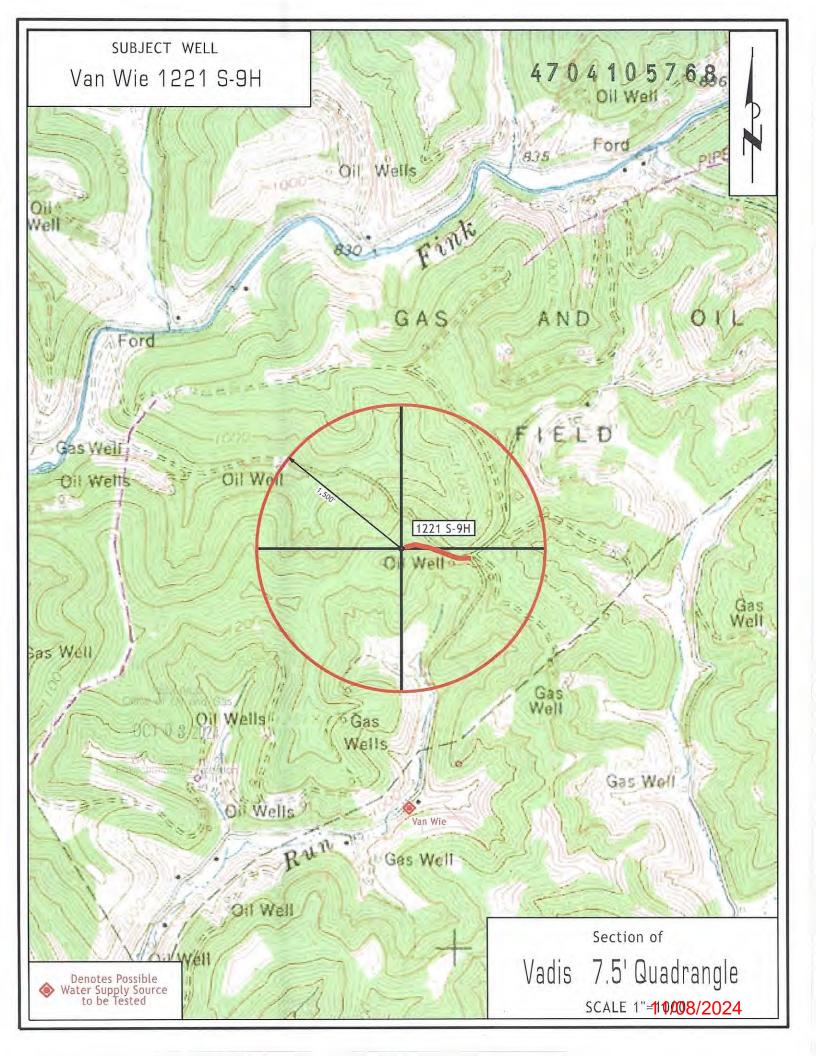
HG Energy II Appalachia, LLC

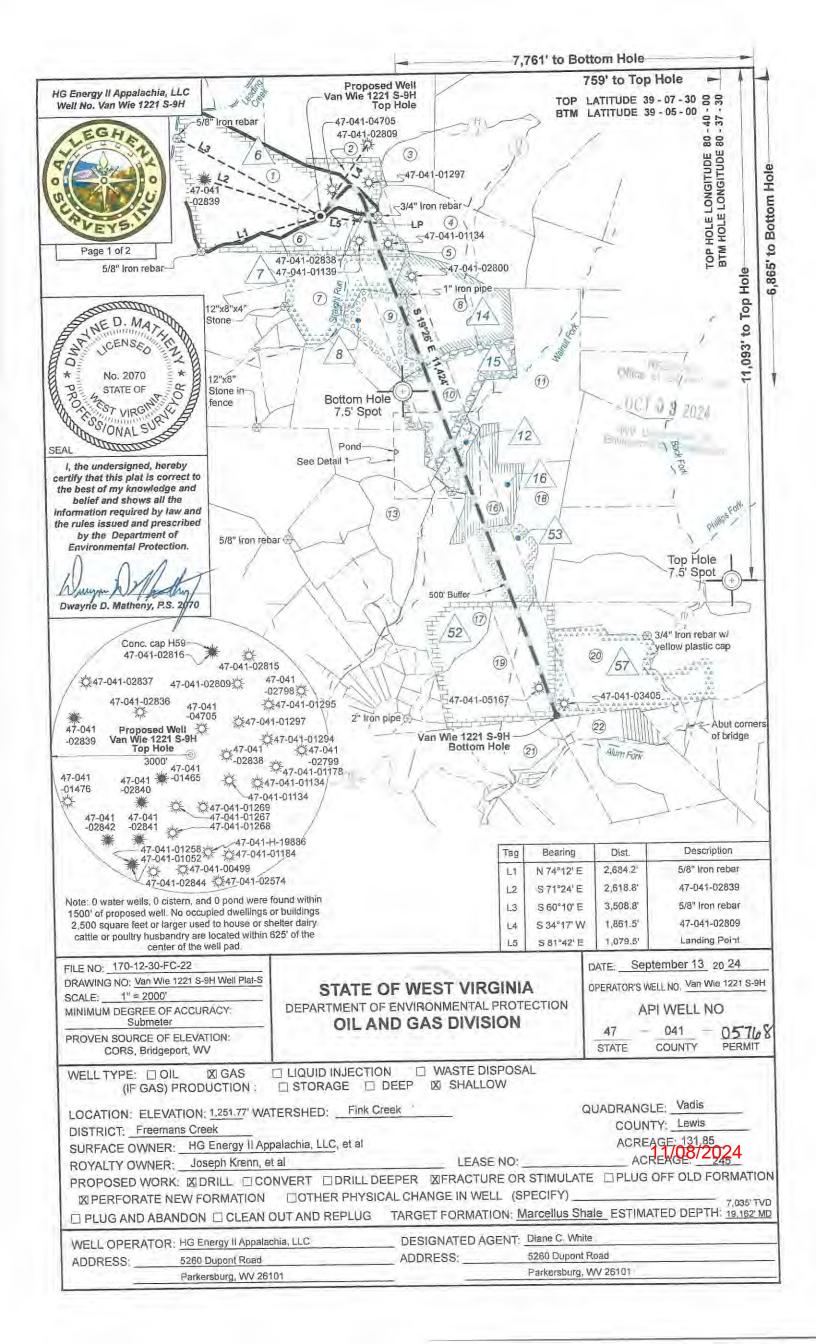
5260 Dupont Road

Parkersburg, WV 26101

Office of Oil and Gas OCT 0.3 2024

Kenneth Greynolds of tenth Character Kenneth Greynolds of the Character Char





HG Energy II Appalachia, LLC Well No. Van Wie 1221 S-9H



Page 2 of 2

West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.

UTM Zone 17, NAD 1983

Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

Notes: Well No. Van Wie 1221 S-9H WVCS 1927, North Zone Top Hole Coordinates

Lat: 39°05'40.31' Lon: 80°40'09.63" Landing Point Coordinates Lat: 39°05'38.73" Lon: 80°39'56.09" Bottom Hole Coordinates

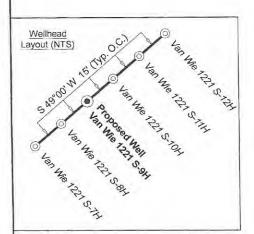
Lat: 39°03'52 12" Lon: 80°39'08.43"

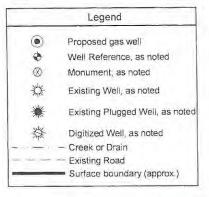
Notes: Well No. Van Wie 1221 S-9H UTM NAD 1983 (USSF) Top Hole Coordinates N: 14,197,244.84' E: 1,734,279.91' Landing Point Coordinates N: 14.197.088.94 E: 1,735,348.14

**Bottom Hole Coordinates** N: 14,186,321.85 E: 1,739,145.36'

Notes: Well No. Van Wie 1221 S-9H UTM NAD 1983 (Meters) Top Hole Coordinates N: 4,327,328.832m E: 528,609.574m Landing Point Coordinates N: 4,327,281.363m E: 528,935.171m

**Bottom Hole Coordinates** N: 4,323,999.548m E: 530,092.565m





Well Location References Not to Scale NFP 1221 South Pad AZ286° 499' Stake & Tack Proposed Well Van Wie 1221 S-9H Stake & Tack

Office of Cit and Gale

DCT 0 3 2024

ID	Lease
6	Joseph Krenn, et ux
7	HG Energy II Appalachia, LLC
8	L.M.Reed, et ux
12	HG Energy II Appalachia, LLC
14	C.K. Gibson, et ux
15	Elsie & J.P. Linder, et al
16	E. Ray Bennett, et ux, et al
52	S.R. Harrison, Jr., et ux, et al
53	T&B Natural Resource Ventures, LLC
57	CNX Gax Company, LLC



		Lewis Co. (Freemans Creek Dist.)		
No.	TM / Par	Owner	Bk/Pg	Ac.
1	2D/3	HG Energy II Appalachia, LLC	800 / 637	131.85
2	2D / 3.1	HG Energy II Appalachia, LLC	800 / 637	20.00
3	2D / 40	Judith A. Rioch	403/270	26.96
4	2D / 37	Jacob R. Straley Heirs	728 / 53	97.00
5	2D / 30	Anthony S. & Dawn H. VanWie	732 / 622	19.00
6	2D / 29	Anthony S. & Dawn H. VanWie	732 / 622	26.63
7	2D / 31	Anthony S. & Dawn H. VanWie	732 / 622	73.10
8	2D / 36	Eugene C. Groah, Jr.	705 / 777	93.12
9	2D / 34	Anthony S. & Dawn H. VanWie	732 / 622	43.81
10	2D / 35	Eugene C. Groah, Jr.	705 / 777	80.00
11	2D/47	Frances McCutchan, et al	726 / 551	151.0
12	2E / 41.2	Charles M. & Katie D. Groah	652 / 348	1.84
13	2E / 41.1	David B. Lang	717 / 614	72.75
14	2E / 41	Charles M. & Katie D. Groah	575 / 205	15.50
15	2E / 43.1	David B. Lang	662 / 726	0.25
16	2E / 43	David B. Lang	662 / 726	68.00
17	2E / 45	Paul J. Groah & James C. Empoules	723 / 719	173.0
18	2E / 44	David B. Lang	662 / 726	43.00
19	2E / 46	Emily M. & Carlton E. Jones, II	734 / 928	130.0
20	2E / 55	Carlton E. Jones, II	671 / 536	94.00
21	2E / 54	Emily M. & Carlton E. Jones, II	734 / 928	47.44
22	2E / 59	Donna L. & Joseph A. Motto, Jr. (L/E)	746 / 367	51.68

DRAWING NO: Van Wie 1221 S-9H Well Plat-S 1" = 2000" SCALE: \_

MINIMUM DEGREE OF ACCURACY: Submeter

PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

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

DATE: September 13 20 24

OPERATOR'S WELL NO. Van Wie 1221 S-9H

API WELL NO

47 041 - 05768 COUNTY STATE

X GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL (IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☒ SHALLOW

LOCATION: ELEVATION; 1,251.77' WATERSHED: Fink Creek

DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II Appalachia, LLC, et al

ROYALTY OWNER: Joseph Krenn, et al LEASE NO: \_

QUADRANGLE: Vadis COUNTY: Lewis

ACREAGE: 131.85 ACREAGE: 724

PROPOSED WORK: ☑ DRILL ☐ CONVERT ☐ DRILL DEEPER ☑ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION ☑ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,162 MD

WELL OPERATOR: HG Energy II Appalachia, LLC

ADDRESS: \_ 5260 Dupont Road

Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

WW-6A1 (5/13)

Operator's Well No. Van Wie 1221 S-9H

#### INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) 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:

Lease Name or Number

Grantor, Lessor, etc.

Grantee, Lessee, etc.

Royalty

Book/Page

\*\*See Attached Sheets\*\*

Office of off and form

Co-Tenancy utilization - At least 75% of the royalty owners have consented to the lawful use or development of the natural gas mineral property on the tract. The interests of the remaining cotenants will be secured pursuant to the Co-Tenancy Act

Horizontal Well Unit Utilization - Subjet to unitilization filing with te WV Oil and Gas Conservation Commission

#### 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 acknowledges 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

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 necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:	HG Energy II A	Appalachia, LLC	
By:	Diane White	Diane White	
Its:	Agent		

Page 1 of 4

#### HG Energy II Appalachia, LLC Van Wie 1221 S9H Lease Chain

1221S Tract   LEGACY LEASE   NUMBER		TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
LLLO ITAGE				JOSEPH KRENN AND EMILY E. KRENN, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	33	23
				WILLIAM A. LOUWTHER	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	42	40
				SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	570+F64:16
				SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	166	49
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	1
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	(
/6		03-002D-0003-0000		DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	
		03-002D-0003-0001		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	
	FK054825	03-002D-0003-0003	Q100903000	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY INC	NOT LESS THAN 1/8	692	
	FK079440 FEE	03-002D-0028-0000	Q100303000	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	
		03-002D-0029-0000		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	
		03-002D-0030-0000		NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	740	7
17	FK051151 FEE FK080009 FEE	03-002D-0031-0000	FK051151 FEE FK080009 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	740	
	FRUOUUUS FEE		T KOOOOO T EE	L. M. REED AND ADALINE REED, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	153	
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	1
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	
			1 4 6	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	
1	EK0E4063			DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	1
8	FK051063 FK079964 FEE	03-002D-0034-0000	266165000	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	
	FKU/9964 FEE			NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION FIREST TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	1
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	
2	-	03-002E-0041-0000	4					
12	FK079441 FEE	03-002E-0041-0000 03-002E-0041-0002 p/o 03-002E-0041-0001	FK079441 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	740	
		P/ - 00 0022 00 12 0002		C. K. GIBSON, A. P. GIBSON, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	39	
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	
	1 0 0 0		1	SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	
				SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	166	

	Í.	1 1	Yp.	LIGHT MATTING CAS COMPANIV	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	
	11			HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SOPPET CORPORATION  CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	1
				CONSOLIDATED GAS SUPPLY CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	7
				CONSOLIDATED GAS TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	6
				CNG TRANSMISSION CORPORATION	•	MEMORANDUM OF FARMOUT AGREEMENT	672	1
v.			C. C	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	LIMITED PARTIAL ASSIGNMENT (50%)	684	
14	FK000784	03-002D-0036-0000	Q100650000	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.		712	8
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	717	- 0
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	722	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	WVSOS	1
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WV3U3	
			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723		
					Li vice and the same and the	THIRD AMENDMENT TO MEMORANDUM OF	7-25	
		DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	FARMOUT AGREEMENT	734			
		DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736			
		ELSIE LINDER AND J.P. LINDER, HER HUSBAND; C.E. GIBSON AND						
				STATA GIBSON, HIS WIFE; IDA FRAZIER AND JAMES W. FRAZIER, HER				
		D. A		HUSBAND; MARTHA E. BROWN AND M.W. BROWN, HER HUSBAND;				
	D.		EVELYN GIBSON, WIDOW; EVELYN GIBSON, GUARDIAN OF VIRGINIA I.					
			GIBSON, CHARLES B. GIBSON, BOYD F. GIBSON AND VIVIAN MAY					
			GIBSON, MINORS	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	144		
			HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294		
	III and II			CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	
FK047105 FK051217			CONSOLIDATED GAS SUPPLY CONFORMATION  CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51		
				DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9		
		Q100262000	CNG TRANSMISSION CORPORATION	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672		
	03-002D-0035-0000	Q100916000	DOMINION TRANSPORT, INC.	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684		
	INOSILLI		0.00.000,000	CNX GAS COMPANY LLC	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	
				DOMINION TRANSMISSION, INC.		ASSIGNMENT	717	
		l .		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	722	
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	MERGER/NAME CHANGE	wvsos	
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	SECOND AMENDMENT TO MEMORANDUM OF	*******	
				8 W	02-202-207-227-227-11-11-2	and and the finite of the second of the seco	723	
	1			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	FARMOUT AGREEMENT THIRD AMENDMENT TO MEMORANDUM OF	123	-
		1			VANCOUST DAMEST CONTROL OF THE PARTY OF THE		734	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	FARMOUT AGREEMENT	736	_
		¥		DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	730	
				E. RAY BENNETT AND HAZEL L. BENNETT, HIS WIFE; AND A. A. TETER	Contract to the Contract of th	Construction of the Constr	200	
				AND EDA TETER, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	208	_
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	
		A .		CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	_
		1		CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	
/		2.3.0.000		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	
16	FK061621	03-002E-0043-0000	Q101040000	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	
16	INOUTUZI	03-002E-0043-0001		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
	The state of the s			T TO 1100 A TO 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		SECOND AMENDMENT TO MEMORANDUM OF		
	1			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	FARMOUT AGREEMENT	723	
				DOMINION ENERGY INVESTIGATION OF THE		THIRD AMENDMENT TO MEMORANDUM OF		
	All I			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	FARMOUT AGREEMENT	734	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	

292	89
294	89
425	127
51 9	795 628
651	318
9	471
809	910
814	503
811	117
	14
	470
	4704
	47041
	470410
	4704105
	47041057
	04105

53 HGII04651
52 CNX14025000



September 29, 2024

Cragin Blevins WV DEP Division of Oil & Gas 601 57<sup>th</sup> Street Charleston, WV 25304

PECEIVED
Office of Cd and Gas

OCT 0 3 2024

WV Deptilitient of Environmental Protection

RE: Drilling Under Roads – Van Wie 1221 S-9H

Freemans Creek District, Lewis County

West Virginia

Dear Mr. Blevins:

HG Energy II Appalachia, LLC, is submitting the attached application for a new well work permit for the Van Wie 1221 well pad. As an authorized representative, I certify HG Energy II Appalachia, LLC, has the right to drill, stimulate, extract, produce and market the oil, gas or condensate for all leases through which the Van Wie 1221 laterals will drill through, including, all roads crossed under as identified on the attached survey plat.

Should you have any questions or desire further information, please contact me at dwhite@hgenergyllc.com or 304-420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

WW-PN (11-18-2015)

#### Horizontal Natural Gas Well Work Permit Application Notice By Publication

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: The Weston Democrat Newspaper						
Public Notice Date: Wednesday, June 5th & Wednesday,	June 12th, 2024					
The following applicant intends to apply for a surface excluding pipelines, gathering lines and any thirty day period.						
Applicant: HG Energy II Appalachia, LLC		Well Number: Van Wie 1221 S-9H				
Address: 5260 Dupont Road						
Parkersburg, WV 26101						
Business Conducted: Natural gas production  Location —  State: West Virginia		County:	Lewis			
District: Freemans Creek		Quadrangle:	Vadis 7.5'			
UTM Coordinate NAD83 Northing:	4327328.9					
UTM coordinate NAD83 Easting: Watershed: Fink Creek	528609.6					
Coordinate Conversion: To convert the coordinates above into longitud  Electronic notification:	le and latitude,	visit: <u>http://ta</u>	gis.dep.wv.gov/convert/llutm_conus.php			

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to <u>DEP.comments@wv.gov</u>.

#### **Submitting Comments:**

Comments may be submitted online at <a href="https://apps.dep.wv.gov/oog/comments/comments.cfm">https://apps.dep.wv.gov/oog/comments/comments.cfm</a>, or by letter to Permit Review, Office of Oil and Gas, 601 57<sup>th</sup> Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit

http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx to sign up.

@pylimin -

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

Date of Notic	ce Certification: 09/29/2024	API No. 47-	API No. 47 Operator's Well No. Van Wie 1221 S-9H				
		Operator's W	Vell No. Van V	Vie 1221 S-9H			
		Well Pad Na	me: Van Wie				
Notice has l							
		22-6A, the Operator has provided the requi	red parties w	ith the Notice Forms listed			
	tract of land as follows:						
State:	West Virginia	I TM NAD 92	28609.6				
County:	Lewis	Northing: 4	327328.9	1915 Turk			
District:	Freemans Creek		CR 11 / 3 via Stra	ight Run Road			
Quadrangle:	Vadis WV 7.5's	Generally used farm name:	an Wie				
Watershed:	Fink Creek						
prescribed by it has provide information reof giving the requirements Virginia Code of this article	the secretary, shall be verified and sled the owners of the surface described equired by subsections (b) and (c), se surface owner notice of entry to su of subsection (b), section sixteen one § 22-6A-11(b), the applicant shall to have been completed by the applicant		A certification (b), section (b), sectirement was a of this article surface owat the notice	on from the operator that (i) stion ten of this article, the deemed satisfied as a resul- cle six-a; or (iii) the notice orner; and Pursuant to West			
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the required ECK ALL THAT APPLY	erator has attached proof to this Notice Cert I parties with the following:	tification	OOG OFFICE USE ONLY			
□ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECAUS SEISMIC ACTIVITY WAS CONDUCTED		RECEIVED/ NOT REQUIRED			
■ 2. NO	TICE OF ENTRY FOR PLAT SURV	EY or NO PLAT SURVEY WAS CON	NDUCTED	☐ RECEIVED			
■ 3. NO	TICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECAUS NOTICE OF ENTRY FOR PLAT SURVE WAS CONDUCTED OF	40.0	☐ RECEIVED/ NOT REQUIRED			
		☐ WRITTEN WAIVER BY SURFACE (PLEASE ATTACH)	OWNER				
■ 4. NO	TICE OF PLANNED OPERATION	Office of CV and Great		☐ RECEIVED			
■ 5. PUI	BLIC NOTICE	OCT 0 3 2024		☐ RECEIVED			
■ 6. NO	TICE OF APPLICATION	Environment of the control		☐ RECEIVED			

#### Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

#### Certification of Notice is hereby given:

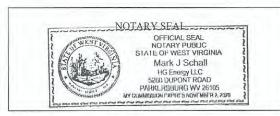
THEREFORE, I Diane White \_\_\_\_\_\_\_\_, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, 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 and imprisonment.

 Well Operator:
 HG II Appalachia, LLC
 Address:
 5260 Dupont Road

 By:
 Diane White
 Diane White
 Parkersburg, WV 26101

 Its:
 Agent
 Facsimile:
 304-863-3172

 Telephone:
 304-420-1119
 Email:
 dwhite@hgenergyllc.com



Subscribed and sworn before me this 29th day of September, 2024.

Notary Public My Commission Expires 11/2/26

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Office of Oil and Gas
OCT 0 3 2024
WAY Use Interest en

WW-6A (9-13) API NO. 47OPERATOR WELL NO. Van We 1221 NITH IN STERL
Well Pad Name: Van Wie 1221

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

Notice Ti	me Requiremen	nt: notice sha	ll be provided r	no later tha	an the filing date of permit application.	
Date of N Notice of	Totice: 12/10/23	Date Permi	it Application l	Filed: 12/1:	3/23	
✓ PER	MIT FOR ANY		CERTIFICAT	E OF APP	PROVAL FOR THE	
-	LL WORK				AN IMPOUNDMENT OR PIT	
		-0.000000000000000000000000000000000000				
Delivery	method pursua	nt to West V	irginia Code §	22-6A-10	D(D)	
☐ PER	SONAL	REGIST	ered [	METH	OD OF DELIVERY THAT REQUIRES A	
SER	RVICE	MAIL		RECEI	IPT OR SIGNATURE CONFIRMATION	
sediment of the surface oil and gas described operator o more coal well work, impoundn have a wait provide we proposed very subsection records of provision code R. 8.	control plan requi- e of the tract on v s leasehold being in the erosion and r lessee, in the ev seams; (4) The o if the surface tra- tent or pit as dest ter well, spring of ater for consump well work activity in (b) of this section the sheriff requi- of this article to t 35.8.57 a requi-	which the well developed by dedinent con tent the tract of which the tract of the tra	seven of this ar is or is proposed the proposed we arrol plan submit of land on which and of the surface of for the placem on nine of this as source located a is or domestic ar ce. (c)(1) If mor ts in the lands, to tained pursuant- orice to a lien to at the operator's	rticle, and the total control of the local control of the tract or trainent, constructions, (5) A minutes and the applicanto section colder is not shall also on the local control of the local contro	or signature confirmation, copies of the application, the erosion and the well plat to each of the following persons: (1) The owners of record of ated; (2) The owners of record of the surface tract or tracts overlying the f the surface tract is to be used for roads or other land disturbance as ant to subsection (e), section seven of this article; (3) The coal owner, roposed to be drilled is located [sic] is known to be underlain by one or acts overlying the oil and gas leasehold being developed by the proposed ruction, enlargement, alteration, repair, removal or abandomment of any Any surface owner or water purveyor who is known to the applicant to thousand five hundred feet of the center of the well pad which is used to it (6) The operator of any natural gas storage field within which the se tenants in common or other co-owners of interests described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding any motice to a landowner, unless the lien holder is the landowner. W. Va. rovide the Well Site Safety Plan ("WSSP") to the surface owner and any as provided in section 15 of this rule.	
☑ Applic ☑ SURFA Name:	cation Notice E CE OWNER(s) HG Energy II Appala 5260 Dupont Road	WSSP Noti KX HG End Wall F			□ Well Plat Notice is hereby provided to:  5 not being noticed as they are the operator  □ COAL OWNER OR LESSEE  Name: M  Address:	of the
NT	Parkersburg, WV 26 Anthony and Dawn				☐ COAL OPERATOR	
	2700 Jones Road	Vali Viis			Name: NA	
	Dunkirk, MD 20754				Address:	
	CE OWNER(s)			ance)	☐ SURFACE OWNER OF WATER WELL	
	*				AND/OR WATER PURVEYOR(s)	
Address:					Name: NA	
Name:					Address:	
					THE PART OF LAWYSTATION IN CASE OFFICE AND LOT BY	
					☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD Name: BHE GT&S - Autn: Jamie Moore	
SURFA	CE OWNER(s)	(Impoundme	nts or Pits)		Name: BHE GT&S - Attn: Jamie Moore Address: 925 White Oaks Blvd	
				4	Bridgeport, WV 26330	
Address:					*Please attach additional forms if necessary	
_					A commendation of the second o	



WW-6A (8-13)

OPERATOR WELL NO. Well Pad Name: Van Wie 1221

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oiland-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section, (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items



WW-6A (8-13)

OPERATOR WELL NO. Van IVan 1221 NIH to \$12H Well Pad Name: Van Wie 1221

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

#### Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas Department of Environmental Protection 601 57th St. SE Charleston, WV 25304 (304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.



WW-6A (8-13)

OPERATOR WELL NO, Von Wie 1221 NIH to \$124 Well Pad Name: Van Wie 1221

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

The proposed well work will constitute a hazard to the safety of persons;

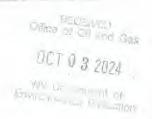
(2) The plan for soil erosion and sediment control is not adequate or effective;

(3) Damage would occur to publicly owned lands or resources; or

(4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.



WW-6A (8-13)

API'NO. 47-OPERATOR WELL NO. Van Wie 1221 N1H to \$12H Well Pad-Name: Van Wie 1221

4105768

Notice is hereby given by: Well Operator: HG Energy II Appalachia, LLC

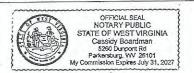
Email:

Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com Diane White Address: 5260 Dupont Road

Parkersburg, WV 26101 Facsimile: 304-863-3172

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



Subscribed and sworn before me this 11th day of Decomber, 2023 Notary Public My Commission Expires

> Office of Oil and Gas Environment of

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

try		ided at least SEVEN (7) days but no mo	
ate of Notice: _Ja			>41
livery method p	pursuant to West Virginia C	ode § 22-6A-10a	
		METHOD OF DELIVERY TH	AT REQUIRES A
PERSONAL	REGISTERED	RECEIPT OR SIGNATURE C	ONFIRMATION
SERVICE	MAIL .		
to the surface to the one than force that the tract where of minerals d Sediment Con- ceretary, which shable the surface	act to conduct any plat survey orty-five days prior to such er that has filed a declaration pu underlying such tract in the c trol Manual and the statutes a tatement shall include contact owner to obtain copies from the action of the statute of the statutes and the statutes at tatement shall include contact owner to obtain copies from the trace of the statute of the statute of the trace of the statute of the statute of trace of the statute of trace of the statute of trace of the statute of trace of trace	try to: (1) The surface owner of such tra- rsuant to section thirty-six, article six, ch bunty tax records. The notice shall inclu- and rules related to oil and gas exploration information, including the address for a the secretary.	perator shall provide notice of planned entry notice shall be provided at least seven days not; (2) to any owner or lessee of coal seams napter twenty-two of this code; and (3) any ide a statement that copies of the state Erosion and production may be obtained from the web page on the Secretary's web site, to
otice is hereby p	provided to: 来 Nonce	as operator of Record	
, Jarmanaco	are t	☐ COAL OWNER	OR LESSEE
SURFACE C		Name: N/A	
	nd Dawn Van Wie	Address:	
ddress: 2700 Jone	MD 20754		
	zy II Appalachia, LLC		Carrier de
	ont Road	MINERAL OW	
	ourg, WV 26101 ·	Name: Same as Surfa	ce Owners
ame:		Address:	
ddress:			<u>"</u>
da coo.		*please attach additional for	orms it necessary
plat survey on t	y given: Virginia Code § 22-6A-10(a) he tract of land as follows: ast Virginia	Approx. Latitude & Lon	gitude: 39.094844 / 80.868480  CR11/3 via Straight Run Road
	ewis ,	Public Road Access:	Fink Creek
	eemans Creek	Watershed:	disconnected to the second second
madrangle: va	dis .	Generally used farm nar	
nay be obtained Charleston, WV obtained from the	from the Secretary, at the www. 25304 (304-926-0450). Copies Secretary by visiting www.d	ol Manual and the statutes and rules related to the partment of Environmental Protections of such documents or additional inforce, www.gov/oil-and-gas/pages/default.asp	
AOUTE 12 HELEN	HG Appalachia, LLC		g, WV 26101
Well Operator:	Partition was a second	Parkersburg	Property of Co.
	304-420-1119	white Facsimile: 304-863-27	52

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory the Office of Oil and Gas processes your personal information may be disclosed to other State agencies or third parties in the normal course of business or as duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as duties. Your personal information in the normal course of business or as duties. Your personal information, please contact appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deportive confidence were given by the propriate of the parties o



## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

ate of Indian	e: 01/05/2024 Date Perm	it Application Filed:	2.01502561	
elivery meth	ood pursuant to West Virginia Code § 22	-6A-16(b)		
HAND	CERTIFIED MAIL			
DELIVE	RY RETURN RECEIPT REQU	JESTED		
eceipt reques drilling a horion of this subsect subsection ma and if availabl	T. Va. Code § 22-6A-16(b), at least ten days ted or hand delivery, give the surface owner zontal well: <i>Provided</i> , That notice given pution as of the date the notice was provided to be waived in writing by the surface owner, facsimile number and electronic mail addreby provided to the SURFACE OWN	oursuant to subsection to the surface owner:  or. The notice, if requires of the operator a  NER(s):	(a), section to Provided, how ired, shall included the operator	on of this article satisfies the requirements of this article requirements of this ude the name, address, telephone number or's authorized representative.
Vame: HG	Energy II Appalachia, LLC *	Name:	Anthony and Day 2700 Jones Road	
tudi obb.	50 Dupont Road	Address:	Dunkirk, MD 207	
	rkersburg, WV 26101			
Notice is he: Pursuant to W the surface ov	Vest Virginia Code § 22-6A-16(b), notice is wrer's land for the purpose of drilling a hor	izontal well on the tra	CLOI failu as ic	well operator has an intent to enter upon bllows: 528688.6
Notice is here over the surface over the state:  County:	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori West Virginia Lewis	s hereby given that th izontal well on the tra — UTM NAD 83 — Public Road Ac	Easting: Northing:	7110 WS.
Notice is he: Pursuant to W the surface ov State: County: District:	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori- West Virginia Lewis  Freemans Creek	UTM NAD 83	Easting: Northing:	52868.6 4327353.9
Notice is he	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a hori West Virginia Lewis	UTM NAD 83  Public Road Ac	Easting: Northing:	52868.6 4327353.9 CR11 / 3 via Straight Run Road
Notice is he: Pursuant to W the surface ov State: County: District: Quadrangle: Watershed: This Notice Pursuant to V facsimile nur	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a horivest Virginia  Lewis  Freemans Creek  Vadis WV 7.5'	UTM NAD 83  Public Road Ac Generally used  notice shall include t	Easting: Northing: ccess: farm name:  he name, add ator's authoriz	52868.6 4327353.9 CR11 / 3 via Straight Run Road Van Wie  ress, telephone number, and if available ed representative. Additional information of Environmental Protection headquarters
Notice is here Pursuant to When surface over State: County: District: Quadrangle: Watershed: This Notice Pursuant to Manage of the State of the Stat	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a horizontal Lewis  Freemans Creek  Vadis WV 7.5'  Fink Creek  Shall Include: West Virginia Code § 22-6A-16(b), this is mber and electronic mail address of the orizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (3)	DITM NAD 83  Public Road Action Generally used notice shall include the perator and the operator at the WV 04-926-0450) or by voice that the secretary, at the WV 04-926-0450) or by voice that the secretary is the WV 04-926-0450) or by voice that the way of the secretary is the way of the secretary at the way of the way of the secretary at the way of the	Easting: Northing: ccess: farm name: he name, add ator's authoriz Department of isiting www.d	52868.6 4327353.9 CR11/3 via Straight Run Road Van Wie  ress, telephone number, and if available ed representative. Additional information of Environmental Protection headquarters ep.wv.gov/oil-and-gas/pages/default.aspx
Notice is here Pursuant to Whe surface over State: County: District: Quadrangle: Watershed: This Notice Pursuant to Manage of the Notice facsimile nurrelated to hoo located at 60. Notice is here	Vest Virginia Code § 22-6A-16(b), notice is wher's land for the purpose of drilling a horizontal Lewis  Freemans Creek  Vadis WV 7.5'  Fink Creek  Shall Include: West Virginia Code § 22-6A-16(b), this is mber and electronic mail address of the original contents.	DUTM NAD 83  Public Road Action of the transport of the t	Easting: Northing: ccess: farm name:  he name, add ator's authoriz	52868.6 4327353.9 CR11/3 via Straight Run Road Van Wie  ress, telephone number, and if available ed representative. Additional information of Environmental Protection headquarters ep.wv.gov/oil-and-gas/pages/default.aspx
Notice is here Pursuant to We the surface over the surfac	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a horizontal drilling a horizontal drilling and code § 22-6A-16(b), this is mber and electronic mail address of the orizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (3 ereby given by:	DITM NAD 83  Public Road Action Generally used notice shall include the perator and the opera Secretary, at the WV 04-926-0450) or by v	Easting: Northing: ccess: farm name: he name, add ator's authoriz Department of isiting www.d	52868.6  4327353.9  CR11/3 via Straight Run Road  Van Wie  ress, telephone number, and if available ed representative. Additional information of Environmental Protection headquarters ep.wv.gov/oil-and-gas/pages/default.aspx  Diane White  5260 Dupont Road
Notice is here Pursuant to We the surface over the surfac	Vest Virginia Code § 22-6A-16(b), notice is wher's land for the purpose of drilling a horivest Virginia  Lewis  Freemans Creek  Vadis WV 7.5'  Fink Creek  Shall Include: West Virginia Code § 22-6A-16(b), this mober and electronic mail address of the orizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (3 creby given by:  HG Energy II Appalachia, LLC	DTM NAD 83  Public Road Action of the transport of the perator and the operator and the operator at the WV 04-926-0450) or by volume Authorized I Address:	Easting: Northing: ccess: farm name: he name, add ator's authoriz Department of isiting www.d	52868.6  4327353.9  CR11 / 3 via Straight Run Road  Van Wie  ress, telephone number, and if available ed representative. Additional information of Environmental Protection headquarters ep.wv.gov/oil-and-gas/pages/default.aspx  Diane White  5260 Dupont Road  Parkersburg, WV 26101
Notice is here Pursuant to We the surface over State: County: District: Quadrangle: Watershed: This Notice Pursuant to Me to State to Me to State to Me to M	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a horiwest Virginia  Lewis  Freemans Creek  Vadis WV 7.5'  Fink Creek  Shall Include: West Virginia Code § 22-6A-16(b), this is mber and electronic mail address of the orizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (3 creby given by:  DI: HG Energy II Appalachia, LLC  5260 Dupont Road  Parkersburg, WV 26101  304-420-1119	DITM NAD 83  Public Road Action of the transport of the properties of the perator and the operator and the operator and the WV 04-926-0450) or by voten the perator of the WV 04-926-0450. The properties of the perator and the operator and the operator and the operator and the wv 04-926-0450 or by voten the perator and the operator and the operator and the operator and the operator and the wv 04-926-0450 or by voten the perator and the operator a	Easting: Northing: ccess: farm name: he name, add ator's authoriz Department of isiting www.d	52868.6  4327353.9  CR11 / 3 via Straight Run Road  Van Wie  ress, telephone number, and if available ed representative. Additional information of Environmental Protection headquarters ep.wv.gov/oil-and-gas/pages/default.aspx  Diane White  5260 Dupont Road  Parkersburg, WV 26101  304-420-1119
Notice is here Pursuant to We surface over State: County: District: Quadrangle: Watershed: This Notice Pursuant to Me facsimile nurrelated to hoo located at 60. Notice is here	Vest Virginia Code § 22-6A-16(b), notice is wner's land for the purpose of drilling a horiwest Virginia  Lewis  Freemans Creek  Vadis WV 7.5'  Fink Creek  Shall Include: West Virginia Code § 22-6A-16(b), this is mber and electronic mail address of the orizontal drilling may be obtained from the 1 57th Street, SE, Charleston, WV 25304 (3 ereby given by:  HG Energy II Appalachia, LLC  5260 Dupont Road  Parkersburg, WV 26101	DITM NAD 83  Public Road Action of the transport of the properties of the perator and the operator and the operator and the WV 04-926-0450) or by voten the perator of the WV 04-926-0450. The properties of the perator and the operator and the operator and the operator and the wv 04-926-0450 or by voten the perator and the operator and the operator and the operator and the operator and the wv 04-926-0450 or by voten the perator and the operator a	Easting: Northing: ccess: farm name: he name, add ator's authoriz Department of isiting www.d	52868.6  4327353.9  CR11 / 3 via Straight Run Road  Van Wie  ress, telephone number, and if available ed representative. Additional information of Environmental Protection headquarters ep.wv.gov/oil-and-gas/pages/default.aspx  Diane White  5260 Dupont Road  Parkersburg, WV 26101

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

11/08/2024

## DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

Notice Time Date of Noti	Requirement: notice shall be provided: 01/05/2024	ded no later than mit Application I	the filing	date of permit	application.
	thod pursuant to West Virginia Co				* .
Denvery me	thou pursuant to west virginia Co	de 3 22-0A-10(e,			300
■ CERTI	FIED MAIL	☐ HAND			
	RN RECEIPT REQUESTED	DELIVER	Y	- x	
return receipt the planned required to be drilling of a	requested or hand delivery, give the operation. The notice required by a provided by subsection (b), section horizontal well; and (3) A proposed surface affected by oil and gas one	e surface owner w this subsection sh ten of this article d surface use and erations to the ext	those land all include to a surface compens ent the da	will be used for le: (1) A copy ace owner whos ation agreemen mages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information we land will be used in conjunction with the t containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
Notice is hei	eby provided to the SURFACE O	WNER(s)			† .a
(at the address	ss listed in the records of the sheriff a	at the time of notice	ce):		
Name: HG	Energy II Appalachia, LLC	_	Name: _	Anthony and Dav	
Address: 526	0 Dupont Road		Address		
Par	kersburg, WV 26101		4-	Dunkirk, MD 207	54
State: County: District:	West Virginia Lewis Freemans Creek		M NAD 8. lic Road A	Northing:	528668.6 4327353,9 CR 11 / 3 via Straight Run Road
Quadrangle:	Vadis WV 7.5'	The second secon		d farm name:	Van Wie
Watershed:	Fink Creek				*
Pursuant to V to be provid horizontal w surface affect information	ed by W. Va. Code § 22-6A-10(b) ell; and (3) A proposed surface use a ted by oil and gas operations to the related to horizontal drilling may be, located at 601 57th Street, SE,	to a surface own and compensation extent the damage obtained from t	ner whose agreemer ges are co he Secret	land will be untraining an impensable und ary, at the WV	code section; (2) The information required used in conjunction with the drilling of a coffer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting



### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways
Office of the District Engineer/Manager

District Four Post Office Box 4220 · Clarksburg, West Virginia 26302 · (304) 842-1500

Alanna J. Keller, P.E. Deputy Secretary of Transportation Deputy Commissioner of Highways

Jimmy Wriston, P. E. Secretary of Transportation Commissioner of Highways

December 04, 2023

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Van Wie 1221, Lewis County S-9H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit 07-2023-0352 which has been issued to HG Energy II Appalachia, LLC for access to the State Road for a well site located off Lewis County Route 11/3 SLS MP 2.941.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Stephen G. Johnson Director of Operations

Cc: Diane White
HG Energy II Appalachia, LLC
CH, OM, D-7
File

OCT 0 3 2024

# HG Energy II Appalachia, LLC List of Frac Additives by Chemical Name and CAS # Van Wie 1221 Well Pad (N-1H thru S-12H)

Chemical Name	CAS#	Multiple CAS #'s
Pro Shale Slik 405	Mixture	68551-12-2
		7647-14-5
		12125-02-9
		64742-47-8
Pro Hib II	Mixture	68412-54-4
		68607-28-3
		107-21-1
		111-76-2
		67-56-1
		107-19-7
Silica Sand and Ground Sand	Mixture	14808-60-7
		1344-28-1
		1309-37-1
		13463-67-7
Hydrochloric Acid 22 DEG BE	7647-01-0	
PROGEL - 4.5	64742-96-7	
BIO CLEAR 2000	Mixture	25322-68-3
		10222-01-2
SCALE CLEAR SI 112	107-21-1	
PROBREAK 4	Mixture	57-50-1
		107-21-1
Sulfamic Acid	5329-14-6	
PRO - Flow - 102-N	Mixture	67-63-0
		68439-45-2
		2687-96-9
PROGEL - 4	9000-30-0	

OPERATOR:_	HG Energy II Appalachia, LL	WELL NO: Van Wie 1221 S-9H			
PAD NAME:_	Van Wie 1221				
REVIEWED E	BY: Diane White	SIGNATURE: _	Diane White		

### WELL RESTRICTIONS CHECKLIST

#### HORIZONTAL 6A WELL

	At Least 100 Feet from Pad and LOD (including any E&S Control Fea	ture) to any
	Perennial Stream, Lake, Pond, Reservoir or Wetland; OR	ture) to any
	DEP Waiver and Permit Conditions	
<b>√</b>	At Least 300 Feet from Pad and LOD (including any E&S Control Fea Naturally Producing Trout Stream; OR	ture) to any
	DEP Waiver and Permit Conditions	
1	At Least 1000 Feet from Pad and LOD (including any E&S Control Fe Groundwater Intake or Public Water Supply; OR	eature) to any
	DEP Waiver and Permit Conditions	
1	At Least 250 Feet from an Existing Water Well or Developed Spring to Drilled; OR	o Well Being
	Surface Owner Waiver and Recorded with County Clerk, OR	
	DEP Variance and Permit Conditions	
1	At Least 625 Feet from an Occupied Dwelling Structure to Center of the	he Pad; OR
	Surface Owner Waiver and Recorded with County Clerk, OR	
	DEP Variance and Permit Conditions	
1	At Least 625 Feet from Agricultural Buildings Larger than 2500 Squar of the Pad; OR	
	Surface Owner Waiver and Recorded with County Clerk, OR	Office of Oil and Gas
	DEP Variance and Permit Conditions	OCT 0 3 2024
	DEF variance and retinit conditions	WV Lieuway of