



west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Thursday, November 7, 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-12H  
47-041-05771-00-00

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  
Chief

Operator's Well Number: VAN WIE 1221 S-12H  
Farm Name: HG ENERGY II APPALACHIA  
U.S. WELL NUMBER: 47-041-05771-00-00  
Horizontal 6A New Drill  
Date Issued: 11/7/2024

Promoting a healthy environment.

11/08/2024

# 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.

11/08/2024

WW-6B  
(04/15)

4704105771  
API NO. 47-  
OPERATOR WELL NO. Van Wie 1221 S-12H  
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 Operator: HG Energy II Appalachia, LLC 494519932 Lewis Freeman Vadis 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Van Wie 1221 S-12H Well Pad Name: Van Wie 1221

3) Farm Name/Surface Owner: HG Energy II Appalachia, LLC Public Road Access: CR 11/3 aka Straight Run Road

4) Elevation, current ground: 1256' Elevation, proposed post-construction: 1251.7'

5) Well Type (a) Gas x Oil Underground Storage  
Other

(b) If Gas Shallow x Deep  
Horizontal x

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus at 7002' / 7049' and 47' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 7,035'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 16,721'

11) Proposed Horizontal Leg Length: 7,596'

12) Approximate Fresh Water Strata Depths: 150', 181', 826'

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-017-02906, 2480, 4233, )

14) Approximate Saltwater Depths: NA

15) Approximate Coal Seam Depths: 220' - 225', 428'-438', 495'-501' (Surface casing is being extended to cover the coal in the DTI Field)

16) Approximate Depth to Possible Void (coal mine, karst, other): None

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X

(a) If Yes, provide Mine Info: Name: Depth: Seam: Owner:

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection



WW-6B  
(04/15)

4704105771

API NO. 47- \_\_\_\_\_  
 OPERATOR WELL NO. Van Wie 1221 S-12H  
 Well Pad Name: Van Wie 1221

18)

CASING AND TUBING PROGRAM

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	6750'	6750' ✓	40% Excess Tail, CTS
Production	5 1/2"	NEW	P-110 HP	23	16721'	16721' ✓	20% Excess Tail, CTS
Tubing							
Liners							

Kenneth Greynolds  
Digitally signed by: Kenneth Greynolds  
 DN: CN = Kenneth Greynolds email = Kenneth.L.Greynolds@wv.gov C = AD O = WVDEP OU = Oil and Gas  
 Date: 2024.09.23 13:41:39 -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	Lead 40% excess, Tail 0% Excess
Production	5 1/2"	8 1/2"	.415	16240 ✓	12500	Type 1/Class A	20% excess yield = 1.10, tail yield 1.10
Tubing							
Liners							

PACKERS

Kind:				<b>RECEIVED</b> <b>Office of Oil and Gas</b>  <b>OCT 07 2024</b>  <b>WV Department of Environmental Protection</b>
Sizes:				
Depths Set:				

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 7,596' lateral length, 16,721' 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 running ACP for isolating storage zone  
Intermediate 2 - Bow Spring on first 2 joints then every third joint; 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.

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 - 15.5 ppg PNE-1 + 3% bwoc CaCl<sub>2</sub> 40% Excess/Yield=1.20 / CTS\*  
Intermediate 1 - \*\*\*\* Storage String \*\*\* CTS \*\*\* 15.4 ppg Lead - Yield 1.24 - D886 Surface Set 100 lb / 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 - D886 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 / D801 - 0.03 gal / sack Retarder - 0% Excess\*  
Intermediate 2 - \*Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub> 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub> 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 MPA170Ta: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17020% Excess/Lead 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 cement.  
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.

**RECEIVED**  
Office of Oil and Gas  
**OCT 07 2024**  
WV Department of  
Environmental Protection

\*Note: Attach additional sheets as needed.



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

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Portland cement</td> <td>90 - 100</td> <td>85997-15-1</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> <tr> <td>Magnesium oxide</td> <td>1 - 5</td> <td>1309-48-4</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>0.1 - 1</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Portland cement	90 - 100	85997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
Ingredient name	%	CAS number																			
Portland cement	90 - 100	85997-15-1																			
Calcium oxide	1 - 5	1305-78-8																			
Magnesium oxide	1 - 5	1309-48-4																			
Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7																			
Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>bentonite</td> <td>90 - 100</td> <td>1302-78-9</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7									
Ingredient name	%	CAS number																			
bentonite	90 - 100	1302-78-9																			
Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																			
Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium chloride</td> <td>90 - 100</td> <td>10043-52-4</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
Ingredient name	%	CAS number																			
Calcium chloride	90 - 100	10043-52-4																			
Cello Flake	Lost Circulation	Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
Ingredient name	%	CAS number																			
No hazardous ingredient																					
FP-13L	Foam Preventer	FP-13L is a clear liquid organic phosphate antifoaming agent used in cementing operations. It is very effective minimizing air entrapment and preventing foaming tendencies of latex systems.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Tributyl phosphate</td> <td>90 - 100</td> <td>126-73-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	126-73-8												
Ingredient name	%	CAS number																			
Tributyl phosphate	90 - 100	126-73-8																			
Granulated Sugar	Retarder	Used to retard cement returns at surface. A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Sucrose</td> <td>90 - 100</td> <td>57-50-1</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Sucrose	90 - 100	57-50-1												
Ingredient name	%	CAS number																			
Sucrose	90 - 100	57-50-1																			
EC-1			<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium magnesium oxide</td> <td>90 - 100</td> <td>37247-91-9</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium magnesium oxide	90 - 100	37247-91-9												
Ingredient name	%	CAS number																			
Calcium magnesium oxide	90 - 100	37247-91-9																			
MPA-170	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
Ingredient name	%	CAS number																			
No hazardous ingredient																					
Poz (Fly Ash)	Base	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.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7	Calcium oxide	1 - 5	1305-78-8									
Ingredient name	%	CAS number																			
Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																			
Calcium oxide	1 - 5	1305-78-8																			
R-3	Retarder	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Organic acid salt</td> <td>40 - 50</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
Ingredient name	%	CAS number																			
Organic acid salt	40 - 50	Trade secret.																			
S-5	Surfactant	Used to water wet casing and formation to facilitate cement bonding.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>2-Butoxyethanol</td> <td>20 - 30</td> <td>111-76-2</td> </tr> <tr> <td>Proprietary surfactant</td> <td>10 - 20</td> <td>Trade secret.</td> </tr> <tr> <td>D-Glucopyranose, oligomeric, C10-16-alkyl glycosides</td> <td>5 - 10</td> <td>110615-47-9</td> </tr> <tr> <td>Alkylarylsulfonate amine salt</td> <td>1 - 5</td> <td>Trade secret.</td> </tr> <tr> <td>Polyoxyalkylenes</td> <td>0.1 - 1</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.	Polyoxyalkylenes	0.1 - 1	Trade secret.
Ingredient name	%	CAS number																			
2-Butoxyethanol	20 - 30	111-76-2																			
Proprietary surfactant	10 - 20	Trade secret.																			
D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9																			
Alkylarylsulfonate amine salt	1 - 5	Trade secret.																			
Polyoxyalkylenes	0.1 - 1	Trade secret.																			

RECEIVED  
Office of Oil and Gas

OCT 07 2024

WV Department of  
Environmental Protection

11/08/2024

\*\*\* Storage String \*\*\* CTS \*\*\*

15.4 ppg Lead - Yield 1.24 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)  
 B64B - 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  
 15.0 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 /  
 DB01 = 0.03 gal / sack Retarder - 0% Excess

1221 S-12H  
 Marcellus Shale Horizontal  
 Doddridge County, WV



			1221 S-12H SHL				14197274.35N 1734313.86E					
Ground Elevation			1251.77'				1221 S-12H LP			14198017.96N 1738201.6E		
Azm			160.021°				1221 S-12H BHL			14190862.53N 1740725.1E		

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	30"	30" 157.5# LS	Conductor	0	120	AIR	N/A. Casing to be drilled in w/ Dual Rotary Rig	N/A	Ensure the hole is clean at TD.	Conductor casing = 0.5" wall thickness
	26"	20" 94# J-55	Coal	740	746	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Centralized every 3 joints to surface	Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2110 psi
			Fresh Water Protection	0	1225					
	17.5'	13-3/8" 68# J-55 BTC	Little Lime	2167	2187	AIR / KCL-Salt Polymer	See above (LEFT) for Storage String Cement Blend to Meet DTI Requirements for Gas Storage Field Isolation	Bow Spring on every joint "will also be running ACP for isolating storage zone"	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi
			Big Lime	2216	2265					
			Injun / Gantiz (Storage)	2265 / 2397	2361 / 2647					
			Intermediate 1	0	2760					
	12.25"	9-5/8" 40# N / L-80 BTC	Thirty Foot	2789	2799	AIR / KCL-Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on first 2 joints then every third joint to 100' form surface.	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=5750 psi
			Gordon	2837	2915					
			5th Sand	3066	3102					
			Bayard	3161	3174					
			Speechley	3634	3666					
			Benson	5038	5072					
			Alexander	5324	5444					
	Intermediate 2	0	TVD: 5675' MD: 6750' Inc: 44 deg.							
8.75"	5-1/2" 23# P-110 HP TXP / W461	Rhinestreet	6303	6591	AIR / 9.0ppg SOBIM	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	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.	Production casing = 0.415" wall thickness Burst=16240 psi Note:Actual centralizer schedules may be changed due to hole conditions	
8.5" Curve		Cashaqua	6591	6736						
8.5" Lateral		Middlesex	6736	6815						
		West River	6815	6884						
		Burkett	6884	6925						
		Tully Limestone	6925	6952						
		Hamilton	6952	7002						
		Marcellus	7002	7049						
		TMD / TVD (Production)	16721	7035						
		Onondaga	7049							

LP @ 7035' TVD / 9125' MD

8.5" Hole - Cemented Long String  
 5-1/2" 23# P-110 HP TXP / W461

+/-7596' fl Lateral

TD @ +/-7035' TVD +/-16721' MD

4706105771



WW-9  
(4/16)

4704105771

API Number 47 - \_\_\_\_\_ -  
Operator's Well No. Van Wie 1221 S-12H

**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

If so, please describe anticipated pit waste: NA

Will a synthetic liner be used in the pit? Yes  No  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)
- 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. Vertical - Air, Air/KCL, Air/SOBM, Horizontal - SOB

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Water, Soap, KCl, Barite, Base Oil, Wetting Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Approved Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? See Attached

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Diane White

Company Official (Typed Name) Diane White

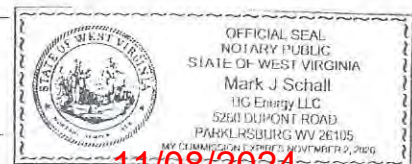
Company Official Title Agent

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

Subscribed and sworn before me this 19th day of September, 2024

[Signature] Notary Public

My commission expires 11/2/2026



11/08/2024



## Cuttings Disposal/Site Water

### Cuttings - Haul off Company:

Exp Industries, Inc. DOT # 0876278  
1575 Smith Two State Rd. Atlasburg, PA 15004  
1-888-294-5227

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

Environmental Coordination Services & Recycling (ECS&R)  
3237 US Highway 19  
Cochranon, PA 16314  
814-425-7773

### Disposal Locations:

Apex Environmental, LLC Permit # 06-08438  
11 County Road 78  
Amsterdam, OH 43903  
740-543-4389

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 Environmental Technologies, Inc. Facility Permit # PAD004835146 / 301071  
233 Max Lane  
Yukon, PA 25968  
724-722-8500

Max Environmental Technologies, Inc. Facility Permit # PAD05087072 / 301359  
200 Max Drive  
Bulger, PA 15019  
724-796-1571

Waste Management Kelly Run Permit # 100663  
1901 Park Side Drive  
Elizabeth, PA 15037  
412-384-7569

Waste Management South Hills (Arnoni) Permit # 100592  
3100 Hill Road  
Liberty, PA 15129  
724-348-7013  
412-384-7569

Waste Management Arden Permit # 100172  
200 Rangos Lane  
Washington, PA 15301  
724-222-3272

Waste Management Meadowfill Permit # 1032  
1488 Dawson Drive  
Bridgeport, WV 26330

Brooke County Landfill Permit # SWF-103-87 / WV 0109029  
Rd 2 Box 410  
Colliers, WV 26035  
304-748-0014

RECEIVED  
Office of Oil and Gas

OCT 07 2024

WV Department of  
Environmental Protection

11/08/2024

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185  
 Rt 1 Box 156A  
 New Martinsville, WV 26035  
 304-455-3800

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

Energy Solutions Services, Inc. Permit # R-73006-124  
 1560 Bear Creek Road  
 Oak Ridge, TN 37830

Northern A-1 Environmental Services Permit ID MID020906814  
 3947 US 131 North, PO Box 1030  
 Kalkaska, MI 49646  
 221-258-9961

**Water Haul off Companies:**

Dynamic Structures, Clear Creek DOT # 720485  
 3790 State Route 7  
 New Waterford, OH 44445  
 330-892-0164

Nahors 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 Oilfield Services LLC  
 PO Box 739  
 St. Clairsville, OH 43950

Wilson's Outdoor Services, LLC  
 456 Cracraft Road  
 Washington, PA 15301

**Disposal Locations:**

Solidification  
 Waste Management, Arden Landfill Permit # 100172  
 200 Rangos Lane  
 Washington, PA 15301  
 724-225-1589

Solidification/Incineration  
 Soil Remediation, Inc. Permit # 02-20753  
 6065 Arrel-Smith Road  
 Lowellville, OH 44436  
 330-536-6825

Adams #1 (Buckeye Brine, LLC)  
 Permit # 34-031-2-7177  
 23986 Airport Road  
 Coshoccon, OH 43812  
 740-575-4484  
 512-478-6545

CMS of Delaware Inc. DBA CMS Oilfield Serv  
 301 Commerce Drive  
 Moorestown, NJ 08057

Force, Inc.  
 1380 Rta, 286 Hwy. E, Suite 303  
 Indiana, PA 15701

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

Equipment Transport  
 1 Tyler Court  
 Carlisle, PA 17015

Myers Well Service, -----  
 2001 Ballpark Court  
 Export, PA 15632

Burns Drilling & Excavating  
 618 Crabapple Road P.O. Box  
 Wind Ridge, PA 15380

Nichols 1-A (SWIW #13)  
 Permit # 3862  
 300 Cherrington Pkwy, Suite 200  
 Coraopolis, PA 15108  
 412-329-7275

Grosella (SWIW #34)  
 Permit # 4096  
 Rt. 88  
 Garrettsville, OH  
 713-278-4816

Kemble 1-D Well  
 Permit # 8780  
 7675 East Pike  
 Norwlich, Oh 43767  
 614-648-3898  
 740-796-6495

11/08/2024



Adams #2 (Buckeye Brine, LLC)  
2205 Westover Road  
Austin TX 78708  
Permit # 34-031-2-7178  
740-575-4484  
512-478-6545

Adams #2 (Buckeye Brine, LLC)  
Permit # 34-031-2-7241-00-00  
2630 Exposition, Suite 117  
Austin, TX 78703  
512-478-6545

Mozena #1 Well (SWIW # 13)  
Permit # 34-157-2-5511-00-00  
5367 E. State Street  
Newcomerstown, OH 43832  
740-763-3966

Goff SWD #1 (SWIW # 27)  
Permit # 34-119-2-8776-000  
300 Cherrington Pkwy, Suite 200  
Corapolis, PA 15108  
412-829-7275

SOS D#1 (SWIW #12)  
Permit # 34-059-2-4202-00-00  
Silcor Oilfield Services, Inc.  
2939 Hubbard Road  
Youngstown, OH 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 Bukeya UIC Barnesville 1 & 2  
CNX Gas Company, LLC  
1000 Consol Energy Drive  
Permit # 34-013-2-0609-00-00  
Permit # 34-013-2-0614-00-00  
304-323-6568

US Steele 11385  
Permit # 47-001-00561  
200 Evergreen Drive  
Waynesburg, PA 15730  
304-323-6568

Chapin #7 UIC (SWIW #7)  
Permit # 34-083-2-4197-00-00  
Elkhead Gas & Oil Company  
1216A Marne Rd. NE  
Newark, OH 43055  
740-763-3966

RECEIVED  
Office of Oil and Gas

OCT 07 2024

WV Department of  
Environmental Protection

11/08/2024

HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 51.82 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Maintain E&S controls through the drilling and completion process

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Kenneth Greynolds  
Digitally signed by Kenneth Greynolds  
DN: CN = Kenneth Greynolds email = Kenneth.L.Greynolds@wv.gov, C = AD O = WVDEP OU = Oil and Gas  
Date: 2024.09.23 13:45:00 -0400

Comments: Pre-seed/mulch as soon as reasonably possible per regulation.  
Upgrade E&S if needed per WV DEP E&S manual.

RECEIVED  
Office of Oil and Gas

OCT 07 2024

WV Department of  
Environmental Protection

Title: Oil & Gas Inspector

Date: \_\_\_\_\_

Field Reviewed? ( ) Yes ( ) No



**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

Kenneth Greynolds

Digitally signed by Kenneth Greynolds  
DN: cn = Kenneth Greynolds email = Kenneth.L.  
Greynolds@wv.gov, o = WV Department of Oil and  
Gas  
Date: 2024.09.16 11:25:55 -0400

**RECEIVED**  
**Office of Oil and Gas**

**OCT 07 2024**

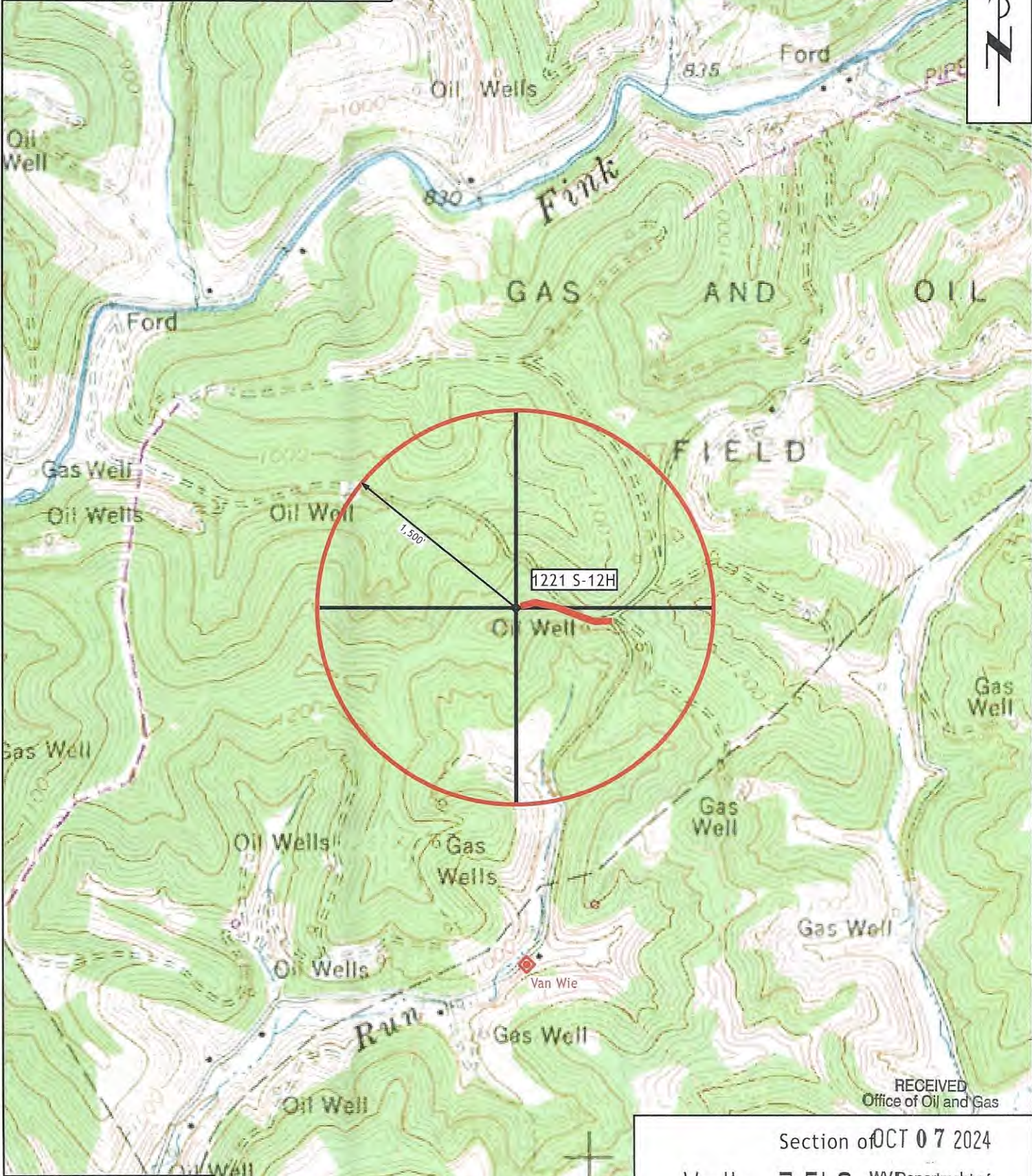
**WV Department of  
Environmental Protection**

**11/08/2024**



4704105771

SUBJECT WELL  
Van Wie 1221 S-12H

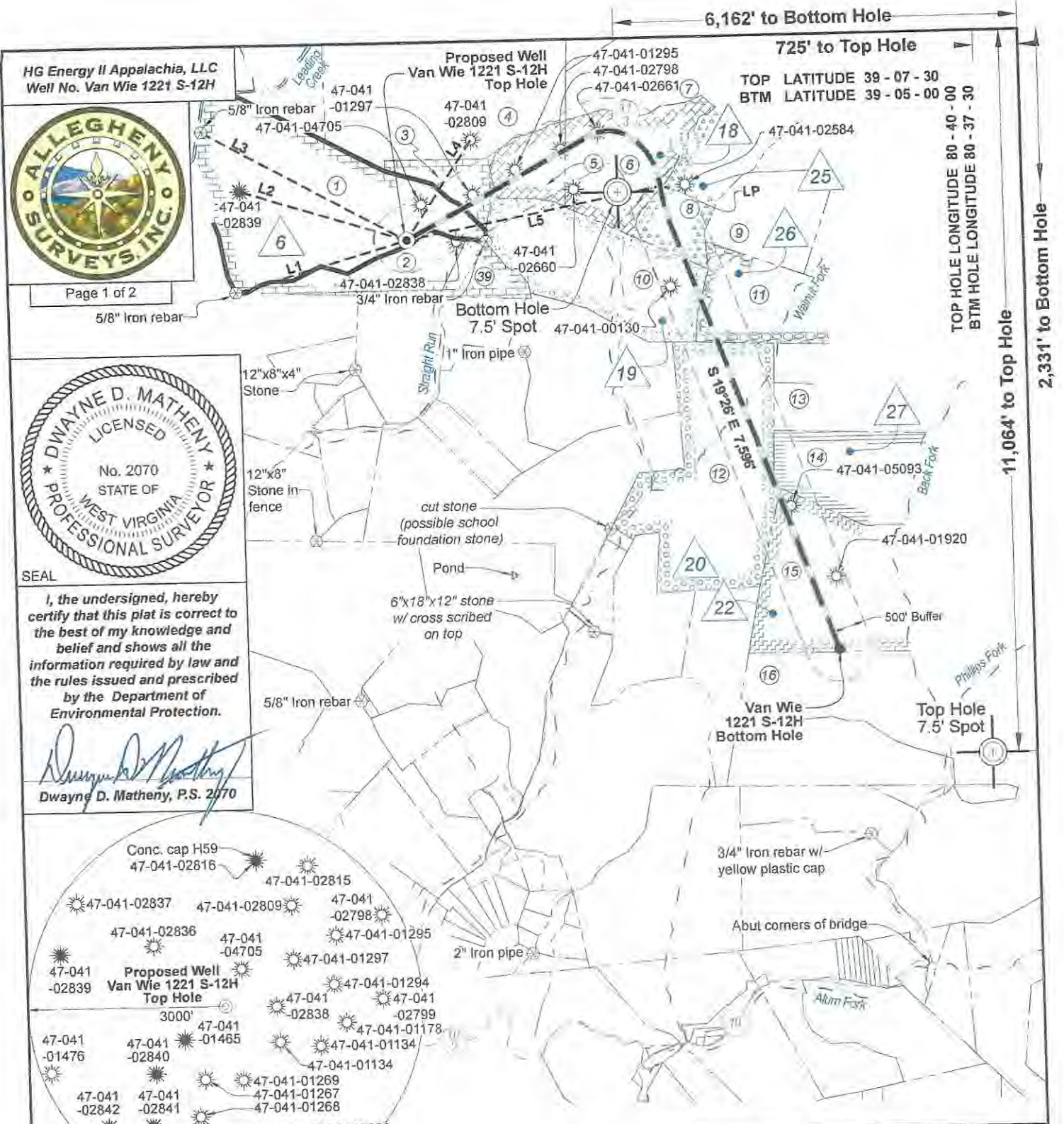


Denotes Possible Water Supply Source to be Tested

Section of **OCT 07 2024**  
Vadis 7.5' Quad  
WVD Department of Environmental Protection  
SCALE 1" = 11008/2024

RECEIVED  
Office of Oil and Gas

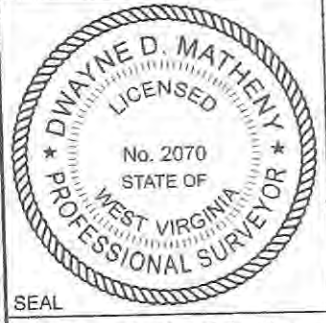




HG Energy II Appalachia, LLC  
Well No. Van Wie 1221 S-12H

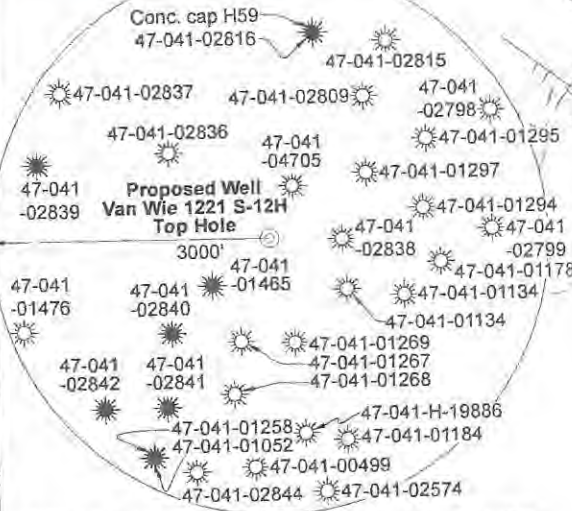


Page 1 of 2



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

*Dwayne D. Matheny*  
Dwayne D. Matheny, P.S. 2070



Note: 0 water wells, 0 cistern, and 0 pond were found within 1500' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

Tag	Bearing	Dist.	Description
L1	N 73°48' E	2,725.0'	5/8" Iron rebar
L2	S 72°15' E	2,641.8'	47-041-02839
L3	S 60°51' E	3,523.8'	5/8" Iron rebar
L4	S 33°56' W	1,818.1	47-041-02809
L5	N 79°10' E	3,958.2'	Landing Point

FILE NO: 170-12-30-FC-22  
DRAWING NO: Van Wie 1221 S-12H Well Plat-S  
SCALE: 1" = 2000'  
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-12H  
API WELL NO  
47 - 041 - 05771  
STATE COUNTY PERMIT

WELL TYPE:  OIL  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: \_\_\_\_\_ ACREAGE: 131.85  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ 7,035' TVD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 15,721' MD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

11/08/2024

HGA



HG Energy II Appalachia, LLC  
Well No. Van Wie 1221 S-12H



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-12H  
WVCS 1927, North Zone  
Top Hole Coordinates  
Lat: 39°05'40.60"  
Lon: 80°40'09.20"  
Landing Point Coordinates  
Lat: 39°05'47.81"  
Lon: 80°39'19.84"  
Bottom Hole Coordinates  
Lat: 39°04'36.96"  
Lon: 80°38'48.17"

Notes: Well No. Van Wie 1221 S-12H  
UTM NAD 1983 (USSF)  
Top Hole Coordinates  
N: 14,197,274.35'  
E: 1,734,313.86'  
Landing Point Coordinates  
N: 14,198,017.96'  
E: 1,738,201.60'  
Bottom Hole Coordinates  
N: 14,190,862.53'  
E: 1,740,725.10'

Notes: Well No. Van Wie 1221 S-12H  
UTM NAD 1983 (Meters)  
Top Hole Coordinates  
N: 4,327,337.877m  
E: 528,619.922m  
Landing Point Coordinates  
N: 4,327,564.529m  
E: 529,804.907m  
Bottom Hole Coordinates  
N: 4,325,383.550m  
E: 530,574.072m

Well Location References  
Not to Scale

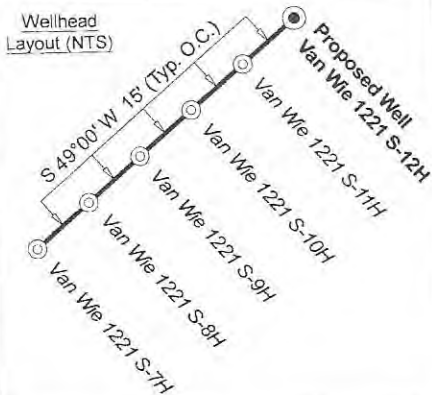


Legend

- Proposed gas well
- Well Reference, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)

ID	Lease
6	Joseph Krenn, et ux
18	HG Energy II Appalachia, LLC.
19	J.C. & A.C. Starcher
20	HG Energy II Appalachia, LLC.
22	Michael N. Cullen, et ux, et al
25	J.C. Starcher
26	Harmon Lunsford
27	James W. Hines, et ux, et al

Wellhead  
Layout (NTS)



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 / 29	Anthony S. & Dawn H. VanWie	732 / 622	26.63
3	2D / 3.1	HG Energy II Appalachia, LLC	800 / 637	20.00
4	2C / 7	James R. & Shelia A. Gum, II	721 / 350	350.78
5	2D / 38	William J. & Ann McCutchan	793 / 173	26.96
6	2D / 40	Judith A. Rioch	403 / 270	63.89
7	2D / 42	Frances McCutchan, et al	726 / 561	124.30
8	2D / 45	Matthew D. & Linda S. Richards	553 / 117	54.00
9	2D / 50	Charles H. & Mabel L. Rastle	431 / 650	73.76
10	2D / 37	Jacob R. Straley Heirs	728 / 53	97.00
11	2D / 46	Turia King, et al	254 / 19	63.50
12	2D / 47	Frances McCutchan, et al	726 / 551	151.00
13	3D / 6	Richard & Debra A. Bonfig	582 / 116	40.00
14	3D / 9.1	Veronica T. & Francis A. Brumley, Jr.	652 / 474	65.50
15	3E / 1	David B. Lang	620 / 45	110.00
16	3E / 2	Thomas Quinn, et al	W46 / 21	95.50

FILE NO: 170-12-30-FC-22

DRAWING NO: Van Wie 1221 S-12H Well Plat-S

SCALE: 1" = 2000'

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, 2024

OPERATOR'S WELL NO. Van Wie 1221 S-12H

API WELL NO

47 - 041 - 05711  
STATE COUNTY PERMIT

H6A

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

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

QUADRANGLE: Vadis

DISTRICT: Freemans Creek

COUNTY: Lewis

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

ACREAGE: 131.85

ROYALTY OWNER: Joseph Krenn, et al

LEASE NO: \_\_\_\_\_ ACREAGE: 245

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ 7,035' TVD

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 16,721' MD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

Parkersburg, WV 26101



WW-6A1  
(5/13)

Operator's Well No. Van Wie 1221 S22H

**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\*\***

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 co-tenants will be secured pursuant to the Co-Tenancy Act  
Horizontal Well Unit Utilization - Subject to unitization filing with the 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

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be 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 Appalachia, LLC  
By: Diane White *Diane White*  
Its: Agent

**HG Energy II Appalachia, LLC  
Van Wie 1221 S12H Lease Chain**

1221S Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
/ 6	FK054825 FK079440 FEE	03-002D-0003-0000 03-002D-0003-0001 03-002D-0003-0003 03-002D-0028-0000 03-002D-0029-0000 03-002D-0030-0000	Q100903000	JOSEPH KRENN AND EMILY E. KRENN, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	33	232
				WILLIAM A. LOUWTER	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	42	401
				SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	570+F64:165
				SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	166	494
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY INC	NOT LESS THAN 1/8	692	570
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				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	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	740	746				
/ 18	FK079442 FEE	03-002D-0038-0000 03-002D-0040-0000 p/o 03-002D-0042-0000	FK079442 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	740	746
/ 19	FK002931 FK079469 FEE	03-002D-0037-0000	FK002931 FK079469 FEE	J. C. STARCHER AND A. C. STARCHER	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	39	201
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	52	239
				SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	570
				SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	166	494
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	EASTERN GAS TRANSMISSION AND STORAGE, INC.	MERGER/NAME CHANGE	WVSOS	
				EASTERN GAS TRANSMISSION AND STORAGE, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	798	42
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	740	746				
/ 20	FK079443	03-002D-0047-0000	FK079443	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC			
				THOMAS CULLEN; MICHAEL CULLEN AND NANCY CULLEN, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	68	333
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628

WV Department of  
Environmental Protection

OCT 07 2024

RECEIVED  
Office of Oil and Gas

4704105771



22	FK015004	03-003E-0001-0000 03-003E-0029-0000	Q100909000	Dominion Transmission, Inc.	CNX Gas Company LLC	Memorandum of Farmout Agreement	672	154
				CNX Gas Company LLC	Noble Energy, Inc.	Limited Partial Assignment (50%)	684	57
				Dominion Transmission, Inc.	CNX Gas Company LLC and Noble Energy, Inc.	Partial Assignment (32%)	712	848
				CNX Gas Company LLC	Noble Energy, Inc.	Assignment	717	1
				Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	722	170
				Dominion 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	499
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Third Amendment to Memorandum of Farmout Agreement	734	558
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment (68%)	736	220
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment	39	199
25	FK002518	03-002D-0045-0000	Q100418000	J. C. Starcher	South Penn Oil Company	Not Less Than 1/8	85	127
				South Penn Oil Company	Hope Natural Gas Company	Assignment	156	570
				South Penn Oil Company	South Penn Natural Gas Co	Assignment	166	494
				South Penn Natural Gas Co	Hope Natural Gas Company	Assignment	294	89
				Hope Natural Gas Company	Consolidated Gas Supply Corporation	Confirmatory Deed	425	127
				Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	51	795
				Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Merger/Name Change	9	628
				CNG Transmission Corporation	Dominion Transmission, Inc.	Merger/Name Change	672	154
				Dominion Transmission, Inc.	CNX Gas Company LLC	Memorandum of Farmout Agreement	684	57
				CNX Gas Company LLC	Noble Energy, Inc.	Limited Partial Assignment (50%)	712	848
				Dominion Transmission, Inc.	CNX Gas Company LLC and Noble Energy, Inc.	Partial Assignment (32%)	717	1
				CNX Gas Company LLC	Noble Energy, Inc.	Assignment	722	170
				Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	722	170
				Dominion 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	499
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Third Amendment to Memorandum of Farmout Agreement	734	558
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment (68%)	736	220
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment	142	259
26	FK047010	03-002D-0046-0000	Q100424000	HARMON LUNSFORD, WIDOWER	Hope Natural Gas Company	Not Less Than 1/8	294	89
				Hope Natural Gas Company	Consolidated Gas Supply Corporation	Confirmatory Deed	425	127
				Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	51	795
				Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Merger/Name Change	9	628
				CNG Transmission Corporation	Dominion Transmission, Inc.	Merger/Name Change	672	154
				Dominion Transmission, Inc.	CNX Gas Company LLC	Memorandum of Farmout Agreement	684	57
				CNX Gas Company LLC	Noble Energy, Inc.	Limited Partial Assignment (50%)	712	848
				Dominion Transmission, Inc.	CNX Gas Company LLC and Noble Energy, Inc.	Partial Assignment (32%)	717	1
				CNX Gas Company LLC	Noble Energy, Inc.	Assignment	717	1
				Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	722	170
				Dominion 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	499
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Third Amendment to Memorandum of Farmout Agreement	734	558
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment (68%)	736	220
Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment	736	220				
				JAMES W. HINES AND MARY A. HINES, HIS WIFE; CATHERINE S. POPE AND R. V. POPE, HER HUSBAND; ELLA G. HINES, SINGLE; EDWARD J. HINES AND CLARA E. HINES, HIS WIFE; ANNA M. RUPPERT AND W. E. RUPPERT, HER HUSBAND; AND MARY A. BROWN, WIDOW	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	196	416

WV Department of  
Environmental Protection

OCT 07 2024

RECEIVED  
Office of Oil and Gas

4704105771

27	FK060307	03-003D-0009-0000 03-003D-0009-0001 03-003D-0010-0000	Q100287000	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	VVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220

**RECEIVED**  
 Office of Oil and Gas  
**OCT 07 2024**  
 WV Department of  
 Environmental Protection

4704105771





**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

4704105771

September 29, 2024

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

RE: Drilling Under Roads – Van Wie 1221 S-12H  
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](mailto:dwhite@hgenergyllc.com) or 304-420-1119.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

RECEIVED  
Office of Oil and Gas

OCT 07 2024

WV Department of  
Environmental Protection

11/08/2024

**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 horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads **or** utilizes more than two hundred ten thousand gallons of water in any thirty day period.

**Applicant:** HG Energy II Appalachia, LLC **Well Number:** Van Wie 1221 S-12H

**Address:** 5260 Dupont Road  
Parkersburg, WV 26101

**Business Conducted:** Natural gas production.

**Location –**

State:	<u>West Virginia</u>	County:	<u>Lewis</u>
District:	<u>Freemans Creek</u>	Quadrangle:	<u>Vadis 7.5'</u>
UTM Coordinate NAD83 Northing:	<u>4327337.9</u>		
UTM coordinate NAD83 Easting:	<u>528619.9</u>		
Watershed:	<u>Fink Creek</u>		

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

**Coordinate Conversion:**

To convert the coordinates above into longitude and latitude, visit: [http://tagis.dep.wv.gov/convert/llutm\\_conus.php](http://tagis.dep.wv.gov/convert/llutm_conus.php)

**Electronic notification:**

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.

**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 [DEP.comments@wv.gov](mailto:DEP.comments@wv.gov).

**Submitting Comments:**

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, 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](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx)



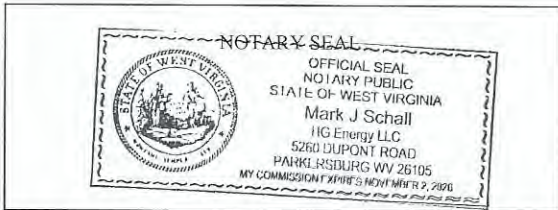




**Certification of Notice is hereby given:**

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:	<u>HG II Appalachia, LLC</u>	Address:	<u>5260 Dupont Road</u>
By:	<u>Diane White <i>Diane White</i></u>		<u>Parkersburg, WV 26101</u>
Its:	<u>Agent</u>	Facsimile:	<u>304-863-3172</u>
Telephone:	<u>304-420-1119</u>	Email:	<u>dwhite@hgenergyllc.com</u>



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

*[Signature]* Notary Public

My Commission Expires 11/2/2026

**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 [deprivacyofficer@wv.gov](mailto:deprivacyofficer@wv.gov).

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection



WW-6A  
(9-13)

API NO. 47-  
OPERATOR WELL NO. Van Wie 1221 NH to 512H  
Well Pad Name: Van Wie 1221

4704105771

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 12/10/23 Date Permit Application Filed: 12/13/23

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") 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.

Application Notice  WSSP Notice  E&S Plan Notice  Well Plat Notice is hereby provided to:

SURFACE OWNER(s) *\* HG Energy II Appalachia is not being noticed as they are the operator of the well pad.*  
 Name: HG Energy II Appalachia, LLC \*\*  
 Address: 5250 Dupont Road  
Parkersburg, WV 26101  
 Name: Anthony and Dawn Van Wie  
 Address: 2700 Jones Road  
Dunkirk, MD 20754

COAL OWNER OR LESSEE  
 Name: NA  
 Address: \_\_\_\_\_

COAL OPERATOR  
 Name: NA  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
 Name: NA  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
 Name: BHE GT&S - Attn: Jamie Moore  
 Address: 925 White Oaks Blvd  
Bridgeport, WV 26330

\*Please attach additional forms if necessary

RECEIVED  
 Office of Oil and Gas  
 OCT 07 2024  
 WV Department of  
 Environmental Protection

11/08/2024



WW-6A  
(8-13)

4704105771  
API NO. 47-  
OPERATOR WELL NO. Van Wie 1221  
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.

**This Notice Shall Include:**

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 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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-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

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

11/08/2024



WW-6A  
(8-13)

4704105771  
API NO. 47-  
OPERATOR WELL NO. Van We 1221 NH to 512H  
Well Pad Name: Van We 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 57<sup>th</sup> 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.

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

11/08/2024

4704105771

**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 article.

**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:

- (1) 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.

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

11/08/2024



WW-6A  
(8-13)

API NO. 47-  
OPERATOR WELL NO. Van Wie 1221 NTH to S12H  
Well Pad Name: Van Wie 1221

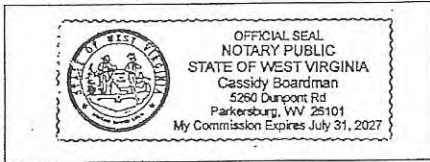
Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC  
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](mailto:depprivacyofficer@wv.gov).



Subscribed and sworn before me this 11th day of December, 2023

*Cassidy Boardman* Notary Public

My Commission Expires 7/31/2027

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

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

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry  
Date of Notice: January 5, 2024 Date of Planned Entry: January 12, 2024

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to: \* Notice was not sent to HG Energy II Appalachia LLC as they are the Operator of Record

SURFACE OWNER(s)

Name: Anthony and Dawn Van Wie  
Address: 2700 Jones Road  
Dunkirk, MD 20754

Name: HG Energy II Appalachia, LLC  
Address: 5260 Dupont Road  
Parkersburg, WV 26101

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: N/A  
Address: \_\_\_\_\_

MINERAL OWNER(s)

Name: Same as Surface Owners  
Address: \_\_\_\_\_

\*please attach additional forms if necessary

Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.094644 / 80.558480</u>
County: <u>Lewis</u>	Public Road Access: <u>CR11 / 3 via Straight Run Road</u>
District: <u>Freemans Creek</u>	Watershed: <u>Fink Creek</u>
Quadrangle: <u>Vadis</u>	Generally used farm name: <u>Van Wie</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.den.wv.gov/oil-and-gas/pages/default.aspx](http://www.den.wv.gov/oil-and-gas/pages/default.aspx).

Notice is hereby given by:

Well Operator: HG Appalachia, LLC Address: 5260 Dupont Road  
 Telephone: 304-420-1119 Parkersburg, WV 26101  
 Email: dwhite@hgenergyllc.com Diane White Facsimile: 304-863-2752

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](mailto:depprivacyofficer@wv.gov).

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection



**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.

**Notice Time Requirement:** Notice shall be provided at least **TEN (10)** days prior to filing a permit application.  
**Date of Notice:** 01/05/2024      **Date Permit Application Filed:** 01/15/2024

**Delivery method pursuant to West Virginia Code § 22-6A-16(b)**

HAND DELIVERY       CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

**Notice is hereby provided to the SURFACE OWNER(s):**

Name: <u>HG Energy II Appalachia, LLC *</u>	Name: <u>Anthony and Dawn Van Wie</u>
Address: <u>5260 Dupont Road</u>	Address: <u>2700 Jones Road</u>
<u>Parkersburg, WV 26101</u>	<u>Dunkirk, MD 20754</u>

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>528668.6</u>
County: <u>Lewis</u>	Northing: <u>4327353.9</u>
District: <u>Freemans Creek</u>	Public Road Access: <u>CR11 / 3 via Straight Run Road</u>
Quadrangle: <u>Vadis WV 7.5'</u>	Generally used farm name: <u>Van Wie</u>
Watershed: <u>Fink Creek</u>	

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: <u>HG Energy II Appalachia, LLC</u>	Authorized Representative: <u>Diane White</u>
Address: <u>5260 Dupont Road</u>	Address: <u>5260 Dupont Road</u>
<u>Parkersburg, WV 26101</u>	<u>Parkersburg, WV 26101</u>
Telephone: <u>304-420-1119</u>	Telephone: <u>304-420-1119</u>
Email: <u>dwhite@hgenergyllc.com</u> <i>Diane White</i>	Email: <u>dwhite@hgenergyllc.com</u>
Facsimile: <u>304-863-3172</u>	Facsimile: <u>304-863-3172</u>

**RECEIVED**  
**Office of Oil and Gas**  
**OCT 07 2024**  
**WV Department of**  
**Environmental Protection**

**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](mailto:depprivacyofficer@wv.gov).

**11/08/2024**









## 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 HighwaysJimmy 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 57<sup>th</sup> Street, SE  
Charleston, WV 25304Subject: DOH Permit for the Van Wie 1221, Lewis County  
S-12H 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

RECEIVED  
Office of Oil and Gas  
OCT 07 2024  
WV Department of  
Environmental Protection

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

**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	

RECEIVED  
Office of Oil and Gas

OCT 07 2024

WV Department of  
Environmental Protection

11/08/2024



OPERATOR: HG Energy II Appalachia, LLC WELL NO: Van Wie 1221 S-12H

PAD NAME: Van Wie 1221

REVIEWED BY: Diane White SIGNATURE: Diane White

### WELL RESTRICTIONS CHECKLIST

#### HORIZONTAL 6A WELL

#### Well Restrictions

At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR

DEP Waiver and Permit Conditions

At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR

DEP Waiver and Permit Conditions

At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR

DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

RECEIVED  
Office of Oil and Gas

OCT 07 2024

WV Department of  
Environmental Protection





**APPROVED**  
**WVDEP OOG**  
 2/14/2024

**1221 Well Site**  
 Site Design, Construction Plan, &  
 Erosion and Sediment Control Plans  
 HQ Energy LLC  
 Lewis County  
 Freemans Creek District  
 Latitude 39.09467556°  
 Longitude -80.66867393°  
 Leading Creek Watershed

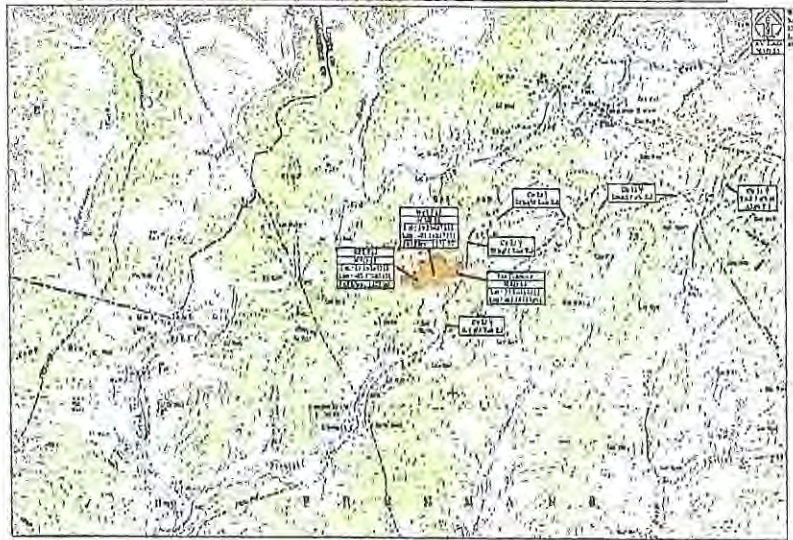
**Permitting Site Information**  
 1221 Well  
 HQ Energy LLC at c/o 301-269-8211  
 Freemans Creek District, Lewis County, WV  
 Watershed: Leading Creek Watershed  
 X00917 Address

HQ Energy Contact Number: 301-226-1100

Permitting Order Information - HQ Energy LLC

Order No.	Order Date	Order Status	Order Type	Order Description
101000001	11/11/2023	Open	Permit	Permitting Order

**Exhibit A: Final Design: Issue for Permitting**



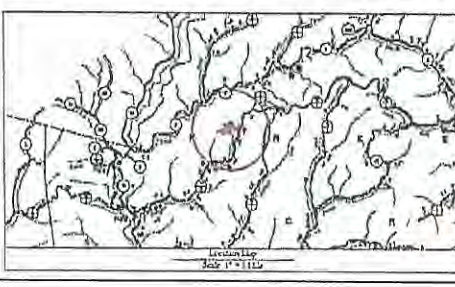
Area Table

Area	Area (Acres)
Well Pad	0.15
Well Path	0.10
Wellhead	0.05
Wellbore	0.05
Well Completion	0.05
Wellhead	0.05
Wellbore	0.05
Well Completion	0.05
Wellhead	0.05
Wellbore	0.05
Well Completion	0.05

Well ID	Well Type	Well Depth	Well Diameter	Well Completion	Wellhead	Wellbore	Well Completion
WV-1221-001	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-002	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-003	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-004	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-005	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-006	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-007	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-008	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-009	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'
WV-1221-010	Oil	4000	4 1/2"	Open Hole	4000'	4000'	4000'



Site Location (NAD 83)	Site Location (NAD 83)
Well Pad	Well Pad
Well Path	Well Path
Wellhead	Wellhead
Wellbore	Wellbore
Well Completion	Well Completion



Kenneth Greynolds  
 Digitally signed by Kenneth Greynolds  
 DN: CN = Kenneth Greynolds email = Kenneth.L.Greynolds@hqenergy.com, O = HQ Energy LLC, OU = AD O = WVDEP OUG  
 Date: 2024.08.16 11:24:23 -0400

**Project Contacts**

HQ Energy LLC  
 301-269-8211  
 301-226-1100

WVDEP  
 304-251-3000  
 304-251-3000

**MISS VILLIPI OF WEST VIRGINIA**  
 304-251-3000  
 304-251-3000

**RECEIVED**  
 Office of Oil and Gas  
 OCT 07 2024  
 WV Department of Environmental Protection



THIS DOCUMENT PREPARED FOR HQ ENERGY LLC



Cover Sheet  
 1221 Well Site  
 Freemans Creek District  
 Lewis County, WV

4704105771