



west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Wednesday, August 17, 2022
WELL WORK PERMIT
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD
PARKERSBURG, WV 26101

Re: Permit approval for Vaneck 1215 N-1H
47-041-05732-00-00

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

A blue ink signature of James A. Martin, written in a cursive style, is placed over the printed name and title.

Operator's Well Number: Vaneck 1215 N-1H
Farm Name: HG ENERGY II APPALACHIA
U.S. WELL NUMBER: 47-041-05732-00-00
Horizontal 6A New Drill
Date Issued: 8/17/2022

Promoting a healthy environment.

08/19/2022

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. 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.

API Number: _____

PERMIT CONDITIONS

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 DEFOOGNotify@wv.gov.

08/19/2022

WW-6B
(04/15)

API NO. 47- _____
OPERATOR WELL NO. Vaneck 1215 N-1H ✓
Well Pad Name: Vaneck 1215

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 Camden 7.5' ✓
Operator ID County District Quadrangle

2) Operator's Well Number: Vaneck 1215 N-1H Well Pad Name: Vaneck 1215

3) Farm Name/Surface Owner: HG Energy II Appalachia, LLC Public Road Access: Mare Run Rd at CR 10 / 9

4) Elevation, current ground: 1259' ✓ Elevation, proposed post-construction: 1254.8'

5) Well Type (a) Gas Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

SDW
6/30/2022

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 6753/6803' and 50' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 6,790' ✓

9) Formation at Total Vertical Depth: Marcellus ✓

10) Proposed Total Measured Depth: 23,000' ✓

11) Proposed Horizontal Leg Length: 14,585' ✓

12) Approximate Fresh Water Strata Depths: 60', 214', 600', 861' ✓

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-041-02173, 0693, 0236, 2308, 0578)

14) Approximate Saltwater Depths: 1605'

15) Approximate Coal Seam Depths: 272', 700', 1040', 1150' (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

(a) If Yes, provide Mine Info: Name: _____

Depth: _____

Seam: _____

Owner: _____

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WW-6B
(04/15)

4704105732
API NO. 47-
OPERATOR WELL NO. Vaneck 1215 N-1H
Well Pad Name: Vaneck 1215

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	1200'	1200' ✓	40% Excess, CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2250'	2250' ✓	40% Excess, CTS
Intermediate 2	9 5/8"	NEW	N-80 BTC	40	4780'	4780' ✓	40% Excess Tail, CTS
Production	5 1/2"	NEW	P-110 HP	23	23000'	23000' ✓	20% Excess Tail, CTS
Tubing							
Liners							

*SPW
6/30/2022*

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 = 1.19, tail yield 1.20
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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WV Department of
Environmental Protection

4704105732

API NO. 47- _____

OPERATOR WELL NO. Vaneck 1215 N-1H

Well Pad Name: Vaneck 1215

WW-6B
(10/14)

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 6790'. Drill horizontal leg to estimated 14,585' lateral length, 23,000' 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): 22.55 acres

22) Area to be disturbed for well pad only, less access road (acres): 8.70 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 to 100' from surface.
Production - Vertical - Run 1 spiral centralizer every 5 joints from the top of the curve to surface, Curve - Run 1 spiral centralizer every 3 joints from the 1st 5.5' long joint to the top of the curve.

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

Conductor -NA, Casing to be drilled in w/ Dual Rotary Rig.
Fresh Water/Coal - "15.6 ppg PNE-1 + 3% bwoc CaCl40% Excess/Yield=1.20 / CTS"
Intermediate 1 - "" Storage String "" CTS ""15.4 ppg Lead - Yield 1.24 - D898 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 BWOB Antl Foam / D202 - 0.15% BWOB Dispersant / D095 1.5 lb per BBL CemNET - 60% Excess/15.9 ppg Tail - Yield 1.17 - D898 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 Antl Foam / D801 - 0.03 gal / sack Retarder - 0% Excess"
Intermediate 2 - "Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS"
Production - "Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170Tail: 14.8 ppg PNE-1 + 0.33% 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.

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*Note: Attach additional sheets as needed.

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HG Energy II Appalachia, LLC
Vaneck 1215 Well Pad (N-1H - N6H, S7H - S12H)
Cement Additives

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Environmental Protection

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>65997-15-1</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	65997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
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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									
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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												
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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														
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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												
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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												
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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												
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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														
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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									
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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.												
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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.
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This is a representation of
the wellbore completion

*** 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

1215 N-1H
 Marcellus Shale Horizontal
 Lewis County, WV



				1215 N-1H SHL				14205518.98N 1768662.82E					
Ground Elevation				1254.8'				1215 N-1H LP			14205051.61N 1765665.35E		
Azim				340.539°				1215 N-1H BHL			14218797.84N 1760807.95E		
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	Fresh Water	0	214, 600, 861	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		
				Kittaning Coal	900	905							
				Fresh Water Protection	0	1200							
		17.5"	13-3/8" 66# J-55 BTC	Little Lime	1694	1714	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 <i>*will also be running ACP for isolating storage zone*</i>	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	1741	1818							
				Injun / Gantz (Storage)	1818 / 2073	1904 / 2125							
				Intermediate 1	0	2250							
		12.25"	9-5/8" 40# N-80 BTC	Thirty Foot	2274	2286	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 Sray / Gordon	2320 / 2346	2336 / 2446							
5th Sand	2590			2612									
Bayard	2660			2675									
Speechley	3267			3301									
Benson	4572			4588									
Intermediate 2	0			TVD: 4780' MD: 5150' Inc: 39 deg.									
8.75"	5-1/2" 23# P-110 HP CDC HTQ				AIR / 9.0ppg SOBMB	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. Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.	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		Rhinestreet	6125	6290									
		Cashaqua	6290	6391									
		Middlesex	6391	6425									
		West River	6425	6500									
		Burkelt	6500	6535									
		Tully Limestone	6535	6625									
8.5" Lateral		Hamilton	6625	6753									
		Marcellus	6753	6803									
		TMD / TVD (Production)	23000	6789									
		Onondaga	6803		11.5ppg-12.5ppg SOBMB								

LP @ 6789' TVD / 8415' MD

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

+/-14585' R Lateral

TD @ +/-6789' TVD
 +/-23000' MD

X=Centralizers

4704105732

WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Vaneck 1215 N-1H

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) Middle West Fork Creek Quadrangle Camden 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)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

*-SDW
6/30/2022*

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

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Department of
Environmental Protection

Subscribed and sworn before me this 27th day of June, 2022

Cassidy Boardman

Notary Public

My commission expires 7/31/2022



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Cuttings Disposal/Site Water

Cuttings -Haul off Company:

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

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

Environmental Coordination Services & Recycling (ECS&R)
8287 US Highway 19
Cochranon, PA 16314
814-425-7773

Disposal Locations:

Apex Environmental, LLC Permit # 06-08488
11 County Road 78
Amsterdam, OH 43908
740-548-4889

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

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

Max Environmental Technologies, Inc. Facility Permit # PAD004835146 / 301071
233 Max Lane
Yukon, PA 25968
724-722-3500

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-103-97 / WV 0109029
Rd 2 Box 410
Colliers, WV 26035
304-748-0014

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

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

Energy Solutions Services, Inc. Permit # R-79006-L24
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
231-258-9961

Water Haul off Companies:

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

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

Select Energy Services, LLC
PO Box 208997
Dallas, TX 75320-8997

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
6055 Arrel-Smith Road
Lowellville, OH 44436
330-536-6825

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

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

Force, Inc.
1380 Rta. 288 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 15622

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

Nichols 1-A (SWIW #18)
Permit # 3862
300 Cherrington Pkwy, Suite 200
Coraopolis, PA 15108
412-329-7275

Grosella (SWIW #34)
Permit # 4096
Rt. 88
Garrettsville, OH
715-275-4816

Kamble 1-D Well
Permit # 8780
7675 East Pike
Norwich, Oh 43767
614-648-8898
740-796-6495

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Adams #2 (Buckeye Brine, LLC)
2205 Westover Road
Austin Tx 78703
Permit # 34-031-2-7178
740-575-4484
512-478-6545

Adams #3 (Buckeye Brine, LLC)
Permit #34-031-2-7241-00-00
2580 Exposition, Suite 117
Austin, TX 78703
512-478-6545

Mozana #1 Well (SWIW # 13)
Permit # 34-157-2-5511-00-00
5367 E. State Street
Newcomerstown, OH 43882
740-763-3966

Goff SWD #1 (SWIW # 27)
Permit # 34-119-2-8776-000
300 Cherrington Pkwy, Suite 200
Coraopolis, PA 15108
412-329-7276

SOS D#1 (SWIW #12)
Permit # 34-059-2-4202-00-00
Silcor Oilfield Services, Inc.
2999 Hubbard Road
Youngstown, OH 44505

Dudley #1 UIC (SWIW #1)
Permit # 34-121-2-2458-00-00
Select Energy Services, LLC
7994 S. Pleasants Hwy
St. Marys, WV 26170
304-665-2652

OH UIC #1 Buckeye 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
804-323-6568

Chapln #7 UIC (SWIW #7)
Permit # 34-083-2-4137-00-00
Elkhead Gas & Oil Company
12163 Marne Rd. NE
Newark, OH 43055
740-763-3966

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HG Energy II Appalachia, LLC

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Proposed Revegetation Treatment: Acres Disturbed 22.55 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: S. D. W...

Comments: Pre-seed/mulch as soon as reasonably possible per regulation.

Upgrade E&S if needed per WV DEP E&S manual.

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Title: WV DEP Oil & Gas Inspector

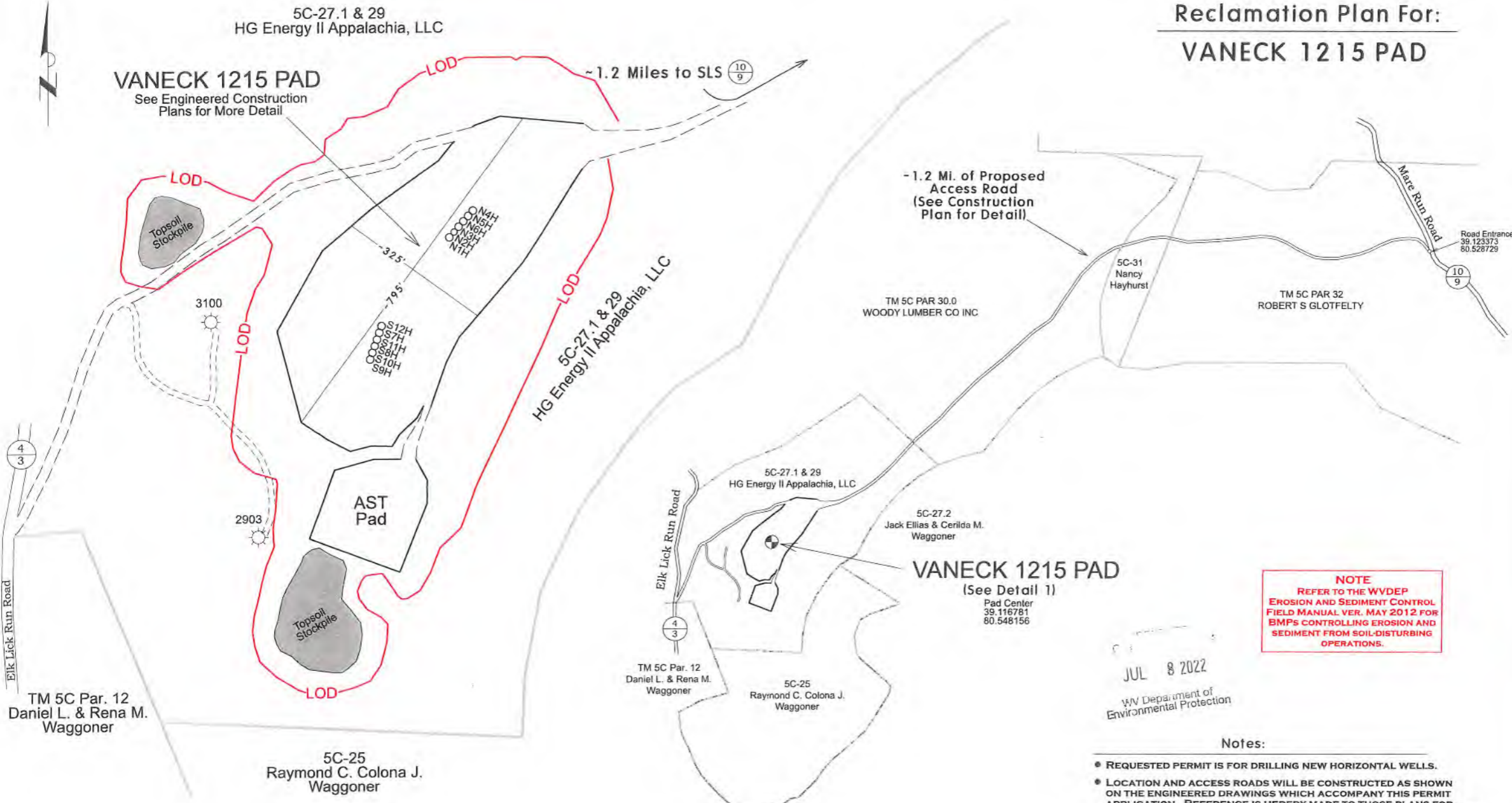
Date: 6/30/2022

Field Reviewed? Yes No

5C-27.1 & 29
HG Energy II Appalachia, LLC

Reclamation Plan For: VANECK 1215 PAD

VANECK 1215 PAD
See Engineered Construction
Plans for More Detail



TM 5C Par. 12
Daniel L. & Rena M.
Waggoner

VANECK 1215 PAD
Detail 1

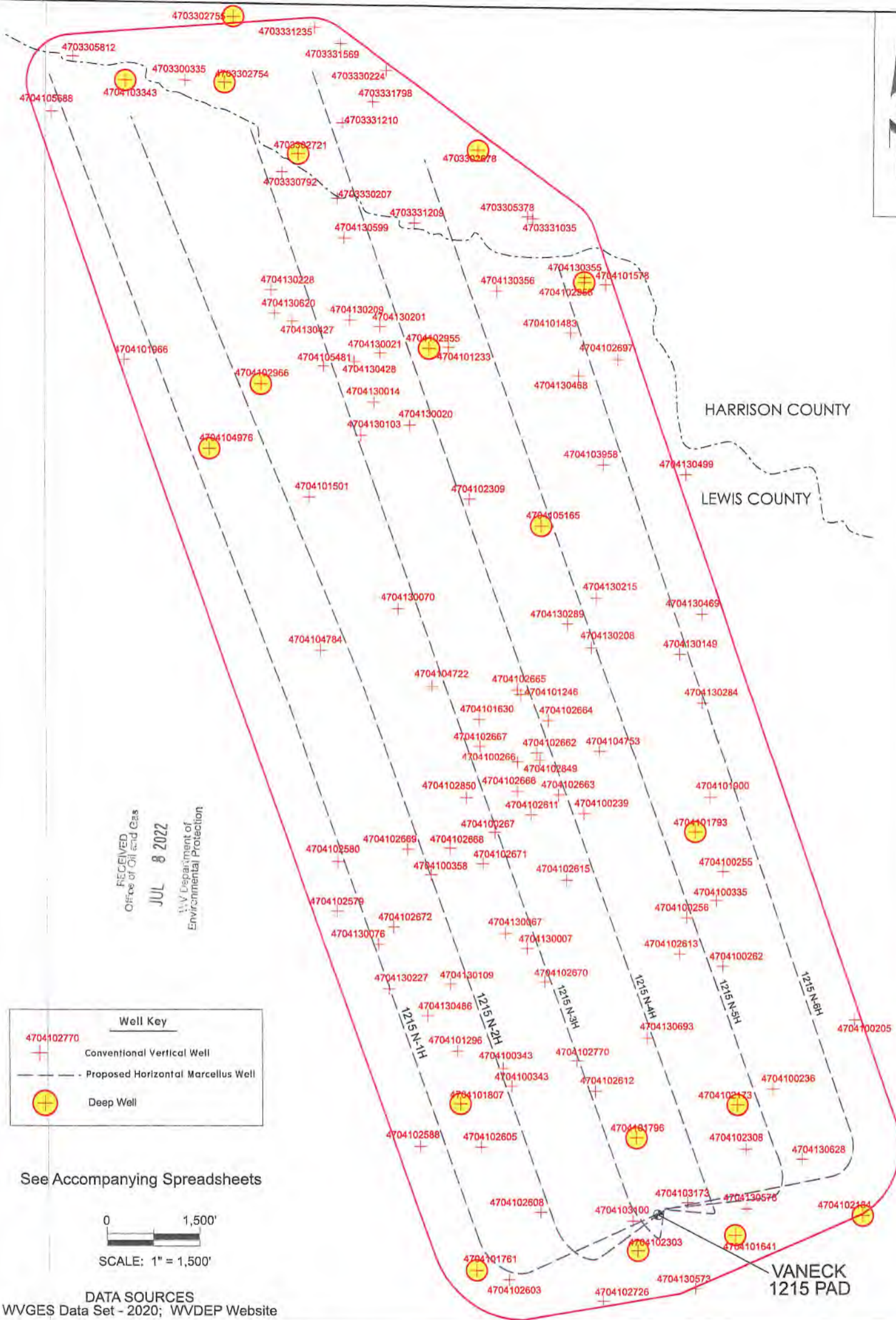
-1.2 Mi. of Proposed
Access Road
(See Construction
Plan for Detail)

NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.

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Notes:

- REQUESTED PERMIT IS FOR DRILLING NEW HORIZONTAL WELLS.
- LOCATION AND ACCESS ROADS WILL BE CONSTRUCTED AS SHOWN ON THE ENGINEERED DRAWINGS WHICH ACCOMPANY THIS PERMIT APPLICATION. REFERENCE IS HEREBY MADE TO THOSE PLANS FOR MORE DETAIL ON E&S MEASURES TO BE TAKEN TO ENSURE COMPLIANCE WITH WVDEP RECLAMATION STANDARDS.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- NO DRILL PIT WILL BE CONSTRUCTED AND A CLOSED LOOP SYSTEM WILL BE UTILIZED TO HANDLE DRILL CUTTINGS.
- DRAWING NOT TO SCALE.

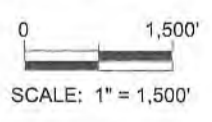


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Well Key

- 4704102770 Conventional Vertical Well
- Proposed Horizontal Marcellus Well
- Deep Well

See Accompanying Spreadsheets



DATA SOURCES
WVGES Data Set - 2020; WVDEP Website

VANECK
1215 PAD

Area of Review for:

VANECK 1215 NORTH UNIT

- Proposed 1215 N-1H
- Proposed 1215 N-2H
- Proposed 1215 N-3H
- Proposed 1215 N-4H
- Proposed 1215 N-5H
- Proposed 1215 N-6H

HG ENERGY, II APPALACHIA, LLC
5260 DuPont Road, Parkersburg, WV 26101

08/19/2022

Freeman's Creek District, Lewis County, W.Va.
& Union District, Harrison County, W.Va.



EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:

VANECK 1215 NORTH UNIT AND PROPOSED WELLS N-1H, N-2H, N-3H, N-4H, N-5H & N-6H

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4703302678	Harrison	K W Coffindaffer	Tenmile Land, LLC	Alexander	House Gas	5550	ABANDONED	39.164144	-80.558442
2	4703302721	Harrison	Robert B Weiman	Tenmile Land, LLC	Alexander	Gas	5081	ACTIVE	39.163273	-80.571299
3	4703305378	Harrison	Ray Mosser Jr	Alliance Petroleum Co. LLC	Greenland Gap Fm	Oil and Gas	4010	ACTIVE	39.160970	-80.554949
4	4703330207	Harrison	Harvey Morris	South Penn Oil Co.	Hampshire Grp	Oil	3021	PLUGGED	39.161822	-80.566082
5	4703330792	Harrison	J B Coffindaffer	Hope Natural Gas Company	Hampshire Grp	Gas	2857	PLUGGED	39.162983	-80.569250
6	4703331035	Harrison	William Moses	Moses, William	Gordon Stray	Oil	2660	PLUGGED	39.160956	-80.555326
7	4703331209	Harrison	Tillman Clemens	Bradford Supply Co.	Gordon	Oil	2592	PLUGGED	39.160956	-80.562964
8	4703331210	Harrison	J B Coffindaffer	Bradford Supply Co.	Gordon Stray	Oil	2775	PLUGGED	39.165016	-80.565762
9	4704100205	Lewis	Flossie Riley	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2361	ACTIVE	39.126554	-80.538388
10	4704100236	Lewis	F B Riley	Dominion Energy Transmission, Inc.	Gantz	Storage	2110	ACTIVE	39.123206	-80.540588
11	4704100239	Lewis	George C Francis	Dominion Energy Transmission, Inc.	Gantz	Storage	2322	ACTIVE	39.135143	-80.551911
12	4704100255	Lewis	J T Bailey	Hope Natural Gas Company	Fifth	Storage	2556	PLUGGED	39.130502	-80.546138
13	4704100256	Lewis	J T Bailey	Hope Natural Gas Company	Gordon Stray	Storage	2435	PLUGGED	39.131952	-80.544090
14	4704100262	Lewis	Olive Thoms	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2370	ACTIVE	39.128472	-80.544276
15	4704100266	Lewis	L E Gall	Hope Natural Gas Company	Gantz	Storage	2346	PLUGGED	39.137463	-80.555636
16	4704100267	Lewis	L E Gall	Dominion Energy Transmission, Inc.	Gantz	Storage	2240	ACTIVE	39.134998	-80.555077
17	4704100335	Lewis	J T Bailey	Hope Natural Gas Company	Up Devonian	Storage	2341	PLUGGED	39.131082	-80.544649
18	4704100343	Lewis	E Haney	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2312	ACTIVE	39.123351	-80.556936
19	4704100358	Lewis	L E Gall	Dominion Energy Transmission, Inc.	Hampshire Grp	Gas	2767	ACTIVE	39.131662	-80.560662
20	4704101233	Lewis	Jacob Freeman Heirs	Diversified Resources, Inc.	Fifth	Oil and Gas	2796	ACTIVE	39.155445	-80.560110
21	4704101246	Lewis	L E Gall	Hope Natural Gas Company	Thirty-foot	Storage	2594	PLUGGED	39.139934	-80.555775
22	4704101483	Lewis	D C Burnside	Diversified Resources, Inc.	Squaw	Gas w/ Oil Show	2102	ACTIVE	39.155735	-80.553405
23	4704101501	Lewis	E Freeman	Pioneer Petroleum, Inc.	Squaw	Dry	2100	PLUGGED	39.148850	-80.567438
24	4704101630	Lewis	W S Bennett	Dominion Energy Transmission, Inc.	Gantz	Storage	2368	PLUGGED	39.138805	-80.558116
25	4704101793	Lewis	Burnside & Freeman	Stephen Gas Company	Benson	Gas w/ Oil Show	4705	ACTIVE	39.134800	-80.546980
26	4704101796	Lewis	David A Caynor	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4755	ACTIVE	39.120305	-80.549489
27	4704101900	Lewis	Burnside & Freeman	Stephen Gas Company	Big Injun (Grnbr)	Oil and Gas	1988	ACTIVE	39.135288	-80.545022
28	4704102173	Lewis	Woody Lumber Co Inc	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4746	ACTIVE	39.121756	-80.543531
29	4704102303	Lewis	Orpha D Waggoner	Dominion Energy Transmission, Inc.	Benson	Oil and Gas	4777	ACTIVE	39.115810	-80.550605
30	4704102309	Lewis	J S Burnside	Dominion Energy Transmission, Inc.	not available	Gas	2591	PLUGGED	39.148547	-80.558619
31	4704102611	Lewis	George C Francis	Dominion Energy Transmission, Inc.	not available	Storage	2350	ACTIVE	39.134563	-80.553587
32	4704102612	Lewis	S Minter Heirs	Dominion Energy Transmission, Inc.	not available	Storage	2273	ACTIVE	39.122481	-80.551537
33	4704102613	Lewis	Caroline Minter	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2622	ACTIVE	39.129052	-80.546325

34	4704102615	Lewis	Geo C Francis	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.132242	-80.552842
35	4704102662	Lewis	Francis M McKinley	Hope Natural Gas Company	not available	not available	-	ABANDONED	39.137318	-80.554891
36	4704102663	Lewis	Francis M McKinley	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.135723	-80.553401
37	4704102664	Lewis	Francis M McKinley	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.138913	-80.554147
38	4704102665	Lewis	W S Bennett	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.140653	-80.555823
39	4704102666	Lewis	Norman S Small	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2673	ACTIVE	39.135578	-80.556380
40	4704102667	Lewis	L E Gall	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.137753	-80.558243
41	4704102668	Lewis	L E Gall	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.133376	-80.559000
42	4704102670	Lewis	B J & B E Rhoades	Dominion Energy Transmission, Inc.	Hampshire Grp	Observation	2141	ACTIVE	39.127747	-80.554703
43	4704102671	Lewis	L E Gall	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.132532	-80.557869
44	4704102770	Lewis	Sheldon Minter	Dominion Energy Transmission, Inc.	undetermined unit	Storage	2232	ACTIVE	39.124076	-80.552840
45	4704102955	Lewis	Zella Curry	Alliance Petroleum Co. LLC	Alexander	Gas	5353	ACTIVE	39.155445	-80.561414
46	4704102956	Lewis	James E Elmer	Diversified Resources, Inc.	Alexander	Oil and Gas	5431	ABANDONED	39.157911	-80.552288
47	4704102966	Lewis	Ralph Pitzer	Alliance Petroleum Co. LLC	Greenland Gap Fm	Oil and Gas	5535	ACTIVE	39.154285	-80.569982
48	4704103100	Lewis	Marjorie Hyatt	Dominion Energy Transmission, Inc.	Big Injun (Grnbr)	Oil w/ Gas Show	2075	ACTIVE	39.116970	-80.549302
49	4704103173	Lewis	Orpha Waggoner	Consolidated Gas Supply Corp.	Big Injun (Grnbr)	Dry	2089	PLUGGED	39.117405	-80.546510
50	4704103958	Lewis	James W Wagner et al	Diversified Resources, Inc.	Greenland Gap Fm	Gas	3131	ACTIVE	39.150370	-80.550610
51	4704104722	Lewis	W S Bennett	Dominion Energy Transmission, Inc.	Fifth	Gas	2752	PLUGGED	39.140307	-80.560812
52	4704104753	Lewis	Allegheny Wood Products	Dominion Energy Transmission, Inc.	not available	not available	-	PLUGGED	39.138043	-80.550422
53	4704105165	Lewis	J Todd Hatfield	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4910	ACTIVE	39.147469	-80.554521
54	4704105481	Lewis	Jerry Tomes	Diversified Resources, Inc.	Hampshire Grp	Oil and Gas	3300	ACTIVE	39.154351	-80.566871
55	4704130007	Lewis	L E Gall	Hope Construction & Refining	not available	not available	-	PLUGGED	39.129052	-80.556751
56	4704130014	Lewis	Stella Freeman Hrs	South Penn Oil Co.	Gordon Stray	Oil	2778	PLUGGED	39.152835	-80.564021
57	4704130020	Lewis	S M Burnside	South Penn Oil Co.	Greenland Gap Fm	Oil and Gas	3675	PLUGGED	39.151820	-80.561972
58	4704130021	Lewis	J L Freeman	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	3038	PLUGGED	39.155010	-80.563649
59	4704130067	Lewis	L O Stutler	Pittsburgh & WV Gas	Gordon	Oil and Gas	2411	PLUGGED	39.129342	-80.556751
60	4704130070	Lewis	William Furley	Pittsburgh & WV Gas	Hampshire Grp	Gas	2760	PLUGGED	39.143699	-80.562714
61	4704130103	Lewis	Earl Freeman	South Penn Oil Co.	Hampshire Grp	Oil	2782	PLUGGED	39.151384	-80.564765
62	4704130149	Lewis	F M McKinley	Douglas, Septer W.	not available	not available	-	PLUGGED	39.141669	-80.546698
63	4704130201	Lewis	J L Freeman	UNKNOWN	not available	not available	-	PLUGGED	39.156170	-80.563649
64	4704130208	Lewis	Enn Bailey	Atha Supply Company	not available	not available	-	PLUGGED	39.141959	-80.551726
65	4704130209	Lewis	Jacob L Freeman Bros	South Penn Oil Co.	Gordon Stray	Oil and Gas	2580	PLUGGED	39.156460	-80.565381
66	4704130215	Lewis	Lelia Grace	South Penn Oil Co.	Hampshire Grp	Oil	2846	PLUGGED	39.144134	-80.551402
67	4704130228	Lewis	Chas A Coffindaffer	South Penn Oil Co.	Gordon	Oil	2736	PLUGGED	39.157765	-80.569853
68	4704130284	Lewis	Francis M Mckinley	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2821	PLUGGED	39.139493	-80.545440
69	4704130289	Lewis	John S Burnside	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2818	PLUGGED	39.142829	-80.552891

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 JUL 8 2022
 WV Department of
 Environmental Protection

70	4704130356	Lewis	William Moses	Moses, William	Gordon Stray	Oil	2805	PLUGGED	39.157765	-80.557000
71	4704130427	Lewis	Mrs Alona May Lowman	Bradford Supply Co.	Gordon Stray	Gas	2702	PLUGGED	39.155880	-80.567802
72	4704130428	Lewis	Mrs Alona May Lowman	Bradford Supply Co.	Gordon Stray	Oil	2594	PLUGGED	39.154430	-80.565938
73	4704130468	Lewis	J A Fox	Bradford Supply Co.	Hampshire Grp	Gas	2850	PLUGGED	39.153995	-80.552341
74	4704130499	Lewis	J A Fox	South Penn Oil Co.	Hampshire Grp	Oil	2793	PLUGGED	39.147614	-80.547866
75	4704130578	Lewis	Fortunatus White	Hope Natural Gas Company	Hampshire Grp	Gas	2602	PLUGGED	39.117115	-80.543159
76	4704130599	Lewis	U A Morris	Bradford Supply Co.	Gordon Stray	Oil	2707	PLUGGED	39.160086	-80.565700
77	4704130620	Lewis	J L Freeman	Hal Pack & Company	Hampshire Grp	Oil	2619	PLUGGED	39.156750	-80.569666
78	4704130628	Lewis	Fortunatus White	Hope Natural Gas Company	not available	not available	2702	not available	39.119580	-80.539655
79	4704130693	Lewis	Shelton Minter Hrs	Hope Natural Gas Company	Hampshire Grp	Gas	2594	PLUGGED	39.124656	-80.548745

RECEIVED
 Office of Oil and Gas
 JUL 8 2022
 Environmental Protection
 Department

WELLS ADDED 11/11/2021

80	4703300335	Harrison	C A Coffindaffer Hrs	Eastern Gas Transmission & Storage, Inc.	Fifth	Gas w/ Oil Show	3000	PLUGGED	39.167929	-80.576517
81	4703302754	Harrison	Robert B Weiman	Tenmile Land, LLC	Alexander	Oil and Gas	5389	ACTIVE	39.167058	-80.574654
82	4703302755	Harrison	Robert B Weiman	Tenmile Land, LLC	Alexander	Oil and Gas	5520	ACTIVE	39.169816	-80.572044
83	4703305812	Harrison	John E Tyler	Diversified Resources, Inc.	UNKNOWN	not available	-	UNKNOWN	39.167992	-80.581201
84	4703330224	Harrison	Luetta Bowen	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil and Gas	2707	PLUGGED	39.167494	-80.563286
85	4703331235	Harrison	Minerva Walker	Bradford Supply Co.	Gordon Stray	Gas	2778	PLUGGED	39.169381	-80.567386
86	4703331569	Harrison	Goynor Wise	Moses, William	Gordon Stray	Gas	2778	PLUGGED	39.168655	-80.565895
87	4703331798	Harrison	Burgess Morris	Jackson, Richard C.	UNKNOWN	not available	-	PLUGGED	39.166176	-80.563155
88	4704100205	Lewis	Flossie Riley	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2361	ACTIVE	39.126554	-80.538388
89	4704100343	Lewis	E Haney	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2312	ACTIVE	39.123351	-80.556936
90	4704101296	Lewis	E L Haney	UNKNOWN	Gantz	Storage	2610	PLUGGED	39.124622	-80.560098
91	4704101578	Lewis	W A Booth	Diversified Resources, Inc.	Gordon	Gas	2674	ACTIVE	39.157766	-80.551356
92	4704101641	Lewis	Jack E Waggoner	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	4703	ACTIVE	39.115955	-80.543903
93	4704101761	Lewis	William Burnside	Eastern Gas Transmission & Storage, Inc.	Benson	Gas	4760	ACTIVE	39.114649	-80.558796
94	4704101807	Lewis	E L Hanley	Eastern Gas Transmission & Storage, Inc.	Benson	Storage	4876	ACTIVE	39.122286	-80.559783
95	4704101966	Lewis	Brent Maxwell	Eastern Gas Transmission & Storage, Inc.	Gordon	Dry	2896	PLUGGED	39.154711	-80.578247
96	4704102184	Lewis	M C Burnside	Eastern Gas Transmission & Storage, Inc.	Benson	Gas	4848	ACTIVE	39.11755	-80.535745
97	4704102303	Lewis	Orpha D Waggoner	Eastern Gas Transmission & Storage, Inc.	Benson	Oil and Gas	4777	ACTIVE	39.11581	-80.550605
98	4704102579	Lewis	Sarepta Nutter	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.130647	-80.566062
99	4704102580	Lewis	J R H Straley	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.132532	-80.566249
100	4704102588	Lewis	Minor J Hall	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2350	ACTIVE	39.119866	-80.561015
101	4704102603	Lewis	W Burnside	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.114351	-80.557109
102	4704102605	Lewis	T J Halterman	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.120447	-80.558783
103	4704102608	Lewis	G W Waggoner	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2296	ACTIVE	39.117979	-80.555807

104	4704102669	Lewis	L E Gall	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.132532	-80.561966
105	4704102672	Lewis	L E Gall	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.129892	-80.562168
106	4704102697	Lewis	J A Fox	Fluharty Enterprises, Inc.	UNKNOWN	not available	-	XABANDONED	39.15472	-80.550106
107	4704102726	Lewis	E W Wagonner	UNKNOWN	Hampshire Grp	Gas	2435	PLUGGED	39.113199	-80.551349
108	4704102849	Lewis	Francis McKinley	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.136993	-80.554712
109	4704102850	Lewis	L E Gall et al	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.135333	-80.558905
110	4704103343	Lewis	R B Weimann	Diversified Resources, Inc.	Benson	Oil and Gas	5058	ACTIVE	39.166611	-80.577997
111	4704104784	Lewis	Troy/D Rickles	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	not available	-	PLUGGED	39.141793	-80.567013
112	4704104976	Lewis	Phillip Burnside	Mountain V Oil and Gas, Inc.	Alexander	Gas	5600	ACTIVE	39.150804	-80.573519
113	4704105688	Lewis	John E Tyler	Diversified Resources, Inc.	-	-	-	NEVER DRILLED	39.165574	-80.582408
114	4704130076	Lewis	Ray & Delphia Holden	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil	2869	PLUGGED	39.129197	-80.564199
115	4704130109	Lewis	F M McKinley	Federal Oil Co.	UNKNOWN	not available	2909	PLUGGED	39.127456	-80.559544
116	4704130227	Lewis	Ray & Delphia Holden	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil and Gas	2932	PLUGGED	39.128036	-80.564982
117	4704130355	Lewis	William Moses	Moses, William	Fifth	Oil	2806	PLUGGED	39.158346	-80.551972
118	4704130469	Lewis	Alice White	Bradford Supply Co.	Hampshire Grp	Oil	2850	PLUGGED	39.143409	-80.545395
119	4704130486	Lewis	Serepta Nutter	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil	2914	PLUGGED	39.126151	-80.561219

SOURCE: WVGES DATASET (2020) and WVDEP WEBSITE AND FIELD SURVEYS

UPDATED 11/11/2021

YELLOW DENOTES WELL WITH TVD > 4,500'

GREEN DENOTES SURVEYED WELLS

RECEIVED
Office of Oil and Gas
JUL 8 2022
WV Department of
Environmental Protection

4704105732

HG Energy II Appalachia, LLC

Site Safety Plan

**Vaneck 1215 Well Pad
1451 Mare Run Road, Weston
Lewis County, WV 26452**

January 2022: 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**

RECEIVED
Office of Oil and Gas

JUL 8 2022

WV Department of
Environmental Protection

*SPW
6/30/2022*

08/19/2022

HG Energy II Appalachia, LLC
Well No. Vaneck 1215 N-1H

Page of 3

9,588' to Bottom Hole

1,801' to Top Hole

TOP LATITUDE 39 - 07 - 30
BTM LATITUDE 39 - 10 - 00

BTM LONGITUDE 80 - 32 - 30
TOP LONGITUDE 80 - 32 - 30

4,822' to Bottom Hole
2,969' to Top Hole



SEAL

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.

Kevin S. James

Kevin S. James, P.S. 2305

Notes:
Well No. Vaneck 1215 N-1H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,205,518.98'
E: 1,768,662.82'
Landing Point Coordinates
N: 14,205,051.61'
E: 1,765,665.35'
Bottom Hole Coordinates
N: 14,218,797.84'
E: 1,760,807.95'



Notes: Well No. Vaneck 1215 N-1H
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°07'00.65" Latitude: 39°09'12.33"
Longitude: 80°32'52.86" Longitude: 80°34'31.76"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,329,850.845m N: 4,333,898.249m
E: 539,089.506m E: 536,695.337m
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-1H Well Plat
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: July 15 2022
OPERATOR'S WELL NO. Vaneck 1215 N-1H
API WELL NO
47 - 041 - 05132 H6A
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek

Top - Camden
Btm - Big Isaac
QUADRANGLE: Lewis
COUNTY: Lewis
ACREAGE: 55.00

SURFACE OWNER: HG Energy II, Appalachia, LLC, et al
ROYALTY OWNER: George W. Waggoner, et ux, et al

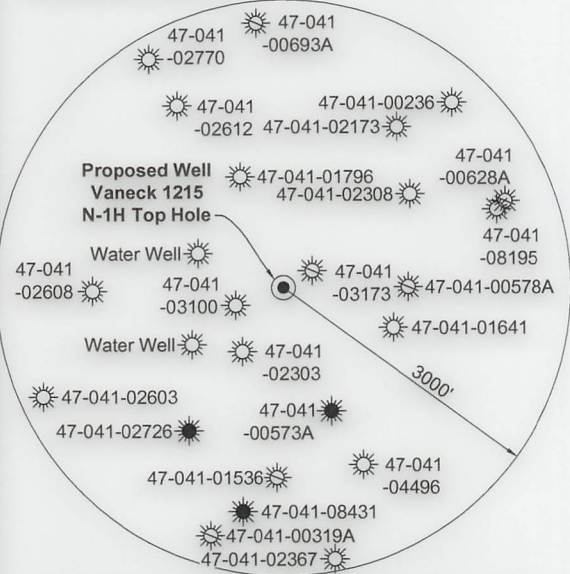
LEASE NO: ACREAGE: 56.00

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

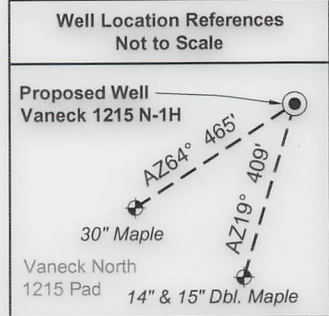
PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,000' MD. 6,790' TVD

WELL OPERATOR: HG Energy II Appalachia, LLC
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

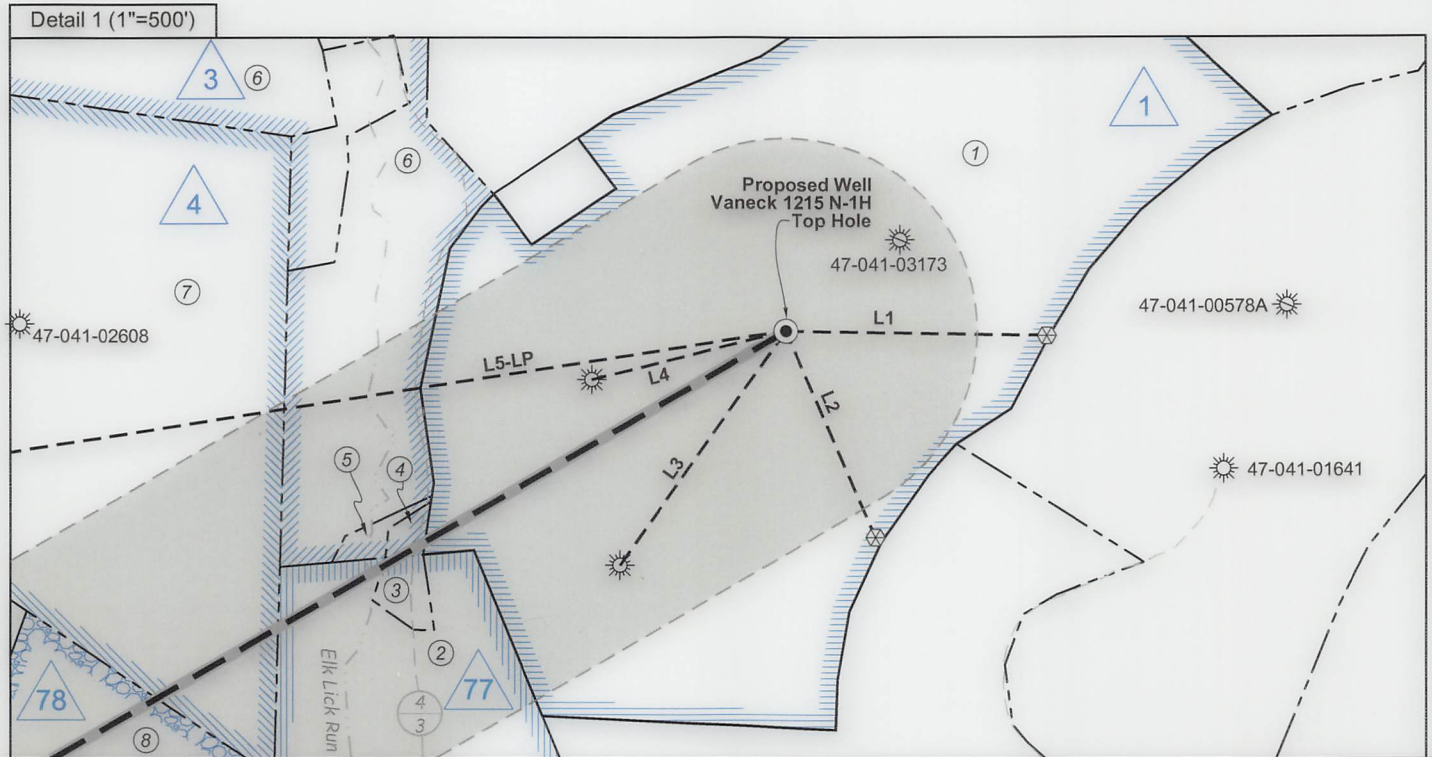
DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101



Note: 2 water well was 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 89°00' W	680.6'	1/2" Rebar
L2	N 23°30' W	584.6'	1/2" Rebar
L3	N 35°25' E	747.0'	#47-041-02303
L4	N 75°55' E	521.3'	#47-041-03100
L5	S 81°08' W	3,033.7'	Landing point



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-1H Well Plat
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: June 24 2022
OPERATOR'S WELL NO. Vaneck 1215 N-1H
API WELL NO
47 - 041 - 05732
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: ACREAGE: 56.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 6,790' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,000' 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

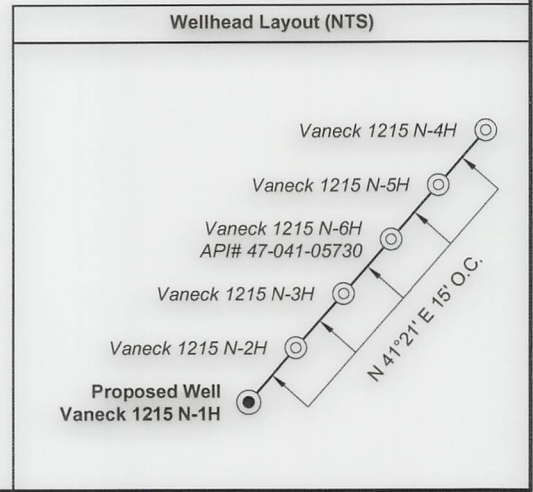
08/19/2022



ID	Lease
1	George W. Waggoner, et ux
3	T.J. Halterman, et ux
4	George W. Waggoner, et ux
19	Eliza L. Haney, et al
21	L.E. Gall, et ux
29	J.R.H. Straley, et ux
31	C.A. Coffindaffer
42	Phillip E. Burnside, et al
43	Bennett Land Management, LLC, et al
63	William R. Burnside, et ux
64	Minor J. Hall, et ux
65	Sarepta Nutter
66	Hunter M. Bennett, et ux
67	C.A. Coffindaffer, et al
68	Hunter M. Bennett, et al
77	E.W. Waggoner, et al
78	J.B. Halterman, et ux

Lewis Co. - Freeman Creek Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	5C / 29	HG Energy II Appalachia, LLC	765 / 894	55.00
2	5C / 12	Daniel L. & Rena M. Waggoner	733 / 664	14.50
3	5C / 12.1	Karen J. & Timothy S. Rittenhouse	753 / 130	0.48
4	5C / 11	Gary P. Stalnaker	519 / 599	0.24
5	5C / 7.1	Gary P. Stalnaker	519 / 599	0.35
6	5C / 7	Charles B. Curtis, Jr.	W19 / 725	45.65
7	5C / 8	Daniel L. & Rena M. Waggoner	733 / 664	49.75
8	5C / 10.1	Michael L. McLaughlin	365 / 572	13.06
9	5C / 10.2	Robert E. & Pamela L. Thompson	346 / 379	19.94
10	5C / 15	Robert E. & Pamela L. Thompson	519 / 627	60.82
11	5C / 10	Stephen & Sherry Marsh	631 / 742	55.69
12	5C / 9	John & Rebecca Bales	466 / 706	37.96
13	4C / 30	John & Rebecca Bales	466 / 706	26.96
14	5C / 6	Jason E. & Amy L. Hunt	589 / 3	85.00
15	4C / 27	Jeremy & Rebecca Day	726 / 592	56.50
16	4B / 42	Darren B. & Claudia Cox	621 / 746	56.50
17	5B / 9	Robert A. & Jane M. Marrison	722 / 374	47.50
18	5B / 5	Gerold L. & Rita R. Kolva	639 / 517	100.33
19	4B / 20.2	Pamela J. Kochenower	562 / 322	23.27
20	4B / 40	Curtis G. Ferguson	552 / 449	121.21
21	4B / 39	Mike Ross Inc.	678 / 455	67.75
22	4B / 38	Christopher Dobbins	724 / 857	19.25
23	4B / 33	Mike Ross Inc.	678 / 455	33.01
24	4B / 33.2	Steven M. Miller	753 / 420	3.74
25	4B / 33.1	Roy L. Marks, III	701 / 519	2.00
26	4B / 34	Rachel D. & Joshua M. Wyckoff	762 / 658	10.08
27	4B / 32	Larry K. Coffindaffer, et al	W45 / 431	60.00
28	4A / 16	Gregory B. Wright	722 / 430	26.75
29	4A / 38	Rachel D. & Joshua M. Wyckoff	750 / 260	63.97
30	4A / 17	Gregory B. Wright	722 / 430	20.25
31	4A / 18	Timothy G. Rose	656 / 598	24.70
32	4A / 32	Edward W. & Violet Titus	295 / 126	31.00
33	4A / 33	Kinchloe Mitigation Holdings, LLC	710 / 463	47.50
34	4A / 30	Kinchloe Mitigation Holdings, LLC	704 / 324	34.75
35	4B / 45	Joshua M. & Rachel D. Wyckoff	750 / 260	36.78

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.)
	Adjoinder surface tracts (approx.)



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-1H Well Plat
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: June 24 2022
OPERATOR'S WELL NO. Vaneck 1215 N-1H
API WELL NO
47 - 041 - 05732
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek QUADRANGLE: Top - Camden
DISTRICT: Freemans Creek Btm - Big Isaac
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al COUNTY: Lewis
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: ACREAGE: 55.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) 6,790' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,000' 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

9,588' to Bottom Hole

1,801' to Top Hole

TOP LATITUDE 39 - 07 - 30
BTM LATITUDE 39 - 10 - 00

BTM LONGITUDE 80 - 32 - 30
TOP LONGITUDE 80 - 32 - 30

2,969' to Top Hole

4,822' to Bottom Hole

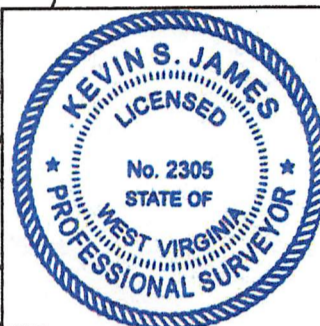
HG Energy II Appalachia, LLC
Well No. Vaneck 1215 N-1H

Page 1 of 3

Vaneck 1215 N-1H Bottom Hole



Top Hole 7.5' Spot



SEAL

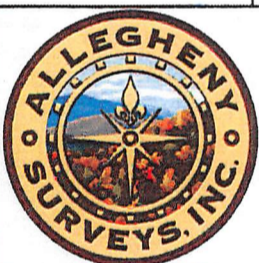
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Kevin S. James

Kevin S. James, P.S. 2305

Notes:

Well No. Vaneck 1215 N-1H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,205,518.98'
E: 1,768,662.82'
Landing Point Coordinates
N: 14,205,051.61'
E: 1,765,665.35'
Bottom Hole Coordinates
N: 14,218,797.84'
E: 1,760,807.95'



Notes: Well No. Vaneck 1215 N-1H

West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°07'00.65" Latitude: 39°09'12.33"
Longitude: 80°32'52.86" Longitude: 80°34'31.76"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,329,850.845m N: 4,333,898.249m
E: 539,089.506m E: 536,695.337m
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

GRID NORTH

FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-1H Well Plat
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: July 15 2022
OPERATOR'S WELL NO. Vaneck 1215 N-1H
API WELL NO
47 - 041 - 05732
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek

QUADRANGLE: Top - Camden
Btm - Big Isaac

DISTRICT: Freemans Creek

COUNTY: Lewis

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

ACREAGE: 56.00
08/19/2022

ROYALTY OWNER: George W. Waggoner, et ux, et al

LEASE NO: ACREAGE: 56.00

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

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,790' TVD
23,000' MD

WELL OPERATOR: HG Energy II Appalachia, LLC

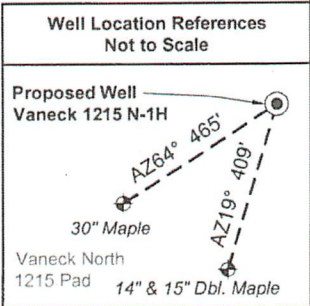
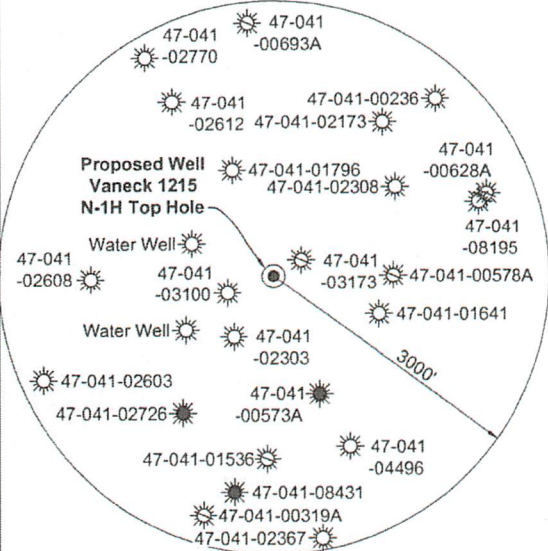
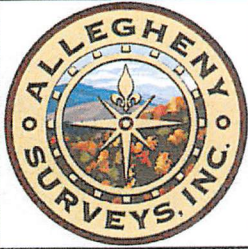
DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

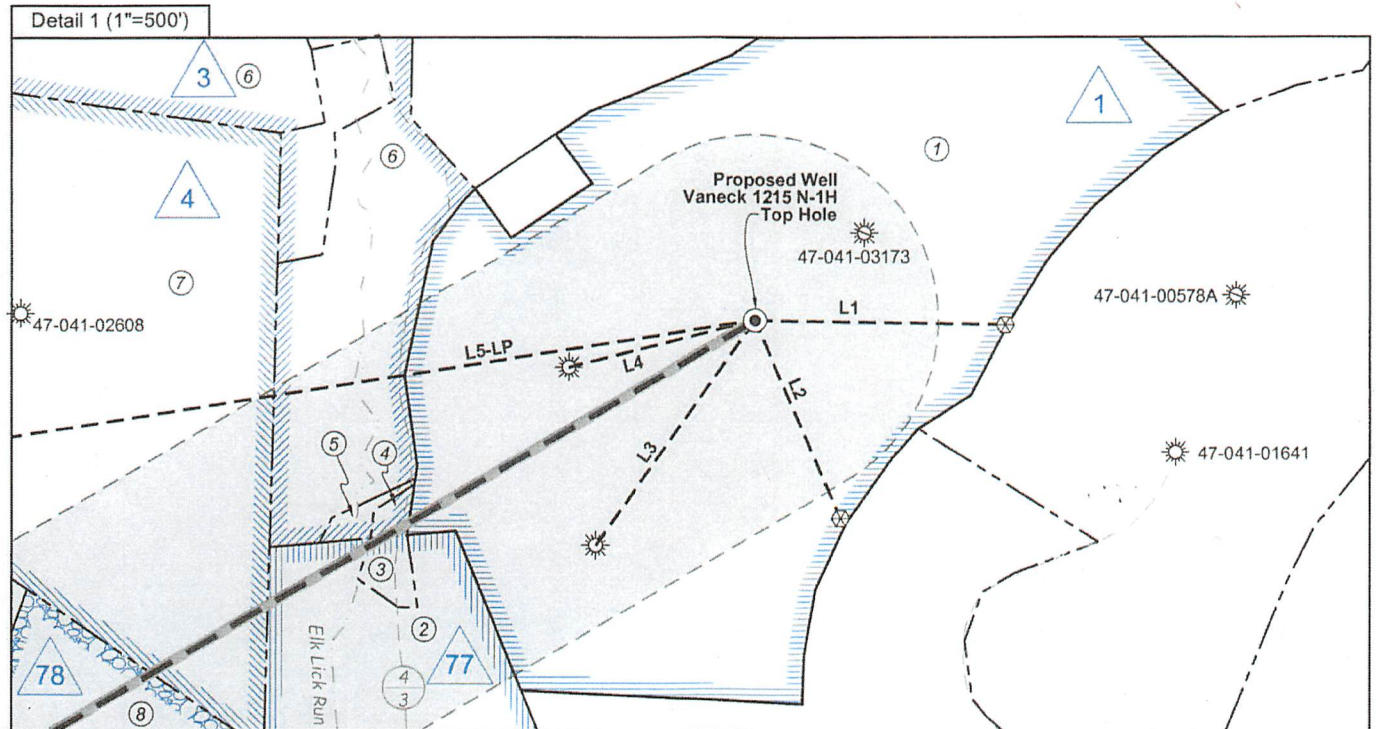
Parkersburg, WV 26101



RECEIVED
Office of Oil and Gas
JUL 8 2022
WV Department of
Environmental Protection

Tag	Bearing	Dist.	Description
L1	N 89°00' W	680.6'	1/2" Rebar
L2	N 23°30' W	584.6'	1/2" Rebar
L3	N 35°25' E	747.0'	#47-041-02303
L4	N 75°55' E	521.3'	#47-041-03100
L5	S 81°08' W	3,033.7'	Landing point

Note: 2 water well was 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.



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-1H Well Plat
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

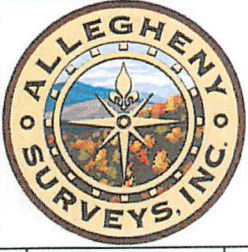
DATE: June 24 2022
OPERATOR'S WELL NO. Vaneck 1215 N-1H
API WELL NO
47 - 041 - 05132
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: _____ ACREAGE: 56.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 6,790' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,000' 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

08/19/2022



RECEIVED
Office of Oil and Gas

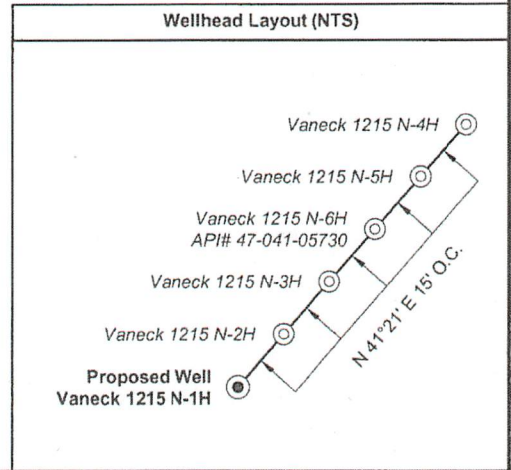
JUL 8 2022

WV Department of
Environmental Protection

ID	Lease
1	George W. Waggoner, et ux
3	T.J. Halterman, et ux
4	George W. Waggoner, et ux
19	Eliza L. Haney, et al
21	L.E. Gall, et ux
29	J.R.H. Straley, et ux
31	C.A. Coffindaffer
42	Phillip E. Burnside, et al
43	Bennett Land Management, LLC, et al
63	William R. Burnside, et ux
64	Minor J. Hall, et ux
65	Sarepta Nutter
66	Hunter M. Bennett, et ux
67	C.A. Coffindaffer, et al
68	Hunter M. Bennett, et al
77	E.W. Waggoner, et al
78	J.B. Halterman, et ux

Lewis Co. - Freeman Creek Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	5C / 29	HG Energy II Appalachia, LLC	765 / 894	55.00
2	5C / 12	Daniel L. & Rena M. Waggoner	733 / 664	14.50
3	5C / 12.1	Karen J. & Timothy S. Rittenhouse	753 / 130	0.48
4	5C / 11	Gary P. Stalnaker	519 / 599	0.24
5	5C / 7.1	Gary P. Stalnaker	519 / 599	0.35
6	5C / 7	Charles B. Curtis, Jr.	W19 / 725	45.65
7	5C / 8	Daniel L. & Rena M. Waggoner	733 / 664	49.75
8	5C / 10.1	Michael L. McLaughlin	365 / 572	13.06
9	5C / 10.2	Robert E. & Pamela L. Thompson	346 / 379	19.94
10	5C / 15	Robert E. & Pamela L. Thompson	519 / 627	60.82
11	5C / 10	Stephen & Sherry Marsh	631 / 742	55.69
12	5C / 9	John & Rebecca Bales	466 / 706	37.96
13	4C / 30	John & Rebecca Bales	466 / 706	26.96
14	5C / 6	Jason E. & Amy L. Hunt	589 / 3	85.00
15	4C / 27	Jeremy & Rebecca Day	726 / 592	56.50
16	4B / 42	Darren B. & Claudia Cox	621 / 746	56.50
17	5B / 9	Robert A. & Jane M. Morrison	722 / 374	47.50
18	5B / 5	Gerold L. & Rita R. Kolva	639 / 517	100.33
19	4B / 20.2	Pamela J. Kochenower	562 / 322	23.27
20	4B / 40	Curtis G. Ferguson	552 / 449	121.21
21	4B / 39	Mike Ross Inc.	678 / 455	67.75
22	4B / 38	Christopher Dobbins	724 / 857	19.25
23	4B / 33	Mike Ross Inc.	678 / 455	33.01
24	4B / 33.2	Steven M. Miller	753 / 420	3.74
25	4B / 33.1	Roy L. Marks, III	701 / 519	2.00
26	4B / 34	Rachel D. & Joshua M. Wyckoff	762 / 658	10.08
27	4B / 32	Larry K. Coffindaffer, et al	W45 / 431	60.00
28	4A / 16	Gregory B. Wright	722 / 430	26.75
29	4A / 38	Rachel D. & Joshua M. Wyckoff	750 / 260	63.97
30	4A / 17	Gregory B. Wright	722 / 430	20.25
31	4A / 18	Timothy G. Rose	656 / 598	24.70
32	4A / 32	Edward W. & Violet Titus	295 / 126	31.00
33	4A / 33	Kinchloe Mitigation Holdings, LLC	710 / 463	47.50
34	4A / 30	Kinchloe Mitigation Holdings, LLC	704 / 324	34.75
35	4B / 45	Joshua M. & Rachel D. Wyckoff	750 / 260	36.78

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.)
	Adjoinder surface tracts (approx.)



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-1H Well Plat
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: June 24 2022
OPERATOR'S WELL NO. Vaneck 1215 N-1H
API WELL NO
47 - 041 - 05732
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: _____ ACREAGE: 56.00
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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

08/19/2022

**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

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Office of Oil and Gas
JUL 8 2022
WV Department of
Environmental Protection

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

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

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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

Well Operator: HG Energy II Appalachia, LLC
 By: Diane White *Diane White*
 Its: Accountant

HG Energy II Appalachia, LLC - Vaneck 1215 N-1H Lease Chain

1215N Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE				
1	FK051509	03-005C-0027-0001 03-005C-0029-0000	Q100665000	GEO. W. WAGGONER AND ROSA M. WAGGONER, HIS WIFE	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	NOT LESS THAN 1/8	73	383				
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85	141				
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379				
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	DEED	125	371				
				PITTSBURG AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216	185				
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	192				
				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	WVSOS					
				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	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				
				3	FK051508	03-005C-0007-0000 03-005C-0007-0001 03-005C-0007-0002 03-005C-0007-0003 03-005C-0011-0000	Q100429000	T. J. HALTERMAN AND S. A. HALTERMAN, HIS WIFE	E. W. BOYD	NOT LESS THAN 1/8	35	220
								E. W. BOYD	S. E. BARRETT	ASSIGNMENT	30	369
								S. E. BARRETT	LOUIS BENNETT	ASSIGNMENT (50%)	36	517
LOUIS BENNETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44					571				
S. E. BARRETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44					569				
J. M. GUFFEY AND JNO. H. GALEY	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT (50%)	44					583				
J. M. GUFFEY AND JOHN H. GALEY	F. N. BARNSDALL	ASSIGNMENT	46					396				
F. N. BARNSDALL	F. L. BARTLETT	ASSIGNMENT	46					391				
THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85					141				
LOUIS BENNETT	CRUDE OIL COMPANY	ASSIGNMENT	92					155				
CRUDE OIL COMPANY, A WV CORP	THE CRUDE OIL COMPANY, A OHIO CORP	ASSIGNMENT	105					426				
THE CRUDE OIL COMPANY	THE FEDERAL OIL & GAS COMPANY	ASSIGNMENT	100					31				
THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125					379				
THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	DEED	125					371				
FRANCIS H. BEAM, SPECIAL MASTER FOR THE FEDERAL OIL AND GAS COMPANY	A. E. MACINTOSH	DEED	141					70				
A. E. MACINTOSH	SEPTER W. DOUGLAS	ASSIGNMENT	142					438				
ELIZABETH H. DOUGLAS, EXECUTRIX OF THE ESTATE OF SEPTER W. DOUGLAS	ALFRED D. BARNES	ASSIGNMENT	171					122				
ALFRED D. BARNES AND MARION K. BARNES, HIS WIFE	OIL CITY TRUST COMPANY	ASSIGNMENT	172					350				
ALFRED D. BARNES AND MARION K. BARNES, HIS WIFE; AND OIL CITY TRUST COMPANY	HOPE NATURAL GAS COMPANY	DEED	172					354				
PITTSBURG AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216					185				
EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246					192				
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									

WV Department of Environmental Protection

Office of Environmental Protection
JUL 8 2014

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				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				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	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
				GEO. W. WAGGONER AND R. M. WAGGONER, HIS WIFE	E. W. BOYD	NOT LESS THAN 1/8	35	236
				E. W. BOYD	S. E. BARRETT	ASSIGNMENT	30	369
				S. E. BARRETT	LOUIS BENNETT	ASSIGNMENT (50%)	36	517
				LOUIS BENNETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44	571
				S. E. BARRETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44	569
				J. M. GUFFEY AND JNO. H. GALEY	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	44	583
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85	141
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	DEED	125	371
				PITTSBURGH AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216	185
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	192
				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	WVSOS	
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				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
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				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
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				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				WILLIAM R. BURNSIDE AND ELLA BURNSIDE, HIS WIFE	E. W. BOYD	NOT LESS THAN 1/8	35	231
				E. W. BOYD	S. E. BARRETT	ASSIGNMENT	30	369
				S. E. BARRETT	LOUIS BENNETT	PARTIAL ASSIGNMENT (50%)	36	517
				S. E. BARRETT	J. M. GUFFEY AND JOHN H. GALEY	ASSIGNMENT	44	569
				LOUIS BENNETT	J. M. GUFFEY AND JOHN H. GALEY	ASSIGNMENT	44	571
				J. M. GUFFEY AND JOHN H. GALEY	PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	44	583
				PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH & WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379
				PITTSBURGH AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216	185
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	192
				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

Department of Environmental Protection

JUL 8 2022

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				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	
64	FK002647	03-004C-0023-0000 03-004C-0028-0000 03-004C-0029-0000 03-004C-0030-0000 03-004C-0030-0001 03-005C-0009-0000 03-005C-0009-0001 03-005C-0009-0002 03-005C-0014-0000	Q100363000	MINOR J. HALL AND M. J. HALL, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	33	179	
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	127	
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89	
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127	
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				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS		
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				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					
19	FK049880	03-005C-0006-0000	Q100660000	ELIZA L. HANEY AND J. W. HANEY, HER HUSBAND, MARY B. EATON AND T. R. EATON, HER HUSBAND, EMMA J. ATKINSON AND LEANDER ATKINSON, HER HUSBAND, NELLIE K. FORE AND HARRY C. FORE, HER HUSBAND, ELSIE STEWART AND CLAUD STEWART, HER HUSBAND, ORIS CAMP, HUSBAND OF GARNETT CAMP, AND ORIS CAMP, GUARDIAN FOR GARNETTE CAMP AND OLIN WARREN	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	144	428	
				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	WVSOS		
				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	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	
65	FK002646	03-004B-0042-0000 03-004C-0027-0000	Q100362000	SAREPTA NUTTER	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	33	229	
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	127	
				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	WVSOS		
				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	

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				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	
21	FK004388	03-005B-0007-0000 03-005B-0008-0000 03-005B-0009-0000	Q100456000	L. E. GALL AND HENRIETTA GALL, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	58	484	
				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	WVSOS		
				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	
29	FK064974 FK065438 FK002595	03-004B-0040-0000 03-004B-0040-0001 03-004B-0025-0001 p/o 03-004B-0018-0000	Q100559000 Q100983000 Q100454000	J. R. H. STRALEY AND LILLIE STRALEY, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	33	199	
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	127	
				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	WVSOS		
				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	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					
31	FK058573 FEEHGH10437	03-004B-0039-0000	Q100284000	C. A. COFFINDAFFER, SINGLE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	187	34	
				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	471	
				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	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	
				HUNTER M. BENNETT AND MADGE BENNETT, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	191	488	

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66	FK059388 FK067204 FK005787	03-004B-0033-0000 03-004B-0033-0001 03-004B-0033-0002 03-004B-0038-0000	Q100285000 Q100995000	JASON G. BAILEY AND MINNIE E. BAILEY, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	246	148
				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		WVSOS
				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
				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	NOT LESS THAN 1/8	723	506
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				
67	FK059862 FEEHG10437	03-004B-0032-0000	Q100497000	C. A. COFFINDAFFER, WIDOWER; D. L. COFFINDAFFER AND L. O. COFFINDAFFER, HIS WIFE; GARNETT A. COFFINDAFFER AND BERYL COFFINDAFFER, HIS WIFE; WILL E. MORRIS AND CAMELLA MORRIS, HIS WIFE; EVA T. CLEMENS GILL AND W. M. GILL, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	195	88
				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		WVSOS
				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		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
68	FK066252 FK066640	03-004A-0017-0000 03-004A-0016-0000 03-004A-0015-0000	Q100310000 Q100569000	HUNTER M. BENNETT, EXECUTOR AND TRUSTEE OF ALICE B. BENNETT	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	238	428
				WALTER D. NUTTER AND DORA NUTTER, HIS WIFE; WALTER E. NUTTER, SINGEL; BENJAMIN L. NUTTER, SINGLE; AND DAVID H. NUTTER, SINGLE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	242	217
				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.	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

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				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				GARNET GAS COMPANY	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	777	206
42	CNX260713000 FEE CNX260718000 FEE	03-004A-0038-0000 p/o 03-004B-0045-0000	Q102226000 Q102225000	PHILLIP E. BURNSIDE	MOUNTAIN V OIL AND GAS COMPANY INC	NOT LESS THAN 1/8	595	141
				JOHN ROBERT CURREY AND VIRGINIA Y. CURREY, HIS WIFE	MOUNTAIN V OIL AND GAS COMPANY INC	NOT LESS THAN 1/8	595	512
				MOUNTAIN V OIL AND GAS INC	CNX GAS COMPANY LLC	ASSIGNMENT	685	659
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
43	N/A	03-004A-0033-0000	HGII02026 HGII02044	BENNETT LAND MANAGEMENT LLC	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	776	517
				KINCHELOE MITIGATION HOLDINGS LLC	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	777	750
77	FK053264	03-0056-0012-0000 03-0056-0013-0000 03-0056-0017-0000 03-0056-0024-0000 p/o 03-0056-0025-0000	Q101027000	E. W. WAGGONER; GEO. W. WAGGONER AND R. M. WAGGONER, HIS WIFE; AND HARRIET E. BURNSIDE, WIDOW	RESERVE GAS COMPANY	NOT LESS THAN 1/8	68	516
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	MERGER/NAME CHANGE	155	202
				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
				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
78	FK051505	03-005C-0010-0001 03-005C-0010-0002 03-005C-0016-0000	Q100471000	J. B. HALTERMAN AND M. A. HALTERMAN, HIS WIFE	E. W. BOYD	NOT LESS THAN 1/8	35	233
				E. W. BOYD	S. E. BARRETT	ASSIGNMENT	30	369
				S. E. BARRETT	LOUIS BENNETT	PARTIAL ASSIGNMENT (50%)	36	517
				LOUIS BENNETT	J. M. GUFFEY AND JOHN H. GALEY	ASSIGNMENT	44	571
				J. M. GUFFEY AND JOHN H. GALEY	PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	44	583
				PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH & WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379
				PITTSBURGH AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216	185
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	192
				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
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				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				

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

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June 29, 2022

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

RE: Drilling Under Roads – Vaneck 1215 N-1H
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 Vaneck 1215 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 Vaneck 1215 laterals will drill through including any and all roads crossed under as identified on the attached survey plat.

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

Very truly yours,

Diane White

Diane C. White

Enclosures

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08/19/2022

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

Date of Notice Certification: 07/05/2022

API No. 47- _____ - _____
Operator's Well No. Vaneck 1215 N-1H
Well Pad Name: Vaneck 1215 Well Pad

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>539080.4</u>
County:	<u>Lewis</u>		Northing:	<u>4329858.9</u>
District:	<u>Freemans Creek</u>	Public Road Access:	<u>Mare Run Road / CR 10 / 9</u>	
Quadrangle:	<u>Camden WV 7.5's</u>	Generally used farm name:	<u>Vaneck</u>	
Watershed:	<u>Middle West Fork Creek</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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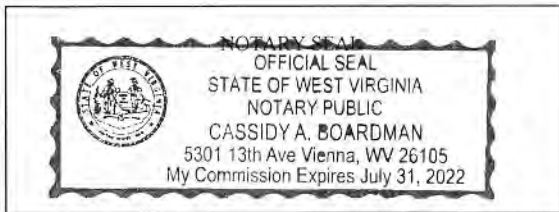
Required Attachments:

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

Certification of Notice is hereby given:

THEREFORE, I Diane White, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:	<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 5th day of July, 2022.

Cassidy Boardman Notary Public

My Commission Expires 7/31/2022

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.

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Office of Oil and Gas

JUL 8 2022

WV Department of
Environmental Protection

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WW-6A
(9-13)

API NO. 47- _____
OPERATOR WELL NO. Vaneck 1215 NIH - S12H
Well Pad Name: Vaneck 1215

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: 01/17/2022 Date Permit Application Filed: 01/25/22

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) * *Not noticed as surface owner is also the operator*
Name: HG Energy II Appalachia, LLC (pad and road)
Address: 5260 Dupont Road
Parkersburg, WV 26101

COAL OWNER OR LESSEE
Name: NA
Address: _____

Name: _____
Address: _____

COAL OPERATOR
Name: NA
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Nancy Hayhurst ✓
Address: 195 Rexroad Drive
Weston, WV 26452
Name: Woody Lumber Company ✓
Address: 201 Vicksburg Road
Buckhannon, WV 26201

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Charles Curtis ✓ Gary Stalnaker ✓ Timothy Rittenhouse ✓
Address: 377 Elk Lick Road 179 Elk Lick Road 1729 R Freemans Creek
Weston, WV 26452 Weston, WV 26452 Weston, WV 26452

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: Dominion Energy Transmission - Attn: Ronald Waldren ✓
Address: 925 White Oaks Blvd
Bridgeport, WV 26330

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Office of Oil and Gas
JUL 8 2022
WV Department of
Environmental Protection

*Please attach additional forms if necessary

08/19/2022

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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting 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

WW-6A
(8-13)

API NO. 47- _____
OPERATOR WELL NO. Vaneck 1215 N1H - S12H
Well Pad Name: Vaneck 1215

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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JUL 8 2022

WV Department of
Environmental Protection

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.**

08/19/2022

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.

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WV Department of
Environmental Protection

08/19/2022

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(8-13)

API NO. 47- _____
OPERATOR WELL NO. Vaneck 1215 N1H - S12H
Well Pad Name: Vaneck 1215

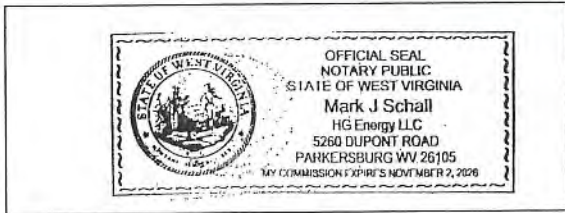
Notice is hereby given by:

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: 304-863-2172

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.



Subscribed and sworn before me this 17th day of January, 2022.

[Signature] Notary Public

My Commission Expires 11/2/2026

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WV Department of
Environmental Protection

08/19/2022



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

4704105732

January\19, 2022

Dominion Energy Transmission
Attn: Ronald Waldren
925 White Oaks Blvd
Bridgeport, WV 26330

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

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Environmental Protection

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

4704105732

January\19, 2022

Timothy Rittenhouse
1729 R Freeman's Creek
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

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Very truly yours,

Diane White

Diane C. White

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

4704105732

January\19, 2022

Gary Stalnaker
179 Elk Lick Road
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

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No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

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WV Department of
Environmental Protection

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

4704105732

January\19, 2022

Charlie Curtis
377 Elk Lick Road
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

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Very truly yours,

Diane White

Diane C. White

Enclosures

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JUL 8 2022
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Environmental Protection

08/19/2022



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

4704105732

January\19, 2022

Woody Lumber Company
201 Vicksburg Road
Buckhannon, WV 26201

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

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No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

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Office of Oil and Gas
JUL 8 2022
WV Department of
Environmental Protection

08/19/2022



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

4704105732

January\19, 2022

Nancy Hayhurst
195 Rexroad Drive
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Ms. Hayhurst -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

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Very truly yours,

Diane White

Diane C. White

Enclosures

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JUL 8 2022
WV Department of
Environmental Protection

08/19/2022

SUBJECT WELL
Vaneck 1215 N-1H

4704105732

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Office of Oil and Gas

JUL 8 2022

WV Department of
Environmental Protection



Section of
Camden and Big Isaac
7.5' Quadrangles

SCALE 1"=1000

08/19/2022

4704105732

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: 01/17/2022 **Date Permit Application Filed:** 01/27/2022

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): * *Notice not sent as Surface Owner is also Operator*

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

Name: _____
Address: _____

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: West Virginia UTM NAD 83 Easting: 539089.4
County: Lewis Northing: 4329869.2
District: Freemans Creek Public Road Access: Mare Run Road/ CR 10 / 9
Quadrangle: Camden WV 7.5' Generally used farm name: Vaneck
Watershed: Middle West Fork Creek

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

Notice is hereby given by:

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

Authorized Representative: Diane White
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com
Facsimile: 304-863-3172

RECEIVED
Office of Oil and Gas
JUL 8 2022
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.

08/19/2022

4704105732

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

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

Date of Notice: 01/18/2022 **Date Permit Application Filed:** 01/27/2022

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

- CERTIFIED MAIL
RETURN RECEIPT REQUESTED
- HAND
DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s) * *Notice not sent as Surface Owners are also the Operators*
(at the address listed in the records of the sheriff at the time of notice):

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

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on 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>539089.4</u>
County:	<u>Lewis</u>		Northing:	<u>4329869.2</u>
District:	<u>Freemans Creek</u>	Public Road Access:	<u>Mare Run Road / CR 10 / 9</u>	
Quadrangle:	<u>Camden WV 7.5'</u>	Generally used farm name:	<u>Vaneck</u>	
Watershed:	<u>Middle West Fork Creek</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: HG Energy II Appalachia, LLC
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com

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.

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Office of Oil and Gas
JUL 8 2022
WV Department of
Environment
08/19/2022



4704105732

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

D. Alan Reed, P.E.
State Highway Engineer

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

December 27, 2021

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

Subject: DOH Permit for the Vaneck 1215 Pad, Lewis County
Vaneck 1215 N-1H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #07-2021-0333 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 10/9 SLS MP 1.40.

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 October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Diane White
HG Energy II Appalachia, LLC
CH, OM, D-6
File

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Office of Oil and Gas

JUL 8 2022

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HG Energy II Appalachia, LLC

List of Frac Additives by Chemical Name and CAS #

Vaneck 1215 Well Pad (N-1H to N-6H, S-7H to 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	

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Office of Oil and Gas

JUL 8 2022

WV Department of
Environmental Protection

08/19/2022

WEST VIRGINIA COUNTY MAP



APPROVED WVDEP OOG 3/2/2022

1215 Well Site Site Design, Construction Plan, & Erosion and Sediment Control Plans HG Energy LLC Lewis County Freemans Creek District Latitude 39.11678083° Longitude -80.54815578° Middle West Fork River Watershed

Pertinent Site Information 1215 Well Site Emergency Number: 304-269-8243 Freemans Creek District, Lewis County, WV Watershed: Middle West Fork River Watershed Site 911 Address

HG Energy Contact Number: 304-420-1100

Table with 7 columns: Owner, Well ID, Well Depth, Well Type, Well Diameter, Well Completion, Well Status. Lists well details for 1215 Well Site.

Exhibit A: Final Design: Issue for Permitting

Table with 3 columns: Well ID, Well Depth, Well Type. Lists well details for the project.



Well Site Location Summary: Well ID: 1215, Well Depth: 200, Well Type: New, Well Diameter: 4.0, Well Completion: New, Well Status: Active.

Table with 2 columns: Area Type, Area Description. Lists areas such as Access Road, Disturbed Area, and Additional Calculations.

Table with 7 columns: Description, Well ID, Well Depth, Well Type, Well Diameter, Well Completion, Well Status. Lists well details for the project.

Table with 5 columns: Well ID, Well Depth, Well Type, Well Diameter, Well Completion. Lists well details for the project.

Table with 4 columns: Well ID, Well Depth, Well Type, Well Diameter. Lists well details for the project.

Table with 3 columns: Well ID, Well Depth, Well Type. Lists well details for the project.

Table with 3 columns: Well ID, Well Depth, Well Type. Lists well details for the project.



Project Contacts: HG Energy LLC, Lead Geologist: Christopher M. Hester, 304-420-1100

Survey and Engineer: Kenneth Kirby, 304-420-1100

HG Energy, LLC, 304-240-4848, 1700 West Virginia Ave, Parkersburg, WV 26101

Environmental: Without Disturbance as provided by Federal Environmental and State 12, 2019

Miss Utility of West Virginia, 800-240-4848

HG Energy LLC will obtain an Erosion/Control Permit (Form M6-109) from the WV Department of Transportation, Division of Highways...

Approach Route:

From I-79 near Lane Lw, WV, Traveling North on I-79, take Exit 99 towards Lane Lw. Turn Left onto Co. Rd 1 (Hecklers Creek Rd)...



Well Location Description: All well construction complies with the following minimums: *100' from an existing well or developed well...



Table with 2 columns: Sheet, Description. Lists sheet contents including Cover Sheet, Schedule of Quantities, Site Notes, etc.

Vertical text on the right edge of the page.

Vertical text on the right edge of the page.



THIS DOCUMENT PREPARED FOR HG ENERGY LLC

Key Surveys logo.

1215 Well Site Freemans Creek District Lewis County, WV

Date: 12/10/2021, Scale: As Shown, Designed by: JS, File No., Sheet 1 of 21

4704105732

1215 Well Site
HG Energy LLC
Exhibit A: Final Design: Issue for Permitting



HG Energy II
 Appalachia LLC
 TM: SC-29
 DB/PG: 765/894

HG Energy II
 Appalachia LLC
 TM: SC-27.1
 DB/PG: 765/894

Raymond & Colona
 Waggoner
 TM: SC-25
 DB/PG: 567/416

Daniel & Rena
 Waggoner
 TM: SC-12
 DB/PG: 733/664

HG Energy II
 Appalachia LLC
 TM: SC-29
 DB/PG: 765/894

HG Energy II
 Appalachia LLC
 TM: SC-29
 DB/PG: 765/894

APPROVED WVDEP OOG
 3/2/2022



Legend

Original Channel 2" Contour	30" Diameter Filter Sock	Disturbed Wetland
Original Channel 30" Contour	30" Diameter Filter Sock	Disturbed Stream
Design 2" Contour	No Flow	Top Key
Design 10" Contour	Shore 100' Buffer	Original Undisturbed Slope Area
Center of Flowline	Line of Protection	Shore 100' Buffer
Center of Flowline	Area of Impact	Rock Land Deck
Property	Existing Gas Line	Remain Current Blended Land Deck
Existing Fence	Existing Utility Pole Line	

Disturbed Area

Well Pad Construction	4,519 Sq. Ft.
30" Pad Construction	1,236 Sq. Ft.
Access Road Construction	2,972 Sq. Ft.
Top Key	2,722 Sq. Ft.
Original Undisturbed Slope Area	2,722 Sq. Ft.
Shore 100' Buffer	11,957 Sq. Ft.
Rock Land Deck	1,236 Sq. Ft.
Remain Current Blended Land Deck	1,236 Sq. Ft.
Total Disturbed Area	31,139 Sq. Ft.

Additional Information

Total Wetland Area Excluded: 11,957 Sq. Ft.
 Total Stream Buffer Area Excluded: 1,236 Sq. Ft.

Judith
 Perry
 TM: SC-28
 DB/PG: FID31596

REVISIONS

NO.	DATE	DESCRIPTION

HG ENERGY LLC

THIS DOCUMENT PREPARED FOR
 HG ENERGY LLC

Ken Surveys
 1000 1/2 S. 10th St.
 Lewis County, WV 26042

Site Plan
1215 Well Site
 Foreman Creek District
 Lewis County, WV

Date: 12/30/2021
 Scale: As Shown
 Designed By: JS
 PLS No.
 Sheet 16 of 26

4704105732



APPROVED
WVDEP OOG
3/2/2022

1215 Well Site

Site Design, Construction Plan, &
Erosion and Sediment Control Plans
HG Energy LLC
Lewis County
Freemans Creek District
Latitude 39.11678083°
Longitude -80.54815578°
Middle West Fork River Watershed

Pertinent Site Information
1215 Well Site
Emergency Number: 304-269-8243
Freemans Creek District, Lewis County, WV
Watershed: Middle West Fork River Watershed
Site 911 Address:

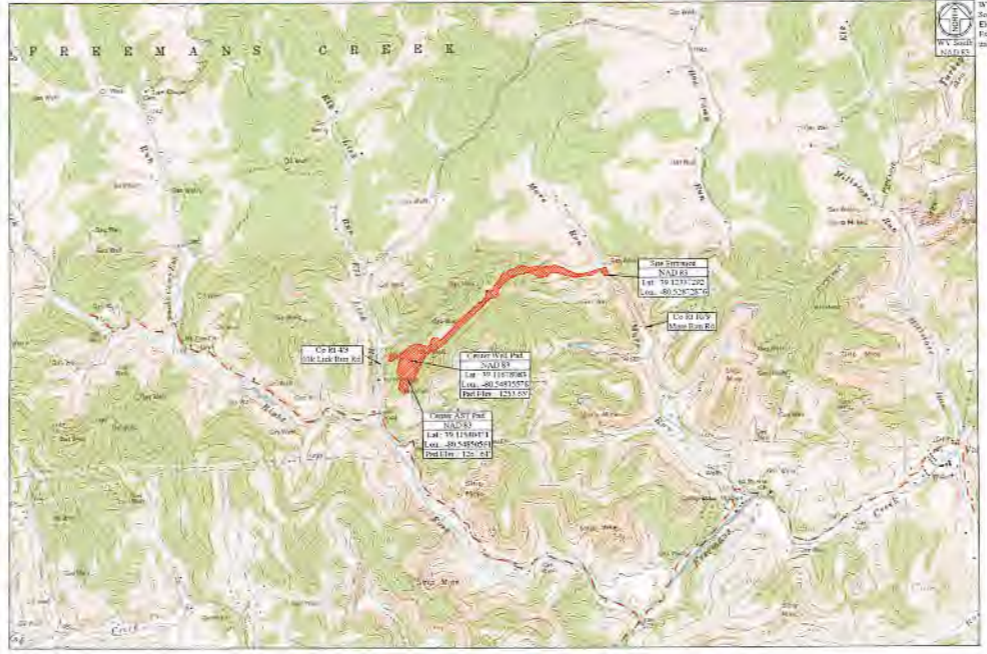
HG Energy Contact Number: 304-420-1100

Property Owner Information - 1215 Well Site

Owner	Acres	Value	Year	Assessed Value	Assessed Year	Assessed Value	Assessed Year	Assessed Value	Assessed Year
Freemans Creek District	1.00	500	2018	500	2018	500	2018	500	2018
Freemans Creek District	0.50	250	2018	250	2018	250	2018	250	2018
Freemans Creek District	0.50	250	2018	250	2018	250	2018	250	2018
Total	2.00	1000	2018	1000	2018	1000	2018	1000	2018

Exhibit A: Final Design: Issue for Permitting

Well Data		Well Data		Well Data	
WV-NAD83 N: 2105.94 WV-SAD83 E: 25667.56 WV-SAD27 N: 2106.00 WV-SAD27 E: 21284.64 Loc: NAD83 39 14167.00 Loc: NAD83 40 18467.00 Loc: NAD27 39 14167.00 Loc: NAD27 40 18467.00 UTM 17 NAD83 40 18467.00 UTM 17 SAD83 40 18467.00	WV-NAD83 N: 2105.94 WV-SAD83 E: 25667.56 WV-SAD27 N: 2106.00 WV-SAD27 E: 21284.64 Loc: NAD83 39 14167.00 Loc: NAD83 40 18467.00 Loc: NAD27 39 14167.00 Loc: NAD27 40 18467.00 UTM 17 NAD83 40 18467.00 UTM 17 SAD83 40 18467.00	WV-NAD83 N: 2105.94 WV-SAD83 E: 25667.56 WV-SAD27 N: 2106.00 WV-SAD27 E: 21284.64 Loc: NAD83 39 14167.00 Loc: NAD83 40 18467.00 Loc: NAD27 39 14167.00 Loc: NAD27 40 18467.00 UTM 17 NAD83 40 18467.00 UTM 17 SAD83 40 18467.00	WV-NAD83 N: 2105.94 WV-SAD83 E: 25667.56 WV-SAD27 N: 2106.00 WV-SAD27 E: 21284.64 Loc: NAD83 39 14167.00 Loc: NAD83 40 18467.00 Loc: NAD27 39 14167.00 Loc: NAD27 40 18467.00 UTM 17 NAD83 40 18467.00 UTM 17 SAD83 40 18467.00	WV-NAD83 N: 2105.94 WV-SAD83 E: 25667.56 WV-SAD27 N: 2106.00 WV-SAD27 E: 21284.64 Loc: NAD83 39 14167.00 Loc: NAD83 40 18467.00 Loc: NAD27 39 14167.00 Loc: NAD27 40 18467.00 UTM 17 NAD83 40 18467.00 UTM 17 SAD83 40 18467.00	WV-NAD83 N: 2105.94 WV-SAD83 E: 25667.56 WV-SAD27 N: 2106.00 WV-SAD27 E: 21284.64 Loc: NAD83 39 14167.00 Loc: NAD83 40 18467.00 Loc: NAD27 39 14167.00 Loc: NAD27 40 18467.00 UTM 17 NAD83 40 18467.00 UTM 17 SAD83 40 18467.00



Access Road

Structure	Material	Width	Length	Notes
WV Energy II Approvals LLC	Gravel	10.0	100.0	New Access Road Construction
Freemans Creek District	Gravel	10.0	100.0	New Access Road Construction
WV Energy II Approvals LLC	Gravel	10.0	100.0	New Access Road Construction
Total				

1215 Well Site Quantities

Description	Quantity	Unit	Notes
Well Pad	1.00	Sq. Ft.	100.00
Well Pad Access Road	100.00	Sq. Ft.	100.00
Well Pad Access Road	100.00	Sq. Ft.	100.00
Well Pad Access Road	100.00	Sq. Ft.	100.00
Total	300.00	Sq. Ft.	

Delimited Stream Impact (Linear Feet)

Stream and Impact Category	Delimited Linear Feet	Impact Length (LF)	Total Impact (LF)
Watershed P (Access Road)	100	100	100
Watershed T (Well Pad)	100	100	100
Watershed Y (Well Pad)	100	100	100
Total Stream Impact	300	300	300

Delimited Wetland Impact (Square Feet)

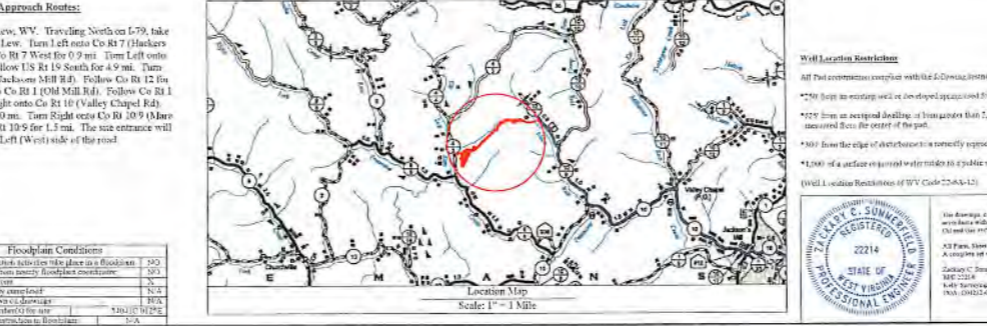
Wetland Impact Category	Delimited Area (Sq. Ft.)	Impact Area (Sq. Ft.)
Wetland P (Access Road)	100.00	100.00
Wetland T (Well Pad)	100.00	100.00
Wetland Y (Well Pad)	100.00	100.00
Total Wetland Impact	300.00	300.00

SPU
6/30/2022

Project Contacts
HG Energy LLC
Site Manager: [Name]
Survey and Engineer: [Name]

Environmental
WVDEP District Office
[Address]

Project Location
1215 Well Site
Freemans Creek District
Lewis County, WV



Sheet Description

Sheet	Description
1	Cover Sheet
VI	Schedule of Quantities
M1-N4	Site Notes
2	Pre-Construction Site Conditions
3	Site Soil Map
4	General Plan View
5	EAS Plan View
6-10	Tree Key Exhibit
11	Plan View
12-16	Cross Sections - Well Pad/AST Pad
17-18	Cross Sections - Well Pad/AST Pad
19-21	Cross Sections - Access Road
G1-G2	Geotechnical Exhibits
L1	Delimited Disturbed Area Exhibit
L1	Site Reclamation
M1-M2	Project Exhibit
D1-D2	Erosion and Sediment Control Details
R1	Access Road Details
P1	Well Pad Details



THIS DOCUMENT
PREPARED FOR:
HG ENERGY LLC

Kelly Surcinova
Professional Engineer
No. 10307

1215 Well Site
Freemans Creek District
Lewis County, WV

Date: 12/30/2021
Scale: As Shown
Designed By: ZS
Title No.
Sheet 1 of 21

HG Energy II
Appalachia LLC
TM: 5C-29
DB/PG: 765/894

HG Energy II
Appalachia LLC
TM: 5C-27 I
DB/PG: 765/894

Raymond & Coloma
Waggoner
TM: 5C-25
DB/PG: 567416

Daniel & Rena
Waggoner
TM: 5C-12
DB/PG: 733/864

HG Energy II
Appalachia LLC
TM: 5C-29
DB/PG: 765/894

APPROVED
WVDEP OOG
3/2/2022

HG Energy II
Appalachia LLC
TM: 5C-29
DB/PG: 765/894

RECEIVED
Office of Oil and Gas
JUL 8 2022
WV Department of
Environmental Protection

Handwritten: 8/30/2022



Legend

Original Ground 2' Contour	14" Composite Filter Seal	Disturbed Area
Original Ground 10' Contour	24" Composite Filter Seal	Well Pad Construction
Design 2' Contour	36" Composite Filter Seal	Gravel Pad Construction
Design 10' Contour	Silt Fence	Gravel Pad Construction
Design 20' Contour	Super Silt Fence	Gravel Pad Construction
Design 30' Contour	Limit of Disturbance	Gravel Pad Construction
Design 40' Contour	Limit of Disturbance	Gravel Pad Construction
Design 50' Contour	Limit of Disturbance	Gravel Pad Construction
Design 60' Contour	Limit of Disturbance	Gravel Pad Construction
Design 70' Contour	Limit of Disturbance	Gravel Pad Construction
Design 80' Contour	Limit of Disturbance	Gravel Pad Construction
Design 90' Contour	Limit of Disturbance	Gravel Pad Construction
Design 100' Contour	Limit of Disturbance	Gravel Pad Construction
Design 110' Contour	Limit of Disturbance	Gravel Pad Construction
Design 120' Contour	Limit of Disturbance	Gravel Pad Construction
Design 130' Contour	Limit of Disturbance	Gravel Pad Construction
Design 140' Contour	Limit of Disturbance	Gravel Pad Construction
Design 150' Contour	Limit of Disturbance	Gravel Pad Construction
Design 160' Contour	Limit of Disturbance	Gravel Pad Construction
Design 170' Contour	Limit of Disturbance	Gravel Pad Construction
Design 180' Contour	Limit of Disturbance	Gravel Pad Construction
Design 190' Contour	Limit of Disturbance	Gravel Pad Construction
Design 200' Contour	Limit of Disturbance	Gravel Pad Construction

Disturbed Areas

Well Pad Construction	8.50 AC
Gravel Pad Construction	1.28 AC
Gravel Pad Construction	2.97 AC
Gravel Pad Construction	2.40 AC
Gravel Pad Construction	18.55 AC
Gravel Pad Construction	21.11 AC
Total Disturbed Area	37.81 AC

Additional Information

Well Pad Construction	8.50 AC
Gravel Pad Construction	1.28 AC
Gravel Pad Construction	2.97 AC
Gravel Pad Construction	2.40 AC
Gravel Pad Construction	18.55 AC
Gravel Pad Construction	21.11 AC
Total Disturbed Area	37.81 AC

Juith
Flury
TM: 5C-28
DB/PG: 765/894



THIS DOCUMENT
PREPARED FOR
HG ENERGY LLC



Site Plan
1215 Well Site
Fremonts Creek District
Lewis County, WV

Date: 12/10/2021
Scale: As Shown
Designed By: ZS
File No:
Sheet 16 of 20