



west virginia department of environmental protection

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

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

Monday, May 3, 2021
WELL WORK PERMIT
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for EVANS 1213 N-3H
47-041-05719-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: EVANS 1213 N-3H
Farm Name: JAMES M. & SUZANNE L. EVANS
U.S. WELL NUMBER: 47-041-05719-00-00
Horizontal 6A New Drill
Date Issued: 5/3/2021

Promoting a healthy environment.

05/07/2021

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 DEPOOGNotify@wv.gov.

05/07/2021

WW-6B
(04/15)

API NO. 47-_____-_____
OPERATOR WELL NO. Evans 1213 N-3H
Well Pad Name: Evans 1213

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

1) Well Operator: HG Energy II Appalachia, L.P.

<u>494519932</u>	<u>Lewis</u>	<u>Freemans</u>	<u>Camden 7.5'</u>
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Operator ID County District Quadrangle

2) Operator's Well Number: Evans 1213 N-3H Well Pad Name: Evans 1213

3) Farm Name/Surface Owner: James & Suzanne Evans Public Road Access: Mare Run Rd at CR 10/9

4) Elevation, current ground: 1233' Elevation, proposed post-construction: 1227'

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

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 6709'/6791' and 82' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 6760'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 21,908'

11) Proposed Horizontal Leg Length: 14,135'

12) Approximate Fresh Water Strata Depths: 60', 136', 151', 200'

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-041-01847, 1786, 1233)

14) Approximate Saltwater Depths: None found

15) Approximate Coal Seam Depths: 220', 445', 650', 800', 805' (Surface casing is being extended to cover the coal in the DTI Storage 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: _____

18)

CASING AND TUBING PROGRAM

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	30"	New	LS	157.5	120'	120'	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1100'	1100'	CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2100'	2100'	CTS
Intermediate 2	9 5/8"	NEW	J-55 BTC	40	2900'	2900'	CTS
Production	5 1/2"	NEW	P-110 HP	23	21908'	21908'	CTS
Tubing							
Liners							

B.S. 1-26-21

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
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	3950		Type 1/Class A	Lead 40% excess, Tail 0% Excess Lead
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/Class A	20% excess yield = 1.10, tail yield 1.04
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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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 6760 feet. Drill horizontal leg to estimated 14,135' lateral length, 21,908' 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): 14.36 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.26 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 - 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.

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

Conductor - N/A, Casing to be drilled in w/ Dual Rotary Rig.
Fresh Water/Coal - 15.8 ppg PNE-1 + 3% bwoc CaCl, 40% Excess Yield = 1.20, CTS
Intermediate 1 - 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
Intermediate 2 - 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
Production - 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

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.

HG Energy II Appalachia, LLC
Evans 1213 Well Pad (N-1H, N-2H, N-3H, S-4H, S-5H, S-6H)
Cement Additives

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Portland cement</td> <td>90 - 100</td> <td>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.	<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		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>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 - 60</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 60	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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1213 N-3H
Marcellus Shale Horizontal
Lewis County, WV

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1213 N-3H SHL 14205092.26N 1778006.99E
1213 N-3H LP 14206207.27N 1779840.19E
1213 N-3H BHL 14219529.57N 1775132.59E

Ground Elevation

1227.6'

Azm

340.529°

WELLBORE DIAGRAM

HOLE CASING GEOLOGY TOP BASE MUD CEMENT CENTRALIZERS CONDITIONING COMMENTS

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, 800, 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	800	805					
			Fresh Water Protection	0	1100					
	17.5"	13-3/8" 68# J-55 BTC	Little Lime	1474	1494	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 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	1524	1594					
			Injun / Gantz (Storage)	1594 / 1866	1692 / 1926					
			Intermediate 1	0	2100					
	12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	1978 / 2075	1998 / 2102	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=3950 psi
			Gordon Stray / Gordon	2120 / 2156	2154 / 2232					
			5th Sand	2369	2409					
			Bayard / Warren	2449 / 2771	2479 / 2796					
	8.75" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Speechley	3076	3096	AIR / 9.0ppg SOBM	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note: Actual centralizer schedules may be changed due to hole conditions
			Balltown	3286	3346					
			Benson	4386	4411					
8.5" Curve	Rhinestreet		6009	6279	11.5ppg-12.5ppg SOBM					
	Cashaqua		6279	6379						
	Middlesex		6379	6411						
	West River		6411	6482						
	Burkett		6482	6492						
	Tully Limestone		6492	6600						
	Hamilton		6600	6753						
	Marcellus		6709	6791						
8.5" Lateral	TMD / TVD (Production)		21908	6760	11.5ppg-12.5ppg SOBM					
	Onondaga		6791							

LP @ 6760' TVD / 7773' MD

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

+/-14135' ft Lateral

TD @ +/-6760' TVD
+/-21908' MD

X=centralizers

HG Energy II Appalachia, LLC
List of Frac Additives by Chemical Name and CAS #
Evans 1213 Well Pad (N-1H to N-4H, S-5H to S-8H)

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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05/07/2021

WW-9
(4/16)

API Number 47 - 041 - 05719
Operator's Well No. Evans 1213 N-3H

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 _____)

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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Subscribed and sworn before me this 20th day of October, 2020

Cassidy Beach

Notary Public

My commission expires 7/31/2022



4704105719

Form WW-9

Operator's Well No. Evans 1213 N-3H

HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 14.36 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: Barry Stiths

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: Oil & Gas Inspector Date: 10-22-20

Field Reviewed? Yes No B.S. 1-26-21

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Cuttings Disposal/Site Water

Cuttings -Haul off Company:

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

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

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

Disposal Locations:

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

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

Sycamore Landfill Inc, Permit #R30-079001 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
Library, 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
Collfers, 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
304-455-3800

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

Energy Solutions Services, Inc. Permit # R-73006-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 203997
Dallas, TX 75320-3997

Nuverra Environmental Solutions
11942 Veterans Memorial Highway
Masontown, WV 26542

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

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

Disposal Locations:

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

Solidification/Incineration
Soil Remediation, Inc. Permit # 02-20753
6065 Arrel-Smith Road
Lowelville, 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 Commerce Drive
Moorestown, NJ 08057

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

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

Equipment Transport
1 Tyler Court
Carlisle, PA 17015

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

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

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

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

Kemble 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
2630 Exposition, Suite 117
Austin, TX 78703
512-478-6545

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

Goff SWD #1 (SWIW # 27)
Permit # 34-119-2-8776-000
300 Cherrington Pkwy, Suite 200
Coraopolis, PA 15108
412-329-7275

SOS D#1 (SWIW #12)
Permit # 34-059-2-4202-00-00
Silcor Oilfield Services, Inc.
2939 Hubbard Road
Youngstown, PH 44505

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

OH UIC #1 Bu keye UIC Barnesville 1 & 2
CNX Gas Company, LLC
1000 Consol Energy Drive
Permit # 34-013-2-0609-00-00
Permit # 34-013-2-0614-00-00
304-323-6568

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

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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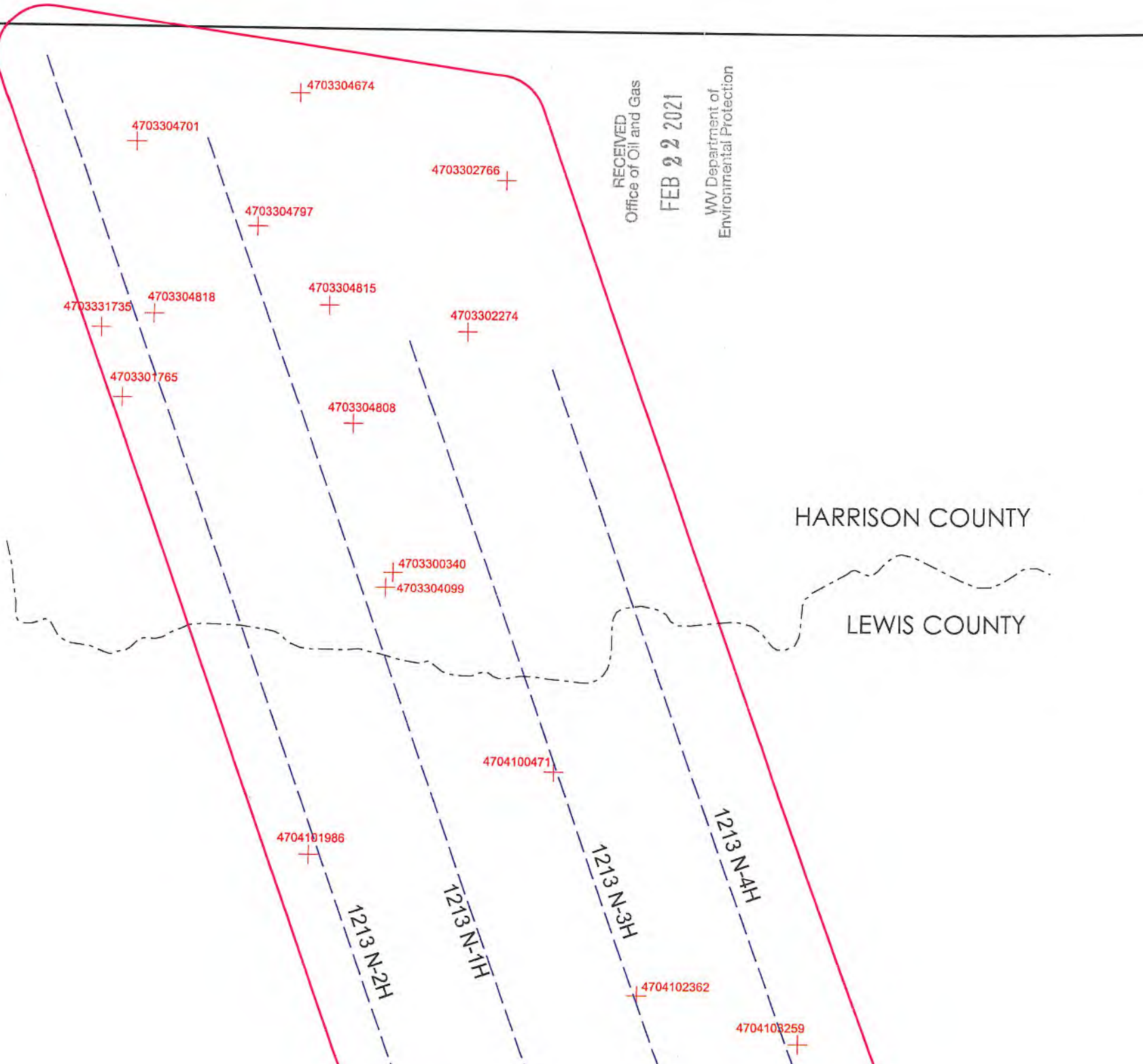
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05/07/2021



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HARRISON COUNTY

LEWIS COUNTY

4703304674

4703304701

4703302766

4703304797

4703304815

4703302274

4703331735

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4703301765

4703304808

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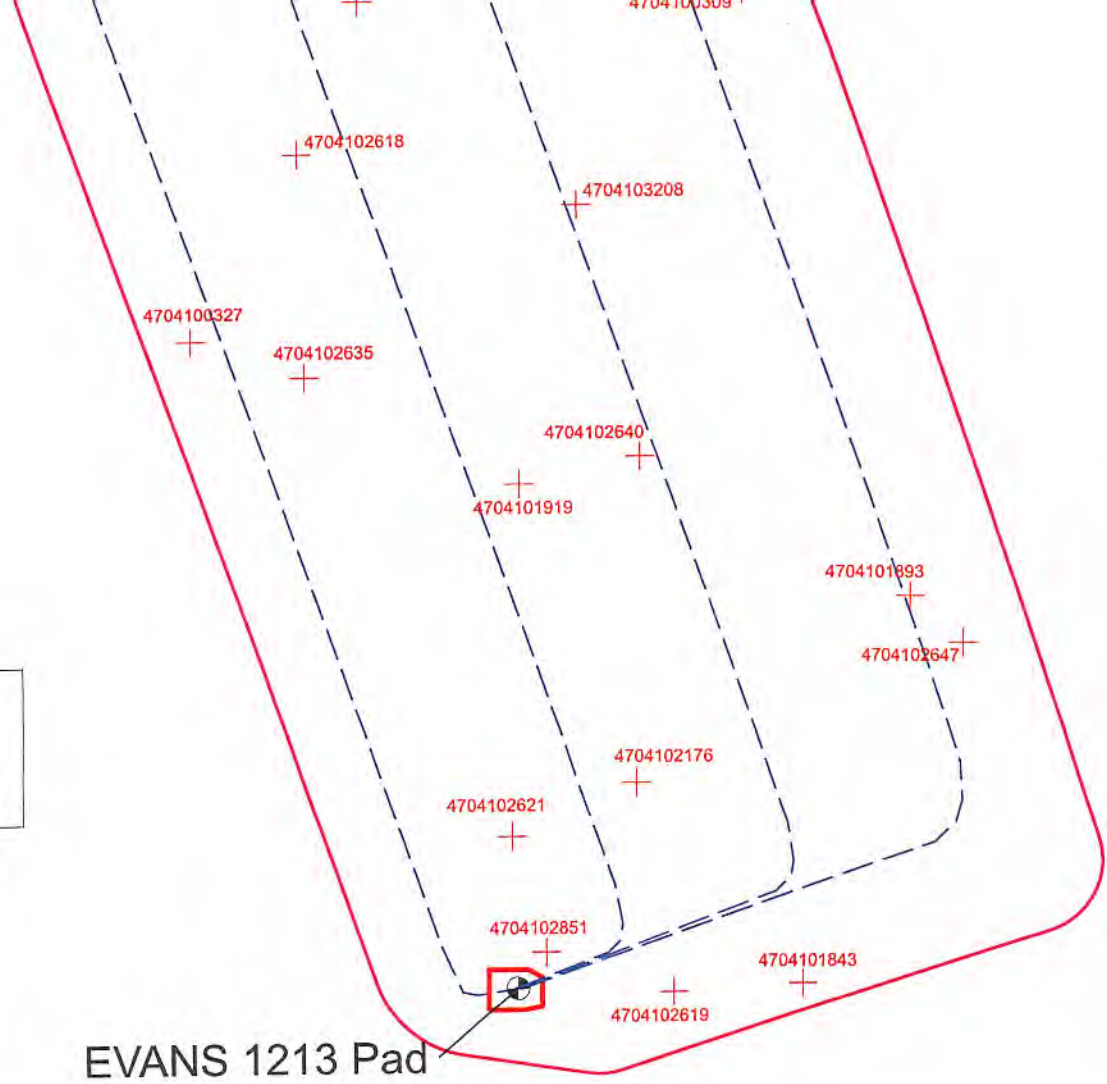
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1213-N-2H

1213-N-1H

1213-N-3H

1213-N-4H

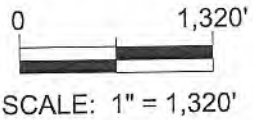


Well Key

4704102621 + Conventional Vertical Well

- - - Proposed Horizontal Marcellus Well

See Accompanying Spreadsheets



EVANS 1213 Pad

DATA SOURCES
WVGES Data Set - 2017; WVDEP Website

Area of Review for:

EVANS 1213 NORTH UNIT

- Proposed 1213 N-1H Proposed 1213 N-2H
- Proposed 1213 N-3H Proposed 1213 N-4H

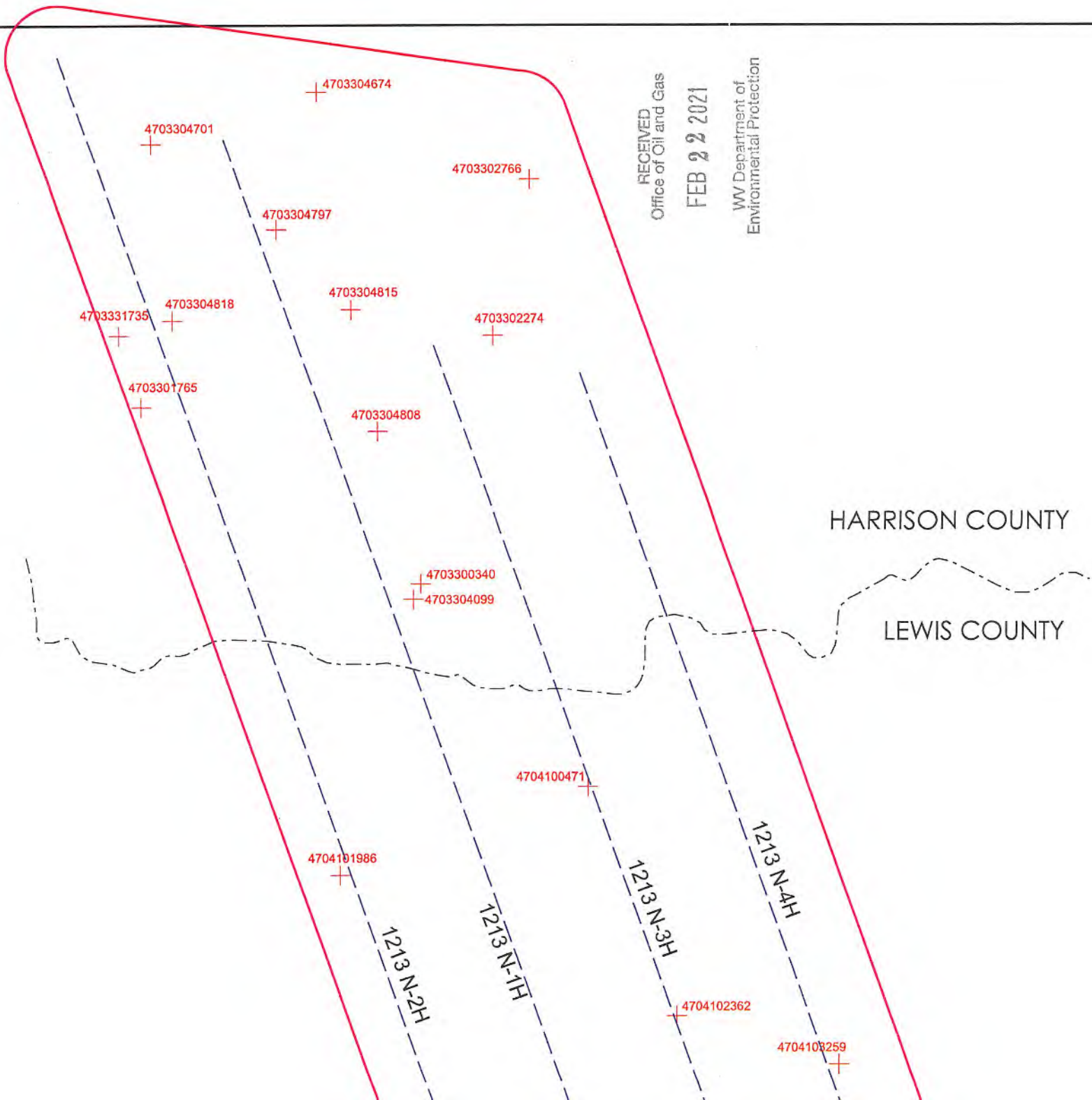
HG ENERGY, II APPALACHIA, LLC
5260 DuPont Road, Parkersburg, WV 26101



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

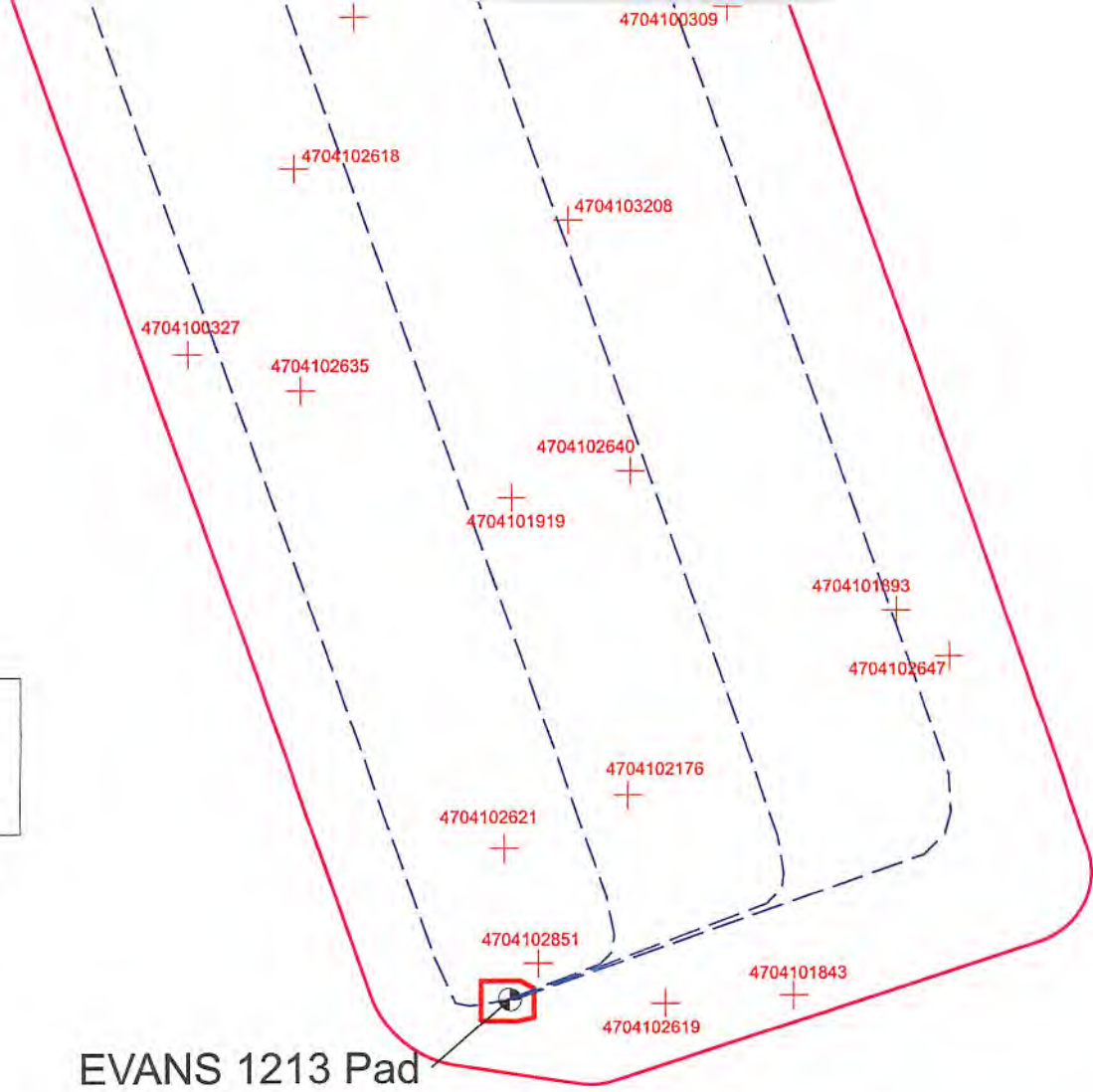


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HARRISON COUNTY

LEWIS COUNTY

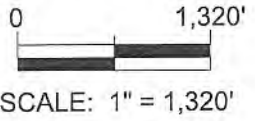


Well Key

4704102621
 Conventional Vertical Well

- Proposed Horizontal Marcellus Well

See Accompanying Spreadsheets



EVANS 1213 Pad

DATA SOURCES
 WVGES Data Set - 2017; WVDEP Website

Area of Review for:

EVANS 1213 NORTH UNIT

- Proposed 1213 N-1H Proposed 1213 N-2H
- Proposed 1213 N-3H Proposed 1213 N-4H

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

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



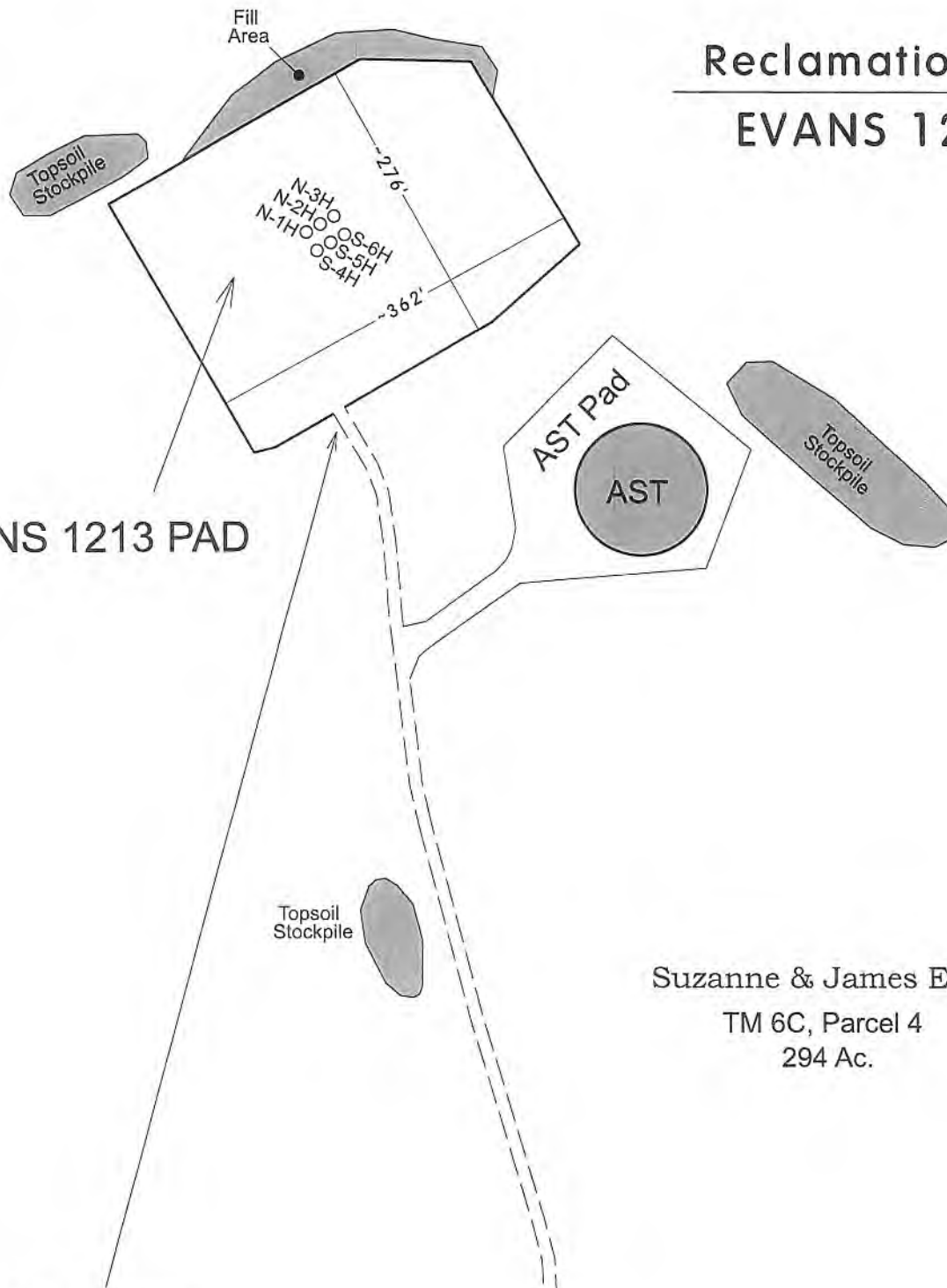
10/23/2020



John & Bertha
Benedum
TM 6C, Parcel 3.2
115 Ac.

EVANS 1213 PAD

~3,100' of Proposed



Reclamation Plan For: EVANS 1213 PAD

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Suzanne & James Evans
TM 6C, Parcel 4
294 Ac.

(See Construction
Plan for Detail)

Cynthia Sumpter
TM 5C, Parcel 42
9.5 Ac.

Topsoil
Stockpile

Cut
Area

Existing Road
to be Upgraded

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

Suzanne & James Evans
TM 6C, Parcel 4
294 Ac.

10
9

Mare Run Road

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.

**EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:
EVANS 1213 SOUTH UNIT AND PROPOSED WELLS S-5H, S-6H, S-7H & S-8H**

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4704100120	Lewis	J W Norris	Dominion Energy Transmission, Inc.	Big Injun (Grnbr)	Dry w/ Gas Show	1642	PLUGGED	39.089997	-80.498156
2	4704100211	Lewis	J S Morris	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2010	ACTIVE	39.115375	-80.503538
3	4704100287	Lewis	M C Burnside	Dominion Energy Transmission, Inc.	Fifth	Storage	2322	ACTIVE	39.112338	-80.512384
4	4704100441	Lewis	Pearl Stalnaker 1	UNKNOWN	Up Devonian	Gas	2440	ABANDONED	39.098698	-80.504468
5	4704100452	Lewis	Lyle Randolph et al	Diversified Resources, Inc.	Hampshire Grp	Gas w/ Oil Show	1885	ACTIVE	39.067474	-80.493864
6	4704100472	Lewis	J L J Bailey Heirs 1	Deran Resources, Inc.	Price Fm & equivs	Gas	1413	ACTIVE	39.070419	-80.488579
7	4704100477	Lewis	Judson Bailey 1	Law, David W.	Big Injun (Grnbr)	not available	-	ABANDONED	39.071500	-80.485059
8	4704100495	Lewis	S H Bailey 1	David Bowyer	Price Fm & equivs	Gas w/ Oil Show	1456	ACTIVE	39.084700	-80.495140
9	4704100503	Lewis	J J Bailey 2	Geo Energy, LLC	Price Fm & equivs	Gas w/ Oil Show	1385	ACTIVE	39.081831	-80.486044
10	4704100509	Lewis	V Green	LuRay Land, Inc.	Hampshire Grp	Dry w/ Gas Show	2629	PLUGGED	39.070954	-80.496657
11	4704100535	Lewis	S H Bailey 2	David Bowyer	Price Fm & equivs	Gas	1427	ACTIVE	39.083337	-80.493134
12	4704100554	Lewis	Douglas Butcher Hrs 1	Lippizan Petroleum, Inc.	Price Fm & equivs	Gas	1477	ACTIVE	39.081324	-80.488106
13	4704100567	Lewis	V Green	LuRay Land, Inc.	Undf PRICE blw INJN	Gas	1554	PLUGGED	39.066604	-80.493306
14	4704100605	Lewis	L Reger	Bower, Hall and Wetzal	Price Fm & equivs	Gas	1781	PLUGGED	39.090446	-80.490179
15	4704100665	Lewis	J L J Bailey Heirs 2	Deran Resources, Inc.	Price Fm & equivs	Gas	1481	ACTIVE	39.075325	-80.483775
16	4704100912	Lewis	T Lee Hudkins	Alliance Petroleum Co. LLC	Big Injun (Grnbr)	Gas	1536	ACTIVE	39.070727	-80.491227
17	4704101113	Lewis	Lester Linger	Alliance Petroleum Co. LLC	Big Injun (Grnbr)	Gas	1586	ACTIVE	39.069055	-80.485195
18	4704101287	Lewis	T L Hudkins	Charity Gas, Inc.	Undf PRICE blw INJN	Gas	1686	ABANDONED	39.079366	-80.492196
19	4704101582	Lewis	James R/Mary L Myers	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	4520	ACTIVE	39.091520	-80.491493
20	4704101604	Lewis	William J. Roff	Alliance Petroleum Co. LLC	Brallier	Gas	4300	ACTIVE	39.095839	-80.499322
21	4704101656	Lewis	James R. Myers	Alliance Petroleum Co. LLC	Benson	Gas	4226	ACTIVE	39.090080	-80.503268
22	4704101661	Lewis	James H Hall Trst	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4393	ACTIVE	39.097816	-80.508177
23	4704101707	Lewis	Abram Gaston	Dominion Energy Transmission, Inc.	Benson	Gas	4230	ACTIVE	39.104124	-80.502768
24	4704101745	Lewis	J W Kemper	Alliance Petroleum Co. LLC	Benson	Gas	4511	ACTIVE	39.084753	-80.502277
25	4704101760	Lewis	L E Gall	Dominion Energy Transmission, Inc.	Benson	Gas	4380	ACTIVE	39.108664	-80.507231
26	4704101786	Lewis	James Morrow Evans	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4450	ACTIVE	39.111007	-80.515806
27	4704101798	Lewis	J L Bailey Heirs	Ross & Wharton Gas Co., Inc.	Benson	Gas	4302	ACTIVE	39.075283	-80.482886
28	4704101799	Lewis	J L Bailey Heirs	James B. Lambert	Benson	Gas	4280	ABANDONED	39.072326	-80.488037
29	4704101830	Lewis	T Lee Hudkins 2	Greylock Conventional, LLC	Benson	Gas	4247	ACTIVE	39.075160	-80.492380
30	4704101834	Lewis	T Lee Hudkins 1	Greylock Conventional, LLC	Benson	Gas	4400	ACTIVE	39.078640	-80.498335
31	4704101839	Lewis	T Lee Hudkins 3	Greylock Conventional, LLC	Benson	Gas	4386	ACTIVE	39.078785	-80.492382
32	4704101841	Lewis	E L/M S Wolfe	Braxton Oil & Gas Corp.	Benson	Gas	4375	ACTIVE	39.067039	-80.487725
33	4704101843	Lewis	Tomas R Zinn etal	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4545	ACTIVE	39.115681	80.508049

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34	4704101872	Lewis	J W Norris	Alliance Petroleum Co. LLC	Oriskany	Gas	7425	ACTIVE	39.092249	-80.494135
35	4704101944	Lewis	Judson Bailey 2	Clem Energy LLC	Benson	Gas	4232	ACTIVE	39.072344	-80.483562
36	4704101976	Lewis	Judson Bailey 3	Clem Energy LLC	Benson	Gas	4381	ACTIVE	39.068988	-80.488601
37	4704102055	Lewis	Abram Gaston	Dominion Energy Transmission, Inc.	Benson	Gas	4125	ACTIVE	39.108099	-80.497903
38	4704102153	Lewis	Cassie G Smith 2	Alliance Petroleum Co. LLC	Benson	Gas	4403	ACTIVE	39.072344	-80.483562
39	4704102159	Lewis	W Reger	Greylock Conventional, LLC	Benson	Gas	4289	ACTIVE	39.070669	-80.494920
40	4704102307	Lewis	Suzanne Lynn Evans	Dominion Energy Transmission, Inc.	not available	Gas	-	PLUGGED	39.110100	-80.510566
41	4704102329	Lewis	Frank McKinley	Alliance Petroleum Co. LLC	Hampshire Grp	Gas	2153	ACTIVE	39.095653	-80.503351
42	4704102333	Lewis	L Gall	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2355	ACTIVE	39.109317	-80.508566
43	4704102334	Lewis	L E Gall	Dominion Energy Transmission, Inc.	Hampshire Grp	Gas	2281	ACTIVE	39.107746	-80.510473
44	4704102337	Lewis	M Hall	Dominion Energy Transmission, Inc.	Hampshire Grp	Gas	2318	ACTIVE	39.100322	-80.511015
45	4704102338	Lewis	J Norris	Alliance Petroleum Co. LLC	not available	not available	-	ACTIVE	39.095558	-80.496642
46	4704102351	Lewis	T Hudkins	Alliance Petroleum Co. LLC	not available	Gas	-	ACTIVE	39.07661	-80.500001
47	4704102365	Lewis	Abram Gaston	Dominion Energy Transmission, Inc.	Hampshire Grp	Gas	1868	PLUGGED	39.102759	-80.502235
48	4704102366	Lewis	A Gaston	Dominion Energy Transmission, Inc.	not available	Gas	-	ACTIVE	39.107701	-80.499824
49	4704102610	Lewis	L H Evans	Consolidated Gas Supply Corp.	Fifth	Dry w/ Gas Show	2270	ABANDONED	39.107979	-80.513775
50	4704102619	Lewis	J S Norris	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.115546	80.511162
51	4704102646	Lewis	Abram Gaston	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.112062	-80.505490
52	4704102687	Lewis	J Peter Bailey 1	Alliance Petroleum Co. LLC	Benson	Gas	4550	ACTIVE	39.087123	-80.499056
53	4704102851	Lewis	M C Burnside	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.116315	80.514242
54	4704103547	Lewis	John Butcher 1	Schultz Run Gas Co.	Benson	Gas w/ Oil Show	4602	ACTIVE	39.112062	-80.505490
55	4704103827	Lewis	Bernard B Jerden	OWS Acquisition Co. LLC	Brallier	Gas	5884	ACTIVE	39.106529	-80.513775
56	4704103923	Lewis	Steve Hall	Enervest Operating, LLC	Benson	Gas	4267	ACTIVE	39.087123	-80.499056
57	4704103988	Lewis	Charles Hall	Enervest Operating, LLC	Greenland Gap Fm	Gas	4532	ACTIVE	39.094268	-80.504483
58	4704103996	Lewis	William Roff	Enervest Operating, LLC	Greenland Gap Fm	Gas	4182	ACTIVE	39.096044	-80.493438
59	4704104022	Lewis	Thorne E Cayton	Enervest Operating, LLC	Greenland Gap Fm	Gas	4595	ACTIVE	39.089146	-80.495542
60	4704104047	Lewis	Thorne Cayton	Enervest Operating, LLC	Greenland Gap Fm	Gas	4353	ACTIVE	39.082554	-80.495047
61	4704104502	Lewis	Scott A Carpenter	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4520	ACTIVE	39.099886	-80.498265
62	4704104807	Lewis	James R Myers	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	4278	ACTIVE	39.092589	-80.499236
63	4704105077	Lewis	James R Myers	Alliance Petroleum Co. LLC	Alexander	Gas	4411	ACTIVE	39.087557	-80.505577
64	4704105208	Lewis	David Stanley McNemar	Alliance Petroleum Co. LLC	Misc Sands-BNSN/BRLR	Gas	4460	ACTIVE	39.073723	-80.498048
65	4704105209	Lewis	Charles F Sumpter	Alliance Petroleum Co. LLC	Misc Sands-BNSN/BRLR	Gas	4450	ACTIVE	39.075239	-80.488492
66	4704105519	Lewis	James H Hall Trust	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4410	ACTIVE	39.100372	-80.507320
67	4704105560	Lewis	National Timber Partners WV 2	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3518	ACTIVE	39.104323	-80.510122

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YELLOW DENOTES WELL WITH TVD > 4,500'

GREEN DENOTES SURVEYED WELLS

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

UPDATED 1/26/2021

4704105719

ON Q Drive 2/22/21

HG Energy II Appalachia, LLC

Site Safety Plan

**Evans 1213 Well Pad
368 Mare Run Road Weston
Lewis County, WV 26452**

August 2020: 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

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05/07/2021

Updated 9/14/2020

HG ENERGY II APPALACHIA, LLC

SCHOOL BUS BLACKOUT TIMES

WEST VIRGINIA:

MARSHALL AND OHIO COUNTY

DALLAS PIKE / NUMBER 2 RIDGE AREA (SHL, WEB)

6:00 AM to 8:30 AM Monday, Tuesday, Thursday, Friday

7:00 AM to 9:30 AM Wednesday

3:00 PM to 5:00 PM M-F

ROUND BOTTOM HILL / LINDSAY LANE / ROBERTS RIDGE / TAYLORS RIDGE / KANSAS RIDGE (MND 1,3,9, 20 & 99v)

6:30 AM to 8:00 AM Monday, Tuesday, Thursday, Friday

7:30 AM to 9:00 AM Wednesday

3:00 PM to 5:00 PM M-F

Fish Creek Road to MND 6

7:00 AM to 7:30 AM Monday, Tuesday, Thursday, Friday

8:00 AM to 8:30 AM Wednesday

3:30 PM to 4:00 PM M-F

IRISH RIDGE ROAD FROM INTERSECTION WITH US 250 TO SHL 27 PAD

7:00 AM to 7:30 AM Monday, Tuesday, Thursday, Friday

8:00 AM to 8:30 AM Wednesday

4:00 PM to 4:30 PM M-F

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HARRISON COUNTY AND LEWIS COUNTY

KST5,1209, 1210, AND 1211

TWO LICK ROAD (CR-19/18), GOOSEMAN RUN ROAD (CR-35), KINCHELOE RD (CR-1), JACKSON MILL RD (CR-12), and HOLLICK RUN ROAD (1/1)

7:00 AM to 8:30 AM M-F

2:30 PM to 4:00 PM M-F

1207 AND 1208

HIDDEN VALLEY ROAD (CR-19/20) – 1207 and 1208

7:30 AM to 8:30 AM M-F

2:30 PM to 3:30 PM M-F

1205 and 1206 PAD AND 1206-1207 PIPELINE

HARRISON COUNTY – LOST CREEK ROAD (CR-25), LONG RUN ROAD (CR-27/2), AND DUCK CREEK ROAD (CR-25/6). LEWIS COUNTY – MCWHORTER RD (CR-3)

7:15 AM – 8:00 AM M-F

1:30 PM – 3:00 PM M-F

1212 Pad and 1211-1213 PIPELINE

LEWIS COUNTY – (CR 12) Jackson Mill Rd, (CR 1) Old Mill Rd, (CR 10) Valley Chapel Rd

6:00 AM – 7:30 AM M-F

1:30 PM – 3:00 PM M-F

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05/07/2021

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PENNSYLVANIA:

WASHINGTON COUNTY

WFN 10 From Rt. 21 at Graysville (Ackley Creek Road, West Finely Road)

NOTE: NO CURFEW ON RT 21, BUT BUSES DO TRAVEL THIS ROUTE AND MAKE STOPS. INFORM DRIVERS TO USE CAUTION.

6:30 am to 7:30 am M-F

3:30 pm to 4:30 pm M-F

WFN 1, 3, 4, 5, 6

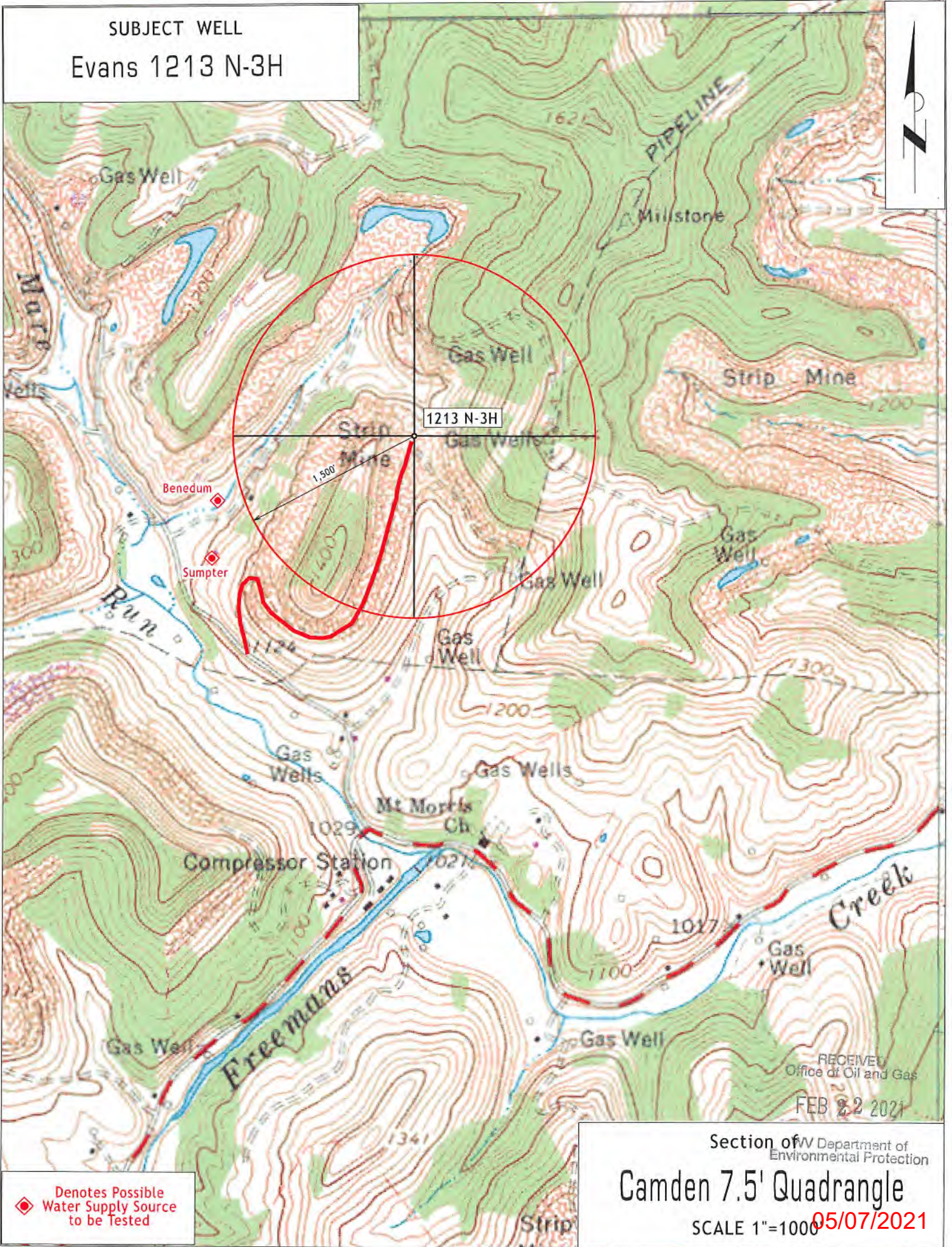
6:00 am to 8:30 am M-F

3:00 pm to 5:00 pm M-F

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FEB 22 2021
WV Department of
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05/07/2021

SUBJECT WELL
Evans 1213 N-3H



◆ Denotes Possible Water Supply Source to be Tested

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FEB 22 2021

Section of WV Department of Environmental Protection
Camden 7.5' Quadrangle
SCALE 1"=1000' 05/07/2021

HG Energy II Appalachia, LLC
Well No. Evans 1213 N-3H

Page 1 of 2

7,072' to Bottom Hole

4,278' to Top Hole

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

LONGITUDE 80 - 30 - 00
3,444' to Top Hole

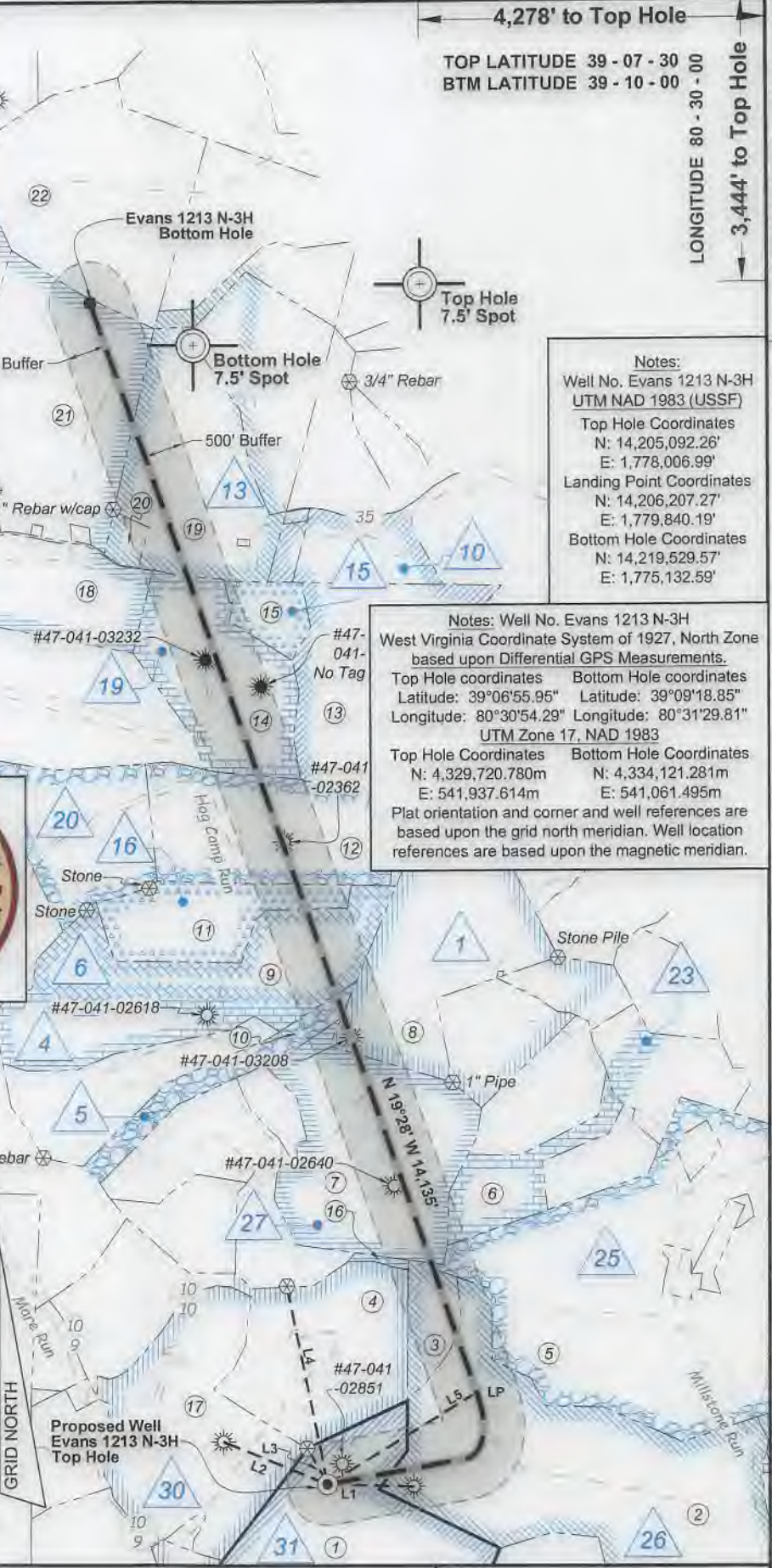
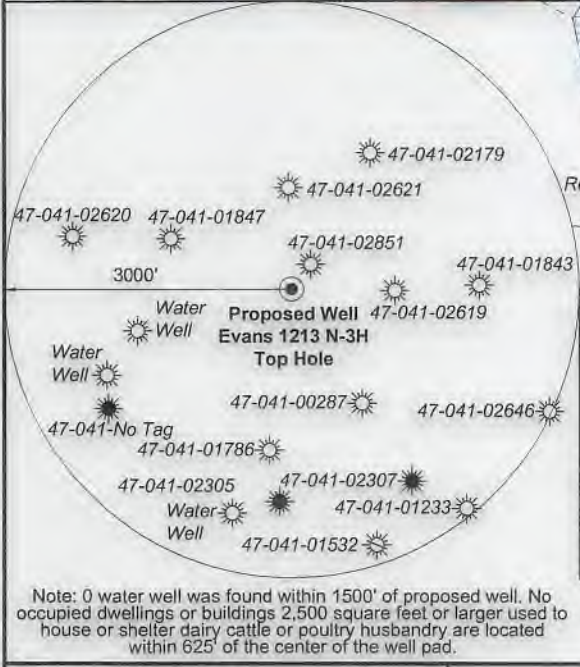
4,162' to Bottom Hole

Tag	Bearing	Dist.	Description
L1	N 88°34' W	1,059.6'	#47-041-02619
L2	S 67°50' E	1,377.2'	#47-041-01847
L3	S 29°36' E	504.0'	Gate Post
L4	S 11°40' E	2,468.1'	5/8" Rebar w/cap
L5	N 58°41' E	2,145.7'	Landing point



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. Evans 1213 N-3H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,205,092.26'
E: 1,778,006.99'
Landing Point Coordinates
N: 14,206,207.27'
E: 1,779,840.19'
Bottom Hole Coordinates
N: 14,219,529.57'
E: 1,775,132.59'

Notes: Well No. Evans 1213 N-3H
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Top Hole coordinates Latitude: 39°06'55.95" Longitude: 80°30'54.29" UTM Zone 17, NAD 1983
Bottom Hole coordinates Latitude: 39°09'18.85" Longitude: 80°31'29.81" UTM Zone 17, NAD 1983
Top Hole Coordinates N: 4,329,720.780m E: 541,937.614m
Bottom Hole Coordinates N: 4,334,121.281m E: 541,061.495m
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: 235-36-12-19
DRAWING NO: Evans 1213 N-3H 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: December 11 2020
OPERATOR'S WELL NO. Evans 1213 N-3H
API WELL NO. 47-041-05719
STATE COUNTY PERMIT

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

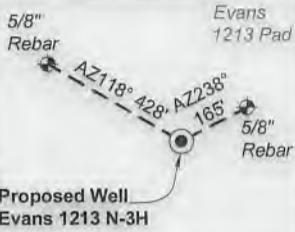
LOCATION: ELEVATION: 1,227.6' WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek
SURFACE OWNER: James M. & Suzanne L. Evans
ROYALTY OWNER: Mary C. Burnside, et al, et al LEASE NO: ACREAGE: 294.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 6,760' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,908' 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

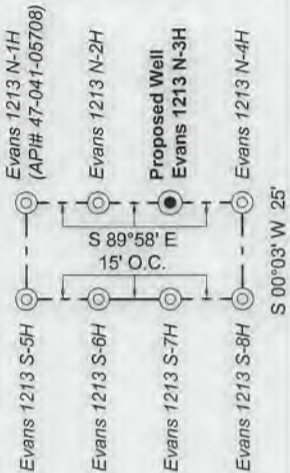


Well Location References
Not to Scale



ID	Lease
1	Carrie Dillin, et al
4	Ira L. Queen, et al
5	Will E. Morris, et al
6	Clara Queen, et vir, et al
10	W.H. Coffindaffer, et al
13	Robert T. Paugh, et al
14	Oma G. Hall, et al
15	E. Maxine Moffett, et al
16	Flodia B. Smith, et al
19	Robert J. Paugh, et al
20	W.T. Highland, et al
23	A.H. Reed, et al
25	Edwin Gaston, et al
26	J.S. Norris
27	Stephen Queen, et al
30	J.S. Hall, et ux
31	Mary C. Burnside, et al

Wellhead Layout (NTS)



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.)
- Adjoiner surface tracts (approx.)

Lewis Co. - Freeman Creek Dist.

No.	TM / Par	Owner	Bk / Pg	Ac.
1	6C / 4	Suzanne L. & James M. Evans, III	657 / 228	294.00
2	6C / 21	Clarence C. Thacker, et al	445 / 493	166.25
3	6C / 2	Phillip E. Burnside, et al	666 / 38	17.00
4	6C / 3	Phillip E. Burnside, et al	666 / 38	87.20
5	6C / 22	Mann Family Trust	617 / 608	265.19
6	6B / 11	Edward E. Garrett, et al	429 / 245	30.00
7	6B / 10	Michael Terrel Moss, et al	340 / 693	112.00
8	6B / 18	Berlin Family Irrevocable Trust	743 / 893	100.00
9	6B / 5	James C. Garrett, et al	621 / 578	136.00
10	6B / 6	James C. Garrett, et al	621 / 578	30.00
11	5B / 41	Michael J. Kirwan, III	720 / 812	51.00
12	6B / 4	Edward Earl Garrett, et al	429 / 245	92.50
13	6B / 3	Eric & Kathy Beevers	509 / 197	99.00
14	6B / 2	Edward & Theresa M. Paugh (L/E)	746 / 831	78.25
15	6B / 1	Edward & Theresa M. Paugh (L/E)	746 / 828	17.00
16	5C / 47	James C. Garrett, et al	621 / 578	1.50
17	6C / 3.2	John K. Burnside & Bertha F. Benedum	666 / 44	115.00

Harrison Co. - Union-Outside Dist.

No.	TM / Par	Owner	Bk / Pg	Ac.
18	442 / 8.3	William Coffindaffer, et ux (LE)	1585 / 819	114.79
19	442 / 9	Edward R. & Theresa M. Paugh	1419 / 648	90.49
20	442 / 9.2	John R. & Jennifer L. Paugh	1365 / 585	5.59
21	442 / 8	Mark J. Coffindaffer, et al	W160 / 415	119.78
22	422 / 33	Mark J. Coffindaffer, et al	W160 / 415	125.70

FILE NO: 235-36-12-19
DRAWING NO: Evans 1213 N-3H 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: December 11 2020
OPERATOR'S WELL NO. Evans 1213 N-3H
API WELL NO H44
47 - 041 - 05719
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,227.6' WATERSHED: Middle West Fork Creek

Btm: Big Isaac
Top: Camden
QUADRANGLE: Lewis
COUNTY: Lewis
ACREAGE: 294.00

DISTRICT: Freemans Creek
SURFACE OWNER: James M. & Suzanne L. Evans

ROYALTY OWNER: Mary C. Burnside, et al, et al

LEASE NO: ACREAGE: 294.00

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: 6,760' TVD
21,908' MD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

**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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**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 - Evans 1213 N-3H Lease Chains

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 WV Department of
 Environmental Protection

1213N Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE	
31	FK052229	03-005C-0043-0000 03-006C-0004-0000	Q100759000 053436 053307	MARY C. BURNSIDE AND JOHN L. BURNSIDE, HER HUSBAND	A. W. WOODFORD AND GEO. E. MCGUIRE	NOT LESS THAN 1/8	33	431	
				GEO. E. MCGUIRE	A. W. WOODFORD	ASSIGNMENT	Unrecorded	Unrecorded	
				A. W. WOODFORD	J. M. GUFFEY AND J. H. GALEY	ASSIGNMENT	33	515	
				J. M. GUFFEY AND J. H. GALEY	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	44	583	
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	THE PITTSBURGH AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379	
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	THE PITTSBURGH AND WEST VIRGINIA GAS COMPANY	DEED	125	371	
				THE PITTSBURGH AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	DEED	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	
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS		
					DOMINION ENERGY TRANSMISSION, INC.	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499	
					DOMINION ENERGY TRANSMISSION, INC.	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558	
	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220				
26	FK053129	03-006C-0021-0000 03-006C-0002-0000 03-006C-0019-0000	Q100767000	J. S. NORRIS	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	42	121	
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	122	
				HOPE NATURAL GAS COMPANY	RESERVE GAS COMPANY	ASSIGNMENT	79	370	
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	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	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	139	
				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	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
					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
						EDWIN GASTON AND LAURA L. GASTON, HUSBAND; CLARK GASTON AND IDA GASTON, HIS WIFE; W. GASTON AND SUSAN GASTON, HIS WIFE; I. V. GASTON	RESERVE GAS COMPANY	NOT LESS THAN 1/8	71
		RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	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	WVSOS				

25

FK053267

03-006B-0029-0000;
03-006B-0048-0000,
03-006C-0022-0000
Assessed as
03-006C-0022-0000,
03-006C-0022-0001,
03-006C-0058-0000,
03-006C-0061-0000

Q100387000/
FEEHGII0066

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	139
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	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
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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27

FK088078
FK053253

03-006B-0010-0000
p/o 03-006C-0003-0000

Q100485000

STEPHEN P. QUEEN AND V. C. QUEEN, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	68	297
RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	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	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	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	139
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

1

FK065437

03-006B-0018-0000,
03-006B-0015-000,
p/o 03-006B-0016-0000

Q102365000

CARRIE DILLIN, SINGLE; HARVEY DILLON, ATTORNEY-IN-FACT FOR: HAROLD DILLON, EDNA C. DILLON, HERBERT DILLON AND JANICE DILLON, HIS WIFE; HELEN DILLON BROWN AND CHARLES BROWN, HER HUSBAND; GLORIA DILLON, WIFE OF HARVEY DILLON	W. B. BERRY	NOT LESS THAN 1/8	386	369
W. B. BERRY	BERRY ENERGY CONSULTANTS & MANAGERS, INC.	ASSIGNMENT	398	561
BERRY ENERGY CONSULTANTS & MANAGERS, INC.	J & J ENTERPRISES, INC	ASSIGNMENT	688	669
J & J ENTERPRISES, INC	EASTERN AMERICAN ENERGY CORPORATION	CONFIRMATORY DEED	479	154
EASTERN AMERICAN ENERGY CORPORATION	ENERGY CORPORATION OF AMERICA	CONFIRMATORY DEED	641	184
ENERGY CORPORATION OF AMERICA	CNX GAS COMPANY LLC	PARTIAL TERM ASSIGNMENT	697	320
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	684	57
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
ENERGY CORPORATION OF AMERICA	Greylock Production, LLC	ASSIGNMENT	725	53
Greylock Production, LLC	HG ENERGY II APPALACHIA, LLC	PARTIAL TERM ASSIGNMENT	763	368

5

FK061784

03-006B-0004-0000
03-005B-0036-0000

Q100356000

WILL E. MORRIS AND CAMELLA MORRIS, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	209	432
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	139
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	

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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	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
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
IRA L. QUEEN AND EFFIE QUEEN	FRED RICH	NOT LESS THAN 1/8	40	110
T.N. BARNSDALL, SOUTHERN OIL COMPANY, FRED S. RICH, AND W.S. MOWRIS	RESERVE GAS COMPANY	ASSIGNMENT	85	106
HOPE NATURAL GAS COMPANY AND RESERVE GAS COMPANY	CRUDE OIL COMPANY	ASSIGNMENT	55	456
CRUDE OIL COMPANY	HOPE NATURAL GAS COMPANY AND RESERVE GAS COMPANY	ASSIGNMENT	55	315
RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	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		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	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
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
CLARA E. QUEEN AND G. L. QUEEN, HER HUSBAND; L. EARL GARRETT AND VIRGINIA G. GARRETT, HIS WIFE; JOHN E. GARRETT, SINGLE; JOSEPH R. GARRETT AND RUTH G. GARRETT, HIS WIFE; CHARLES M. GARRETT, JR. AND HILDA W. GARRETT, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	213	275
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
FLODIA B. SMITH AND D. I. SMITH, HER HUSBAND; W. H. OLDAKER AND FREEDA OLDAKER, HIS WIFE; AND, EDITH W. WESTFALL AND CHARLES E. WESTFALL, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	216	317
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

4	FK053127	p/o 03-006B-0005-0000 p/o 03-006B-0039-0000	Q100382000
6	FK062406	p/o 03-006B-0005-0000	Q100939000

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16	FK062946	03-005B-0041-0000	Q100941000	DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC. DOMINION TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC. NOBLE ENERGY, INC. HG ENERGY II APPALACHIA, LLC DOMINION ENERGY TRANSMISSION, INC. HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC	PARTIAL ASSIGNMENT (32%) ASSIGNMENT ASSIGNMENT MERGER/NAME CHANGE SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT AMENDED AND RESTATED PARTIAL ASSIGNMENT THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT ASSIGNMENT (68%)	712 717 722 WVSOS 723 723 734 736	848 1 139 499 527 558 220
20	FK053261	03-006B-0004-0000 03-005B-0036-0000	Q100487000	W. T. HIGHLAND AND DESSIE HIGHLAND, HIS WIFE; G. B. HIGHLAND; HATTIE THOMPSON AND ARTHUR THOMPSON, HER HUSBAND; HOMER HIGHLAND AND LILLIE HIGHLAND, HIS WIFE; AND, CARRIE HIGHLAND RESERVE GAS COMPANY RESERVE GAS COMPANY HOPE NATURAL GAS COMPANY HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CNG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC. NOBLE ENERGY, INC. DOMINION TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC.	RESERVE GAS COMPANY HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CNG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC. NOBLE ENERGY, INC. HG ENERGY II APPALACHIA, LLC DOMINION ENERGY TRANSMISSION, INC. HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8 ASSIGNMENT CONFIRMATORY DEED ASSIGNMENT MERGER/NAME CHANGE MERGER/NAME CHANGE MEMORANDUM OF FARMOUT AGREEMENT LIMITED PARTIAL ASSIGNMENT (50%) PARTIAL ASSIGNMENT (32%) ASSIGNMENT ASSIGNMENT MERGER/NAME CHANGE SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT ASSIGNMENT (68%)	65 155 294 425 WVSOS WVSOS 672 684 712 717 722 WVSOS 723 734 736	335 202 89 127 154 57 848 1 170 499 558 220
19	FK065220	p/o 03-006B-0002-0000	Q100726000	ROBERT J. PAUGH AND ETHEL RUTH PAUGH, HIS WIFE HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CNG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC. NOBLE ENERGY, INC. DOMINION TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC.	HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CNG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC. CNX GAS COMPANY LLC AND NOBLE ENERGY NOBLE ENERGY, INC. HG ENERGY II APPALACHIA, LLC DOMINION ENERGY TRANSMISSION, INC. HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8 CONFIRMATORY DEED ASSIGNMENT MERGER/NAME CHANGE MERGER/NAME CHANGE MEMORANDUM OF FARMOUT AGREEMENT LIMITED PARTIAL ASSIGNMENT (50%) PARTIAL ASSIGNMENT (32%) ASSIGNMENT ASSIGNMENT MERGER/NAME CHANGE SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT ASSIGNMENT (68%)	227 294 425 WVSOS WVSOS 672 684 712 717 722 WVSOS 723 734 736	302 89 127 154 57 848 1 170 499 558 220
13	FK065217	20-0442-0009-0000 20-0442-0009-0001 20-0442-00090002 p/o 20-0442-0010-0000 p/o 20-0442-0034- 0001	Q100724000	ROBERT T. PAUGH AND THEODOSIA F. PAUGH, HIS WIFE HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CNG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. DOMINON TRANSMISSION, INC. CNX GAS COMPANY LLC DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC.	HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CNG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC. CNX GAS COMPANY LLC AND NOBLE ENERGY, INC. NOBLE ENERGY, INC. HG ENERGY II APPALACHIA, LLC DOMINION ENERGY TRANSMISSION, INC. HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8 CONFIRMATORY DEED ASSIGNMENT MERGER/NAME CHANGE MERGER/NAME CHANGE MEMORANDUM OF FARMOUT AGREEMENT FIRST AMENDMENT OF FARMOUT AGREEMENT LIMITED PARTIAL ASSIGNMENT (50%) PARTIAL ASSIGNMENT (32%) ASSIGNMENT ASSIGNMENT	740 903 1136 51 58 1522 1524 1543 1576 1584 1600	31 179 250 795 362 33 491 1235 125 942 692

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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	1601	581
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	1637	1081
				OMA G. HALL, SINGLE; MARIE P. HALL, WIDOW; EVELYN H. TAYLOR, WIDOW; BERTHA H. MILLER AND A.D. MILLER, HER HUSBAND; CHARLES R. HALL, SINGLE; HELEN M. HALL, SINGLE; PAMELA H. SHANKLIN AND WM. M. SHANKLIN, JR., HER HUSBAND; GERTRUDE BEALL AND BLAIR B. BEALL, HER HUSBAND; HELEN MCCOY, SINGLE; AND, ADA B. HALL, WIDOW	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	1032	683
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG DEVELOPMENT COMPANY	ASSIGNMENT	1143	921
				CNG DEVELOPMENT COMPANY	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1169	820
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	692
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581
				DOMINION TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	1637	1081
14	FK097991	20-0442-0007-0000 20-0442-0007-0001 20-0442-0007-0002 20-0442-0008-0000 20-0442-0008-0001 20-0442-0008-0003 20-0422-0032-0000	Q100844000 FEEHGII0055					



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

4704105719

January 27, 2021

Kelly Kees
WV DEP
Division of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Drilling Under Roads – Evans 1213 N-3H
Freemans Creek District, Lewis County
West Virginia

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Office of Oil and Gas

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WV Department of
Environmental Protection

Dear Ms. Kees:

HG Energy II Appalachia, LLC, is submitting the attached application for a new well work permit for the Evans 1213 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 Evans 1213 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

05/07/2021

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

Date of Notice Certification: 01/27/2021

API No. 47- _____
 Operator's Well No. Evans 1213 N-3H
 Well Pad Name: Evans 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>541937.6</u>
County: <u>Lewis</u>	Northing: <u>4329720.8</u>
District: <u>Freemans Creek</u>	Public Road Access: <u>Mare Run Road / CR 109</u>
Quadrangle: <u>Big Isaac WV 7.5's Camden</u>	Generally used farm name: <u>Evans</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.

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: *PLEASE CHECK ALL THAT APPLY		OOG OFFICE USE ONLY
<input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED		<input type="checkbox"/> RECEIVED/ NOT REQUIRED
<input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED		<input type="checkbox"/> RECEIVED
<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 <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)		<input type="checkbox"/> RECEIVED/ NOT REQUIRED
<input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION	RECEIVED Office of Oil and Gas	<input type="checkbox"/> RECEIVED
<input checked="" type="checkbox"/> 5. PUBLIC NOTICE	FEB 22 2021	<input type="checkbox"/> RECEIVED
<input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION	WV Department of Environmental Protection	<input type="checkbox"/> RECEIVED

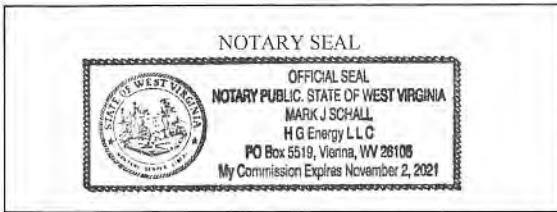
Required Attachments:

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

Certification of Notice is hereby given:

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

Well Operator:	<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 27th day of January, 2021.

Mark J. Schall Notary Public

My Commission Expires 11/2/2021

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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WV Department of
Environmental Protection

WW-6A
(9-13)

API NO. 47- -
OPERATOR WELL NO. Evans 1213 N2H-SBH
Well Pad Name: Evans 1213

DE

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: 02/11/21 **Date Permit Application Filed:** 02/21/2021

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)
 Name: Suzanne & James Evans (pad, road, water) ✓
 Address: 1064 38th Street
Parkersburg, WV 26104

Name: _____
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____
 Address: _____

Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: NA
 Address: _____

COAL OPERATOR
 Name: NA
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: _____
 Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: Dominion Energy Transmission - Attn: Ronald Waldren ✓
 Address: 925 White Oaks Blvd
Bridgeport, WV 26330

*Please attach additional forms if necessary

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WV Department of
Environmental Protection

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 or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Office of Oil and Gas
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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- 041 - 05719
OPERATOR WELL NO. Evans 1213 N2H-S8H
Well Pad Name: Evans 1213

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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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.**

WV Department of
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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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WW-6A
(8-13)

API NO. 47- 41 - 05719
OPERATOR WELL NO. Evans 1213 N2H-S8H
Well Pad Name: Evans 1213

Notice is hereby given by:

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

Address: 5260 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-863-2172

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 11th day of February, 2021.

Cassidy Boardman Notary Public

My Commission Expires 7/31/2022

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05/07/2021

Evans 1213

4704105719

Sturn Environmental Services

VICTORIA L. HOOPS, PRESIDENT

COMPANY: H.G. ENERGY, LLC.
SAMPLE ID: EVANS WELL #1
SAMPLED BY: L. GARLITZ

DATE/TIME SAMPLED: 10-20-20 1430
DATE/TIME RECEIVED: 10-20-20 1400
LABORATORY ID: HGE 201020-1

PARAMETER	TEST RESULTS	UNITS	METHOD	METHOD DETECTION LIMIT	MINIMUM REPORTING LIMIT	DATE/TIME ANALYZED	ANALYST
FIELD pH	7.4	units				10-20-20 1430	LG
FIELD TEMP	15.8	°C				10-20-20 1430	LG
FIELD COND	485	µmhos				10-20-20 1430	LG
pH O	6.8	units	SM 22 nd 4500 H B	.1	2.-10.	10-21-20 1117	HN
Fe	5.11	mg/L	EPA 200.7 Rev 4.4-1994	.05	.25	10-22-20 1523	DB
TDS	267	mg/L	USGS I-1750-85	4	4	10-21-20 2241	EK
Cl ⁻	5.70	mg/L	EPA 300.0 Rev 2.1-1993	1.0	1.0	10-22-20 2244	DC
MBAS	U	mg/L	SM22 nd 5540C	.02	.04	10-21-20 2126	SW

*Client Provided
**See Attached. The following results meet or exceed requirements and standards set forth by the certifying authority except where noted.

- Data Qualifiers
- B Analyte found in reagent blank. Indicates possible reagent or background contamination.
 - E Estimated Reported value exceeded calibration range.
 - J Reported value is an estimate because concentration is less than reporting limit.
 - PND Precision not determined.
 - R Sample results rejected because of gross deficiencies in QC or method performance. Re-sampling and or re-analysis is necessary.
 - RND Recovery not determined.
 - U Compound was analyzed for, but not detected.
 - O Out of holding. Time does not meet 40 CFR 136/141 compliance.
 - T This result is not supported by our certification ID.
 - A Does not meet 40 CFR 136/141 compliance.
 - C Does not meet 47 CSR 32 compliance.

Narrative:

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WV Department of
Environmental Protection

Approved *Douglas H. Bonds*

05/07/2021

Sturm Environmental Services

VICTORIA L. HOOPS, PRESIDENT

COMPANY: H.G. ENERGY, LLC.
 SAMPLE ID: EVANS WELL #2
 SAMPLED BY: L. GARLITZ

DATE/TIME SAMPLED: 10-20-20 1445
 DATE/TIME RECEIVED: 10-20-20 1400
 LABORATORY ID: HGE 201020-2

PARAMETER	TEST RESULTS	UNITS	METHOD	METHOD DETECTION LIMIT	MINIMUM REPORTING LIMIT	DATE/TIME ANALYZED	ANALYST
FIELD pH	7.5	units				10-20-20 1445	LG
FIELD TEMP	15.5	°C				10-20-20 1445	LG
FIELD COND	628	µmhos				10-20-20 1445	LG
pH O	7.0	units	SM 22 nd 4500 H B	.1	2.-10.	10-21-20 1117	HN
Fe	.39	mg/L	EPA 200.7 Rev 4.4-1994	.05	.25	10-22-20 1523	DB
TDS	353	mg/L	USGS 1-1750-85	4	4	10-21-20 2241	EK
Cl ⁻	4.20	mg/L	EPA 300.0 Rev 2.1-1993	1.0	1.0	10-22-20 2244	DC
MBAS	U	mg/L	SM22 nd 5540C	.02	.04	10-21-20 2126	SW

*Client Provided

**See Attached. The following results meet or exceed requirements and standards set forth by the certifying authority except where noted.

Data Qualifiers

- B Analyte found in reagent blank. Indicates possible reagent or background contamination.
- E Estimated Reported value exceeded calibration range.
- J Reported value is an estimate because concentration is less than reporting limit.
- PND Precision not determined.
- R Sample results rejected because of gross deficiencies in QC or method performance. Re-sampling and or re-analysis is necessary.
- RND Recovery not determined.
- U Compound was analyzed for, but not detected.
- O Out of holding. Time does not meet 40 CFR 136.141 compliance.
- T This result is not supported by our certification ID.
- A Does not meet 40 CFR 136.141 compliance.
- C Does not meet 47 CSR 32 compliance.

Narrative:

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 Environmental Protection

Approved *Douglas H. Bonds*

05/07/2021

Sturm Environmental Services

VICTORIA L. HOOPS, PRESIDENT

COMPANY: H.G. ENERGY, LLC.

DATE TIME SAMPLED: 10-20-20 1250

SAMPLE ID: HAUGHT

DATE TIME RECEIVED: 10-20-20 1400

SAMPLED BY: L. GARLITZ

LABORATORY ID: HGE 201020-3

PARAMETER	TEST RESULTS	UNITS	METHOD	METHOD DETECTION LIMIT	MINIMUM REPORTING LIMIT	DATE TIME ANALYZED	ANALYST
FIELD pH	7.1	units				10-20-20 1250	LG
FIELD TEMP	16.2	°C				10-20-20 1250	LG
FIELD COND	449	µmhos				10-20-20 1250	LG
pH O	7.1	units	SM 22 nd 4500 H B	.1	2.-10.	10-21-20 1117	HN
Fe	U	mg/L	EPA 200.7 Rev 4.4-1994	.05	.25	10-22-20 1523	DB
TDS	252	mg/L	USGS 1-1750-85	4	4	10-21-20 2241	EK
Cl ⁻	14.1	mg/L	EPA 300.0 Rev 2.1-1993	1.0	1.0	10-22-20 2244	DC
MBAS	U	mg/L	SM22 nd 5540C	.02	.04	10-21-20 2126	SW

*Client Provided

**See Attached. The following results meet or exceed requirements and standards set forth by the certifying authority except where noted.

Data Qualifiers

- B Analyte found in reagent blank. Indicates possible reagent or background contamination.
- E Estimated Reported value exceeded calibration range.
- J Reported value is an estimate because concentration is less than reporting limit.
- PND Precision not determined.
- R Sample results rejected because of gross deficiencies in QC or method performance. Re-sampling and or re-analysis is necessary.
- RND Recovery not determined.
- U Compound was analyzed for, but not detected.
- O Out of holding. Time does not meet 40 CFR 136.141 compliance.
- T This result is not supported by our certification ID.
- A Does not meet 40 CFR 136/141 compliance.
- C Does not meet 47 CSR 32 compliance.

Narrative:

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Environmental Protection

Approved

Douglas H. Bando

139 1065 20


CHAIN OF CUSTODY RECORD

STURM ENVIRONMENTAL SERVICES

STURM ENVIRONMENTAL
BRUSHY FORK ROAD
BRIDGEPORT, WV 26330
PHONE: 304-623-6549
FAX: 304-623-6552

STURM ENVIRONMENTAL SERVICES
610 D STREET
SO. CHARLESTON, WV 25303
PHONE: 304-744-9864
FAX: 304-744-7866

MAILING ADDRESSES ARE LISTED BELOW

REPORT TO: Client Name: HG ENERGY
Address: _____
City/State/Zip: _____
Contact Person: _____
Telephone Number: _____
Email Address: _____
Sampler Name: (Print) LARRY GARLITZ
Sampler Signature: 
Project Name: _____
Special Reporting: Email Results Fax Results

BILL TO: Client Name: _____
Address: _____
City/State/Zip: _____
Contact Person: _____
Telephone Number: _____ FAX _____
Email Address: _____
Purchase Order #: _____
TURN AROUND TIME: _____ Standard
_____ RUSH (pre-scheduled; surcharges may apply) *Please Check One*

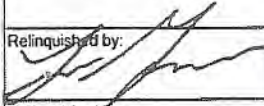
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PG 4 OF 8
WV Department of Environmental Protection

1 DAY 2 DAY 3 DAY

Sample ID / Description	COMPOSITE SAMPLE				GRAB SAMPLE		PRESERVATIVE						MATRIX				ANALYZE FOR:													
	START DATE	START TIME	END DATE	END TIME	DATE	TIME	Ice	OTHER	HCl	NaOH	H ₂ SO ₄ Plastic	H ₂ SO ₄ Glass	None	HNO ₃	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	PreDrill	FREQUENCY	# of Bottles	Field pH	Flow (gpm, cfs, mgd) circle one	Field Conductivity	Field DO	Field Chlorine (mg/L or ug/L) circle one	Field Temp (F° or C°) circle one	
Evans (w-1)					10/20/20	230 pm	X																	3	7.4		485			15.8
Evans (w-2)					10/20/20	245 pm																		3	7.5		628			15.5
Evans (w-3)					10/20/20	300 pm																		0	.					

Comments

Records retained for 5 years

Relinquished by: 	Date: 10/20/2020	Time: 1400	Received by: <u>LL</u>	Date: 10/20/20	Time: 1400
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Laboratory Comments:
Temperature Upon Receipt: _____
Bottles Preserved? 56
N
• pump not working, no access to well

CHAIN OF CUSTODY RECORD

STURM ENVIRONMENTAL SERVICES

STURM ENVIRONMENTAL
BRUSHY FORK ROAD
BRIDGEPORT, WV 26330
PHONE: 304-623-6549
FAX: 304-623-6552


STURM ENVIRONMENTAL SERVICES
610 D STREET
SO. CHARLESTON, WV 25303
PHONE: 304-744-9864
FAX: 304-744-7866

MAILING ADDRESSES ARE LISTED BELOW

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PG 10

WV Department of Environmental Protection

REPORT TO: Client Name: HG ENERGY
Address: _____
City/State/Zip: _____
Contact Person: _____
Telephone Number: _____
Email Address: _____
Sampler Name: (Print) LARRY GARLITZ
Sampler Signature: 
Project Name: _____
Special Reporting: Email Results Fax Results

BILL TO: Client Name: _____
Address: _____
City/State/Zip: _____
Contact Person: _____
Telephone Number: _____ FAX _____
Email Address: _____
Purchase Order #: _____

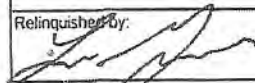
TURN AROUND TIME: Standard RUSH (pre-scheduled; surcharges may apply) *Please Check One*

Date Needed
 1 DAY 2 DAY 3 DAY

Sample ID / Description	COMPOSITE SAMPLE			GRAB SAMPLE		PRESERVATIVE						MATRIX				ANALYZE FOR:																		
	START DATE	START TIME	END DATE	END TIME	DATE	TIME	Ice	OTHER	HCl	NaOH	H ₂ SO ₄ , Plastic	H ₂ SO ₄ , Glass	None	HNO ₃	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Predrill	FREQUENCY					# of Bottles	Field pH	Flow (gpm, cfs, mgd) circle one	Field Conductivity	Field DO	Field Chlorine (mg/L or ug/L) circle one	Field Temp (F° or C°) circle one	
Haght (w)					10/20/20	1250 pm	X														X						3	7.1		449			16.2	

Comments

Records retained for 5 years

Relinquished by: 	Date	Time	Received by: <u>LL</u>	Date	Time
	10/20/2020			10/20/20	
Relinquished by:	Date	Time	Received by:	Date	Time

Laboratory Comments:
Temperature Upon Receipt: 26
Bottles Preserved? 0

N

WW-6A4
(1/12)

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: 02/10/2021 **Date Permit Application Filed:** 02/20/2021

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

HAND DELIVERY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

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

Name: Suzanne & James Evans

Address: 1064 38th Street

Parkersburg, WV 26104

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:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>541933.0</u>
County:	<u>Lewis</u>		Northing:	<u>4329720.8</u>
District:	<u>Freemans Creek</u>	Public Road Access:	<u>Mare Run Road/CR 10/9</u>	
Quadrangle:	<u>Big Lick WV 7.5' Camden</u>	Generally used farm name:	<u>Evans</u>	
Watershed:	<u>Middle West Fork Creek</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 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

Facsimile: 304-863-3172

Authorized Representative: Diane White *Diane White*

Address: 5260 Dupont Road

Parkersburg, WV 26101

Telephone: 304-420-1119

Email: dwhite@hgenergyllc.com

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.

Office of Oil and Gas

FEB 22 2021

WV Department of
Environmental Protection
05/07/2021

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: 02/11/2021 Date Permit Application Filed: 02/21/2021

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)

(at the address listed in the records of the sheriff at the time of notice):

Name: <u>Suzanne & James Evans</u>	Name: _____
Address: <u>1064 38th Street</u>	Address: _____
<u>Parkersburg, WV 26104</u>	_____

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>541933.0</u>
County: <u>Lewis</u>		Northing: <u>4329720.8</u>
District: <u>Freemans Creek</u>	Public Road Access: <u>Mare Run Road / CR 10/9</u>	
Quadrangle: <u>Big Isaac WV 7.5 Camden</u>	Generally used farm name: <u>Evans</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: <u>HG Energy II Appalachia, LLC</u>	Address: <u>5260 Dupont Road</u>
Telephone: <u>304-420-1119</u>	<u>Parkersburg, WV 26101</u>
Email: <u>dwhite@hgenergyllc.com</u>	Facsimile: <u>304-883-3172</u>

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.

RECEIVED
Office of Oil and Gas
FEB 22 2021
WV Department of Environmental Protection
05/07/2021



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Byrd E. White, III
Secretary of Transportation/
Commissioner of Highways

October 2, 2020

Jimmy Wriston, P. E.
Deputy Secretary/
Deputy Commissioner

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 Evans 1213 Pad, Lewis County
Evans 1213 N-3H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #07-2020-0314 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 0.38.

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.

Very Truly Yours,

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

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

RECEIVED
Office of Oil and Gas

FEB 22 2021

WV Department of
Environment **05/07/2021**

HG Energy II Appalachia, LLC
List of Frac Additives by Chemical Name and CAS #
Evans 1213 Well Pad (N-1H to N-4H, S-5H to S-8H)

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

RECEIVED
Office of Oil and Gas

FEB 22 2021

WV Department of
Environmental Protection

05/07/2021

CONSTRUCTION IMPROVEMENT PLANS WITH EROSION AND SEDIMENT CONTROLS HG 1213 WELL PAD

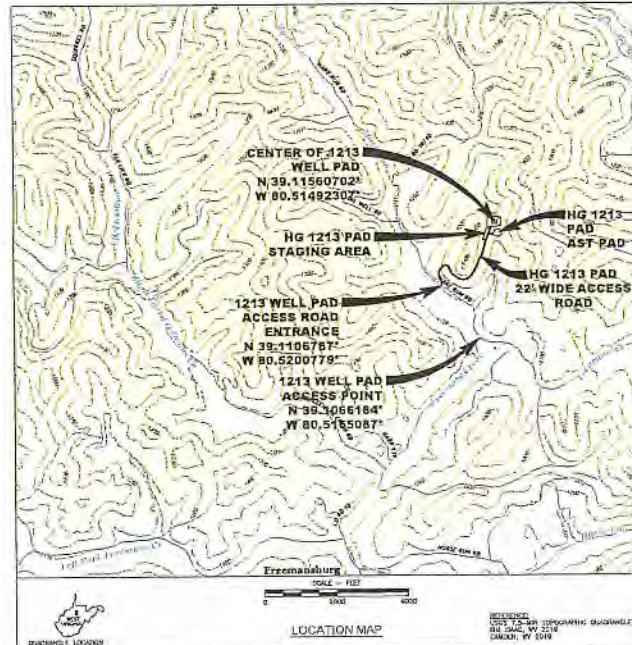


SHT. NO.	SHEET TITLE
1	TITLE SHEET
2A-2D	SITE DEVELOPMENT PLANS
3	WELL PAD SECTIONS
4A-4B	ACCESS ROAD SECTIONS
5A-5F	CONSTRUCTION NOTES & DETAILS
6A-6C	RESTORATION PLAN
7	PROPERTY MAP

FREEMANS CREEK DISTRICT LEWIS COUNTY WEST VIRGINIA

CONSTRUCTION SEQUENCE

- Prior to commencement of any earth disturbance activity including clearing and grubbing, the registrant shall call West Virginia 811 by dialing 811 or 1-800-245-4848 to identify all utility lines. The registrant also must clearly delineate sensitive areas, riparian forest buffer boundaries, the limits of clearing, and trees that are to be conserved within the project site, and shall install appropriate barriers where equipment may not be parked, staged, operated or located for any purpose.
- Site access - This is the first land-disturbance activity to take place at the site and should provide BMPs to minimize accelerated erosion and sedimentation from the following areas: entrance to the site, construction routes, and areas designated for equipment or other use at the site including parking, stockpiles.
- Sediment Barriers - Install perimeter BMPs after the construction site is accessed, keeping associated clearing and grubbing limited to only that amount required for installing perimeter BMPs.
- Land Clearing and Grading - Implement clearing and grading only after all downslope E&S BMPs have been constructed and stabilized.
- Surface Stabilization - Apply temporary or permanent stabilization measures immediately to any disturbed areas where work has reached final grade, has been delayed or otherwise temporarily suspended.
- Construction of Buildings, Utilities, and Paving - During construction, install and maintain any additional erosion and sediment control BMPs, and implement any structural post construction stormwater BMPs that may be required.
- Upon completion of pad grading, compact the pad to grade and begin placement of pad soil cement.
- Final Stabilization, Topsoiling, Trees and Shrubs - After construction is completed, install stabilization BMPs including: permanent seeding, mulching and riprap, and complete implementation of stormwater BMPs in this last construction phase. Stabilize all open areas, including borrow and spoil areas, and remove all temporary BMPs and stabilize any disturbances associated with the removal of the BMP.



PREPARED FOR
HG ENERGY II APPALACHIA, LLC
5280 DUPONT ROAD
PARKERSBURG, WEST VIRGINIA 26101
(304) 420-1100

PREPARED BY
PENN ENVIRONMENTAL & REMEDIATION, INC.
111 RYAN COURT
PITTSBURGH, PA 15205
(412) 722-1222

Estimated Gross Material Balance (CY)			
Final Development - Gravel Option	C&A	F&B	Stockpile
1213 Well Pad	8,320	7,670	650
1213 Well Pad Access Road	5,320	1,540	3,780
1213 Well Pad AST Pad	350	410	-60
1213 Well Pad Staging Area	570	420	150
Totals	14,800	10,070	4,990
Est. Swell Factor	0.77M		858
Final Site Volume			5,330
Borrowed Topsoil (Limits of Disturbance)			
Est. Swell Factor	(20%)		5,762
Est. Topsoil Stockpile Volume (Less CY)			1,155
Est. Topsoil Stockpile Capacity Required (CY)			6,938
Minimum Total Stockpile Capacity Required (CY)			12,328

Notes:
1. Material balance for soil, gross without supplies only.
2. Topsoil soil volume based on 9' native average depth.
3. Material balance and aggregate quantities based on estimates and may not be representative of actual quantities.
4. Estimates do not reflect contractor log volumes.

Estimated Gravel Quantities					
1213 Well Pad Access Road	Gravel	IPSS	AST Pad	STAGING AREA	TOTAL
1213 Well Pad Access Road	8,420	3,380	10,700	4,125	26,625
1213 Well Pad Access Road	658	1,240	735	298	3,931
Estimated Pad Access Road 12" Fiber Stock Length (LF)					734
Estimated Well Pad 12" Fiber Stock Length (LF)					1310
TOTAL Estimated 12" Composite Fiber Stock Length (LF)					2044
Estimated Pad Access Road Limit of Disturbance (Acres)					8.10
Estimated 1213 Well, AST & Staging Pads Limit of Disturbance (Acres)					6.30
TOTAL Estimated Limit of Disturbance (Acres)					14.38
Well Pad Peak Pre-Construction Elevation (Ft)					1203.00
Well Area Subsoil Elevation (Top of Soil Cement Section) (Ft)					1202.00
Well Area Surface Elevation (Ft)					1232.87

WELL #	LAT.	LONG.
N-1H	N 39.115635	W 80.515002
N-2H	N 39.115635	W 80.514548
N-3H	N 39.115534	W 80.514898
N-4H	N 39.115534	W 80.514844
S-5H	N 39.115566	W 80.515003
S-6H	N 39.115566	W 80.514950
S-7H	N 39.115566	W 80.514897
S-8H	N 39.115565	W 80.514844

WELL ELEVATIONS 1227.48
UTM83-17F

	LATITUDE	LONGITUDE
1213 WELL PAD ACCESS POINT	N 39.1066184°	W 80.5165087°
1213 WELL PAD ACCESS ROAD ENTRANCE	N 39.1106767°	W 80.5200779°

RECORD OWNER	RECORD LOT #	RECORD AREA OF LOT	AREA WITHIN LOD
SUZANNE LYNN & JAMES M. EVANS	21-03-066C-0004-0000	308,1376	14,340
MARE RUN ROAD D.R. 10/3	N/A	N/A	0.025
TOTAL LIMIT OF DISTURBANCE			14,365 AC.

THIS DRAWING IS UNPROTECTED. THIS DRAWING IS A TRADE SECRET AND ONLY UNPROTECTED TO THE EXTENT FOR THE PERSONAL USE WITHOUT THE WRITTEN PERMISSION OF PENN ENVIRONMENTAL & REMEDIATION, INC. ANY REPRODUCTION, COPIING, OR DISSEMINATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF PENN ENVIRONMENTAL & REMEDIATION, INC. IS PROHIBITED. PENN ENVIRONMENTAL & REMEDIATION, INC. SHALL BE RESPONSIBLE FOR ANY LEGAL ACTION, THIS DRAWING MUST BE RETURNED ON REQUEST OF THE COMPANY.

REVISION	DATE	DESCRIPTION
1	2020-09-29	REVISED PER CLIENT COMMENTS
2	2020-11-20	REVISED PER WVDEP COMMENTS



TITLE SHEET
HG 1213 PAD
FREEMANS CREEK DISTRICT
LEWIS COUNTY, WEST VIRGINIA
PREPARED FOR
HG ENERGY II APPALACHIA, LLC
PARKERSBURG, WEST VIRGINIA

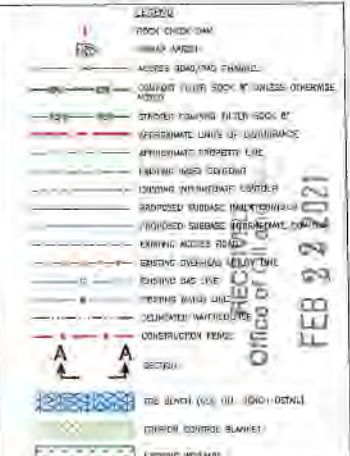
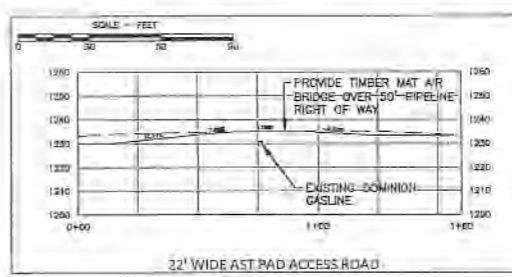
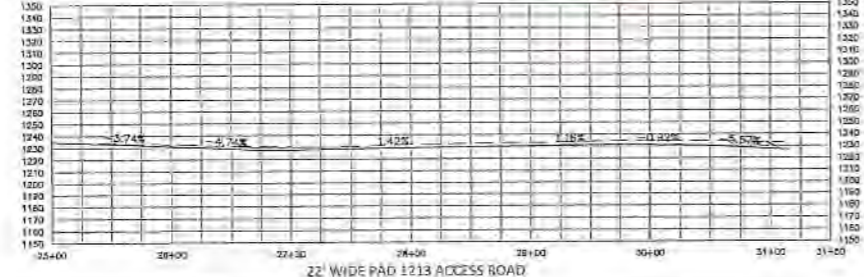
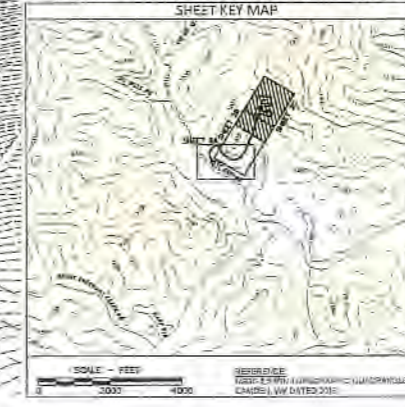
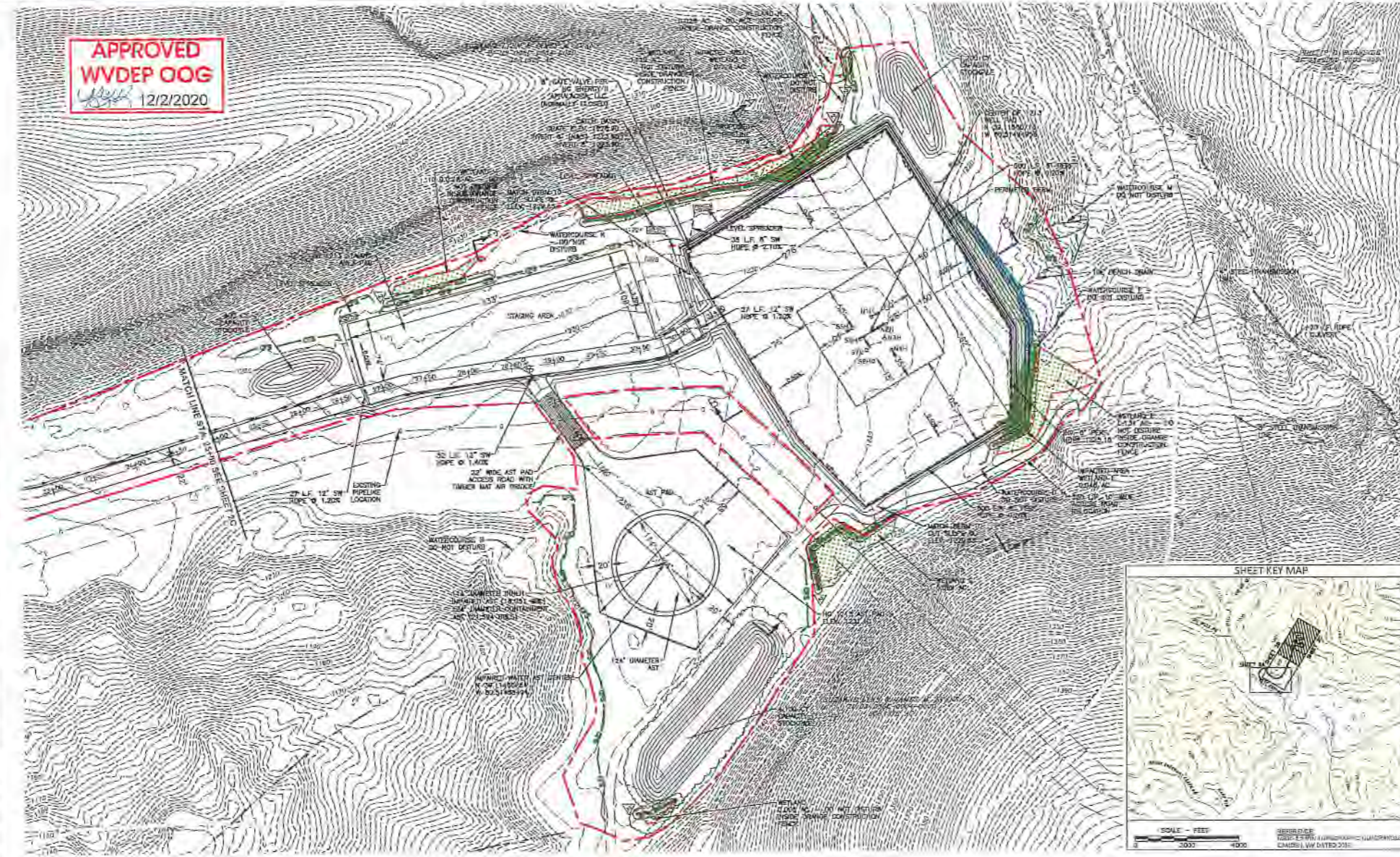
APPROVED	MEP 06/04/2020	
CHECKED	CMC 06/03/2020	
DESIGNED	SMH 06/03/2020	
DRAWING NUMBER PA008130-001		111 RYAN COURT, PITTSBURGH, PA 15205 412-722-1222
SHEET 1		

WEST VIRGINIA CALL BEFORE YOU DIG!
Dial 811 or 800.245.4848
Miss Utility of West Virginia

1. SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MARKING, AND REPAIRING AS NECESSARY TO ENSURE CONTINUAL SERVICE.

C:\PROJECT FILES\4000-PA008130 HG 1213 DRAWINGS\PA008130 TITLE SHEET.DWG, 11/20/2020, 5:45 PM

**APPROVED
WV DEP OOG**
12/2/2020



- SEE VISUAL GENERAL NOTES**
- ALL PROPOSED CONSTRUCTION SHALL BE SHOWN ON PLAN SHEETS PER THE PROPOSED CONSTRUCTION DRAWINGS.
 - REFER TO THIS SHEET WITH THE CONSTRUCTION NOTES AND DETAILS.
 - CONTRACTOR SHALL CONTACT WEST VIRGINIA UTILITIES PROJECTS SERVICES (WVU) FOR A RECORD OF A SERVICE FROM CONSTRUCTION FROM RECORDS. THE RECORDS WILL BE PROVIDED TO CONTRACTOR PRIOR TO BEGINNING WORK AT THE SITE.
 - SITE SHALL BE CONSTRUCTED IN ACCORDANCE WITH WELL DRAINAGE PRACTICES. CONTRACTOR RESPONSIBLE TO DESIGN ALL OTHER FACILITIES SHALL BE RESPONSIBLE TO CONTACT WEST VIRGINIA UTILITIES PROJECTS SERVICES FOR A RECORD OF A SERVICE FROM CONSTRUCTION FROM RECORDS. THE RECORDS WILL BE PROVIDED TO CONTRACTOR PRIOR TO BEGINNING WORK AT THE SITE.
 - NO CONSTRUCTION ON SLOPE INSTABILITY ANALYSIS WAS PERFORMED FOR THIS SITE. CONTRACTOR IS RESPONSIBLE TO IDENTIFY EROSION AND TRENCH PROBLEMS BASED ON FIELD CONDITIONS TO PREVENT SLOPES FROM BEING DISTURBED OR TO BE PROTECTED FROM EROSION.
 - ESTABLISH EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO CONSTRUCTION. THE CONTROL MEASURES SHALL FOLLOW WEST VIRGINIA REGULATIONS AND CONSTRUCTION CONTROL PLAN MANUAL DATED MAY 2012.
 - CONTRACTOR SHALL FENCE ALL STOCKPILE AREAS FROM PUBLIC VIEW AND ACCESS. THE FENCING SHALL BE A MINIMUM OF 6 FEET TALL AND 1/2" WIRE GALVANNEED FENCE. THE FENCING SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
 - NO EXCESSIVE FILL SHALL BE PLACED ON EXISTING MATERIAL. FILL MATERIAL SHALL BE FREE OF LARGE ROCKS, BRUSH OR OTHER UNDESIRABLE MATERIAL.
 - CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING UTILITY UNDERGROUNDS.
 - FILL MATERIAL SHALL BE PLACED IN LAYERS OVER THE EXISTING MATERIAL. THE MAXIMUM LAYER THICKNESS OF THE FILL SHALL BE 24" AND THE MINIMUM LAYER THICKNESS SHALL BE 12" INCHES. THE FILL SHALL BE PLACED IN LAYERS OF 24" INCHES THICK. THE SIZE OF ROCK LITER SHALL NOT EXCEED 12" INCHES. CONTRACTOR SHALL NOT BE RESPONSIBLE FOR ANY EROSION OR TRENCH PROBLEMS THAT MAY OCCUR DURING OR AFTER CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING UTILITY UNDERGROUNDS.
 - CONTRACTOR SHALL CONSIDER MATERIAL MANAGEMENT DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITY UNDERGROUNDS, WITH AN 18" AND 18" DIRT.
 - ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL EROSION HAS BEEN STABILIZED AND THE VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING UTILITY UNDERGROUNDS.
 - CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING UTILITY UNDERGROUNDS.
- REFERENCES:**
- PROPERTY BOUNDARIES & FINISH ELEVATIONS DETERMINED BY PROPERTY SURVEYOR W/DAVIDSON CO. DATE: 11/10/2019.
 - EXISTING CENTERLINE DETERMINED FROM STATE SURVEY ON 12/04/2019.
- NO UTILITY IS SHOWN ON THIS SHEET AND ONLY PROPOSED TO THE RIGHT OF THE EXISTING UTILITY. THE EXISTING UTILITY IS SHOWN ON THE SHEET WITH THE UTILITY UNDERGROUNDS. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING UTILITY UNDERGROUNDS. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING UTILITY UNDERGROUNDS.

REVISION	DATE	DESCRIPTION
1	2020-09-20	REVISED PER CLIENT COMMENTS
2	2020-11-20	REVISED PER WATER COMMENTS



**SITE DEVELOPMENT PLAN
WITH EROSION AND SEDIMENTATION CONTROLS
FIG 1213 PAD
FREEMAN'S CREEK DISTRICT
LEWIS COUNTY, WEST VIRGINIA**

PREPARED FOR:
HG ENERGY II APPALACHIA, LLC
FAULKERSBURG, WEST VIRGINIA

APPROVED: 12/2/2020
DESIGNED: 12/2/2020
DRAWN: 12/2/2020
PROJECT NO.: 4300-00001010
DRAWING NUMBER: PAD031.30-001
SHEET: 01

Penn E&R
Environmental & Restoration Inc.
111 PARKWAY, PITTSBURGH, PA 15203
412-222-1234

Office of the
FEB 22 2021

WV Department of
Environmental Protection