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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Friday, November 15, 2019  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

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

Re: Permit Modification Approval for NUTTER 1208 S-8H  
47-033-05962-00-00

**Extending Lateral from 19967' to 22905', updated leases.**

HG ENERGY II APPALACHIA, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before 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: NUTTER 1208 S-8H  
Farm Name: LINDA & WILLIAM W. BRODWATTER III  
U.S. WELL NUMBER: 47-033-05962-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 11/15/2019

Promoting a healthy environment.

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>Harrison</u>	<u>Union</u>	<u>West Milford 7.5'</u>
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Operator ID County District Quadrangle

2) Operator's Well Number: Nutter 1208 S-8H Well Pad Name: Nutter 1208

3) Farm Name/Surface Owner: Nutter Public Road Access: SR 19

4) Elevation, current ground: 1162' Elevation, proposed post-construction: 1147'

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 7013'/7064' and 51' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 7050'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22,905' ✓

11) Proposed Horizontal Leg Length: 15,423'

12) Approximate Fresh Water Strata Depths: 135', 500'

13) Method to Determine Fresh Water Depths: Nearest offset well data

14) Approximate Saltwater Depths: 1299', 1675'

15) Approximate Coal Seam Depths: 810' to 815'

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

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

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_

Depth: \_\_\_\_\_

Seam: \_\_\_\_\_

Owner: \_\_\_\_\_

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18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120' ✓	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1000'	1000' ✓	CTS
Intermediate 1	13 3/8"	NEW	J-55	68	1900'	1900' ✓	CTS
Intermediate 2	9 5/8"	NEW	J-55	40	2700'	2700' ✓	CTS
Production	5 1/2"	NEW	P-110	23	22905'	22905' ✓	CTS
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water	20"	26"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Coal/Storage	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	Lead 40% excess, Tail 0% Excess
Production	5 1/2"	8 1/2"	.415	16240	12000	Type 1/Class A	20% excess yield = 1.19, tail yield 1.24
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 7050 feet. Drill horizontal leg to estimated 15,423 lateral length, 22,905 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 ECP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

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

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

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.420 acres

22) Area to be disturbed for well pad only, less access road (acres): 15.399 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.  
Freshwater - centralized every 3 joints to surface.  
Coal - Bow Spring on every joint, will also be running ECP for isolating storage zone.  
Intermediate - 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 - 15.6 ppg PNE-1 + 3% bwoc CaCl<sub>2</sub> 40% Excess Yield = 1.20, CTS  
Coal - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub> 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub> zero% Excess. CTS  
Intermediate - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub> 40% Excess, Tail: 15.9 ppg, PNE-1 + 2.5% bwoc CaCl<sub>2</sub> zero% Excess. CTS  
Production - Lead: 14.9 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 - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.  
Coal - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Intermediate - 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.



**1208 S-8H**  
**Marcellus Shale Horizontal**  
**Harrison County, WV**

Ground Elevation			1208 S-8H SHL				14218904.59N 1803912.29E			
Azimuth			1208 S-8H LP				14218496.38N 1804141.09E			
Azimuth			1208 S-8H BHL				14204107.56N 1809678.57E			
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	135, 500	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	810	815					
			Coal/Fresh Water Protection	0	1000					
	17.5"	13-3/8" 68# J-55 BTC	Little/Big Lime	1276 / 1317	1301 / 1393	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
			Injun / Gantz (Storage)	1393 / 1680	1499 / 1740					
			Intermediate 1	0	1900					
	12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	1800 / 1880	1847 / 1892	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	1935 / 2000	2000 / 2090					
			5th Sand	2185	2220					
			Bayard Sand	2275	2310					
	8.5" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Speechley	2895	2913	AIR / 9.0ppg SOB	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	3115	3155					
			Benson	4200	4233					
	8.5" Curve		Rhinestreet	6015	6290	11.5ppg-12.5ppg SOB		Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.		
Cashaqua			6290	6491						
Middlesex			6491	6571						
8.5" Lateral	West River		6571	6664	11.5ppg-12.5ppg SOB	Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.				
	Burkett		6664	6690						
	Tully Limestone		6690	6794						
	Hamilton		6794	7013						
8.5" Lateral	Marcellus	7013	7064	11.5ppg-12.5ppg SOB	Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.					
	TMD / TVD (Production)	22905	7050							
			Onondaga	7064						

LP @ 7050' TVD / 7482' MD

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

+/-15423' ft Lateral

TD @ +/-7050' TVD  
+/-22905' MD

X=centralizers

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**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
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**\*\*See Attached\*\***

**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: Agent

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**HG Energy II Appalachia, LLC  
1208 S-8H LEASE CHAIN**

TRACT #	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
2	LC014207	17-12-0425-0031-0003 17-12-0425-0031-0000	Q101051000	LEEMAN B. MAXWELL HEIRS	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	176	141
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				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.	DOMINION EXPLORATION & PRODUCTION, INC.	MERGER/NAME CHANGE	1325	874
				DOMINION TRANSMISSION, INC.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	1427	829
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM 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	660
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	692
				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				
1	FK020606	17-20-0444-0011-0000, 17-20-0444-0011-0001, 17-20-0444-0011-0002, 17-20-0444-0011-0003, 17-20-0444-0012-0000, 17-12-0444-0013-0000, 17-12-0444-0014-0000, 17-12-0444-0021-0000, 17-12-0444-0021-0001, 17-12-0444-0022-0000, 17-12-0445-0001-0000, 17-12-0445-0002-0000, 17-12-0445-0009-0000, 17-12-0445-0010-0000, 17-12-0445-0011-0000	Q100370000	J.B. GUSMAN AND ADALINE GUSMAN	TREAT AND CRAWFORD	NOT LESS THAN 1/8	158	8
				TREAT AND CRAWFORD	UNITED FUEL GAS COMPANY	ASSIGNMENT	226	359
				UNITED FUEL GAS COMPANY	FAYETTE COUNTY GAS COMPANY	ASSIGNMENT	UNRECORDED	
				FAYETTE COUNTY GAS COMPANY	HOPE NATURAL GAS	ASSIGNMENT	201	3
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY COMPANY	MERGER/NAME CHANGE	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				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.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	1409	680
				DOMINION TRANSMISSION, INC.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	1442	356
				DOMINION EXPLORATION & PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	1457	978
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM 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 ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581
				HANNAH H. SMITH, WIDOW; IRENE FERRELL, SINGLE; ELECTA E. TAYLOR, SINGLE; EVA RUTH SMITH, WIDOW; WILDA C. TAYLOR AND JOHN W. TAYLOR, HER HUSBAND; BERTIE JUSTICE, WIDOW; ORA FLECHER, WIDOW; THE UNION NATIONAL BANK, COMMITTEE FOR FRED RUSKIN FLECHER, C. W. MORROW AND LUCY MORROW, HIS WIFE; FRENCH TRIMBLE AND VA. C. TRIMBLE, HIS WIFE; E. B. SMITH AND BLANCHE PARRILL SMITH, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	748	578

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5	FK065540	17-12-0445-0021-0000	Q100562000	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				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 FARMOUT AGREEMENT	1522	33
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	1524	491
				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	
4	FK020607	17-12-0445-0008-0000, 17-12-0445-0016-0000, 17-12-0445-0016-0001, 17-12-0445-0017-0000, 17-12-0445-0017-0001, 17-12-0445-0018-0000, 17-12-0445-0018-0001, 17-12-0445-0019-0000, p/o 17-12-0445-0020-0000	Q100749000	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581
				W.L. HUGHES AND FLORA HIGHERS	TREAT & CRAWFORD	NOT LESS THAN 1/8	161	90
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				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.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	1427	829
				DOMINION EXPLORATION & PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	1457	978
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM 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				
8	FK014008	17-12-0444-0032-0000, p/o 17-12-0444-0043-0000, p/o 17-12-0445-0020-0000, 17-12-0445-0030-0001, 17-12-0445-0030-0002, 17-12-0445-0030-0003, 17-12-0445-0030-0004, 17-12-0445-0030-0005, 17-12-0445-0032-0000, 17-12-0445-0044-0000, p/o 17-12-0465-0001-0000, 17-12-0465-0002-0000, 17-12-0465-0003-0000, 17-12-0465-0012-0000,	Q100369000	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
				HOWARD NEELY, A SINGLE MAN	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	174	142
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				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 FARMOUT AGREEMENT	1522	33
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				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	660				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	692				
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				
7	N/A	17-12-0445-0034-0000	F Tract	Page Harmer Thomas	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	368
				Sarah Kingery	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	1150
				Betty G Justice	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	1300
				Zane Anthony Justice	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	360
				Margaret Jill Justice Lambert	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	484
				Steve Kanouse and Frank Warnock, as Trustees for Oren W. Justice Inter Vivos Trust dated June 27, 2013 (It is our belief that this is owned by John Daniel Justice)	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	1061

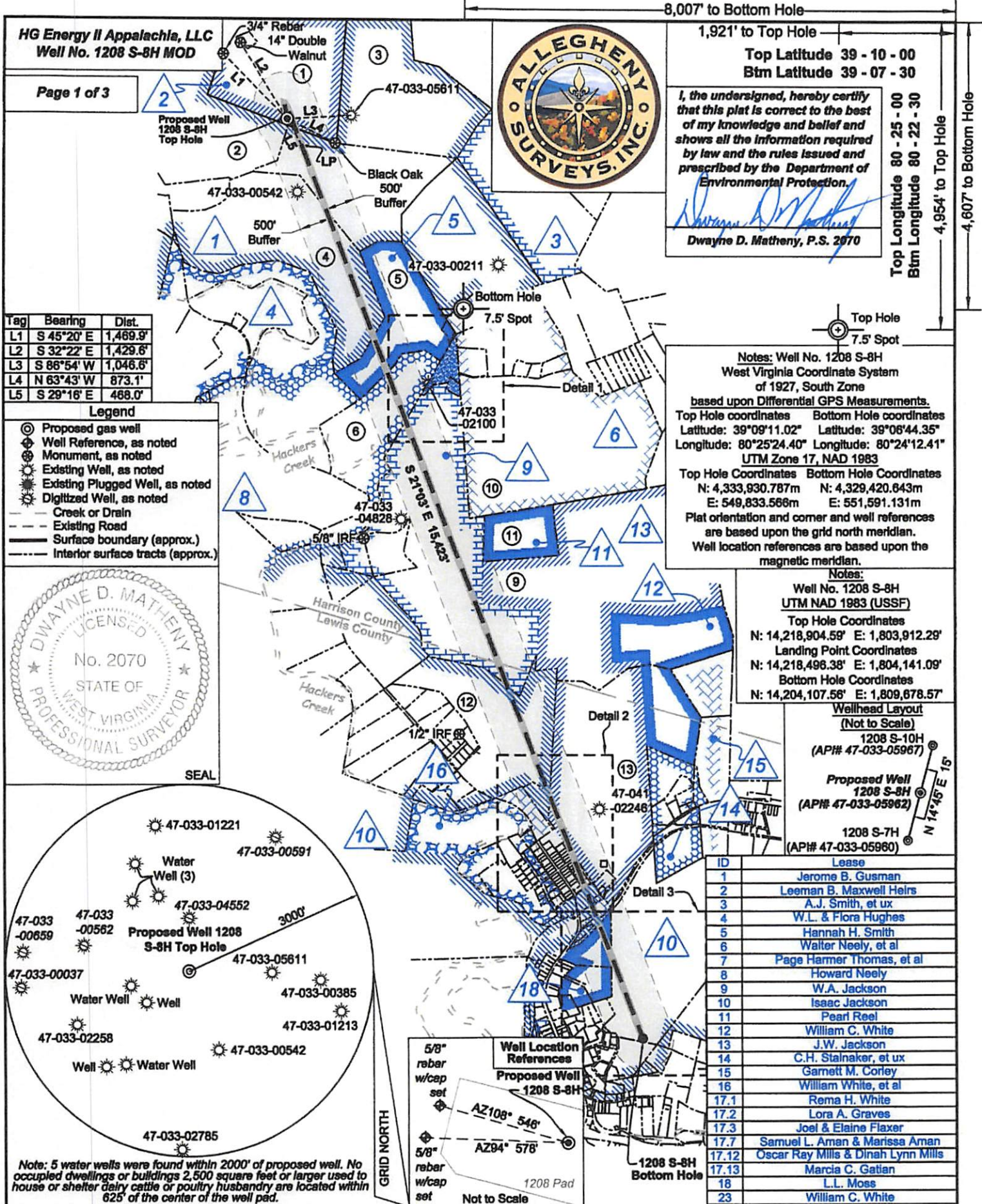


				Lonnie Kincaid	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	1016
				Delores Jean Moats	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1633	1020
				Geneva Bruffey	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1608	1268
25	LC026291	17-12-0445-0033-0000	LC026291 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	OIL AND GAS DEED	1627	1254
9	FK066065	p/o 17-12-0465-0004-0000; p/o 17-12-0465-0004-0001	Q100728000	W. A. JACKSON	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	756	144
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				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.	DOMINION EXPLORATION & PRODUCTION, INC.	CONFIRMATORY ASSIGNMENT	1414	1166
				DOMINION EXPLORATION & PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	1457	978
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	1522	33
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	1524	491
				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 ENERGY TRANSMISSION, INC.
6	LC056390	17-12-0445-0022-0000; 17-12-0445-0023-0000; 17-12-0445-0023-0001; 17-12-0445-0023-0002; 17-12-0445-0023-0003; 17-12-0445-0046-0000; 17-12-0445-0005-0000	Q100794000	WALTER NEELY AND EMMA E. NEELY, HIS WIFE; JOHN R. NEELY, SINGLE; GRACE NEELY, WIDOW; BERTIE SAILER AND WILL D. SAILER, HER HUSBAND; C. M. LINGER, SINGLE; ANNA BELLE L. LAWTON AND THOMAS W. LAWTON, JR., HER HUSBAND; WILDA C. TAYLOR AND JOHN W. TAYLOR, HER HUSBAND; BERTIE S. JUSTICE AND OREN JUSTICE, HER HUSBAND; CELIA IRENE FERRELL AND LINN B. FERRELL, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	567	49
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				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.	DOMINION EXPLORATION & PRODUCTION, INC.	CONFIRMATORY ASSIGNMENT	1414	1166
				DOMINION EXPLORATION & PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	1457	978
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	1522	33
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	1524	491
				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.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581
				11	LC065814	17-12-0465-0006-0000	Q100526000	PEARL REEL
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136					250
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 FARMOUT AGREEMENT	1522					33
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	1524					491
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 ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581				
10	LC009807	21-04-008B-0004-0000; 21-04-008B-0005-0000, 0001; 21-04-008B-0006-0000; 21-04-008B-0007-0000, 0001, 0002, 0003, 0014, 0015, 0016, 0017; 21-04-008C-0029-0000; 21-04-008C-0030-0000, 0002; 21-04-008C-0031-0000, 0001, 0002, 0003; 21-04-008C-0054-0000; 21-05-0001-0050-0001; 21-05-0001-0048-0000; 21-05-0001-0084-0000; 21-05-0001-0049-0000; 21-04-008C-0086-0000; 21-05-0001-0066-0000, 0002, 0003, 0004, 0005, 0006, 0007, 0008, 0009; 21-04-008C-0058-0000; 21-04-008C-0049-0001; 21-04-008C-0052-0001, 0002; 21-05-0002-0021-0001; 21-04-008C-0033-0001, 0010, 0012, 0009, 0008, 0005, 0006, 0007, 0004, 0003, 0002, 0000; 21-04-008C-0047-0000; 04-008C-0047- 0001; 04-008C-0047-0002, 0003, 0004; 21-04-008C-0034-0000;	Q100620000	ISAAC JACKSON	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	58	431				
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT (GAS)	73	272				
				HOPE NATURAL GAS COMPANY	JANE LEW LIGHT AND HEAT COMPANY	ASSIGNMENT (5 ACRES OF LEASEHOLD)	113	315				
				JANE LEW LIGHT AND HEAT COMPANY	STANDARD GAS COMPANY	ASSIGNMENT	113	361				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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	CNG DEVELOPMENT COMPANY	JOINT VENTURE AGREEMENT	UNRECORDED					
				CNG TRANSMISSION CORPORATION	CNG DEVELOPMENT COMPANY	ASSIGNMENT	477	430				
				EMAX OIL COMPANY	CABOT OIL AND GAS CORPORATION	FARMOUT AGREEMENT	UNRECORDED					
				EMAX OIL COMPANY	CABOT OIL AND GAS CORPORATION	ASSIGNMENT	513	93				
				CABOT OIL AND GAS CORPORATIN	ENERVEST APPALACHIA, L.P.	ASSIGNMENT	558	249				
				CNG TRANSMISSION CORPORATION	CNG PRODUCING COMPANY	ASSIGNMENT	522	528				
				CNG TRANSMISSION CORPORATION	EMAX OIL COMPANY	WELLBORE ASSIGNMENT	522	189				
				CNG TRANSMISSION CORPORATION	GAS EXPLORATION AND DEVELOPMENT COMPANY	ASSIGNMENT	554	605				
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	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				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	CORRECTIVE ASSIGNMENT TO DB 717-1	725	784				
				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				
				13	LC009809	p/o 17-12-0465-0004-0000; p/o 17-12-0465-0004-0001; 21-04-008C-0049-0001; 21-04-008C-0049-0002; 21-04-008C-0052-0000; 21-04-008C-0052-0001; 21-04-008C-0052-0002; 21-04-008C-0055-0000; 21-04-008C-0055-0001; 21-04-008C-0055-0002; 21-04-008C-0055-0003	Q101005000	JAMES W. JACKSON AND S. A. JACKSON, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	58	425
								SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT (GAS)	73	272
								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	FARMOUT AGREEMENT	672					154				
SOUTH PENN OIL COMPANY	PENNZOIL COMPANY	MERGER/NAME CHANGE	5					564				
PENNZOIL COMPANY	PENNZOIL PRODUCTS COMPANY	ASSIGNMENT	454					34				
PENNZOIL COMPANY	PENNZOIL PRODUCTS COMPANY	ASSIGNMENT	460					139				
PENNZOIL PRODUCTS COMPANY	PENNZOIL EXPLORATION AND PRODUCTION COMPANY	ASSIGNMENT	551					627				
PENNZOIL EXPLORATION AND PRODUCTION COMPANY	PENNZENERGY EXPLORATION AND PRODUCTION, LLC	MERGER/NAME CHANGE	8					343				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	1524					491				
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				

16	N/A	21-04-0005-0056-0000; THRU 21-04-0005-0061-0000;  21-04-0005-0065-0000; 21-04-008C-0033-0000; 21-04-008C-0033-0001; p/o 21-04-008C-0033-0002;  21-04-008C-0033-0003; THRU 21-04-008C-0033-0012		WILLIAM C. WHITE	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	741	607
23		21-04-008C-0052-0000; 21-04-008C-0053-0000	part of G Tract	WILLIAM C. WHITE WILLIAM C. WHITE, LIFE ESTATE MARIA CHRISTINE GATIAN, WILLIAM C. WHITE II, AND CLIFFORD SCOTT WHITE, REMAINDERMAN	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	741	599
17.3		21-04-0005-0036-0000; 21-04-0005-0037-0000	G-4	JOEL & ELAINE FLAXER	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	741	641
17.2		21-04-0005-0038-0000; 21-04-0005-0039-0000	G-2	LORA A. GRAVES	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	741	641
17.13		21-04-0005-0040-0000; 21-04-0005-0041-0000; 21-04-0005-0044-0000	G-5	MARIA C. GATIAN	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	741	649
17.1		21-04-0005-0041-0001	G-6	REMA H. WHITE	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	741	645
17.12		21-04-0005-0042-0000; 21-04-0005-0043-0000	G-13	OSCAR RAY MILLS AND DINAH LYNN MILLS	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	747	5
17.7		21-04-0005-0045-0000	G-10	SAMUEL L. AMAN AND MARISSA AMAN	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	746	865
18		21-04-008C-0050-0000	H Tract	L. L. MOSS	SCOTT OIL CO.	NOT LESS THAN 1/8	449	237
				SCOTT OIL CO.	NANCY CATHERINE GIBSON	ASSIGNMENT	464	694
				SCOTT OIL CO.	EMAX OIL COMPANY	ASSIGNMENT	486	162
				EMAX OIL COMPANY	CABOT OIL AND GAS CORPORATION	ASSIGNMENT	513	82
				CABOT OIL AND GAS CORPORATION	NATURAL GAS INVESTMENTS, LLC	ASSIGNMENT	529	702
				NATURAL GAS INVESTMENTS, LLC	CABOT OIL AND GAS CORPORATION	ASSIGNMENT	557	652
				CABOT OIL AND GAS CORPORATION	NATURAL GAS INVESTMENTS, LLC	AMENDMENT TO ASSIGNMENT	557	693
				CABOT OIL AND GAS CORPORATION	ENERVEST APPALACHIA, L.P.	CONVEYANCE	558	249
				ENERVEST APPALACHIA, L.P.	CGAS PROPERTIES, L.P.	ASSIGNMENT	621	590
				CGAS PROPERTIES, L.P. AND ENERVEST APPALACHIA, L.P.	WINTER MOON ENERGY COMPANY	ASSIGNMENT	648	546
				CHESAPEAKE APPALACHIA, L.L.C. AND WINTER MOON ENERGY CORPORATION	SWN PRODUCTION COMPANY, LLC	ASSIGNMENT	684	333
				SWN PRODUCTION COMPANY, LLC	HG ENERGY II APPALACHIA, LLC	NOTICE OF AGREEMENT	744	696





HG Energy II Appalachia, LLC  
Well No. 1208 S-8H MOD

Page 1 of 3



8,007' to Bottom Hole  
1,921' to Top Hole  
Top Latitude 39 - 10 - 00  
Btm Latitude 39 - 07 - 30

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

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

Top Longitude 80 - 25 - 00  
Btm Longitude 80 - 22 - 30  
4,954' to Top Hole  
4,607' to Bottom Hole

Tag	Bearing	Dist.
L1	S 45°20' E	1,469.9'
L2	S 32°22' E	1,429.6'
L3	S 88°54' W	1,046.6'
L4	N 63°43' W	873.1'
L5	S 29°16' E	468.0'

- 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.)
  - Interior surface tracts (approx.)



**Notes:** Well No. 1208 S-8H  
West Virginia Coordinate System of 1927, South Zone based upon Differential GPS Measurements.

Top Hole coordinates Latitude: 39°09'11.02" Longitude: 80°25'24.40" UTM Zone 17, NAD 1983  
Bottom Hole coordinates Latitude: 39°06'44.35" Longitude: 80°24'12.41" UTM Zone 17, NAD 1983

Top Hole Coordinates N: 4,333,930.787m E: 549,833.566m  
Bottom Hole Coordinates N: 4,329,420.643m E: 551,591.131m

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

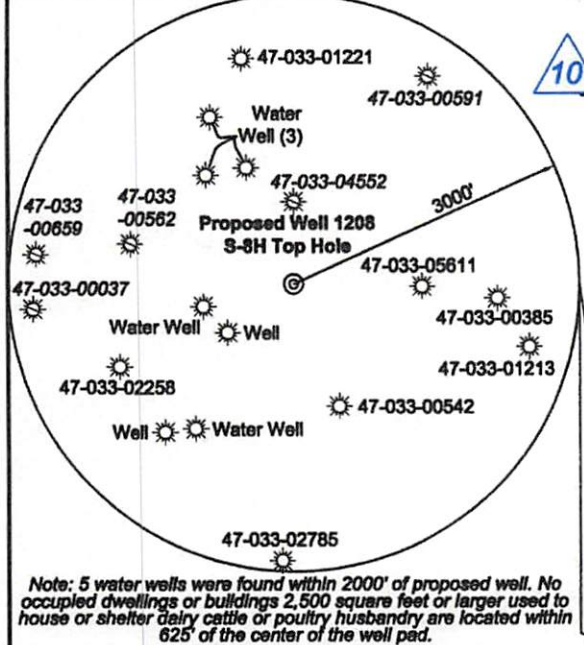
**Notes:**  
Well No. 1208 S-8H UTM NAD 1983 (USSF)

Top Hole Coordinates N: 14,218,904.59' E: 1,803,912.29'  
Landing Point Coordinates N: 14,218,496.38' E: 1,804,141.09'  
Bottom Hole Coordinates N: 14,204,107.56' E: 1,809,678.57'

**Wellhead Layout (Not to Scale)**

1208 S-10H (APH# 47-033-05967)  
Proposed Well 1208 S-8H (APH# 47-033-05962)  
1208 S-7H (APH# 47-033-05960)

ID	Lease
1	Jerome B. Gusman
2	Leeman B. Maxwell Helrs
3	A.J. Smith, et ux
4	W.L. & Flora Hughes
5	Hannah H. Smith
6	Walter Neely, et al
7	Page Harmer Thomas, et al
8	Howard Neely
9	W.A. Jackson
10	Isaac Jackson
11	Pearl Reel
12	William C. White
13	J.W. Jackson
14	C.H. Stalnaker, et ux
15	Garnett M. Corley
16	William White, et al
17.1	Rema H. White
17.2	Lora A. Graves
17.3	Joel & Elaine Flaxer
17.7	Samuel L. Aman & Marissa Aman
17.12	Oscar Ray Mills & Dinah Lynn Mills
17.13	Marcia C. Gattian
18	L.L. Moss
23	William C. White



Note: 5 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

FILE NO: 195-36-G-18  
DRAWING NO: 1208 S-8H 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: September 23 2019  
OPERATOR'S WELL NO. 1208 S-8H  
API WELL NO  
47 - 033 - 05962  
STATE COUNTY PERMIT

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

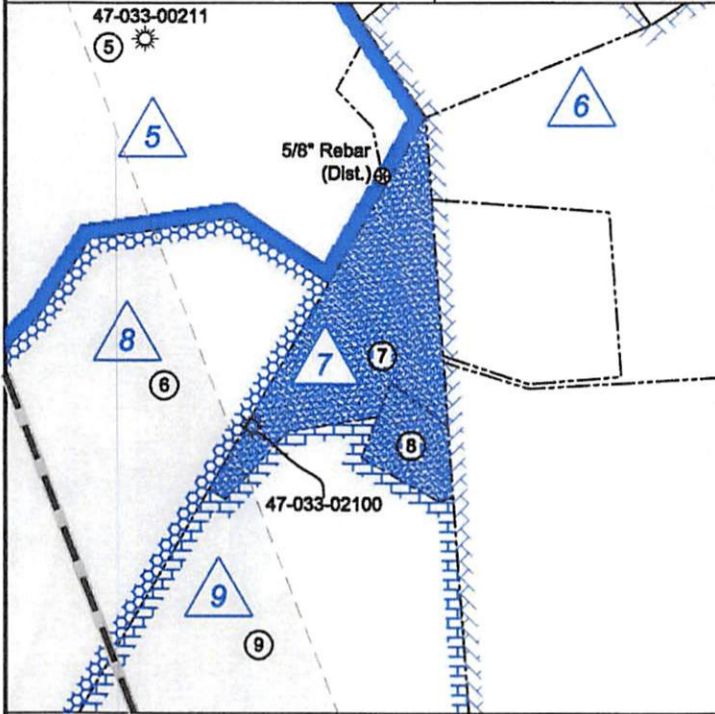
LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek  
DISTRICT: Grant / Hackers Creek  
SURFACE OWNER: Linda & William W. Brodwater III  
ROYALTY OWNER: Leeman B. Maxwell Helrs, et al LEASE NO: ACREAGE: 247.84

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BH MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 2,905' MD

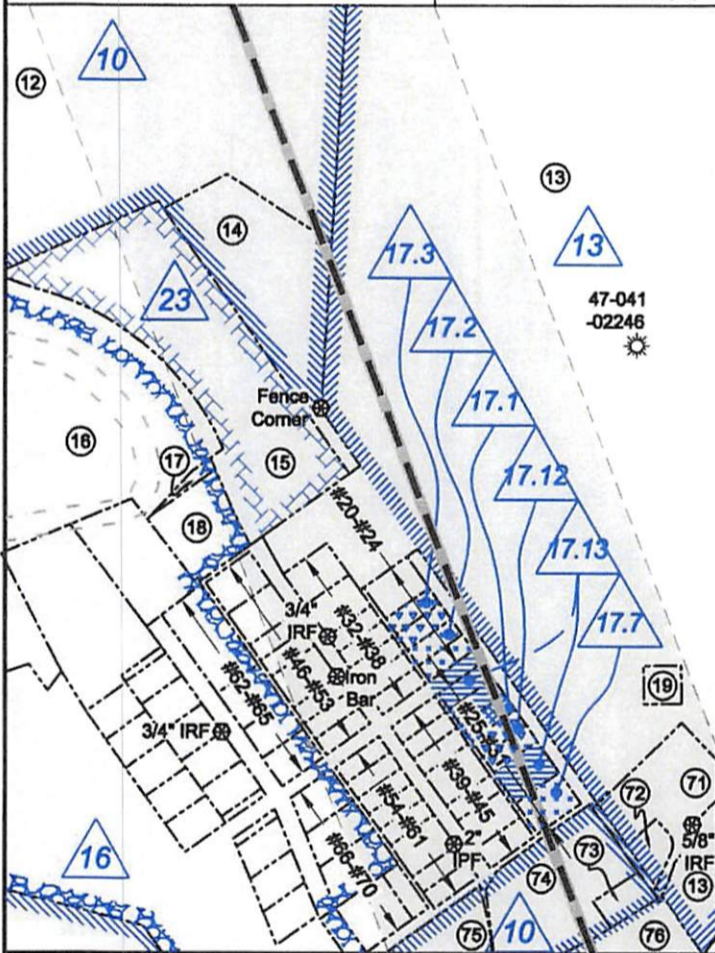
WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101



Detail 1 - Scale: 1" = 500' (4x)



Detail 2 - Scale: 1" = 500' (4x)



Harrison County - Grant-Outside District

No.	TM / Par	Owner	Bk / Pg	Ac.
1	425 / 31	Linda & William W. Brodwater III	1410 / 1045	247.84
2	445 / 1	Lisa M. Nutter	1599 / 386	87.78
3	445 / 10	Lisa M. Nutter	W687 / 445	68.87
4	445 / 9	Lisa M. Nutter	W687 / 445	105.50
5	445 / 21	Robert Allman, et al	W177 / 231	41.11
6	445 / 32	Patricia T. Garton	1425 / 854	43.15
7	445 / 34	Robert Allman, et al	W177 / 231	4.85
8	445 / 33	Robert Allman, et al	W177 / 231	1.05
9	465 / 4.1	John G. & Rebecca M. Moore	1421 / 350	353.80
10	445 / 48	James W. Riffe II & William L. Law	1385 / 259	140.43
11	465 / 6	John G. & Rebecca M. Moore	1421 / 350	21.37

Lewis County - Hackers Creek District

No.	TM / Par	Owner	Bk / Pg	Ac.
12	8B / 7	William E. Watson	547 / 184	71.51
13	8C / 55	William C. White	W23 / 102	92.02
14	8C / 54	Jefferson B. or Mary B. Watson	W10 / 163	3.50
15	8C / 53	William E. Watson	W10 / 163	5.87
16	8C / 33.2	C.D. Cole	502 / 70	150.51
17	5 / 62	William C. White	W23 / 102	0.097
18	5 / 63	William C. White	W23 / 102	0.86
19	8C / 55.1	William C. White	W23 / 102	0.50
20	5 / 35	Michael McLaughlin	525 / 343	0.32
21	5 / 36	Lora Graves	389 / 635	0.18
22	5 / 37	Lora Graves	389 / 635	0.16
23	5 / 38	Lora Graves	480 / 589	0.16
24	5 / 39	Lora Graves	480 / 589	0.16
25	5 / 40	Maria C. Gatian	603 / 207	0.16
26	5 / 41	Maria C. Gatian	603 / 207	0.16
27	5 / 41.1	Rema White	395 / 626	0.11
28	5 / 42	Oscar & Dinah Mills	380 / 244	0.16
29	5 / 43	Oscar & Dinah Mills	380 / 244	0.16
30	5 / 44	Maria C. Gatian	603 / 207	0.32
31	5 / 45	Samuel Aman	592 / 743	0.32
32	5 / 32	William C. White	W23 / 102	0.32
33	5 / 31	Melissa A. Turner	614 / 235	0.32
34	5 / 30	Dale Holden	639 / 549	0.16
35	5 / 29	Robert & Shelia Bailey	681 / 38	0.16
36	5 / 28	Robert & Shelia Bailey	681 / 38	0.16
37	5 / 27	Robert & Denise Bennett	497 / 534	0.16
38	5 / 26	Robert & Denise Bennett	497 / 534	0.16
39	5 / 25	Matthew L. Shearer	385 / 562	0.16
40	5 / 24	Donna Posey	393 / 384	0.16
41	5 / 23	Donna Posey	393 / 384	0.16
42	5 / 22	Samuel & Linda Aman	344 / 145	0.32
43	5 / 21	Christopher L. Dobbins	629 / 197	0.16
44	5 / 20	Jerry & Linda Tomes	531 / 576	0.28
45	5 / 18	Gertrude Cooper & Falna Henline	678 / 3	0.20
46	5 / 1	William C. White	W23 / 102	0.32
47	5 / 2	William C. White	W23 / 102	0.32
48	5 / 3	Anna B. Hull	602 / 721	0.16
49	5 / 4	Anna B. Hull	602 / 721	0.16
50	5 / 5	Amilcar & Tammy Lazo	712 / 591	0.32
51	5 / 6	Dale Holden	574 / 554	0.16
52	5 / 7	Dale Holden	574 / 554	0.16
53	5 / 8	Dale Holden	574 / 554	0.16
54	5 / 9	Doris Jeanne Anderson	W45 / 18	0.16
55	5 / 9.1	Thomas E. Cordwell, et al	W45 / 18	0.16
56	5 / 10	Howard Moneypanney	W14 / 31	0.16
57	5 / 11	Howard Moneypanney	W14 / 31	0.16
58	5 / 12	Howard Moneypanney	W14 / 31	0.16
59	5 / 13	Joshua G. Drake	725 / 254	0.32
60	5 / 16	Jeffrey & Anessa Griffith	571 / 10	0.16
61	5 / 17	Jeffrey & Anessa Griffith	571 / 10	0.16
62	8C / 33.7	David D. & Kimberly M. Marple	514 / 156	0.736
63	8C / 33.9	Jack N. & Betty L. Garton	713 / 278	0.35
64	5 / 49	Donna J. Smith	432 / 135	0.27
65	5 / 48	Kenneth & Sheri Ellis	570 / 186	0.27
66	5 / 47	Brenda J. & Walter H. Irvin Jr.	621 / 22	0.33
67	5 / 46.1	Marjorie A. Paugh	425 / 650	0.39
68	5 / 46	Steven E. Scott	515 / 279	0.44
69	5 / 15	Lucy Messenger	W11 / 466	0.48
70	5 / 14	Jeffrey & Anessa Griffith	571 / 10	0.16

FILE NO: 195-36-G-18  
DRAWING NO: 1208 S-8H 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: September 23 20 19  
OPERATOR'S WELL NO. 1208 S-8H  
API WELL NO  
47 - 033 - 05962  
STATE COUNTY PERMIT

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

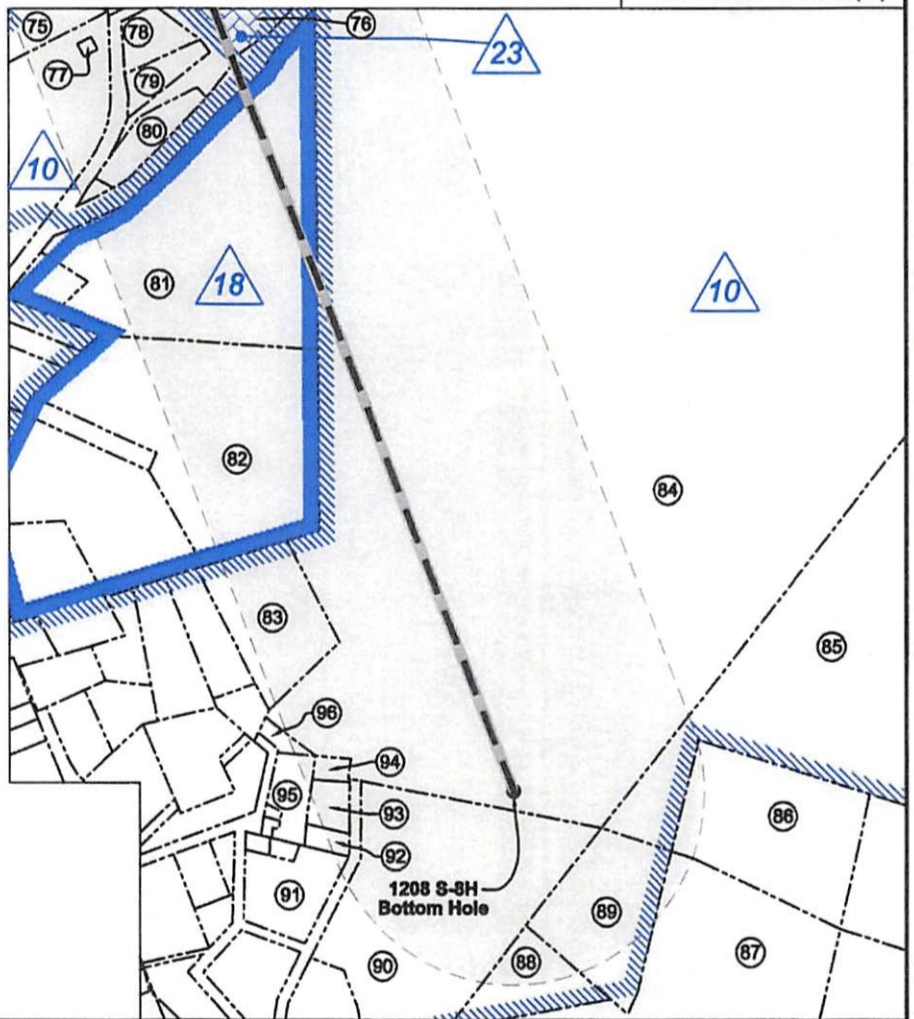
LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek  
DISTRICT: Grant / Hackers Creek  
SURFACE OWNER: Linda & William W. Brodwater III  
ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 247.84  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BH MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,050' TVD  
22,905' 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



Lewis County - Hackers Creek District				
No.	TM / Par	Owner	Bk / Pg	Ac.
71	8C / 55.3	William C. White	670 / 590	1.49
72	8C / 55.2	William C. White II	640 / 269	0.30
73	8C / 52.2	Willard H. McWhorter	309 / 102	0.275
74	8C / 52.1	Julle D. McWhorter	547 / 395	2.135
75	8C / 33.12	Lisa & David Wagner	604 / 150	2.34
76	8C / 52	William C. White	W23 / 102	1.56
77	8C / 47.4	Jane Lew Water Commision	--- / ---	0.04
78	8C / 49.1	Dale R. Holder	692 / 473	0.46
79	8C / 49	Melissa Lea Bean	663 / 425	0.75
80	8C / 51	Earl M. Jenkins	551 / 478	0.49
81	8C / 50	Dana Belle McWhorter	W14 / 701	8.26
82	1 / 71	Board of Education	295 / 354	6.50
83	8C / 86	Lundy H. & Deborah G. McMillion	521 / 513	2.00
84	8C / 58	William C. White	W23 / 102	126.18
85	8C / 59	James E. & Louise K. Dyer	551 / 372	54.62
86	8C / 60.16		637 / 173	3.38
87	8C / 60.10		551 / 374	10.27
88	8C / 59.1	Oscar & Dinah Mills	637 / 178	1.13
89	8C / 59.2	Skylar B. & Christy M. Mills	697 / 793	2.53
90	8C / 60.2	John H. Brooks	652 / 488	5.04
91	1 / 73	Robert B. Myers	434 / 292	0.27
92	8C / 78	Robert B. Myers	439 / 161	0.16
93	8C / 79	Robert B. Myers	575 / 17	0.32
94	8C / 80	Robert B. Myers	439 / 349	0.13
95	8C / 75	Robert B. Myers	439 / 549	0.42
96	8C / 74	Robert B. Myers	517 / 96	0.10

Detail 3 - Scale: 1" = 500' (4x)



FILE NO: 195-36-G-18  
 DRAWING NO: 1208 S-8H 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: September 23 20 19  
 OPERATOR'S WELL NO. 1208 S-8H  
**API WELL NO**  
47 - 033 - 05962  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek

QUADRANGLE: Top - West Milford  
Btm - Weston

DISTRICT: Grant / Hackers Creek

COUNTY: Harrison / Lewis

SURFACE OWNER: Linda & William W. Brodwater III

ACREAGE: 200

ROYALTY OWNER: Leeman B. Maxwell Heirs, et al

LEASE NO: \_\_\_\_\_ ACREAGE: 247.84

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

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,050' TVD  
22,905' MD

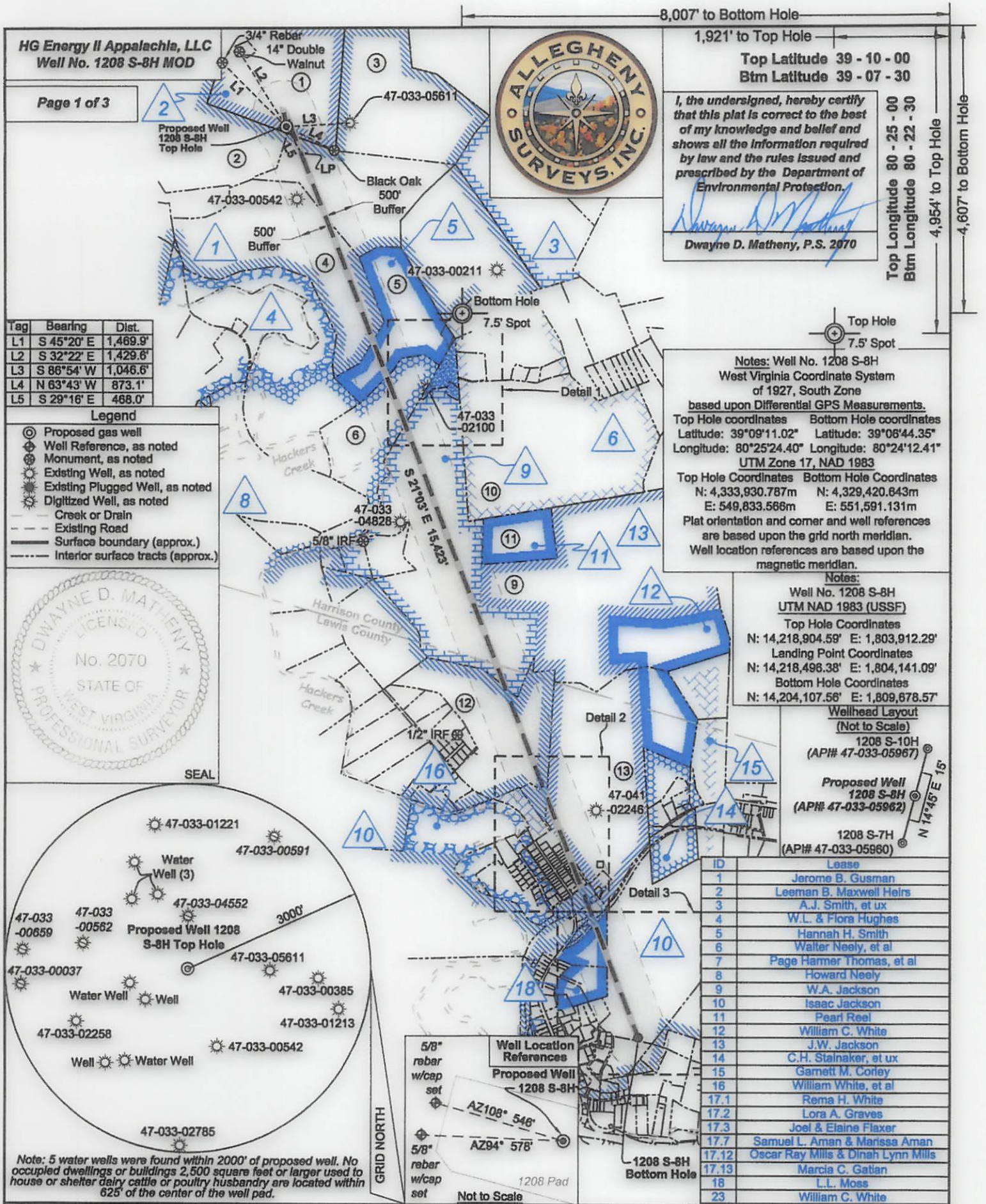
WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101

ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101





HG Energy II Appalachia, LLC  
Well No. 1208 S-8H MOD

Page 1 of 3



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

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

Top Longitude 80 - 25 - 00  
Btm Longitude 80 - 22 - 30  
4,954' to Top Hole  
4,607' to Bottom Hole

Tag	Bearing	Dist.
L1	S 45°20' E	1,469.9'
L2	S 32°22' E	1,429.6'
L3	S 86°54' W	1,046.6'
L4	N 63°43' W	873.1'
L5	S 29°16' E	488.0'

- 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.)
  - Interior surface tracts (approx.)



**Notes:** Well No. 1208 S-8H  
West Virginia Coordinate System of 1927, South Zone  
based upon Differential GPS Measurements.

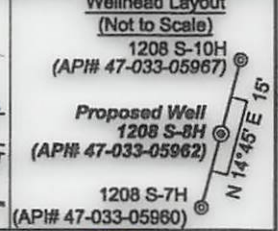
Top Hole coordinates      Bottom Hole coordinates  
Latitude: 39°09'11.02"      Latitude: 39°08'44.35"  
Longitude: 80°25'24.40"      Longitude: 80°24'12.41"  
UTM Zone 17, NAD 1983

Top Hole Coordinates      Bottom Hole Coordinates  
N: 4,333,930.787m      N: 4,329,420.643m  
E: 549,833.566m      E: 551,591.131m

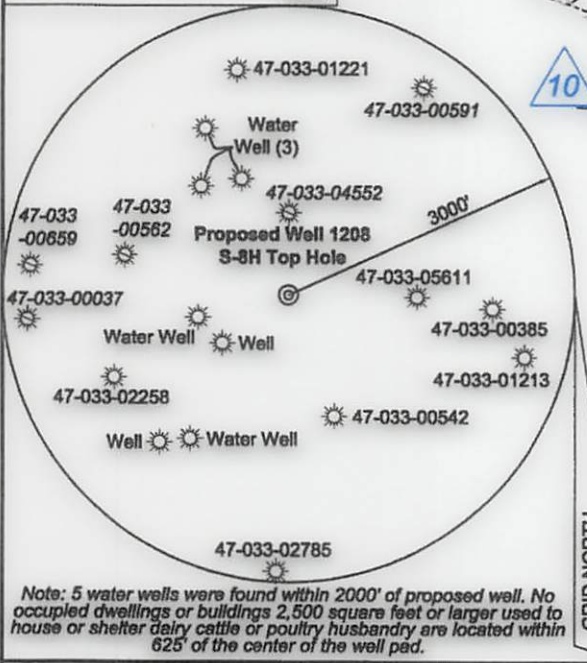
Plat orientation and corner and well references are based upon the grid north meridian.  
Well location references are based upon the magnetic meridian.

**Notes:**  
Well No. 1208 S-8H  
UTM NAD 1983 (USSF)

Top Hole Coordinates  
N: 14,218,904.59' E: 1,803,912.29'  
Landing Point Coordinates  
N: 14,218,496.38' E: 1,804,141.09'  
Bottom Hole Coordinates  
N: 14,204,107.56' E: 1,809,678.57'



ID	Lease
1	Jerome B. Gusman
2	Leeman B. Maxwell Heirs
3	A.J. Smith, et ux
4	W.L. & Flora Hughes
5	Hannah H. Smith
6	Walter Neely, et al
7	Page Hamer Thomas, et al
8	Howard Neely
9	W.A. Jackson
10	Isaac Jackson
11	Pearl Reel
12	William C. White
13	J.W. Jackson
14	C.H. Stainaker, et ux
15	Garnett M. Corley
16	William White, et al
17.1	Rema H. White
17.2	Lora A. Graves
17.3	Joel & Elaine Flaxer
17.7	Samuel L. Aman & Marissa Aman
17.12	Oscar Ray Mills & Dinah Lynn Mills
17.13	Marcia C. Gatian
18	L.L. Moss
23	William C. White



FILE NO: 195-36-G-18  
DRAWING NO: 1208 S-8H 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: September 23 20 19  
OPERATOR'S WELL NO. 1208 S-8H  
API WELL NO MOD  
47 - 033 - 05962  
STATE COUNTY PERMIT

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

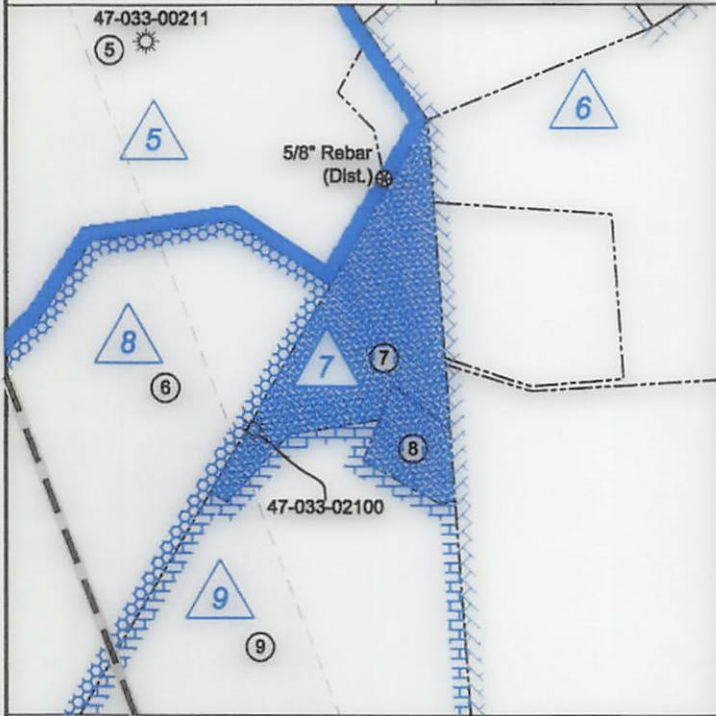
LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek  
DISTRICT: Grant / Hackers Creek  
SURFACE OWNER: Linda & William W. Brodwater III  
ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 247.84

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BH MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,050' TVD 22,905' MD

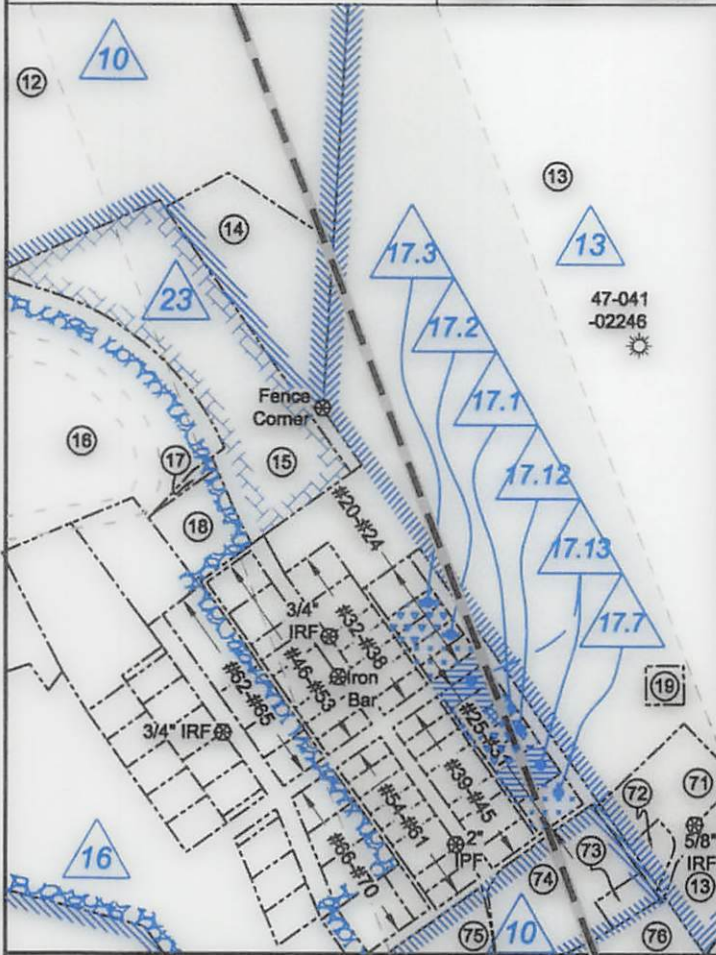
WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101



Detail 1 - Scale: 1" = 500' (4x)



Detail 2 - Scale: 1" = 500' (4x)



Harrison County - Grant-Outside District				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	425 / 31	Linda & William W. Brodwater III	1410 / 1045	247.84
2	445 / 1	Lisa M. Nutter	1599 / 386	87.78
3	445 / 10	Lisa M. Nutter	W687 / 445	66.87
4	445 / 9	Lisa M. Nutter	W687 / 445	105.50
5	445 / 21	Robert Allman, et al	W177 / 231	41.11
6	445 / 32	Patricia T. Garton	1425 / 854	43.15
7	445 / 34	Robert Allman, et al	W177 / 231	4.85
8	445 / 33	Robert Allman, et al	W177 / 231	1.05
9	465 / 4.1	John G. & Rebecca M. Moore	1421 / 350	353.80
10	445 / 46	James W. Riffle II & William L. Law	1385 / 259	140.43
11	465 / 6	John G. & Rebecca M. Moore	1421 / 350	21.37
Lewis County - Hackers Creek District				
No.	TM / Par	Owner	Bk / Pg	Ac.
12	8B / 7	William E. Watson	547 / 164	71.51
13	8C / 55	William C. White	W23 / 102	92.02
14	8C / 54	Jefferson B. or Mary B. Watson	W10 / 163	3.50
15	8C / 53	William E. Watson	W10 / 163	5.87
16	8C / 33.2	C.D. Cole	502 / 70	150.51
17	5 / 62	William C. White	W23 / 102	0.097
18	5 / 63	William C. White	W23 / 102	0.86
19	8C / 55.1	William C. White	W23 / 102	0.50
20	5 / 35	Michael McLaughlin	525 / 343	0.32
21	5 / 36	Lora Graves	389 / 635	0.16
22	5 / 37	Lora Graves	389 / 635	0.16
23	5 / 38	Lora Graves	480 / 589	0.16
24	5 / 39	Lora Graves	480 / 589	0.16
25	5 / 40	Maria C. Gatian	603 / 207	0.16
26	5 / 41	Maria C. Gatian	603 / 207	0.16
27	5 / 41.1	Rema White	395 / 626	0.11
28	5 / 42	Oscar & Dinah Mills	380 / 244	0.16
29	5 / 43	Oscar & Dinah Mills	380 / 244	0.16
30	5 / 44	Maria C. Gatian	603 / 207	0.32
31	5 / 45	Samuel Aman	592 / 743	0.32
32	5 / 32	William C. White	W23 / 102	0.32
33	5 / 31	Melissa A. Turner	614 / 235	0.32
34	5 / 30	Dale Holden	639 / 549	0.16
35	5 / 29	Robert & Shelia Bailey	661 / 38	0.16
36	5 / 28	Robert & Shelia Bailey	661 / 38	0.16
37	5 / 27	Robert & Denise Bennett	497 / 534	0.16
38	5 / 26	Robert & Denise Bennett	497 / 534	0.16
39	5 / 25	Matthew L. Shearer	385 / 562	0.16
40	5 / 24	Donna Posey	393 / 384	0.16
41	5 / 23	Donna Posey	393 / 384	0.16
42	5 / 22	Samuel & Linda Aman	344 / 145	0.32
43	5 / 21	Christopher L. Dobbins	629 / 197	0.16
44	5 / 20	Jerry & Linda Tomes	531 / 576	0.28
45	5 / 18	Gertrude Cooper & Falina Henline	678 / 3	0.20
46	5 / 1	William C. White	W23 / 102	0.32
47	5 / 2	William C. White	W23 / 102	0.32
48	5 / 3	Anna B. Hull	602 / 721	0.16
49	5 / 4	Anna B. Hull	602 / 721	0.16
50	5 / 5	Amilcar & Tammy Lazo	712 / 591	0.32
51	5 / 6	Dale Holden	574 / 554	0.16
52	5 / 7	Dale Holden	574 / 554	0.16
53	5 / 8	Dale Holden	574 / 554	0.16
54	5 / 9	Doris Jeanne Anderson	W45 / 18	0.16
55	5 / 9.1	Thomas E. Cordwell, et al	W45 / 18	0.16
56	5 / 10	Howard Moneypenney	W14 / 31	0.16
57	5 / 11	Howard Moneypenney	W14 / 31	0.16
58	5 / 12	Howard Moneypenney	W14 / 31	0.16
59	5 / 13	Joshua G. Drake	725 / 254	0.32
60	5 / 16	Jeffrey & Anessa Griffith	571 / 10	0.16
61	5 / 17	Jeffrey & Anessa Griffith	571 / 10	0.16
62	8C / 33.7	David D. & Kimberly M. Marple	514 / 156	0.736
63	8C / 33.9	Jack N. & Betty L. Garton	713 / 276	0.35
64	5 / 49	Donna J. Smith	432 / 135	0.27
65	5 / 48	Kenneth & Sheri Ellis	570 / 186	0.27
66	5 / 47	Brenda J. & Walter H. Irvin Jr.	621 / 22	0.33
67	5 / 46.1	Marjorie A. Paugh	425 / 650	0.39
68	5 / 46	Steven E. Scott	515 / 279	0.44
69	5 / 15	Lucy Messenger	W11 / 466	0.48
70	5 / 14	Jeffrey & Anessa Griffith	571 / 10	0.16

FILE NO: 195-36-G-18  
DRAWING NO: 1208 S-8H 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: September 23 20 19  
OPERATOR'S WELL NO. 1208 S-8H  
API WELL NO MOD  
47 - 033 - 05962  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek  
DISTRICT: Grant / Hackers Creek

QUADRANGLE: Top - West Millford  
Btm - Weston  
COUNTY: Harrison / Lewis

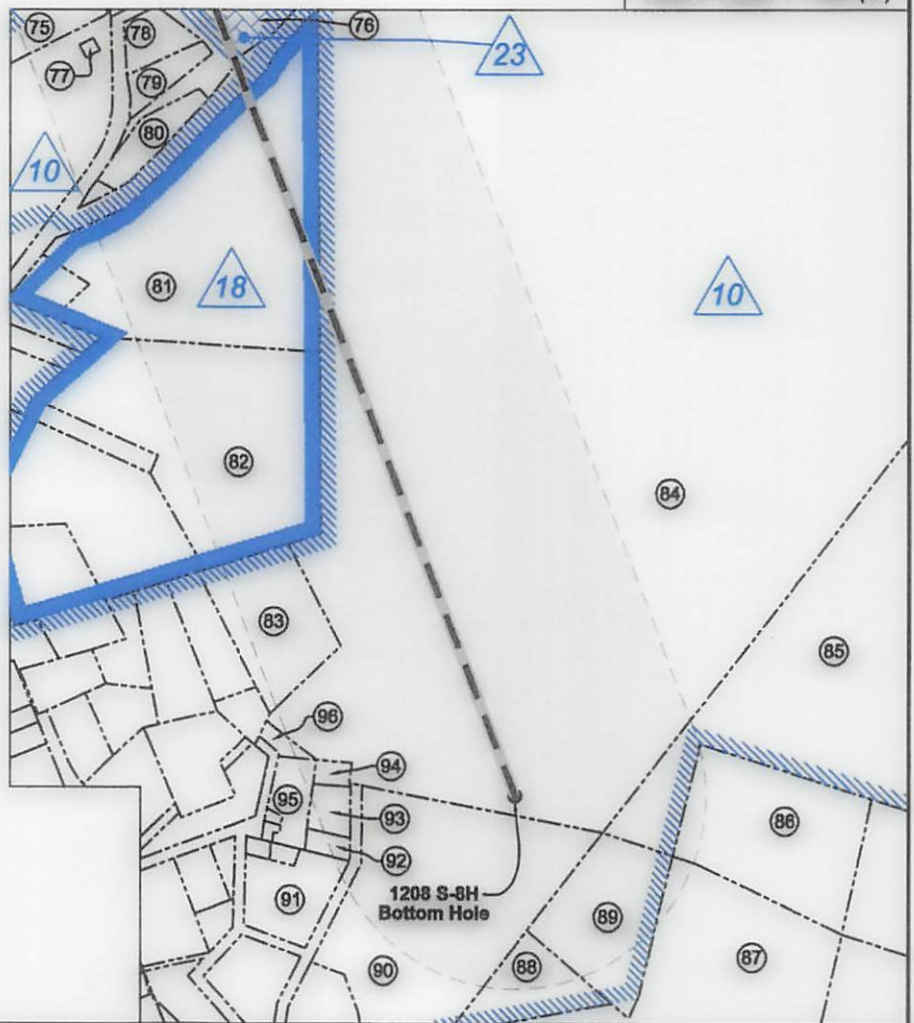
SURFACE OWNER: Linda & William W. Brodwater III  
ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 200  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BH MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,050' TVD  
22,905' 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



Lewis County - Hackers Creek District				
No.	TM / Par	Owner	Bk / Pg	Ac.
71	8C / 55.3	William C. White	670 / 590	1.49
72	8C / 55.2	William C. White II	640 / 269	0.30
73	8C / 52.2	Willard H. McWhorter	309 / 102	0.275
74	8C / 52.1	Julle D. McWhorter	547 / 395	2.135
75	8C / 33.12	Lisa & David Wagner	604 / 150	2.34
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78	8C / 49.1	Dale R. Holder	692 / 473	0.46
79	8C / 49	Melissa Lea Bean	663 / 425	0.75
80	8C / 51	Earl M. Jenkins	551 / 478	0.49
81	8C / 50	Dana Belle McWhorter	W14 / 701	8.26
82	1 / 71	Board of Education	295 / 354	6.50
83	8C / 86	Lundy H. & Deborah G. McMillion	521 / 513	2.00
84	8C / 58	William C. White	W23 / 102	126.18
85	8C / 59	James E. & Louise K. Dyer	551 / 372	54.62
86	8C / 60.16		637 / 173	3.38
87	8C / 60.10	Oscar & Dinah Mills	551 / 374	10.27
88	8C / 59.1		637 / 178	1.13
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90	8C / 60.2	John H. Brooks	652 / 488	5.04
91	1 / 73	Robert B. Myers	434 / 292	0.27
92	8C / 78	Robert B. Myers	439 / 161	0.16
93	8C / 79	Robert B. Myers	575 / 17	0.32
94	8C / 80	Robert B. Myers	439 / 349	0.13
95	8C / 75	Robert B. Myers	439 / 549	0.42
96	8C / 74	Robert B. Myers	517 / 96	0.10

Detail 3 - Scale: 1" = 500' (4x)



FILE NO: 195-36-G-18  
DRAWING NO: 1208 S-8H 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: September 23 20 19  
OPERATOR'S WELL NO. 1208 S-8H  
API WELL NO MOD  
47 -- 033 -- 05962  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek

QUADRANGLE: Top - West Millford  
Btm - Weston

DISTRICT: Grant / Hackers Creek

COUNTY: Harrison / Lewis

SURFACE OWNER: Linda & William W. Brodwater III

ACREAGE: 200

ROYALTY OWNER: Leeman B. Maxwell Heirs, et al

LEASE NO: ACREAGE: 247.84

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
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PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,050' TVD  
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WELL OPERATOR: HG Energy II Appalachia, LLC  
ADDRESS: 5260 Dupont Road  
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DESIGNATED AGENT: Diane C. White  
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