



02/23/2023

west virginia department of environmental protection

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

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

Wednesday, January 25, 2023
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit Modification Approval for SCHOEN 1205 N-5H
47-033-06009-00-00

Lateral Extension/ New 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: SCHOEN 1205 N-5H
Farm Name: GEORGE & ROSEANNE SCHOEN
U.S. WELL NUMBER: 47-033-06009-00-00
Horizontal 6A New Drill
Date Modification Issued: 1/25/2023

Promoting a healthy environment.

02/03/2023

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

02/23/2023

1) Well Operator: HG Energy II Appalachia, L.P. 494519932 Harrison Grant Mount Clare 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Schoen 1205 N-5H Well Pad Name: Schoen 1205

3) Farm Name/Surface Owner: George Schoen Public Road Access: McWhorter Road / SR25

4) Elevation, current ground: 1410' Elevation, proposed post-construction: 1407'

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 7214' / 7315' and 101' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 7305' RECEIVED Office of Oil and Gas

9) Formation at Total Vertical Depth: Marcellus JAN 18 2023

10) Proposed Total Measured Depth: 24,826' WV Department of Environmental Protection

11) Proposed Horizontal Leg Length: 15,839'

12) Approximate Fresh Water Strata Depths: 135', 480', 640', 728'

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

14) Approximate Saltwater Depths: 1730, 1780, 2010

15) Approximate Coal Seam Depths: 501, 650', 730', 736' (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: _____

Harold L. Reynolds
1-12-23

02/03/2023

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: 02/23/2023 (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120' ✓	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1200'	1200' ✓	40% excess, CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2100'	2100' ✓	40% excess, CTS
Intermediate 2	9 5/8"	NEW	N-80 BTC	40	5800'	5800' ✓	40% excess tail, CTS
Production	5 1/2"	NEW	P-110 HP	23	24826'	24826' ✓	20% excess tail, CTS
Tubing							
Liners							

Thomas L. Schepeler 1-12-23

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	24"	.438	2110	1200 ✓	Type 1, Class A	40% excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	5750		Type 1/Class A	Lead 40% excess, Tail 0% Excess
Production	5 1/2"	8 1/2"	.415	16240 ✓	12500	Type 1/Class A	20% excess yield = 1.19, tail yield 1.94
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 7305 feet. Drill horizontal leg to estimated 15,839' lateral length, 24,826' 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.

02/03/2023

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): 29.485 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.246 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 ACP 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, 40% Excess Yield = 1.20, CTS
Intermediate 1 - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl40% 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 CaCl40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS*
Production - Lead: 14.5 ppg POZ.PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17020% ExcessLead Yield=1.19Tail Yield=1.94CTS*



25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.
Fresh Water - 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.



*Note: Attach additional sheets as needed.

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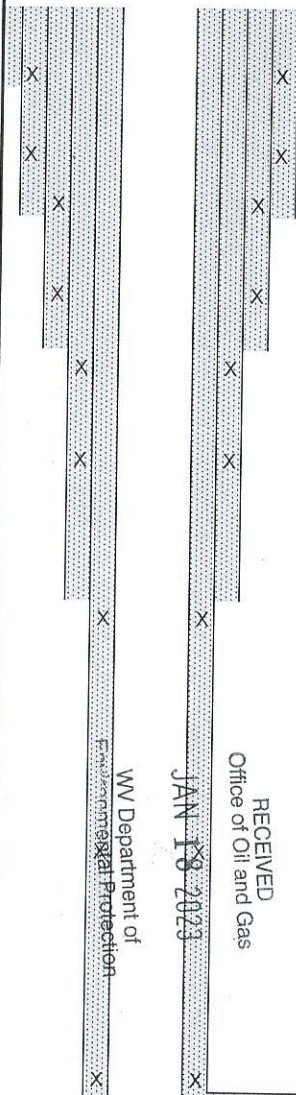
*** Storage String *** CTS ***

15.4 ppg Lead - Yield 1.24 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)
 B348 - 0.5% BWOB Fluid Loss / D013 - 0.75% BWOB Retarder / D47 - 0.02 gal / sack VBWOB Anti Foam / D202 - 0.15% BWOB Dispersant / D095 1.5 lb per BBL CemNET* - 60% Excess
 15.9 ppg Tail - Yield 1.17 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)
 B160A - 0.15% BWOB Dispersant / B547 - 0.35% BWOB GasBLOK* / D013 - 0.3% BWOB Retarder / D047 - 0.02 gal / sack Anti Foam / D801 - 0.03 gal / sack Retarder - 0% Excess

1205 N-5H
 Marcellus Shale Horizontal
 Harrison County, WV



Ground Elevation			1205 N-5H SHL				14218731.39N 1824131.9E		
Azm			1205 N-5H LP				14220076.28N 1826908.64E		
WELLBORE DIAGRAM			1205 N-5H BHL				14235004.48N 1821633.64E		
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, 480, 640, 728	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
		Coals		736					
		Fresh Water Protection	0	1200					
17.5"	13-3/8" 68# J-55 BTC	Little Lime	1467	1482	AIR / KCL - Salt Polymer	See above (LEFT) for Storage String Cement Blend to Meet DTI Requirements for Gas Storage Field Isolation	Bow Spring on every joint <i>"will also be running ACP for isolating storage zone"</i>	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi
		Big Lime	1510	1556					
		Injun / Gantz (Storage)	1565 / 1900	1690 / 1970					
		Intermediate 1	0	2100					
12.25"	9-5/8" 40# N-80 BTC	Fifty Foot / Thirty	1993 / 2112	2093 / 2147	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 2 joints then every third joint to 100' form surface	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=5750 psi
		Gordon Stray / Gordon	2195 / 2250	2250 / 2310					
		5th Sand	2440	2468					
		Warren	2835	2860					
		Speechley	3028	3162					
		Bradford	3342	3367					
		Benson	4420	4455					
		Alexander	4590	4680					
		Intermediate 2	0	TVD: 5200' MD: 5800' Inc: 45 deg.					
		8.5" Curve	5-1/2" 23# P-110 HP CDC HTQ	Rhinestreet					
Cashaqua	6420			6740					
Middlesex	6740			6870					
West River	6870			7003					
Burkett	7003			7048					
Tully Limestone	7048			7149					
Hamilton	7149			6753					
Marcellus	7214			7315					
TMD / TVD (Production)	24826			7305					
Onondaga	7315								
8.5" Lateral					11.5ppg-12.5ppg SOBMM				



RECEIVED
 Office of Oil and Gas
 JAN 19 2023
 WV Department of Environmental Protection

LP @ 7305' TVD / 8987' MD
 8.5" Hole - Cemented Long String
 5-1/2" 23# P-110 HP CDC HTQ
 +/-15839' ft Lateral
 TD @ +/-7305' TVD +/-24826' MD

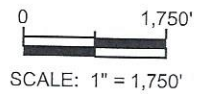
X=centralizers

4703306009

02/23/2023



Well Key	
4703300709	+
	Conventional Vertical Well
	- - -
	Proposed Horizontal Marcellus Well
	⊕
	Deep Well



DATA SOURCES
WVGES Data Set - 2020; WVDEP Website

Area of Review for:
SCHOEN 1205 NORTH UNIT

Proposed 1205 N-1H Proposed 1205 N-2H Proposed 1205 N-3H
Proposed 1205 N-4H Proposed 1205 N-5H

Grant District, Harrison County, W.Va.

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



02/03/2023

EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:

SCHOEN 1205 NORTH UNIT AND PROPOSED WELLS N-1H, N-2H, N-3H, N-4H & N-5H

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4703300310	Harrison	Alice V Knisley	Dominion Energy Transmission, Inc.	Gantz	Storage	1824	ACTIVE	39.157059	-80.340613
2	4703300322	Harrison	I M Swisher	Hope Natural Gas Company	UNKNOWN	not available	-	ABANDONED	39.167870	-80.365986
3	4703300324	Harrison	John H Hardway 1	Dominion Energy Transmission, Inc.	Gantz	Storage	1644	ACTIVE	39.153472	-80.355885
4	4703300382	Harrison	M V Bassell	Dominion Energy Transmission, Inc.	Gantz	Storage	1653	ACTIVE	39.167589	-80.345998
5	4703300397	Harrison	Marcella R Bond	Hope Natural Gas Company	Up Devonian	Gas	1587	PLUGGED	39.152681	-80.357369
6	4703300398	Harrison	J N Rector	Hope Natural Gas Company	Thirty-foot	Storage	2002	PLUGGED	39.149633	-80.359418
7	4703300400	Harrison	Porter M Rogers	Hope Natural Gas Company	Thirty-foot	Storage	2085	PLUGGED	39.162985	-80.351406
8	4703300408	Harrison	M R Bond	Dominion Energy Transmission, Inc.	Gantz	Storage	1726	ACTIVE	39.155851	-80.357903
9	4703300410	Harrison	E A Waggoner	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	1964	ACTIVE	39.148438	-80.357974
10	4703300659	Harrison	S V Curry CW433	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1990	ACTIVE	39.149343	-80.352710
11	4703300661	Harrison	M S Davis CW538	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1885	ACTIVE	39.154774	-80.339266
12	4703300677	Harrison	D L Nutter	Alliance Petroleum Co. LLC	Thirty-foot	Gas	1850	ABANDONED	39.155655	-80.342933
13	4703300690	Harrison	J J Lewis CW438	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	1853	ACTIVE	39.154132	-80.353828
14	4703300692	Harrison	J C Stout CW456	Dominion Energy Transmission, Inc.	Gantz	Storage	1950	PLUGGED	39.171996	-80.346933
15	4703300709	Harrison	M Bond CW335	Dominion Energy Transmission, Inc.	Thirty-foot	Gas	2025	PLUGGED	39.159079	-80.361666
16	4703300710	Harrison	Ray Swisher CW455	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2017	PLUGGED	39.172431	-80.359233
17	4703300711	Harrison	Lewis Davis CW340	Dominion Energy Transmission, Inc.	Gordon	Storage	2117	PLUGGED	39.169606	-80.367107
18	4703300727	Harrison	Marcella R Bond	Dominion Energy Transmission, Inc.	Benson	Gas	4305	ACTIVE	39.162713	-80.357152
19	4703300737	Harrison	M Bond CW446	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1904	ACTIVE	39.163560	-80.354301
20	4703300741	Harrison	A D Bassell CW453	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2208	PLUGGED	39.172441	-80.348854
21	4703300742	Harrison	A D Bassell CW459	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2145	PLUGGED	39.177553	-80.350856
22	4703300746	Harrison	A Stalnaker CW445	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1935	PLUGGED	39.161560	-80.350301
23	4703300751	Harrison	Emma Post CW451	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2248	ACTIVE	39.169652	-80.353945
24	4703300754	Harrison	A D Bassell CW457	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2160	PLUGGED	39.174028	-80.353269
25	4703300764	Harrison	Milton S Davis	Hope Natural Gas Company	Hampshire Grp	Gas	2214	PLUGGED	39.153552	-80.339108
26	4703300755	Harrison	P Maxwell CW461	Dominion Energy Transmission, Inc.	Gantz	Storage	2188	PLUGGED	39.180559	-80.353642
27	4703300771	Harrison	O G Kennedy CW338	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1996	PLUGGED	39.167697	-80.365568
28	4703300776	Harrison	L Gifford CW337	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1973	ACTIVE	39.165584	-80.364807
29	4703300783	Harrison	M V Bassell CW448	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Storage	2127	PLUGGED	39.163631	-80.347893
30	4703300811	Harrison	D L Nutter	Dominion Energy Transmission, Inc.	Benson	Gas	4365	ACTIVE	39.159500	-80.346443
31	4703300818	Harrison	David C Curry CW441	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1880	PLUGGED	39.158922	-80.351965
32	4703300827	Harrison	A W Smith	Dominion Energy Transmission, Inc.	Fifth	Gas	2389	ACTIVE	39.171375	-80.368174
33	4703300880	Harrison	Marcella Bond	Dominion Energy Transmission, Inc.	Benson	Gas	4476	ACTIVE	39.156295	-80.360290

34	4703300890	Harrison	C H Woodford	Dominion Energy Transmission, Inc.	Benson	Gas	4660	ACTIVE	39.182815	-80.363180
35	4703300922	Harrison	A B Yost	Dominion Energy Transmission, Inc.	Benson	Gas	4455	ACTIVE	39.154204	-80.350633
36	4703301915	Harrison	G Thomas Smith	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4630	ACTIVE	39.161289	-80.365368
37	4703302146	Harrison	Emma Post	Dominion Energy Transmission, Inc.	Alexander	Gas	4980	ACTIVE	39.168746	-80.356491
38	4703302433	Harrison	M V Bassell	Dominion Energy Transmission, Inc.	Benson	Gas	4657	ACTIVE	39.166932	-80.350738
39	4703302483	Harrison	C H Woodford CW347	Dominion Energy Transmission, Inc.	Gantz	Observation	2164	PLUGGED	39.183028	-80.362946
40	4703302484	Harrison	C H Woodford CW343	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1960	ACTIVE	39.177808	-80.373752
41	4703302772	Harrison	J H & C Gerlach	Greylock Conventional, LLC	Benson	Gas	4427	ACTIVE	39.150855	-80.348565
42	4703302876	Harrison	L J Stenger et al	P.G. Oil & Gas, LLC	Alexander	Gas	5100	ACTIVE	39.193173	-80.375451
43	4703302881	Harrison	E S Swisher (CW-344)	Dominion Energy Transmission, Inc.	UNKNOWN	not available	-	PLUGGED	39.176059	-80.369854
44	4703302938	Harrison	Carl Smith Jr	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2221	ACTIVE	39.179913	-80.359897
45	4703302971	Harrison	P Maxwell et al (CW-463)	Dominion Energy Transmission, Inc.	UNKNOWN	not available	-	PLUGGED	39.182300	-80.358860
46	4703303050	Harrison	Porter Maxwell (CW-465)	Dominion Energy Transmission, Inc.	UNKNOWN	not available	-	PLUGGED	39.185710	-80.353760
47	4703303208	Harrison	Porter Maxwell	Dominion Energy Transmission, Inc.	UNKNOWN	not available	-	PLUGGED	39.184352	-80.374325
48	4703304875	Harrison	Worthy C Hall	Dominion Energy Transmission, Inc.	Thirty-foot	not available	2362	PLUGGED	39.164004	-80.343017
49	4703330132	Harrison	Thomas B Reed	Hope Natural Gas Company	Hampshire Grp	Gas	2455	PLUGGED	39.190219	-80.360075
50	4703330316	Harrison	W B Lowther	Philadelphia Oil Co.	Hampshire Grp	Oil and Gas	2455	PLUGGED	39.198796	-80.373534
51	4703330534	Harrison	Porter Maxwell 3	Hope Natural Gas Company	Hampshire Grp	Gas	2352	PLUGGED	39.186975	-80.371151
52	4703331780	Harrison	Margert Reed	Hope Natural Gas Company	Hampshire Grp	Gas	2476	PLUGGED	39.191607	-80.361276
53	4703331901	Harrison	S J Davisson CW332	Consolidated Gas Supply Corp.	Hampshire Grp	Storage	2330	OBSERVATION	39.154343	-80.365053
54	4703331906	Harrison	F S Young	Consolidated Gas Supply Corp.	Gantz	Storage	1910	UNKNOWN	39.151280	-80.345552
55	4703331910	Harrison	F S Young	Consolidated Gas Supply Corp.	Gantz	Storage	1910	UNKNOWN	39.160252	-80.346711
	4703331911	Harrison	D L Nutter	Consolidated Gas Supply Corp.	Greenland Gap Fm	Storage	2235	PLUGGED	39.159434	-80.340704
56	4703331930	Harrison	E H Stout CW462	Consolidated Gas Supply Corp.	Greenland Gap Fm	Storage	2480	UNKNOWN	39.179554	-80.350086
57	4703373805	Harrison	Lee Stout	Hope Natural Gas Company	Fifth	not available	-	PLUGGED	39.196215	-80.361079
58	4703373931	Harrison	I Wilson Swisher	Hope Natural Gas Company	UNKNOWN	not available	-	PLUGGED	39.183895	-80.371408
59	UNKNOWN	Harrison	J.J. Lewis ??	UNKNOWN	UNKNOWN	not available	-	PLUGGED	39.153186	-80.347510
WELLS ADDED 10/21/2022										
60	4703304606	Harrison	Robert W Benson	Ross & Wharton Gas Co., Inc.	Brallier	Gas	5126	ACTIVE	39.197983	-80.386181
61	4703330203	Harrison	Edna Swisher	Hope Natural Gas Company	Hampshire Grp	Gas	2562	PLUGGED	39.197975	-80.360723
62	4703330315	Harrison	E. J. Stout	Philadelphia Oil Co.	Hampshire Grp	Oil and Gas	2416	PLUGGED	39.196533	-80.374999
63	4703330322	Harrison	Paul V. Bond	Philadelphia Oil Co.	Hampshire Grp	Oil	2469	PLUGGED	39.190877	-80.377608
64	4703330323	Harrison	Paul V. Bond	Philadelphia Oil Co.	Hampshire Grp	Oil	2488	PLUGGED	39.193911	-80.382639
65	4703330324	Harrison	Paul V. Bond	Philadelphia Oil Co.	Hampshire Grp	Oil	2328	PLUGGED	39.189847	-80.379284
66	4703330399	Harrison	A D Bassel	Cumberland & Allegheny Gas Co.	Hampshire Grp	Gas	2516	PLUGGED	39.171415	-80.349542

67	4703330414	Harrison	Sidney Miley	Hope Natural Gas Company	Hampshire Grp	Gas	2488	PLUGGED	39.19304	-80.359419
68	4703330447	Harrison	A D Bassel	Cumberland & Allegheny Gas Co.	Hampshire Grp	Gas	2500	PLUGGED	39.176956	-80.364259
69	4703330512	Harrison	Edward Stout	Milliken, H. E., & Snider, A. M.	Hampshire Grp	Oil	2346	PLUGGED	39.196434	-80.374518
70	4703330513	Harrison	Edward Stout	Milliken, H. E., & Snider, A. M.	Hampshire Grp	Oil and Gas	2364	PLUGGED	39.194404	-80.374145
71	4703330514	Harrison	Edward Stout	Milliken, H. E., & Snider, A. M.	Hampshire Grp	Oil and Gas	2335	PLUGGED	39.192084	-80.374702
72	4703330622	Harrison	Wm. Moses	Moses, William	Gordon	not available	2389	PLUGGED	39.195709	-80.375077
73	4703330623	Harrison	Wm. Moses	Moses, William	Hampshire Grp	not available	2578	PLUGGED	39.197449	-80.37396

UPDATED 11/23/2022

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

YELLOW DENOTES WELL WITH TVD > 4,450'

GREEN DENOTES SURVEYED WELLS

HG Energy II Appalachia, LLC
Well No. Schoen 1205 N-5H
1205 N-5H MOD

ALLEGHENY SURVEYS, INC.

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

DWAYNE D. MATHENY
 LICENSED
 No. 2070
 STATE OF WEST VIRGINIA
 PROFESSIONAL SURVEYOR

Page 1 of 5

Schoen 1205 N-5H Bottom Hole

7,707' to Bottom Hole

5,328' to Top Hole

BTM LATITUDE 39 - 12 - 30
TOP LATITUDE 39 - 10 - 00

LONGITUDE 80 - 20 - 00

Notes:
 Well No. Schoen 1205 N-5H
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.

Top Hole coordinates	Bottom Hole coordinates
Latitude: 39°09'07.96"	Latitude: 39°11'49.03"
Longitude: 80°21'07.66"	Longitude: 80°21'23.23"
UTM Zone 17, NAD 1983	
Top Hole Coordinates	Bottom Hole Coordinates
N: 4,333,877.995m	N: 4,338,838.043m
E: 555,996.515m	E: 555,235.044m

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. Schoen 1205 N-5H
 UTM NAD 1983 (USSF)

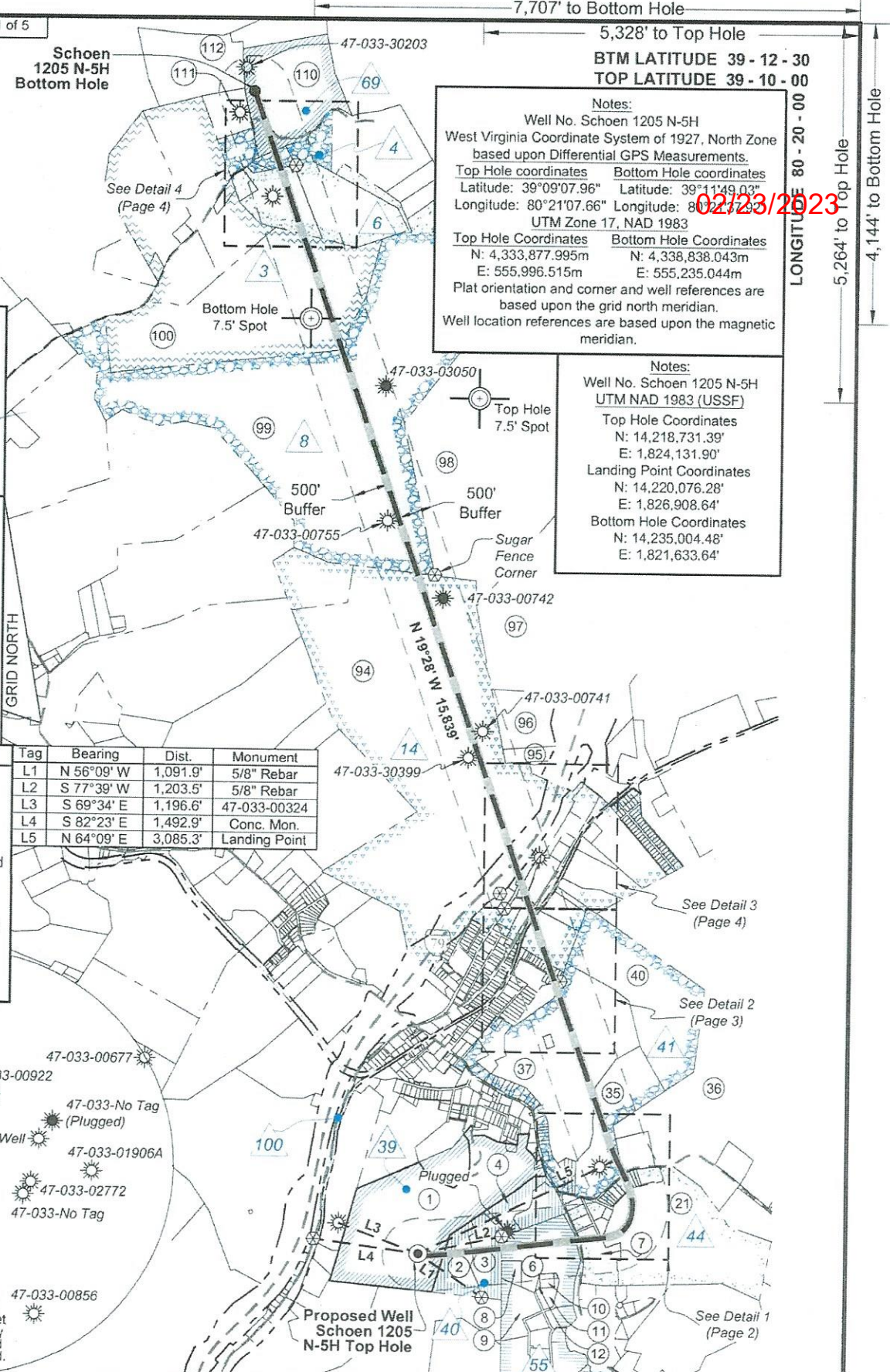
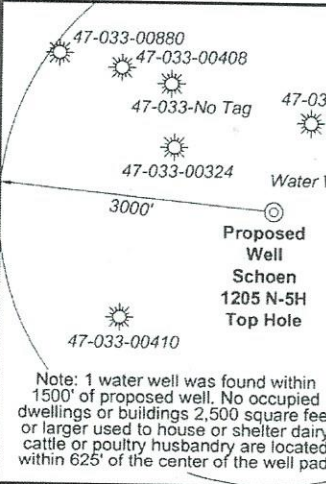
Top Hole Coordinates	Bottom Hole Coordinates
N: 14,218,731.39'	N: 14,220,076.28'
E: 1,824,131.90'	E: 1,826,908.64'
Landing Point Coordinates	Bottom Hole Coordinates
N: 14,220,076.28'	N: 14,235,004.48'
E: 1,826,908.64'	E: 1,821,633.64'

GRID NORTH

SEAL

Tag	Bearing	Dist.	Monument
L1	N 56°09' W	1,091.9'	5/8" Rebar
L2	S 77°39' W	1,203.5'	5/8" Rebar
L3	S 69°34' E	1,196.6'	47-033-00324
L4	S 82°23' E	1,492.9'	Conc. Mon.
L5	N 64°09' E	3,085.3'	Landing Point

- Legend**
- ⊙ Proposed gas well
 - ⊛ Well Reference, as noted
 - ⊗ Monument, as noted
 - ☀ Existing Well, as noted
 - ☀ Existing Plugged Well, as noted
 - ☀ Digitized Well, as noted
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)
 - - - Creek or Drain
 - - - Existing Road
 - - - Railroad Tracks



FILE NO: 32-36-G-19
 DRAWING NO: Schoen 1205 N5H 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: January 5 2023
 OPERATOR'S WELL NO. Schoen 1205 N-5H
 API WELL NO
 47 - 033 - 06009
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
 DISTRICT: Grant / Union
 SURFACE OWNER: George & Rosanne Schoen
 ROYALTY OWNER: Willa Post Robey, et al LEASE NO: _____ ACREAGE: 78.20
 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: 7,305' TVD 24,826' MD

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

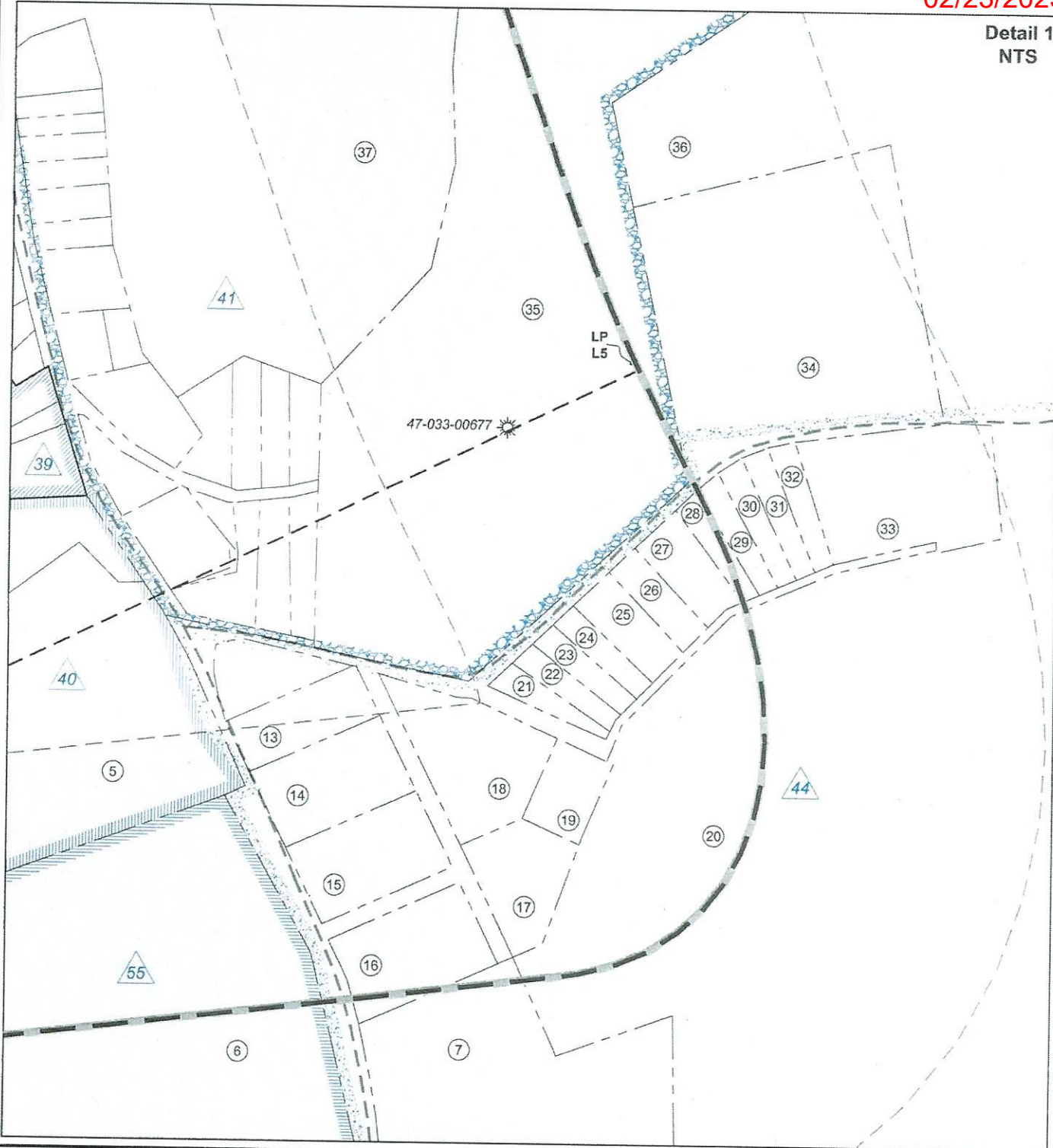
02/23/2023

02/23/2023



02/23/2023

Detail 1
NTS



FILE NO: 32-36-G-19
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LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
 DISTRICT: Grant / Union

Top: Mount Clare
 QUADRANGLE: Btm: West Milford
 COUNTY: Harrison

SURFACE OWNER: George & Rosanne Schoen

ACREAGE: 65.00

ROYALTY OWNER: Willa Post Robey, et al

LEASE NO: _____ ACREAGE: 78.20

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PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 24,826' MD 7,305' TVD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

ADDRESS: 5260 Dupont Road

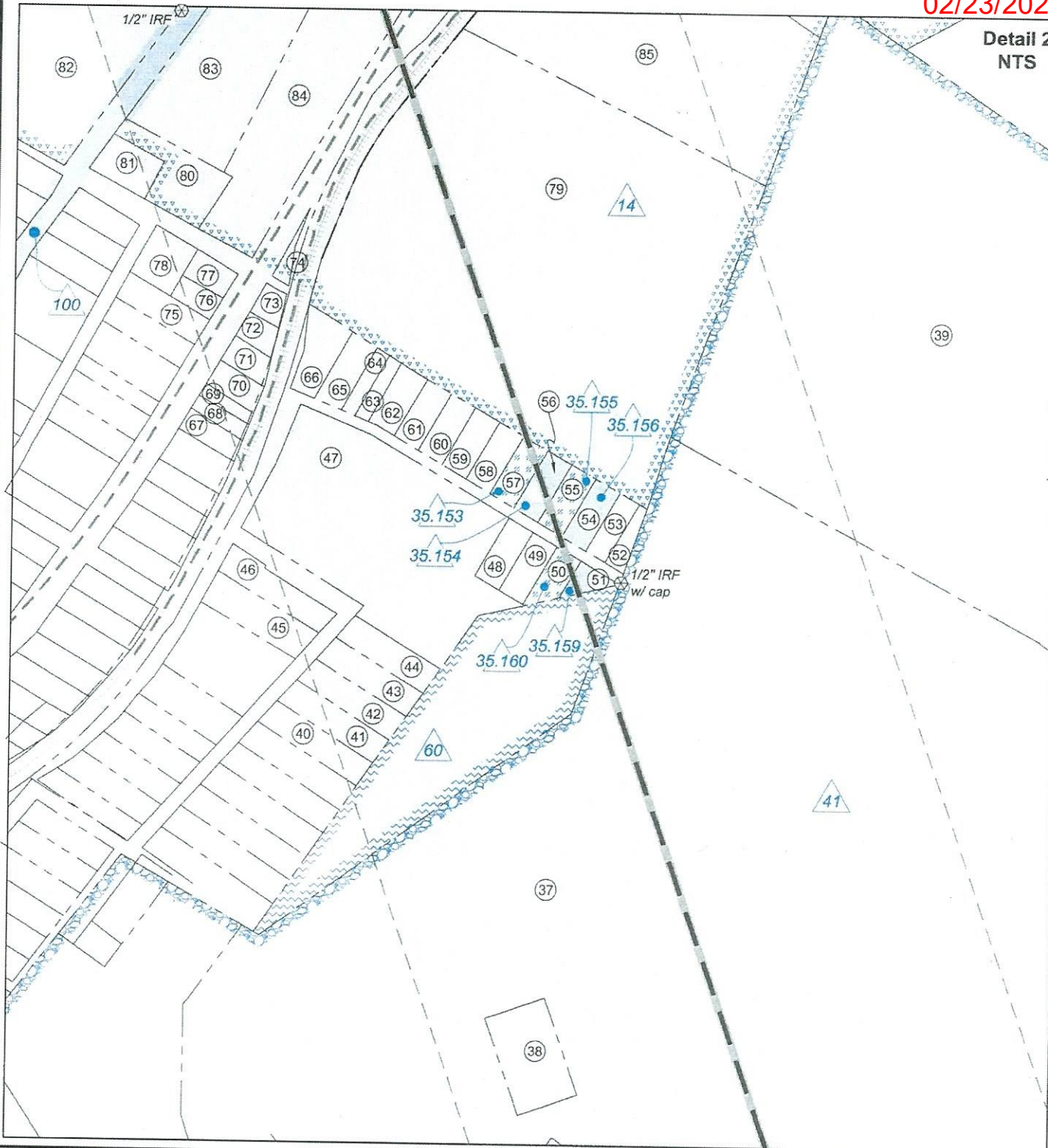
Parkersburg, WV 26101

Parkersburg, WV 26101



02/23/2023

Detail 2
NTS



FILE NO: 32-36-G-19
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 MINIMUM DEGREE OF ACCURACY:
 Submeter
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STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

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 47 — 033 — 06009
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 ACREAGE: 65.00
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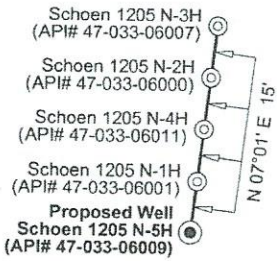
02/03/2023

**HG Energy II
Appalachia, LLC
Well No. Schoen
1205 N-5H MOD**



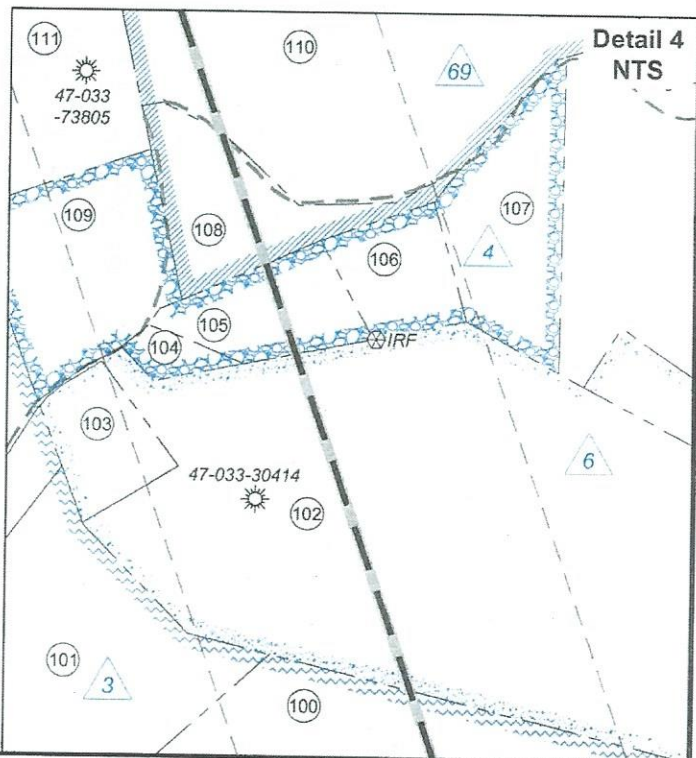
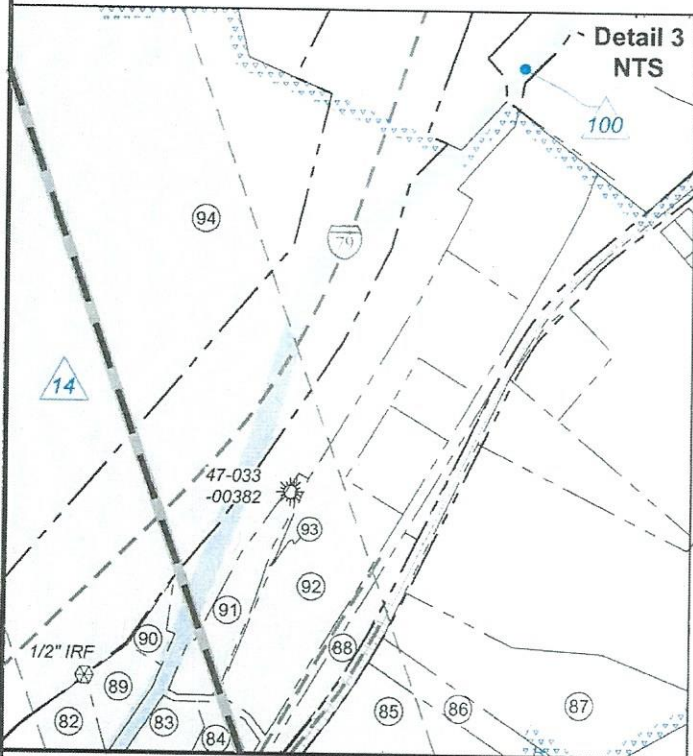
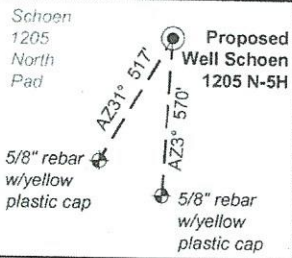
02/23/2023

Wellhead Layout (NTS)



ID	Lease
3	Emory L. & Elzira P. Stout
4	Cassie G. Smith, et al
6	Edna M. Swisher, et al
8	Porter & Bertha B. Maxwell, et al
14	Mollie V. Bassell, et al
35.153	Brenda Joyce Cogar, et al
35.154	Charles D. Leeson
35.155	Charles D. Leeson
35.156	Charles D. Leeson
35.159	Charles D. Leeson
35.160	Charles D. Leeson
39	A.B. Post, et al
40	John H. & Charlotte C. Gerlach
41	D.L. & Margaret R. Nutter
44	Milton S. & Mary I. Davis
55	French S. & Anna J. Young
60	Betty J. & Isaac H. Maxwell, III
69	Jo Ann Murtha
100	WVDOT, Division of Highways

**Well Location References
Not to Scale**



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DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION**

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COUNTY: Harrison

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LEASE NO: _____

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DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

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Parkersburg, WV 26101

Parkersburg, WV 26101



No.	TM / Par	Owner	Bk / Pg	Ac.
1	447 / 2	George & Rosanne Schoen	1148 / 1059	65.00
2	447 / 3	George & Rosanne Schoen	1253 / 302	10.06
3	447 / 3.4	Stephen M & Kimberly Goff	1257 / 189	7.67
4	447 / 3.3	Charlotte C. Gerlach	1070 / 1041	6.10
5	447 / 3.2	Michael Tillman & Mary Hencke	1257 / 193	5.86
6	447 / 4.1	Joseph & Karen Bowers	1295 / 887	21.87
7	447 / 6.1	Michael & Charlotte Moses	1364 / 7	7.20
8	447 / 4.14	Sarah N. & Andrew D. Spittler	1622 / 331	2.00
9	447 / 4.1	H. Keith & Diana L. Bramel	1438 / 63	7.46
10	447 / 4.10	John L. Breen	1512 / 1161	0.92
11	447 / 4.7	John L. Breen	1512 / 1161	2.21
12	447 / 4.12	John L. Breen	1512 / 1161	0.17
13	2105 / 119	Church of God Trustees	1097 / 818	Lot 23
14	2105 / 120	Church of God Trustees	1097 / 818	Lot 24
15	2105 / 121	Charles & Mitzie Reider	1646 / 958	0.88
16	2105 / 122	Janice Dean	1456 / 1011	0.99
17	2105 / 57	Thomas & Terri Hawkins	1558 / 1255	0.76
18	2105 / 56	Thomas & Terri Hawkins	1558 / 1255	1.41
19	2105 / 58	Thomas & Terri Hawkins	1558 / 1255	0.38
20	447 / 6	Thomas E. & Terri E. Hawkins	1558 / 1255	84.25
21	2105 / 59	Mary Ann Bowyer, et al	F1118 / 63	0.23
22	2105 / 60	Mary Ann Bowyer, et al	F118 / 63	0.22
23	2105 / 61	Lisa Hickman	1621 / 760	0.21
24	2105 / 62	Lisa Hickman	1621 / 760	0.20
25	2105 / 63	Lisa Hickman	1621 / 760	0.38
26	2105 / 64	David W. Stutler	1482 / 433	0.28
27	2105 / 65	Jean Riffle Estate	--- / ---	0.42
28	2105 / 67	Jean Riffle Estate	--- / ---	0.21
29	2105 / 68	Jean Riffle Estate	--- / ---	0.25
30	2105 / 69	Jean Riffle Estate	--- / ---	0.26
31	2105 / 70	Kevin R. Kolenda	1257 / 800	0.26
32	2105 / 71	Kevin R. Kolenda	1257 / 800	0.26
33	2105 / 73	Paul Winters Estate	W201 / 472	1.53
34	427 / 28.1	Allen Scott Hall	1265 / 589	5.40
35	427 / 34	Worthy C. Hall	1577 / 626	27.00
36	427 / 28	Worthy C. Hall	1577 / 626	248.44
37	427 / 33	Isaac & Betty Maxwell	1539 / 141	72.00
38	427 / 33.1	Greater Harrison Co.	1424 / 1161	0.48
39	427 / 27	Worthy C. Hall	1577 / 626	51.75
40	2103 / 94	Candice S. Wheeler	W125 / 113	0.25
41	2103 / 88	Candice S. Wheeler	W125 / 113	0.24
42	2103 / 82	Candice S. Wheeler	W125 / 113	0.23
43	2103 / 75	Candice S. Wheeler	W125 / 113	0.22
44	2103 / 68	Candice S. Wheeler	W125 / 113	0.22
45	2103 / 74	Eugene N. & Linda S. Alkire	1131 / 636	0.23
46	2103 / 67	Charles Melton Estate, et al	--- / ---	0.26
47	2103 / 37	Christian R. Grymes	1516 / 139	2.95
48	2103 / 38	Charles D. Lesson	1585 / 664	---
49	2103 / 39	Charles D. Lesson	1585 / 664	---
50	2103 / 40	Charles D. Lesson	1585 / 664	---
51	2103 / 41	Charles D. Lesson	1585 / 664	---
52	2103 / 26	Charles D. Lesson	1585 / 664	---
53	2103 / 25	Charles D. Lesson	1585 / 664	---
54	2103 / 24	Charles D. Lesson	1585 / 664	---
55	2103 / 23	Charles D. Lesson	1585 / 664	---
56	2103 / 22	Charles D. Lesson	1585 / 664	---

No.	TM / Par	Owner	Bk / Pg	Ac.
57	2103 / 21	Joshua & Harley Miller Cogar	W117 / 385	---
58	2103 / 20	Joshua & Harley Miller Cogar	W174 / 683	---
59	2103 / 19	Dennis W. & Rose M. Chamberlain	1335 / 911	---
60	2103 / 18	Dennis W. & Rose M. Chamberlain	1335 / 911	---
61	2103 / 17	Jonah E. Cogar	1432 / 493	---
62	2103 / 16	Jonah E. Cogar	1432 / 493	---
63	2103 / 15.1	Jonah E. Cogar	1432 / 493	---
64	2103 / 15	Eugene R. Smith Jr.	1329 / 532	---
65	2103 / 14	Eugene R. Smith Jr.	1329 / 532	---
66	2103 / 13	Drexal L. Mullen	W134 / 323	---
67	2103 / 51	Judith A. Corkrean	1148 / 474	0.11
68	2103 / 46	Judith A. Corkrean	1148 / 474	---
69	2103 / 46.1	Judith A. Corkrean	1148 / 474	---
70	2103 / 36	Judith A. Corkrean	1148 / 474	---
71	2103 / 31	Beverly A. Foster	1096 / 205	---
72	2103 / 12	Beverly A. Foster	1096 / 20	---
73	2103 / 7	Beverly A. Foster	1096 / 205	---
74	2103 / 2	Beverly A. Foster	1096 / 205	---
75	2103 / 30	Gregory A. Foster	1404 / 455	---
76	2103 / 11	Gregory A. & Beverly A. Foster	1256 / 109	---
77	2103 / 6	Gregory A. & Beverly A. Foster	1256 / 109	---
78	2103 / 11.1	Joshua D. Messenger	1492 / 197	0.24
79	427 / 13	Dennis & Rose Chamberlain	1321 / 102	9.25
80	427 / 1.12	Jerry & Myrna Kincaid	1484 / 1045	0.30
81	2103 / 1	Jerry & Myrna Kincaid	1484 / 1045	0.19
82	427 / 1.6	Michel M. Lewis	1598 / 301	2.45
83	427 / 1.7	Apostolic Christian	1598 / 301	3.83
84	427 / 1.13	Apostolic Christian	1598 / 296	1.80
85	427 / 14	Debra & David Shriver	1218 / 787	4.19
86	427 / 15	Reid & Vicki Smith	1506 / 332	0.63
87	427 / 16	Reid & Vicy Smith	1336 / 710	4.21
88	427 / 1.10	Charles & Nancy Shock	1299 / 472	0.80
89	427 / 1.5	Michel M. Lewis	1444 / 142	0.76
90	427 / 1.4	Walter & David Nutter	0.25	0.25
91	427 / 1.8	Apostolic Christian	1466 / 825	1.41
92	427 / 1.9	Charles & Nancy Shock	1368 / 201	5.96
93	427 / 1.14	Apostolic Christian	1596 / 475	0.15
94	427 / 1	Walter E. Nutter & David H. Nutter	154 / 301	228.20
95	427 / 3	Walter Nutter	W154 / 301	8.00
96	427 / 48	Walter E. & David H. Nutter	W154 / 301	33.00
97	427 / 61	Walter E. & David H. Nutter	W154 / 301	116.16
98	407 / 25	Richard D. Mendez	W168 / 424	192.71
99	406 / 25	Isaac H. III & Betty Jean Maxwell	1509/934	255.20
100	406 / 27	James Stout	W161 / 306	43.50
101	406 / 11	Mildred Stout	1138 / 993	44.80
102	406 / 15	Danny Haggerty	1362 / 278	42.11
103	406 / 15.1	Danny E. Jr. & Lisa A. Haggerty	1497 / 995	2.02
104	406 / 13.3	Williard George Brown	1496 / 1170	0.58
105	406 / 13.2	Leonard C. Paugh	1524 / 1195	2.56
106	406 / 13	Leonard C. Paugh	1524 / 1195	2.12
107	406 / 14	Danny E. & Debra D. Haggerty	1061 / 11	4.00
108	406 / 127.1	Angela Renee Ricketts	1393 / 362	4.75
109	406 / 13.1	Angela Renee Ricketts	1408 / 44	4.50
110	386 / 127	Sherry Louise Ricketts	916 / 343	40.75
111	386 / 126	Sherry Louise Ricketts	W114 / 1014	7.12
112	386 / 125	Sherry Louise Ricketts	W114 / 1014	27.69

02/23/2023

FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H 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: January 5 2023
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STATE COUNTY PERMIT

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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek

Top: Mount Clare
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ACREAGE: 65.00

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PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,305' TVD
24,826' MD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

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Parkersburg, WV 26101

Parkersburg, WV 26101

02/23/2023

**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, 02/23/2023
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

**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 - Schoen 1205 N-5H Lease Chains

1205 Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
39	LC074399	12-0447-0001-0000 12-0447-0002-0000	Q100514000	A. B. POST, WIDOWER; P. S. ROBEY AND WILLA ROBEY, EACH IN HIS OWN RIGHT AS HUSBAND AND WIFE; ELLA LOUISE MAXWELL AND ISAAC H. MAXWELL, HER HUSBAND; FRANCES AND GEORGE B. VIEWEG, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	900	269
				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 MEMORANDUM OF FARMOUT AGREEMENT	1524	491
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295
40	ANTERO-5	12-0447-0003-0000, 12-0447-0003-0002, 12-0447-0003-0004, 12-0447-0003-0005,	ANTERO-5	JOHN H. GERLACH AND CHARLOTTE C. GERLACH	JACKSON L. SMITH DBA WEST VIRGINIA ENERGIES	NOT LESS THAN 1/8	1108	569
				JACKSON L. SMITH DBA WEST VIRGINIA ENERGIES	BERRY ENERGY CONSULTANTS AND MANAGER INC.	ASSIGNMENT	1140	674
				BERRY ENERGY CONSULTANTS AND MANAGER INC.	J AND J ENTERPRISES INC.	ASSIGNMENT	1110	890
				J AND J ENTERPRISES INC.	EASTERN AMERICAN ENERY CORP.	ASSIGNMENT	1200	1100
				EASTERN AMERICAN ENERY CORP.	ENERGY COERPORATION OF AMERICA	MERGER/NAME CHANGE	WVSOS	
				ENERGY COERPORATION OF AMERICA	ANTERO RESOURCES CORPORATION	ASSIGNMENT	1495	314
				ANTERO RESOURCES CORPORATION	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1671	74
				FRENCH S. YOUNG AND ANNA J. YOUNG	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	147	297
				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 ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	FIRST AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1524	491				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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				
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	LEWIS 736	220				
55	LC004920	12-447-0004-0001 12-447-0004-0002 12-447-0004-0003 12-447-0004-0004 12-447-0004-0005 12-447-0004-0006 12-447-0004-0007 12-447-0004-0008 12-447-0004-0009 12-447-0004-0010 12-447-0004-0011 12-447-0004-0012 12-447-0004-0013 12-447-0021-0000 12-447-0023-0000	Q100923000	MILTON S. DAVIS AND MARY I. DAVIS	OLANDUS WEST	NOT LESS THAN 1/8	156	75
				OLANDUS WEST	JNO. J. P. O'BRIEN	ASSIGNMENT	155	409
				JNO. J. P. O'BRIEN	GRASSELLI CHEMICAL COMPANY	ASSIGNMENT	158	490
				GRASSELLI CHEMICAL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	381	163
				12-0447-0006-0000 13-0447-0006-0001 12-2105-0056-0000				

44	LC043728	13-2105-0058-0000 13-2105-0057-0000 13-2105-0060-0000 13-2105-0061-0000 13-2105-0063-0000 13-2105-0064-0000 13-2105-0065-0000 13-2105-0067-0000 13-2105-0069-0000 13-2105-0071-0000 13-2105-0073-0000, 13-2105-0118-0000 THRU 13- 2105-0122-0000 p/o 12-0427-0028-0000	Q100789000	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 MEMORANDUM OF FARMOUT AGREEMENT	1524	491				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295				
				41	LC008511	12-0427-0027-0000 12-0427-0033-0000 12-0427-0033-0001 12-0427-0034-0000 13-2105-0001-0000 13-2105-0002-0000 13-2105-0002-0001 13-2105-0002-0002 13-2105-0004-0000 THRU 13-2105-0012-0000 13-2105-0021-0000 THRU 13-2105-0023-0000 13-2105-0041-0000 THRU 13-2105-0055-0000 13-2105-0046-0001 13-2105-0116-0000 13-2105-0117-0000 13-2105-0117-0001 13-2103-0141-0000 13-2103-0148-0000 13-2103-0162-0000 13-2103-0176-0000 13-2103-0176-0001 13-2103-0176-0002 13-2103-0174-0000 13-2103-0175-0000 13-2104-0035-0000	Q100304000	D. L. NUTTER AND MARGARET R. NUTTER, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	121	172
SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	204					402				
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 MEMORANDUM OF FARMOUT AGREEMENT	1524					491				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543					1235				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621					1295				
14	LC066783	12-0427-0001-0000 et al	Q100886000					MOLLIE V. BASSEL, WIDOW; WALTER D. NUTTER AND DORA H. NUTTER, HIS WIFE; DAVID H. NUTTER; BENJAMIN L. NUTTE,; F. F. EARP AND HETTIE EARP, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	780	586
								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
								CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295				
				HGII01531	13-2103-0022-0000	HGII01531	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1292	
HGII01529	13-2103-0023-0000	HGII01529	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1294					
HGII01534	13-2103-0024-0000	HGII01534	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1296					
HGII01537	13-2103-0041-0000	HGII01537	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1298					
HGII01536	13-2103-0040-0000	HGII01536	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1300					

35,153	HGII01515	13-2103-0021-0000	HGII01514	BRENDA JOYCE COGAR, ET AL	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	314				
8	LC052223	12-0406-0021-0000 12-0406-0021-0001 12-0406-0021-0002 12-0406-0021-0003 12-0406-0021-0004 12-0406-0021-0005 12-0406-0021-0006 12-0406-0021-0007 12-0406-0021-0008 12-0406-0025-0000 12-0406-0028-0000 and 12-406A-0001-0000 through 12-406A-0041-0000	Q101129000	PORTER MAXWELL AND BERTHA B. MAXWELL, HUSBAND AND WIFE; AND W. BRENT MAXWELL AND LILLIE J. MAXWELL, HUSBAND AND WIFE	JOHN C. CHIDESTER	NOT LESS THAN 1/8	175	450				
				JOHN CHIDESTER	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	UNRECORDED					
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	236	111				
				PITTSBURGH AND WEST VIRGINIA GAS COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	504	353				
				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 OF FARMOUT AGREEMENT	1522	33				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1524	491				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295				
				3	LC071305	12-0406-0010-0001 12-0406-0011-0000 12-0406-0012-0001 12-0406-0027-0000	Q100508000	EMORY L. STOUT AND ELZIA P. STOUT, HIS WIFE	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	985	94
								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 MEMORANDUM OF FARMOUT AGREEMENT	1524					491				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543					1235				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621					1295				
6	LC071374	12-0406-0015-0000 12-0406-0015-0001 p/o 12-0406-0025-0000 12-0407-0002-0000	Q100581000					EDNA M. SWISHER, WIDOW; CLARA VAN HORN, WIDOW; ROBERT M. MILEY AND RUTH MILEY, HIS WIFE; AND G. CHESTER MILEY AND GLADYS MILEY, HIS WIFE	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	988	223
				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 OF FARMOUT AGREEMENT	1522	33				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1524	491				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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				
				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	1637	1081				

4	LC071721	12-0406-0013-0000 12-0406-0013-0001 12-0406-0013-0002 12-0406-0013-0003 12-0406-0014-0000	Q100711000	CASSIE G. SMITH, WIDOW; AND NANCY L. HARDY, DIVORCED	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	996	9
				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 OF FARMOUT AGREEMENT	1522	33
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1524	491
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295
				60	N/A	p/o 12-0427-0033-0000	N/A	ISAAC H. MAXWELL III & BETTY J MAXWELL
69	N/A	12-0386-0127-0000 0386-0127-0001	N/A	JO ANN MURTHA	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1744	1157
100	HGII01970	NA	HGII01970	WV DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1724	923