



---

west virginia department of environmental protection

---

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

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

Friday, April 17, 2020  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC  
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit Modification Approval for NEEL 1207 S-10H  
47-033-05975-00-00

Modified lateral for a TMD of 23,107' with no additional leases or SSP changes.

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: NEEL 1207 S-10H  
Farm Name: HG ENERGY II APPALACHIA  
U.S. WELL NUMBER: 47-033-05975-00-00  
Horizontal 6A New Drill  
Date Modification Issued: April 17, 2020

Promoting a healthy environment.

WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Neel 1207 S-10H  
Well Pad Name: Neel 1207

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

1) Well Operator: HG Energy II Appalachia, LLC 494519932 Harrison Union West Milford 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Neel 1207 S-10H Well Pad Name: Neel 1207

3) Farm Name/Surface Owner: HG Energy II Appalachia, LLC Public Road Access: Hidden Valley Rd @ SR 19

4) Elevation, current ground: 1354' Elevation, proposed post-construction: 1344'

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 7076/7158' and 82' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 7145'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23,107'

11) Proposed Horizontal Leg Length: 15,460'

12) Approximate Fresh Water Strata Depths: 135', 245', 425', 630', 731'

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

14) Approximate Saltwater Depths: 1782', 1848'

15) Approximate Coal Seam Depths: 290, 340, 592, 1004' to 1009'

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: \_\_\_\_\_

*SDW*  
*2/19/2020*

RECEIVED  
Office of Oil and Gas  
FEB 23 2020  
West Virginia Department of Environmental Protection

WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_  
 OPERATOR WELL NO. Neel 1207 S-10H  
 Well Pad Name: Neel 1207

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	1100'	1100'	40% excess yield = 1.20, CTS
Intermediate 1	13 3/8"	NEW	J-55	68	2200'	2200'	40% excess yield = 1.20, CTS
Intermediate 2	9 5/8"	NEW	J-55	40	3000'	3000'	40% excess yield Lead/0% Excess Yield
Production	5 1/2"	NEW	P-110	23	23107'	23107'	20% excess yield = 1.19, 120 Yield = 1.19
Tubing							
Liners							

- Storage zone

SDW  
2/19/2020

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	3950		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, 120 Yield = 1.19
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

RECEIVED  
Office of Oil and Gas

MAR 02 2020

WV Department of  
Environmental Protection

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 7145 feet. Drill horizontal leg to estimated 15,460 lateral length, 23,107 TMD. Hydraulically fracture, stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ACP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

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

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

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 28.278 acres

22) Area to be disturbed for well pad only, less access road (acres): 12.715 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.  
Freshwater/Coal - centralized every 3 joints to surface.  
Intermediate 1 - Bow Spring on every joint, will also be running ECP for isolating storage zone  
Intermediate 2 - Bow Spring on first 2 joints then every third joint to 100' from surface.  
Production - Run 1 spiral centralizer every 5 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the 1st 5.5' long joint to the top of the curve.



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

Conductor -N/A, Casing to be drilled in w/ Dual Rotary Rig.  
Fresh Water/Coal - 15.8 ppg PNE-1 + 3% bwoc CaCl, 40% Excess Yield = 1.20, CTS  
Intermediate 1 - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl, 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess, CTS  
Intermediate 2 - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl, 40% Excess, Tail: 15.9 ppg, PNE-1 + 2.5% bwoc CaCl, zero% Excess, CTS  
Production - Lead: 14.8 ppg POZ-PNE-1 + 0.3% bwoc RD + 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=1.18, Tail Yield=1.94, CTS



25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.  
Fresh Water/Coal - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.  
Intermediate 1 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Intermediate 2 - Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Production - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

RECEIVED  
Office of Oil and Gas

MAR 23 2009



\*Note: Attach additional sheets as needed.





1207 S-10H  
Marcellus Shale Horizontal  
Harrison County, WV

33-05975MED

Ground Elevation		1207 S-10H SHL		1207 S-10H LP		1207 S-10H BHL		1207 S-10H SHL		1207 S-10H LP		1207 S-10H BHL	
Azm		1343'		159.798°		1343'		159.798°		1343'		159.798°	
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS			
X	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			
X	24"	20" 94# J-55	Fresh Water	0	135, 637, 731	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			
X	17.5"	13-3/8" 68# J-55 BTC	Coal	1004	1009	AIR	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			
X	12.25"	9-5/8" 40# J-55 BTC	Surface / FW	0	2200	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			
X	8.5" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Little/Big Lime	2091 / 2182	2151 / 2192	9.0ppg SOBOM	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 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			
X	8.5" Curve	5-1/2" 23# P-110 HP CDC HTQ	Injun / Gantz (Storage)	2218 / 2278	2278 / 2465	11.5ppg-12.5ppg SOBOM		Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.					
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Intermediate 1	2525	2537	11.5ppg-12.5ppg SOBOM							
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Intermediate 2	2591 / 2891	2601 / 2931	11.5ppg-12.5ppg SOBOM							
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Fifty / Thirty Foot	3211	3231								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Gordon Stray / Gordon	3438	3448								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	5th Sand	4529	4544								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Bayard / Warren	6390	6646								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Intermediate 1	6646	6746								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Speechley	6746	6778								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Balltown	6778	6849								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Benson	6849	6859								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Rhonestreet	6859	6967								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Cashaqua	7076	7158								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Middlesex	23106	7145								
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	West River	7158									
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Burkett										
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Tully Limestone										
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Hamilton										
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Marcellus										
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	TMD / TVD (Production)										
X	8.5" Lateral	5-1/2" 23# P-110 HP CDC HTQ	Onondaga										

RECEIVED

WV Department of Environmental Protection

MAR 02 2020

LP @ 7145' TVD / 7646' MD

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

+/-15460' ft Lateral

TD @ +/-7145' TVD  
+/-23106' MD

X=centralizers



7,816' to Top Hole

1,776' to Bottom Hole

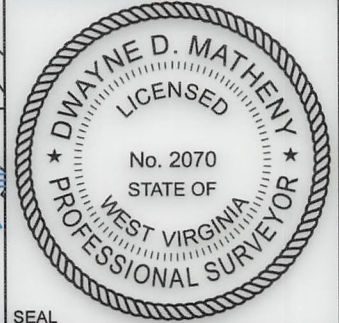
TOP LATITUDE 39 - 10 - 00  
 BTM LATITUDE 39 - 07 - 30

LONGITUDE 80 - 22 - 30  
 5,057' to Bottom Hole  
 5,584' to Top Hole

**Notes:**  
 Well No. Neel 1207 S-10H  
 UTM NAD 1983 (USSF)  
 Top Hole Coordinates  
 N: 14,218,315.13'  
 E: 1,809,833.67'  
 Landing Point Coordinates  
 N: 14,218,214.06'  
 E: 1,810,638.30'  
 Bottom Hole Coordinates  
 N: 14,203,710.34'  
 E: 1,815,975.30'



Bottom Hole  
 7.5' Spot

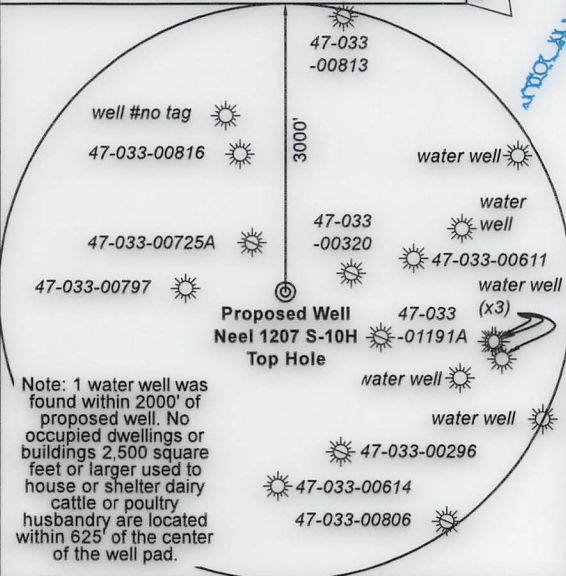


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny, P.S. 2070

- 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. Neel 1207 S-10H  
 West Virginia Coordinate System of 1927, North Zone  
 based upon Differential GPS Measurements.  
 Top Hole coordinates Bottom Hole coordinates  
 Latitude: 39°09'04.81" Latitude: 39°06'40.00"  
 Longitude: 80°24'09.25" Longitude: 80°22'52.53"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,333,751.119m N: 4,329,299.570m  
 E: 551,638.406m E: 553,510.380m  
 Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.



Tag	Bearing	Dist.
L1	S 02°54' E	1,494.2'
L2	S 16°29' W	1,583.6'
L3	S 75°02' W	2,144.3'
L4	N 73°36' W	976.0'
L5	S 82°50' E	811.0'

FILE NO: 296-36-G-18  
 DRAWING NO: 1207 S-10H 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: February 12 20 20  
 OPERATOR'S WELL NO. Neel 1207 S-10H  
 API WELL NO *mod*  
 47 - 033 - *05975*  
 STATE COUNTY PERMIT

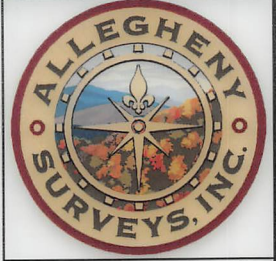
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek  
 DISTRICT: Grant  
 SURFACE OWNER: HG Energy II Appalachia, LLC  
 ROYALTY OWNER: Dora B. McWhorter, et al LEASE NO: ACREAGE: 103.00

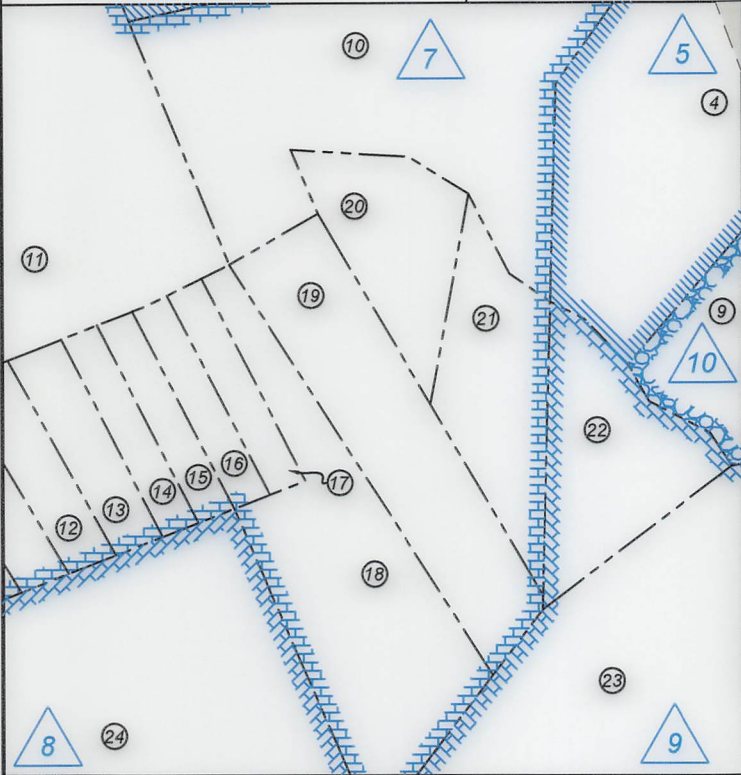
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BH - MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,145' TVD  
 23,107' MD

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



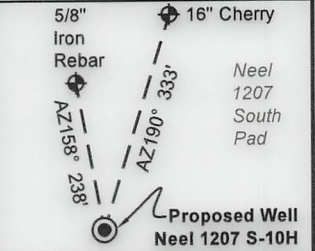


Detail 1 (Scale 1"=500')

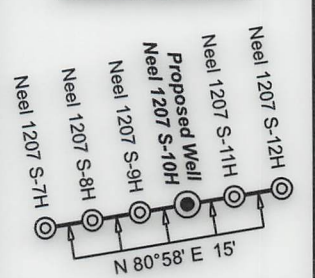


ID	Lease
2	A.J. Smith, et ux
3	Dora B. McWhorter, et al
5	Union National Bank Trustee of Gore Morris
6	Martha E. Lambert
7	John T. Freeman
8	Walter Neely, et al
9	William H. & Fannie M. Horner
10	Hazel Chandler
11	William L. Horner, et al
16	Robert F. Martin, et al
17	Robert F. Martin, et al
21	Nathan McWhorter, et al
22	Nathan G. & Dora E. McWhorter
23	J.W. Jackson
24	Christine J. White, et al
25	Nathan McWhorter, et al
26	Hunter Cooper, et al
27	Nelia J. Fitzpatrick, et al
31	J.A. Shock, et ux
32	James W. Rogers, et al
33	Hugh Davis, et al
35	Mike Ross Inc., et al
36	Garnett M. Corley
38	Hugh Davis, et al
39	Virginia A. Nepps
40	Myrtle Edmonds, et al
41	Myrtle Edmonds, et al
43	Margaret Howell, et vir
44	J.W.C. Kolb, et ux
45	A.L. Waggoner, et al
50	Dale McWhorter, et al

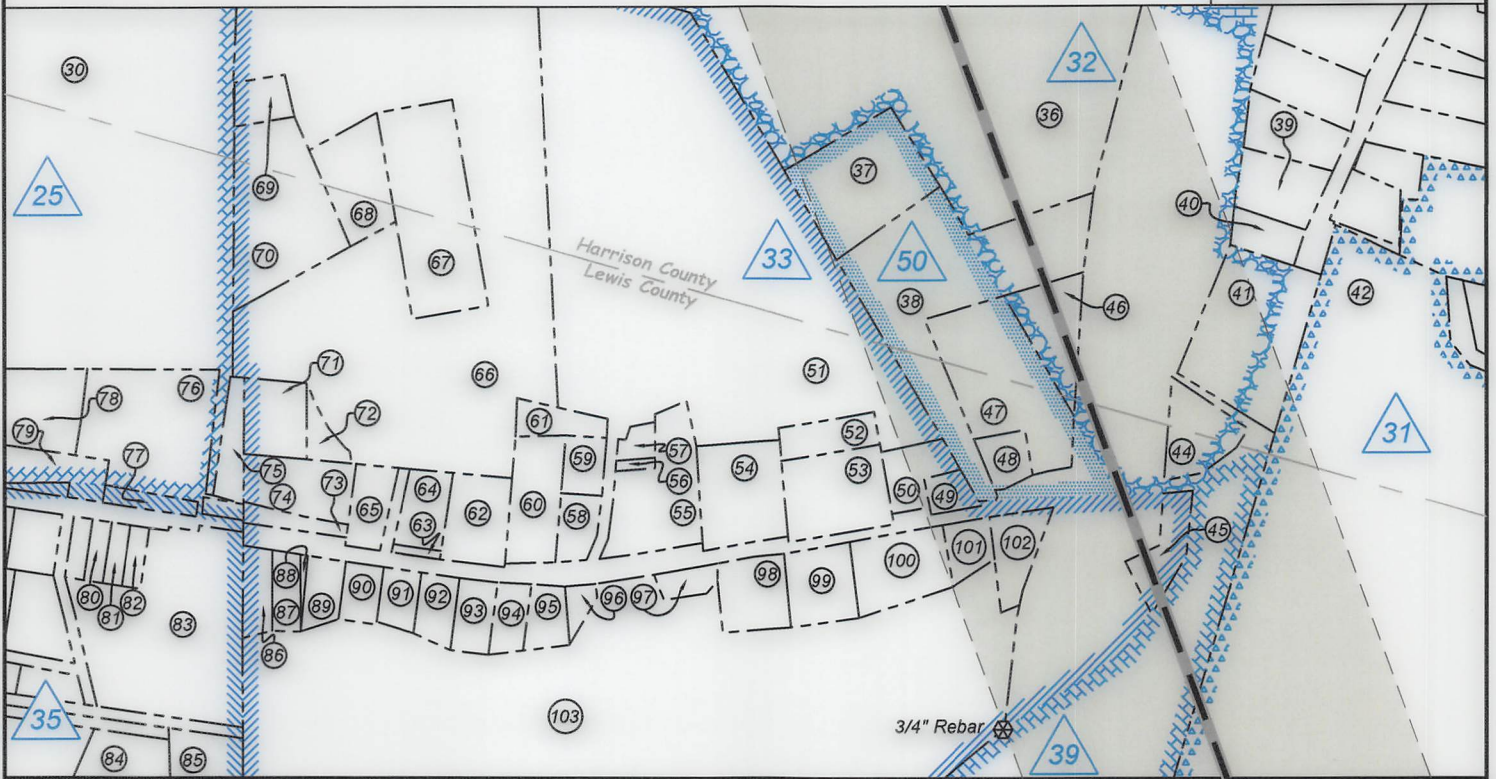
Well Location References  
Not to Scale



Wellhead Layout (NTS)



Detail 2 (Scale 1"=500')



FILE NO: 296-36-G-18  
DRAWING NO: 1207 S-10H 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: February 12 20 20  
OPERATOR'S WELL NO. Neel 1207 S-10H  
API WELL NO *mod*  
47 - 033 - 05975 *MOD*  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek  
DISTRICT: Grant

QUADRANGLE: Top: West Milford  
Btm: Weston  
COUNTY: Harrison  
ACREAGE: 89.07

SURFACE OWNER: HG Energy II Appalachia, LLC

ROYALTY OWNER: Dora B. McWhorter, et al

LEASE NO: \_\_\_\_\_ ACREAGE: 103.00

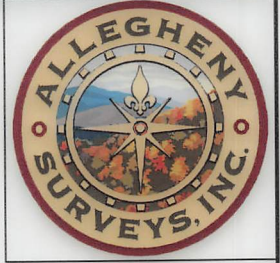
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ BH - MOD

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,145' TVD  
23,107' MD

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

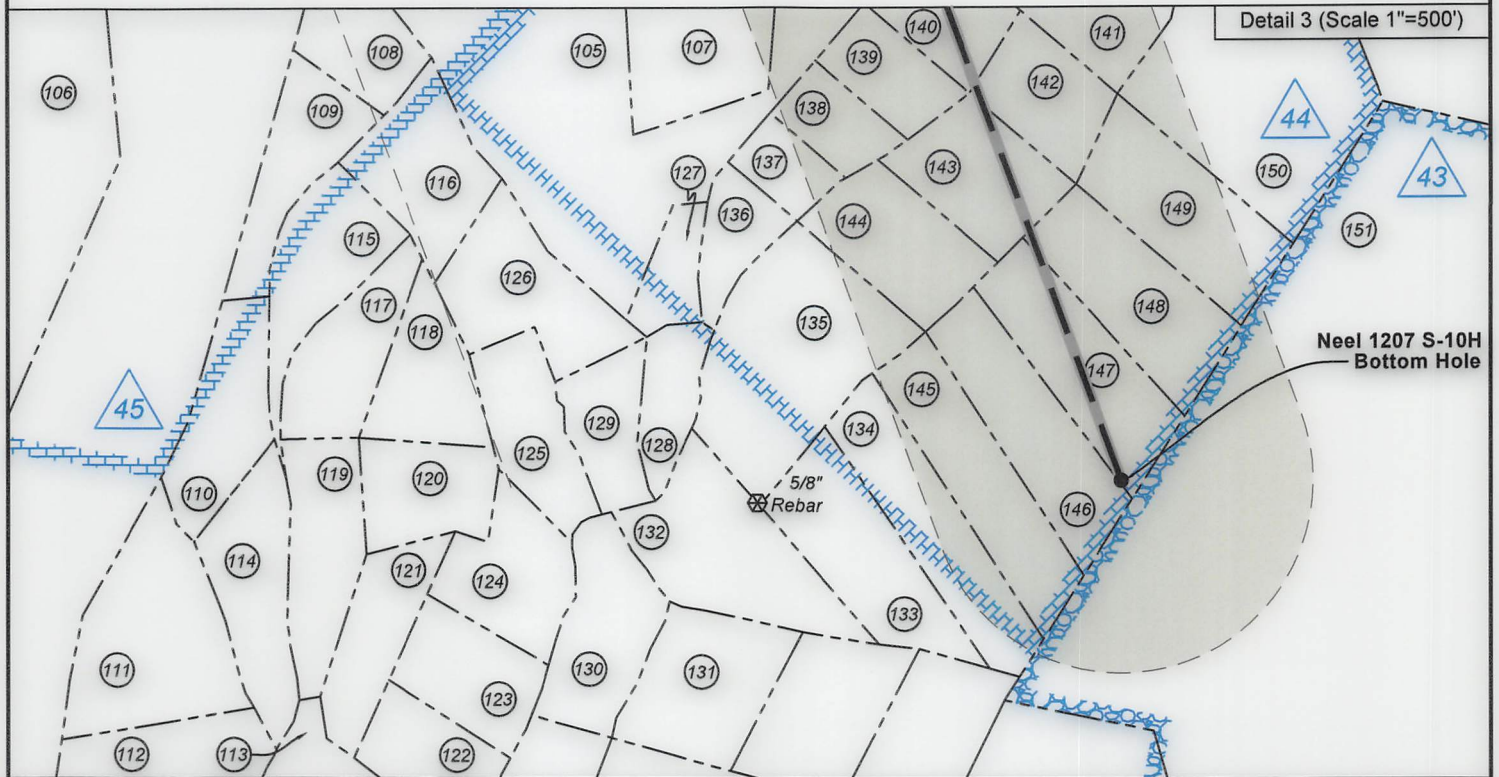
DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101





Harrison Co. - Grant Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	445 / 5	HG Energy II Appalachia, LLC	--- / ---	89.07
2	445 / 3	Lisa M. Nutter	W188 / 687	64.00
3	445 / 12	Lisa M. Nutter	W188 / 687	64.50
4	445 / 13	Mickey Petitto	W175 / 1167	132.85
5	445 / 13.1	Martha E. Lambert	--- / ---	26.77
6	445 / 14	Martha E. Lambert	1276 / 582	2.61
7	445 / 15.1	Martha E. Lambert	1276 / 582	35.00
8	445 / 15	Margaret S. Fisher	1276 / 576	49.69
9	445 / 28	Margaret S. Fisher	1200 / 626	28.75
10	445 / 26	Leland Freeman	W188 / 329	15.25
11	445 / 25	Leland Jackson Freeman	W167 / 371	21.00
12	445 / 35.1	Robert Freeman	1510 / 178	1.85
13	445 / 35	Robert Freeman	1266 / 521	3.82
14	445 / 36	Leland Jackson Freeman	W167 / 371	1.34
15	445 / 37	Leland Jackson Freeman	W167 / 371	1.34
16	445 / 38	Leland Jackson Freeman	W167 / 371	1.34
17	445 / 39	Leland Jackson Freeman	W167 / 371	1.34
18	445 / 40	Leland Jackson Freeman	W167 / 371	8.20
19	445 / 41	Charles Sutton	--- / ---	7.40
20	445 / 42	Ivy Myrtle Freeman	W56 / 47	4.80
21	445 / 42.1	Charles R. Sutton	--- / ---	3.00
22	445 / 43	Charles R. & Franklin L. Sutton	1623 / 1057	4.65

Harrison Co. - Grant Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
23	445 / 47	Charles R. & Franklin L. Sutton	1623 / 1057	78.00
24	445 / 46	James W. Riffle II, et al	1385 / 259	140.43
25	445 / 15	Margaret S. Fisher	1276 / 576	49.69
26	446 / 30	Charles R. Sutton	1535 / 207	29.00
27	446 / 31	Richard L. Hawkins, Jr.	1569 / 982	58.96
28	465 / 10	Catherine D. Weber	1495 / 458	81.50
29	465 / 4.1	J. Gregory & Rebecca Moore	1421 / 350	353.80
30	465 / 1	Catherine D. Weber	1495 / 458	103.72
31	466 / 5	Mary Reel	1244 / 948	75.48
32	466 / 4	Mary Reel	1244 / 948	10.90
33	466 / 2	Worthey E. & Connie S. Poe	1240 / 388	16.70
34	466 / 1	Worthey E. & Connie S. Poe	1240 / 388	25.16
35	466 / 20	Worthey E. & Connie S. Poe	1240 / 388	49.24
36	466 / 39.1	Worthey E. & Connie S. Poe	1240 / 388	28.88
37	466 / 57.1	Martha L. Davis	W168 / 435	1.91
38	466 / 57.2	Vicki & Michael Davis	1198 / 1125	4.16
39	466 / 57.2	Vicki & Michael Davis	1198 / 1125	4.16
40	466 / 41	Dominioin Transmission	A158 / 362	0.77
41	466 / 59	David & Ladonna Manley	1380 / 151	1.68
42	466 / 40	Frank N. Wine, Jr. & III	1596 / 809	42.04
43	465 / --	Unknown Parcel	--- / ---	16.52



FILE NO: 296-36-G-18  
DRAWING NO: 1207 S-10H 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**

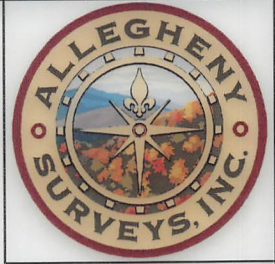


DATE: February 12 20 20  
OPERATOR'S WELL NO. Neel 1207 S-10H  
API WELL NO *mod*  
47 - 033 - *05975 mod*  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek  
DISTRICT: Grant  
SURFACE OWNER: HG Energy II Appalachia, LLC  
ROYALTY OWNER: Dora B. McWhorter, et al LEASE NO: ACREAGE: 103.00  
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: 7,145' TVD 23,107' 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 Co. - Hackers Creek Dist.

No.	TM / Par	Owner	Bk / Pg	Ac.
44	9C / 49	Timothy Dean Skinner	W4 / 706	1.35
45	9C / 50	Sharon Lee Allman	W47 / 298	0.73
46	9C / 46	Josephine M. Richardson	681 / 790	0.80
47	9C / 47	Josephine M. Richardson	681 / 790	2.36
48	9C / 45	Josephine M. Richardson	681 / 790	0.40
49	9C / 5.2	James R. & Sharon L. Allman	357 / 369	0.27
50	9C / 5.11	James R. & Sharon L. Allman	582 / 386	0.54
51	9C / 5	Steven Davis, et ux	665 / 329	20.47
52	9C / 6.11	Steve Davis & Darlene Davis	623 / 356	0.50
53	9C / 31	Steven M. Davis, et ux	713 / 12	1.62
54	9C / 5.3	Ryan K. Dumont, et ux	701 / 418	1.24
55	9C / 6.15	James R. Allman, et ux	662 / 432	1.51
56	9C / 6.16	Terrie & Mark Gregory	663 / 744	0.06
57	9C / 5.12	Mark A. Gregory, et ux	597 / 290	0.18
58	9C / 5.10	Angela M. Batten, et al	726 / 545	0.40
59	9C / 5.7	Mark A. Gregory, et ux	597 / 290	0.37
60	9C / 4	Joseph C. Rumbach, et ux	440 / 196	1.00
61	9C / 5.9	Christopher James Allman, et ux	513 / 527	0.41
62	9C / 3.2	David M. Hughes	506 / 714	0.85
63	9C / --	Monongahela Vally Traction Co.	76 / 424	0.06
64	9C / 3	Mary J. Radcliff, et al	W46 / 491	0.55
65	9C / 3.1	Nolan D. Gunter, Jr., et ux	594 / 145	0.50
66	9C / 6	Steven Davis, et ux	665 / 329	16.99
67	9C / 6.12	Amy N. Davis & Ryan K. Dumont	640 / 349	2.50
68	9C / 6.13	April D. & Brannon L. Jordan	641 / 42	1.05
69	9C / 6.3	Steve & Darlene Davis	665 / 329	0.38
70	9C / 6.14	April D. & Brannon L. Jordan	641 / 42	2.34
71	9C / 6.10	Elizabeth Post	594 / 764	0.74
72	9C / 6.17	Elizabeth Post	664 / 702	0.26
73	9C / 2	Nolan D. Gunter, Jr., et ux	594 / 145	0.25
74	9C / 1	Nolan D. Gunter, Jr., et ux	594 / 145	0.90
75	6 / 3	Catherine Weber	663 / 603	0.44
76	6 / 2.2	Willard J. Prince	--- / ---	0.24
77	6 / 2	Willard J. Prince	W22 / 109	1.22
78	6 / 1	Willard J. Prince	W22 / 109	4.75
79	6 / 2.1	JSB Land Holding	684 / 432	0.97
80	6 / 13	Jackie Lee Frazier	244 / 399	0.18
81	6 / 14	Daniel R. Rochelle L. Hinkle	732 / 6	0.18
82	6 / 15	Daniel R. Rochelle L. Hinkle	732 / 6	0.18
83	6 / 16	Floyd S. Woodyard	W6 / 138	4.00
84	6 / 31	Steven L. & Anna M. Butcher	543 / 765	3.34
85	6 / 32	Ronzel C. & Sandra K. Richards	317 / 331	4.00
86	9C / 5.6	Meranda K. Langbein	651 / 728	0.38
87	9C / 6.1	Robert Lee Smith, et ux	520 / 670	0.35
88	9C / 6.5	Robert Lee Smith, et ux	536 / 42	0.04
89	9C / 6.4	Kelly C. Montgomery	721 / 40	0.39
90	9C / 6.6	Charles W. Davis, et ux	611 / 655	0.35
91	9C / 6.8	Jerry D. Muncy, et ux	569 / 687	0.35
92	9C / 6.9	Jerry D. Muncy, et ux	569 / 687	0.40
93	9C / 6.7	Richard E. Ratliff, et ux	567 / 47	0.44
94	9C / 5.14	John M. Krupia, et ux	599 / 37	0.39
95	9C / 5.13	John M. Krupia, et ux	599 / 37	0.37
96	9C / 5.8	Charles E. Miller, et ux	663 / 185	0.18
97	9C / 5.5	T&G Rentals, LLC	667 / 767	0.24

Lewis Co. - Hackers Creek Dist.

No.	TM / Par	Owner	Bk / Pg	Ac.
98	9C / 7.1	Shaylee Suzanna Allman	670 / 621	0.77
99	9C / 7.2	Marcus Shane Gregory	673 / 609	0.80
100	9C / 7.3	Tyke Bryant Foster II	715 / 270	1.04
101	9C / 5.4	Jeffrey Russell Allman	162 / 588	0.38
102	9C / 5.1	Dominion Energy Transmission	--- / ---	0.70
103	9C / 7	Sharon Lee Allman	W47 / 298	74.55
104	9C / 30	Mike Ross Inc.	550 / 561	38.77
105	9C / 16.3	Mike Ross Inc.	712 / 409	42.71
106	9C / 8	Rose Ann & Hunter Kolb	W6 / 670	88.16
107	9C / 16.49	Rick & Carol Nolan	669 / 650	5.00
108	9C / 16.35	Tamera & Jonathan Riggs	724 / 203	2.07
109	9C / 16.36	Tamera & Jonathan Riggs	724 / 203	2.26
110	9C / 16.32	Roy & Rhoda Martin	638 / 722	2.51
111	9C / 16.16	Roy & Rhoda Martin	612 / 82	2.26
112	9C / 16.10	SWN Production Company, LLC	684 / 397	18.16
113	9C / 16.48	Roy & Rhoda Martin	662 / 618	4.29
114	9C / 16.28	Roy & Rhoda Martin	626 / 433	2.71
115	9C / 16.45	Jeffrey & Angela Ross	662 / 418	2.46
116	9C / 16.41	Tamera & Jonathan Riggs	724 / 199	2.62
117	9C / 16.34	Michael Stowers	669 / 418	2.26
118	9C / 16.33	Michael Stowers	669 / 418	2.07
119	9C / 16.13	Joni Nelson Howard	612 / 85	2.52
120	9C / 16.14	Joni Nelson Howard	669 / 642	2.03
121	9C / 16.29	Joni Nelson Howard	627 / 389	1.87
122	9C / 16.46	Roy & Rhoda Martin	662 / 618	2.03
123	9C / 16.47	Roy & Rhoda Martin	662 / 618	2.17
124	9C / 16.53	Joni Nelson Howard	674 / 69	2.38
125	9C / 16.6	Ross A. Lodge	717 / 846	1.73
126	9C / 52	Jeffrey & Ricki Leary	673 / 758	2.95
127	9C / 16.44	Jeremy & Autumn Vance	658 / 345	1.02
128	9C / 16.19	Robert P. Lindsey J. Shepherd	717 / 515	1.31
129	9C / 51	Jeffrey & Ricki Leary	673 / 744	1.64
130	9C / 16.21	David & Trena Bonnett	620 / 345	2.70
131	9C / 16.1	Mahadeo Ramkisoorn	600 / 305	3.00
132	9C / 16.23	Brian W. Smith	712 / 459	1.60
133	9C / 16.43	Jason Eager	658 / 291	3.18
134	9C / 16.7	Sarah Nealis	684 / 321	6.37
135	9C / 16.11	Brian & Deborah Shillingsburg	726 / 816	5.25
136	9C / 16.8	Virginia Barnette	608 / 505	1.25
137	9C / 16.2	Cody Kemper	736 / 800	0.96
138	9C / 16.31	Ross & Brenda Helmick	678 / 427	1.22
139	9C / 16.57	Samuel McDaniel, Jr.	713 / 53	1.53
140	9C / 16.18	Timothy Rice	702 / 475	2.00
141	9C / 16.5	Robert S. Hinderliter	608 / 6	4.30
142	9C / 16.17	Roberta G. Fisher	639 / 511	2.00
143	9C / 16.30	John T. Vincent	647 / 344	2.56
144	9C / 50	Travis W. Taylor, et al	670 / 245	2.56
145	9C / 16.7	Sarah Nealis	684 / 321	6.37
146	9C / 16.27	Sarah Nealis	691 / 557	3.19
147	9C / 16.25	Paul A. & Karen B. Guillette	617 / 389	3.19
148	9C / 16.26	Paul A. & Karen B. Guillette	617 / 389	3.19
149	9C / 16.24	Paul A. & Karen B. Guillette	617 / 389	3.35
150	9C / 16.4	William A. & Amy D. Burchett	607 / 202	9.66
151	9C / 27	S. Thomas & Esther M. Bond	577 / 328	225.25

FILE NO: 296-36-G-18  
DRAWING NO: 1207 S-10H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY:  
Submeter  
PROVEN SOURCE OF ELEVATION:  
CORS, Bridgeport, WV



DATE: February 12 20 20  
OPERATOR'S WELL NO. Neel 1207 S-10H  
API WELL NO *mod*  
47 - 033 - *05975*  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek  
DISTRICT: Grant

Top: West Milford  
QUADRANGLE: Btm: Weston  
COUNTY: Harrison  
ACREAGE: 89.07

SURFACE OWNER: HG Energy II Appalachia, LLC  
ROYALTY OWNER: Dora B. McWhorter, et al

LEASE NO: ACREAGE: 103.00

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: 23,107' MD 7,145' TVD

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

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



33-05975 MOD



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

February 17, 2020

WV DEP  
Division of Oil & Gas  
Attn: James Kennedy  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

RE: Neel 1207 S-10H Permit Application Revision – (47-033-05975)  
Grant District, Harrison County  
West Virginia

Dear Mr. Kennedy:

Per our discussions, enclosed are revised forms (survey plat, mylar, WW-6B, and casing schematic) for the 1207 S-10H well work drilling permit. We request the permit be modified as the lateral has been lengthened.

Please let me know if you have any questions or require additional information. I can be reached at (304) 420-1119 or [dwhite@hgenergyllc.com](mailto:dwhite@hgenergyllc.com).

Very truly yours,

*Diane White*

Diane C. White

Enclosures

cc: Sam Ward – Inspector

RECEIVED  
Office of Oil and Gas  
MAR 02 2020  
WV Department of  
Environmental Protection