



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

Tuesday, August 20, 2024
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit Modification Approval for BARNES 1223 S-9H
47-017-06977-00-00

Lateral Extension

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

A blue ink signature of James A. Martin, written in a cursive style, positioned above his name and title.

Operator's Well Number: BARNES 1223 S-9H
Farm Name: MARILYN BARNES, et al
U.S. WELL NUMBER: 47-017-06977-00-00
Horizontal 6A New Drill
Date Modification Issued: 08/20/2024

Promoting a healthy environment.

08/23/2024

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>Doddridge</u>	<u>Cove</u>	<u>Vadis 7.5'</u>
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Operator ID County District Quadrangle

2) Operator's Well Number: Barnes 1223 S-9H Well Pad Name: Barnes 1223

3) Farm Name/Surface Owner: Barnes Public Road Access: SLS 29

4) Elevation, current ground: 1329' Elevation, proposed post-construction: 1335'

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 7129' to 7212' and 83' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 7210'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 31,355'

11) Proposed Horizontal Leg Length: 23,500'

12) Approximate Fresh Water Strata Depths: 150', 220', 339'

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-017-02490,47-017-02542, 2780)

14) Approximate Saltwater Depths: NA

15) Approximate Coal Seam Depths: 153'-158', 428'-438' (Surface Casing is being extended to cover the coal)

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

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

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	20"	New	LS	94	120'	120'	Drilled In
Fresh Water	13.375"	NEW	J-55 BTC	54.5	1300'	1300'	40% excess, yield = 1.18, CTS
Coal							
Intermediate	9 5/8"	NEW	N-80 BTC	40	6120'	6120'	Lead - 40% excess, Tail - 0% Excess
Production	5 1/2"	NEW	P-110 HP	23	31355'	31355'	Lead - Yield = 1.19, Tail - yield = 1.94
Tubing							
Liners							

Kenneth Greynolds
Digitally signed by: Kenneth Greynolds
 DN: CN = Kenneth Greynolds email = Kenneth.L.Greynolds@wv.gov C = AD O = WVDEP OU = Oil and Gas
 Date: 2024.08.02 09:34:37 -0400

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	20"	20"	.438				Drilled In
Fresh Water	13 3/8"	17 1/2"	.380	2730	1200	Type 1, Class A	30 % excess yield = 1.20, CTS
Coal							
Intermediate	9 5/8"	12 1/4"	.395	5750		Type 1/Class A	40% excess yield = 0% Excess Lead
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							

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Kind:				
Sizes:				WV Department of Environmental Protection
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 7210'. Drill horizontal leg to an estimated 23,500' lateral length, 31,355' 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.

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. Maximum pressure not to exceed 12,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 51.82 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.11 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.
Freshwater - Bow Spring on every other joint.
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.

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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 Class A Neat 94#/sk40% ExcessYield=1.18 / CTS*
Intermediate - *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*

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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.
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.



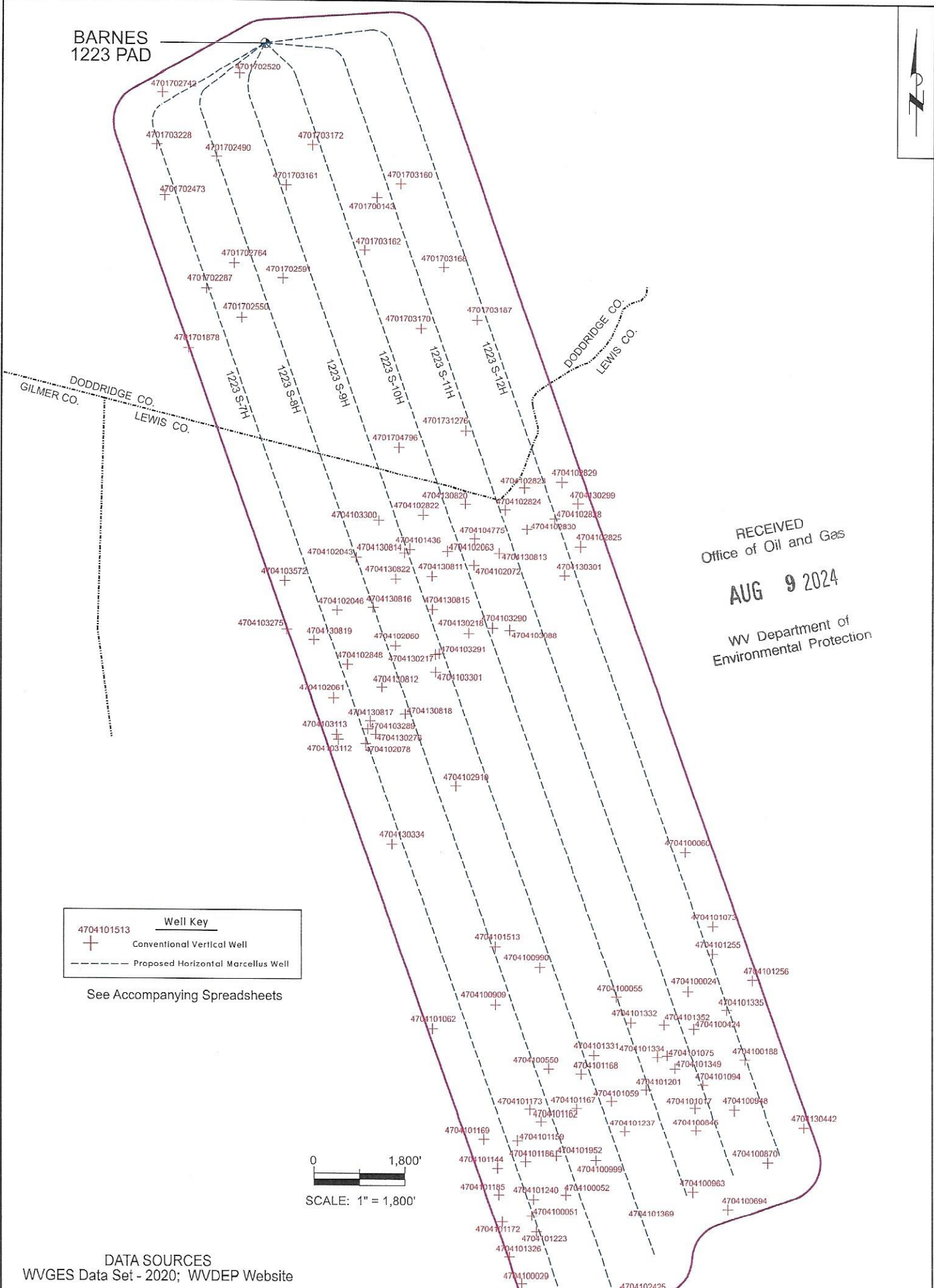
1223 S-9H
 Marcellus Shale Horizontal
 Doddridge County, WV

			1223 S-9H SHL				14204576.12N 1720572.18E			
Ground Elevation			1223 S-9H LP				14202892.93N 1720576.89E			
Azm			1223 S-9H BHL				14180739.51N 1728389.72E			
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	20"	20" 94# 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.	Surface casing = 0.438" wall thickness
	17.5"	13-3/8" 54.5# J-55 BTC	Coal	580		AIR	15.6 ppg Class A Neat 94#/sk 40% Excess Yield=1.18 / CTS	Bow Spring on every other joint	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.380" wall thickness Burst=2730 psi
			Coal	610						
			Coal	900						
	12.25"	9-5/8" 40# N-80 BTC	Little Lime/Big Lime	2290/2345	2305/2401	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on first 2 joints then every third joint to 100' form surface	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=5750 psi
			Big Injun/Gantz	2401/2755	2495/2785					
			50 Foot/Gordon	2861/3042	2903/3122					
			Fifth	3213	3263					
			Bayard	3286	3311					
			Warren/Speechley	3594/3807	3629/3842					
	Benson / Alexander	5213 / 5474	5346 / 5604	Intermediate	0	TVD: 6063' MD: 6120' Inc. 14 deg.				
	8.75"	5-1/2" 23# P-110 HP TXP / W461	Rhinestreet	6431	6719	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
	8.5" Curve		Cashaqua	6719	6864	11.5ppg-12.5ppg SOB				
	8.5" Lateral		Middlesex	6864	6943					
			West River	6943	7012					
Burkett			7012	7053						
Tully Limestone			7053	7078						
Hamilton			7078	7129						
	Marcellus		7129	7212	11.5ppg-12.5ppg SOB					
	TMD / TVD (Production)		31354	7210						
	Onondaga		7212							

LP @ 7210' TVD / 7854' MD 8.5" Hole - Cemented Long String 5-1/2" 23# P-110 HP TXP / W461 +/-23500' ft Lateral TD @ +/-7210' TVD +/-31354' MD

X=centralizers

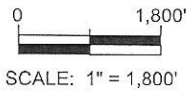
BARNES
1223 PAD



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Well Key
4704101513
+ Conventional Vertical Well
----- Proposed Horizontal Marcellus Well

See Accompanying Spreadsheets



DATA SOURCES
WVGES Data Set - 2020; WVDEP Website

Area of Review for:
BARNES 1223 SOUTH UNIT

Proposed 1222 S-7H Proposed 1222 S-8H Proposed 1222 S-9H
Proposed 1222 S-10H Proposed 1222 S-11H Proposed 1222 S-12H

Cove District, Doddridge County, W.Va.
Freeman's Creek District, Lewis County, W.Va.

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

3/25/2024



EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:

BARNES 1223 SOUTH UNIT AND PROPOSED WELLS S-7H, S-8H, S-9H, S-10H, S-11H, & S-12H

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4701700143	Doddridge	Chapman & Spray	McCall Drilling Co.	Price Fm & equivs	Dry w/ Oil Show	2375	PLUGGED	39.106734	-80.709358
2	4701701878	Doddridge	S L Gray	Ross & Wharton Gas Co., Inc.	Gantz	Oil and Gas	2504	PLUGGED	39.098560	-80.722490
3	4701702287	Doddridge	S L Gray	Charity Gas Inc.	Gordon	Gas	2440	ACTIVE	39.101835	-80.721236
4	4701702473	Doddridge	Geo Adrian	Deran Resources, Inc.	Price Fm & equivs	Gas	2224	ACTIVE	39.106809	-80.724153
5	4701702490	Doddridge	Lelia B Cole	Deran Resources, Inc.	Big Injun (Grnbr)	not available	-	ACTIVE	39.108889	-80.720538
6	4701702520	Doddridge	Lelia B Cole	Deran Resources, Inc.	Undf PRICE blw INJN	Gas	2515	ACTIVE	39.113444	-80.718942
7	4701702550	Doddridge	M D Bode	Daniel Farley	Undf PRICE blw INJN	Gas	2051	PLUGGED	39.100243	-80.718780
8	4701702591	Doddridge	M D Bode	Daniel Farley	Undf PRICE blw INJN	Gas	2097	PLUGGED	39.102376	-80.715915
9	4701702742	Doddridge	George Adrian	Deran Resources, Inc.	Big Injun (Grnbr)	Gas	2423	ACTIVE	39.112375	-80.724312
10	4701702764	Doddridge	R Bunten	Daniel Farley	Big Injun (Grnbr)	Dry	2290	PLUGGED	39.103197	-80.719297
11	4701703160	Doddridge	Franklin Rastle	Ross & Wharton Gas Co., Inc.	Big Injun (Grnbr)	Gas	2100	ABANDONED	39.107465	-80.707687
12	4701703161	Doddridge	Franklin Rastle	Ross & Wharton Gas Co., Inc.	Big Injun (Grnbr)	Gas	2505	ACTIVE	39.107386	-80.715685
13	4701703162	Doddridge	F Rastle et ux	Beta-Helix Energy, LLC	Big Injun (Grnbr)	Gas	2075	ACTIVE	39.103928	-80.710206
14	4701703168	Doddridge	Daniel Persiani	Beta-Helix Energy, LLC	Big Injun (Grnbr)	Gas	2190	ACTIVE	39.103010	-80.704679
15	4701703170	Doddridge	William Tatro	Beta-Helix Energy, LLC	Big Injun (Grnbr)	Gas	2215	ACTIVE	39.099648	-80.706269
16	4701703172	Doddridge	Franklin Rastle	Berry Energy, LLC	Big Injun (Grnbr)	Gas	2222	ACTIVE	39.109548	-80.713848
17	4701703187	Doddridge	William Tatro	Beta-Helix Energy, LLC	Big Injun (Grnbr)	Gas	2222	ACTIVE	39.100128	-80.702353
18	4701703228	Doddridge	Bryan & Mary Lowther	Deran Resources, Inc.	Big Injun (Grnbr)	Gas	2214	ACTIVE	39.109547	-80.724710
19	4701704796	Doddridge	Henry G & Sylvia Rastle	Eastern Gas Transmission & Storage, Inc.	not available	not available	-	PLUGGED	39.093184	-80.707802
20	4701731276	Doddridge	John Gamps/F M Schmidt	Consolidated Gas Supply Corp.	Hampshire Grp	Oil and Gas	2200	PLUGGED	39.094105	-80.703157
21	4704100024	Lewis	D D Chapman	Waco Oil & Gas Co., Inc.	Hampshire Grp	Gas	2181	ACTIVE	39.063680	-80.687721
22	4704100051	Lewis	Laura Alfred & Griggs	Eastern Gas Transmission & Storage, Inc.	Blue Monday	Oil and Gas	1881	PLUGGED	39.051493	-80.698667
23	4704100052	Lewis	Alfred & Griggs	Diversified Production, LLC	Undf PRICE blw INJN	Oil and Gas	1960	ACTIVE	39.052644	-80.696308
24	4704100055	Lewis	Lydia Starcher	Eastern Gas Transmission & Storage, Inc.	Gantz	Oil and Gas	2180	PLUGGED	39.063394	-80.692715
25	4704100060	Lewis	M H Piercy	Eastern Gas Transmission & Storage, Inc.	Big Injun (Grnbr)	Gas	2243	PLUGGED	39.071241	-80.687882
26	4704100188	Lewis	Reason Davisson	Appalachian Land & Development Co.	Price Fm & equivs	Oil w/ Gas Show	1967	ABANDONED	39.059983	-80.683795
27	4704100424	Lewis	D D Chapman	Waco Oil & Gas Co., Inc.	Big Injun (Grnbr)	Oil and Gas	1960	ACTIVE	39.061670	-80.687321
28	4704100550	Lewis	O Ireland	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil	1992	ACTIVE	39.059494	-80.697737
29	4704100694	Lewis	Isaac Tyson	M and M Drilling	Price Fm & equivs	Oil and Gas	1730	PLUGGED	39.051862	-80.685008
30	4704100845	Lewis	Tyson-Reese Consol	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil and Gas	1933	ACTIVE	39.056159	-80.687210
31	4704100870	Lewis	Joseph Tyson	Eastern Gas Transmission & Storage, Inc.	Price Fm & equivs	Oil and Gas	1898	PLUGGED	39.054385	-80.682225
32	4704100909	Lewis	W Richard Starcher	Term Energy Corporation	Price Fm & equivs	Oil and Gas	1812	ABANDONED	39.062972	-80.701148
33	4704100948	Lewis	Jason Bailey	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Gas	1996	ACTIVE	39.057239	-80.684539

34	4704100963	Lewis	Isaac Tyson	P&C Oil & Gas, Inc.	Squaw	Oil and Gas	1946	ABANDONED	39.052805	-80.687448
35	4704100990	Lewis	D D Chapman	B & B Oil & Gas Co., Inc.	Price Fm & equivs	Gas	2010	ABANDONED	39.064951	-80.698048
36	4704100999	Lewis	Alfred & Griggs	Diversified Production, LLC	Price Fm & equivs	Oil and Gas	1979	ACTIVE	39.054514	-80.694197
37	4704101017	Lewis	Marion Tyson	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil and Gas	1989	ACTIVE	39.057352	-80.687268
38	4704101059	Lewis	Alfred & Griggs	Diversified Production, LLC	Price Fm & equivs	Oil and Gas	1938	ACTIVE	39.057717	-80.693089
39	4704101062	Lewis	G W McMillan	McMillan Oil & Gas	not available	not available	-	NEVER DRILLED	39.061669	-80.705551
40	4704101073	Lewis	D D Chapman	R&R Oil & Gas, LLC	Price Fm & equivs	Oil and Gas	2035	ACTIVE	39.067239	-80.685979
41	4704101075	Lewis	Offa Keesucker	Jesse & Merle Shackelford	Price Fm & equivs	Gas	1978	ACTIVE	39.060219	-80.689181
42	4704101094	Lewis	D D Chapman	Term Energy Corporation	Price Fm & equivs	Oil and Gas	2100	PLUGGED	39.058619	-80.686711
43	4704101144	Lewis	A Alfred	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil w/ Gas Show	1735	ACTIVE	39.054089	-80.701039
44	4704101159	Lewis	O W Ireland	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil w/ Gas Show	1785	ACTIVE	39.055585	-80.699670
45	4704101162	Lewis	O W Ireland	Waco Oil & Gas Co., Inc.	Big Injun (Grnbr)	Oil w/ Gas Show	1886	ACTIVE	39.056649	-80.698014
46	4704101167	Lewis	O W Ireland	Stallworth Oil and Gas, Inc.	not available	not available	-	NEVER DRILLED	39.057319	-80.695504
47	4704101168	Lewis	O W Ireland	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil w/ Gas Show	2176	ACTIVE	39.059202	-80.695201
48	4704101169	Lewis	A L Griggs	R&R Oil & Gas, LLC	Price Fm & equivs	Oil and Gas	1798	ACTIVE	39.055659	-80.701995
49	4704101172	Lewis	Griggs & Alfred	Diversified Production, LLC	Big Injun (Grnbr)	Oil w/ Gas Show	1925	ACTIVE	39.051147	-80.700745
50	4704101173	Lewis	Griggs & Alfred	Diversified Production, LLC	Big Lime	Oil w/ Gas Show	1904	ACTIVE	39.057287	-80.698779
51	4704101185	Lewis	A L Griggs	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil w/ Gas Show	1885	ACTIVE	39.052644	-80.700973
52	4704101186	Lewis	Griggs & Alfred	Diversified Production, LLC	Big Injun (Grnbr)	Oil w/ Gas Show	1855	ACTIVE	39.054435	-80.699097
53	4704101201	Lewis	Griggs & Alfred	Diversified Production, LLC	Big Injun (Grnbr)	Oil	2141	ACTIVE	39.058339	-80.690678
54	4704101223	Lewis	Alfred & Griggs	Diversified Production, LLC	Big Injun (Grnbr)	Oil w/ Gas Show	2083	ACTIVE	39.050600	-80.698366
55	4704101237	Lewis	Alfred & Griggs	Diversified Production, LLC	Big Injun (Grnbr)	Oil and Gas	2140	ACTIVE	39.056102	-80.692177
56	4704101240	Lewis	Alfred & Griggs	Diversified Production, LLC	Big Injun (Grnbr)	Oil and Gas	1938	ACTIVE	39.052388	-80.698526
57	4704101255	Lewis	W D Chapman	Petroleum Promotions	Undf PRICE blw INJN	Oil and Gas	2150	PLUGGED	39.065730	-80.686020
58	4704101256	Lewis	N G Douglas	Petroleum Promotions	Undf PRICE blw INJN	Oil and Gas	2150	PLUGGED	39.064280	-80.683229
59	4704101326	Lewis	Alfred & Griggs	Diversified Production, LLC	Undf PRICE blw INJN	Oil w/ Gas Show	1951	ACTIVE	39.049200	-80.700252
60	4704101331	Lewis	L Starcher	Waco Oil & Gas Co., Inc.	Big Injun (Grnbr)	Gas	2313	ACTIVE	39.060219	-80.694305
61	4704101332	Lewis	L Starcher	Waco Oil & Gas Co., Inc.	Big Injun (Grnbr)	Oil and Gas	1959	ACTIVE	39.062000	-80.691710
62	4704101334	Lewis	D D Chapman	Waco Oil & Gas Co., Inc.	not available	not available	-	ACTIVE	39.060147	-80.689860
63	4704101335	Lewis	D D Chapman	Waco Oil & Gas Co., Inc.	Big Injun (Grnbr)	Oil	2138	ACTIVE	39.062699	-80.685029
64	4704101349	Lewis	D D Chapman	Waco Oil & Gas Co., Inc.	Big Injun (Grnbr)	Oil	2193	ACTIVE	39.059514	-80.688647
65	4704101352	Lewis	D D Chapman	Waco Oil & Gas Co., Inc.	not available	not available	-	ACTIVE	39.061891	-80.689388
66	4704101369	Lewis	C Roney	P&C Oil & Gas, Inc.	Undf PRICE blw INJN	not available	1950	ABANDONED	39.051189	-80.688952
67	4704101436	Lewis	D Rinehart Heirs	Wolf Run Oil & Gas	Fifth	Dry	2752	PLUGGED	39.087473	-80.707426
68	4704101513	Lewis	C A Bailey Hrs	Steve Duckworth Well Service	not available	not available	-	PLUGGED	39.066097	-80.701153
69	4704101952	Lewis	A L Griggs	Diversified Production, LLC	Price Fm & equivs	Oil w/ Gas Show	1921	ACTIVE	39.054778	-80.696938
70	4704102043	Lewis	S H Lowther	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2302	ACTIVE	39.087218	-80.710800

71	4704102046	Lewis	M E Hall	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2473	ACTIVE	39.084351	-80.712136
72	4704102060	Lewis	M E Hall	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2267	ACTIVE	39.082421	-80.708062
73	4704102061	Lewis	M E Hall	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2401	PLUGGED	39.079571	-80.712390
74	4704102063	Lewis	John Rastle	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2173	ACTIVE	39.087568	-80.704427
75	4704102072	Lewis	John Rastle	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2433	PLUGGED	39.086803	-80.702588
76	4704102078	Lewis	Frank Rastle	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2431	PLUGGED	39.077130	-80.710161
77	4704102822	Lewis	Charles Fisher	Eastern Gas Transmission & Storage, Inc.	Berea Ss	Oil	2186	ACTIVE	39.089559	-80.706125
78	4704102823	Lewis	Mary Albers	Eastern Gas Transmission & Storage, Inc.	not available	not available	-	PLUGGED	39.091009	-80.699054
79	4704102824	Lewis	John Rastle	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Oil w/ Gas Show	2703	PLUGGED	39.089838	-80.700392
80	4704102825	Lewis	John Rastle	Eastern Gas Transmission & Storage, Inc.	not available	not available	-	PLUGGED	39.087818	-80.695145
81	4704102828	Lewis	Conrad Rastle	Eastern Gas Transmission & Storage, Inc.	not available	Storage	-	ACTIVE	39.089365	-80.696947
82	4704102829	Lewis	Conrad Rastle	Eastern Gas Transmission & Storage, Inc.	not available	not available	-	PLUGGED	39.091299	-80.696449
83	4704102830	Lewis	Conrad Rastle	Eastern Gas Transmission & Storage, Inc.	not available	not available	-	PLUGGED	39.088770	-80.698862
84	4704102848	Lewis	Mary E Hall	Eastern Gas Transmission & Storage, Inc.	not available	not available	-	PLUGGED	39.081393	-80.711428
85	4704102910	Lewis	F Rastle	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Observation	2691	ACTIVE	39.074858	-80.703868
86	4704103088	Lewis	M & D L Rastle	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2574	ACTIVE	39.083306	-80.700087
87	4704103112	Lewis	Marie Rastle	Consolidated Gas Supply Corp.	Hampshire Grp	Oil	2473	PLUGGED	39.077332	-80.712063
88	4704103113	Lewis	M&C Rastle	Eastern Gas Transmission & Storage, Inc.	Gantz	Storage	2531	ACTIVE	39.077612	-80.712174
89	4704103275	Lewis	Guy Simmons	Foster Mining Co.	Big Injun (Grnbr)	Gas	2238	ABANDONED	39.083346	-80.715655
90	4704103289	Lewis	Guy Simmons Jr	Eastern Gas Transmission & Storage, Inc.	not available	not available	2488	PLUGGED	39.077912	-80.710016
91	4704103290	Lewis	Guy Simmons Jr	Eastern Gas Transmission & Storage, Inc.	not available	not available	2200	PLUGGED	39.083423	-80.701283
92	4704103291	Lewis	Guy Simmons Jr	Eastern Gas Transmission & Storage, Inc.	not available	not available	2206	PLUGGED	39.081980	-80.705003
93	4704103300	Lewis	Henry Rastle	Eastern Gas Transmission & Storage, Inc.	Gantz	Oil	2440	PLUGGED	39.089253	-80.709233
94	4704103301	Lewis	Guy Simmons	Eastern Gas Transmission & Storage, Inc.	not available	not available	3906	PLUGGED	39.080970	-80.705265
95	4704103572	Lewis	Guy Simmons	Consolidated Gas Transmission Corp.	not available	not available	-	PLUGGED	39.085933	-80.715785
96	4704104775	Lewis	Yvonne Foster/E Rastle et al	Eastern Gas Transmission & Storage, Inc.	not available	not available	-	PLUGGED	39.088230	-80.702534
97	4704130217	Lewis	Maud Faupel	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil	2174	PLUGGED	39.081972	-80.705190
98	4704130218	Lewis	Harvey Faupel	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil	2346	PLUGGED	39.083133	-80.702958
99	4704130276	Lewis	M E Hall	Hope Natural Gas Company	Hampshire Grp	Oil	2431	PLUGGED	39.077622	-80.709458
100	4704130299	Lewis	Conrad Rastle	Hope Natural Gas Company	Hampshire Grp	Gas	2191	PLUGGED	39.090184	-80.695332
101	4704130301	Lewis	John Rastle	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2306	PLUGGED	39.086268	-80.696261
102	4704130334	Lewis	A J Spray	Carnegie Natural Gas Co.	Undf PRICE blw INJN	Gas	2170	PLUGGED	39.071676	-80.708342
103	4704130442	Lewis	Reason C Davisson	UNKNOWN	Hampshire Grp	Oil	2625	PLUGGED	39.056304	-80.679693
104	4704130811	Lewis	John Rastle	Consolidated Gas Supply Corp.	not available	not available	2196	PLUGGED	39.086203	-80.705508
105	4704130812	Lewis	M E Hall	Consolidated Gas Supply Corp.	not available	not available	2148	PLUGGED	39.103169	-80.710411
106	4704130813	Lewis	John Rastle	Consolidated Gas Supply Corp.	not available	not available	2454	PLUGGED	39.087458	-80.700813
107	4704130814	Lewis	Charles Fisher	Consolidated Gas Supply Corp.	not available	not available	2358	PLUGGED	39.087673	-80.707054

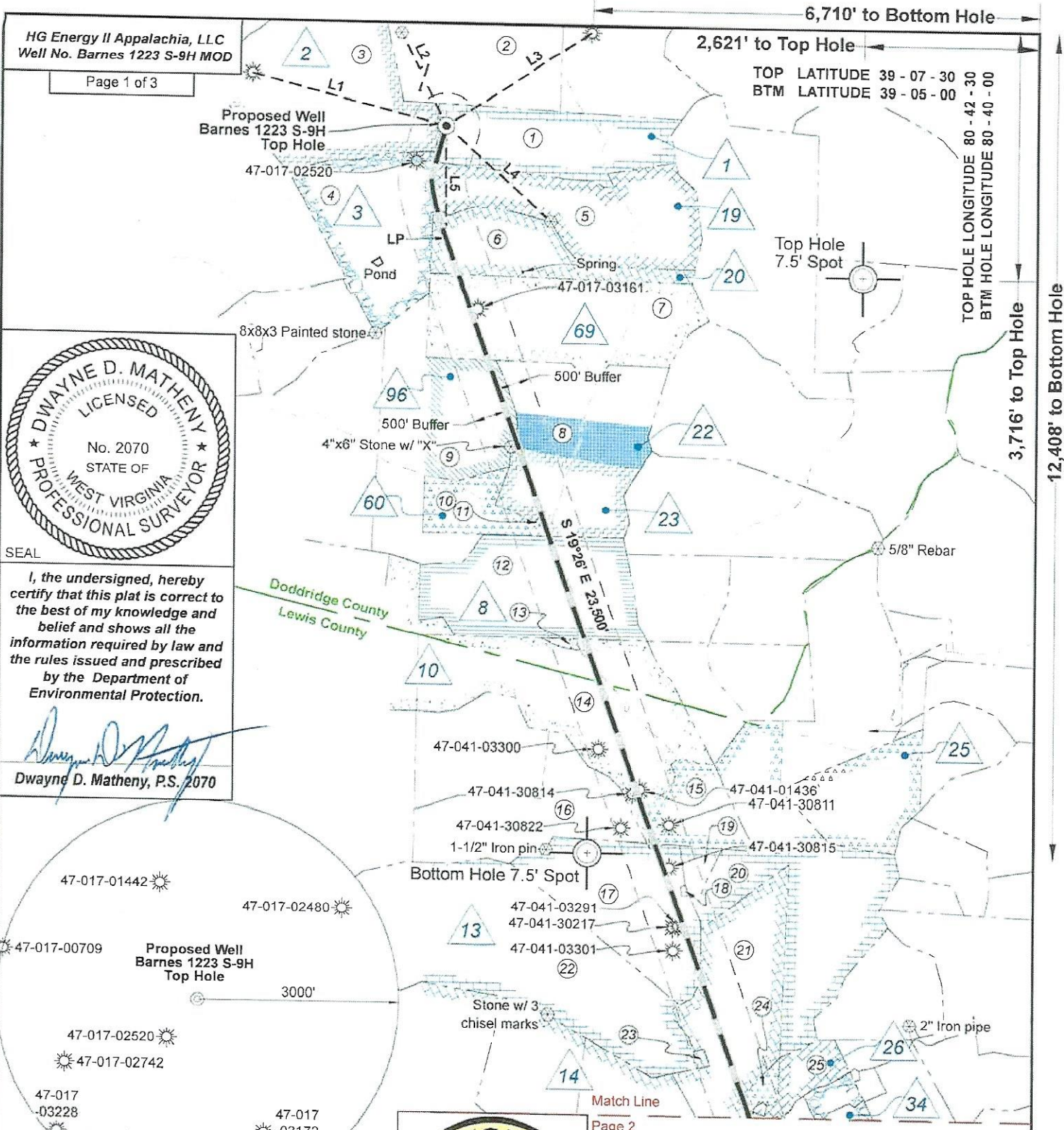
108	4704130815	Lewis	M E Hall	Consolidated Gas Supply Corp.	not available	not available	2154	PLUGGED	39.084403	-80.705487
109	4704130816	Lewis	M E Hall	Consolidated Gas Supply Corp.	not available	not available	2334	PLUGGED	39.084501	-80.709625
110	4704130817	Lewis	M E Hall	Consolidated Gas Supply Corp.	not available	not available	2390	PLUGGED	39.078347	-80.709840
111	4704130818	Lewis	M E Hall	Consolidated Gas Supply Corp.	not available	not available	2138	PLUGGED	39.078722	-80.707389
112	4704130819	Lewis	M E Hall	Consolidated Gas Supply Corp.	not available	not available	2433	PLUGGED	39.082753	-80.713750
113	4704130820	Lewis	Mary Albers	Consolidated Gas Supply Corp.	not available	not available	2426	PLUGGED	39.090147	-80.703177
114	4704130822	Lewis	Sylvester H Lowther	Consolidated Gas Supply Corp.	not available	not available	2271	PLUGGED	39.086055	-80.708045
WELLS ADDED 9/7/23 ALONG WESTERN EDGE OF THE UNIT										
115	4701700233	Doddridge	J Porter Woofter	ALAMCO, Inc.	Gantz	Dry	2350	PLUGGED	39.105040	-80.726617
116	4701700809	Doddridge	J S Bailey	Deran Resources, Inc.	Gantz	Gas w/ Oil Show	2350	ACTIVE	39.111662	-80.728937
117	4701702288	Doddridge	S L Gray	Charity Gas, Inc.	Alexander	Gas	5405	ACTIVE	39.103582	-80.725182
118	4704100029	Lewis	Griggs & Alfred	Diversified Production, LLC	Big Injun (Grnbr)	Oil	2103	ACTIVE	39.047893	-80.699406
119	4704100968	Lewis	W O Ireland	Waco Oil & Gas Co., Inc.	Price Fm & equivs	Oil	1822	ACTIVE	39.056459	-80.703947
120	4704102030	Lewis	W O Ireland	Waco Oil & Gas Co., Inc.	Big Injun (Grnbr)	Oil	1764	ACTIVE	39.053998	-80.702532
121	4704130801	Lewis	W H Frost	Consolidated Gas Supply Corp.	Undf PRICE blw INJN	Gas	1940	PLUGGED	39.046877	-80.697917
WELLS ADDED 3/25/24 AT SOUTH FOR EXTENDED LATERALS										
122	4704100029	Lewis	Griggs & Alfred	Diversified Production, LLC	Big Injun (Grnbr)	Oil	2103	ACTIVE	39.047893	-80.699406
123	4704102425	Lewis	Albert Crislip	Diversified Production, LLC	not available	not available	-	ACTIVE	39.047458	-80.692524
124	4704130801	Lewis	W H Frost	Consolidated Gas Supply Corp.	Undf PRICE blw INJN	Gas	1940	PLUGGED	39.046877	-80.697917

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

YELLOW DENOTES WELL WITH TVD > 4,500' GREEN DENOTES SURVEYED WELLS

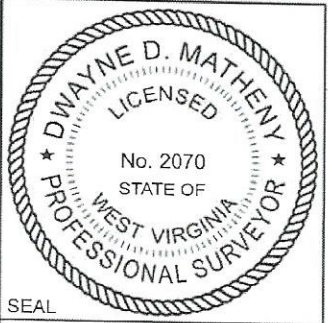
UPDATED 3/25/2024

RECEIVED
 Office of Oil and Gas
 AUG 9 2024
 WV Department of
 Environmental Protection



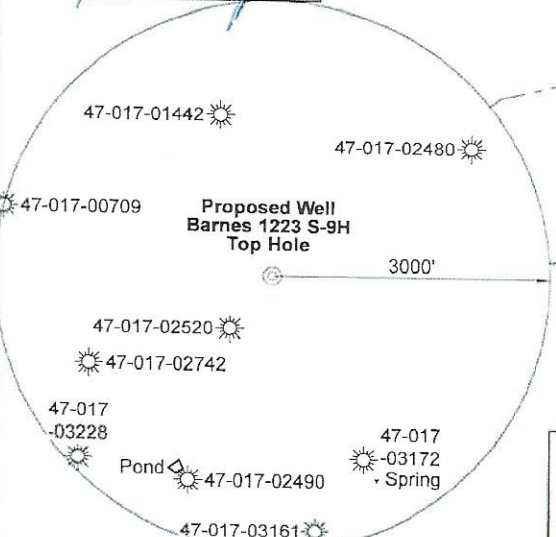
HG Energy II Appalachia, LLC
Well No. Barnes 1223 S-9H MOD
Page 1 of 3

TOP LATITUDE 39 - 07 - 30
BTM LATITUDE 39 - 05 - 00
TOP HOLE LONGITUDE 80 - 42 - 30
BTM HOLE LONGITUDE 80 - 40 - 00

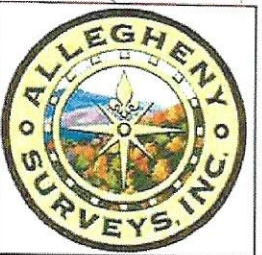


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



Note: 0 water wells, 0 cistern, and 0 pond were found within 1500' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



Tag	Bearing	Dist.	Description
L1	S 75°26' E	2,991.2'	47-017-00709
L2	S 25°54' E	2,336.2'	5/8" Rebar
L3	S 56°17' W	2,595.0'	47-041-02480
L4	N 48°11' W	2,109.2'	1/2" Rebar @ fence corner
L5	S 00°10' E	1,683.2'	Landing Point

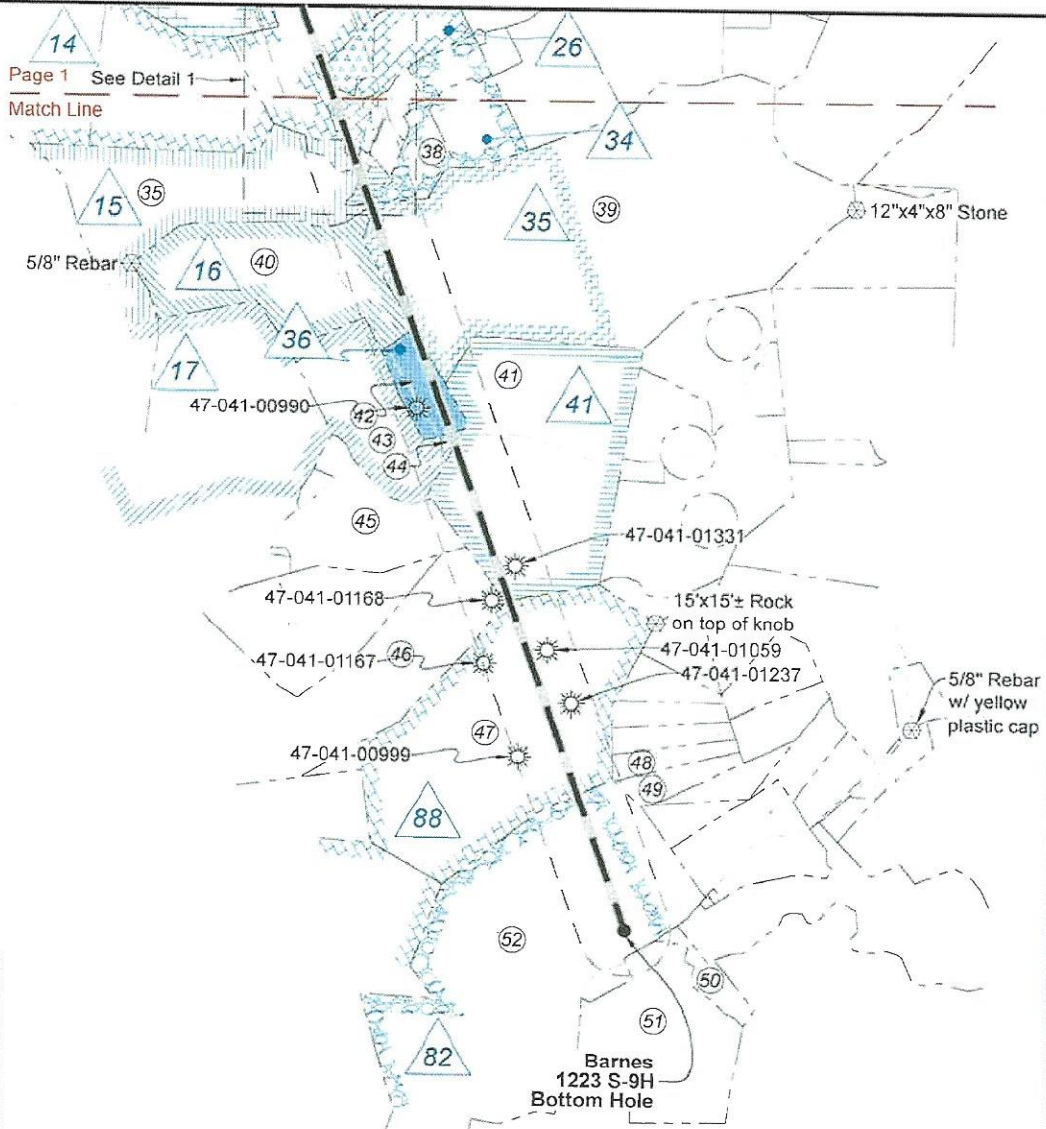
FILE NO: 171-12-30-FC-22
DRAWING NO: Barnes 1223 S-9H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

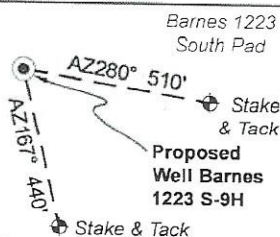
DATE: July 29 20 24
OPERATOR'S WELL NO. Barnes 1223 S-9H
API WELL NO
47 - 017 - 06977
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1,330' WATERSHED: Fink Creek QUADRANGLE: Vadis
DISTRICT: Cove COUNTY: Doddridge
SURFACE OWNER: Marilyn Barnes, et al ACREAGE: 08/28/2024
ROYALTY OWNER: Carolyn Rastle Bass, et al LEASE NO: ACREAGE: 123
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BH & LP MOD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,210' TVD 31,355' MD

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

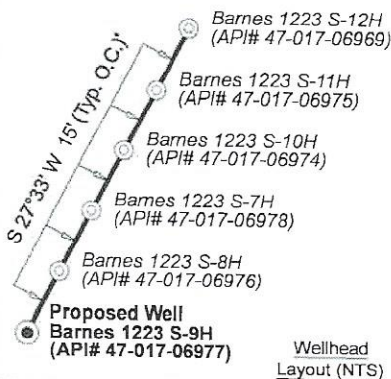


**Well Location References
Not to Scale**



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.)



West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.	UTM Zone 17, NAD 1983 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. Van Wie 1223 S-9H WVCS 1927, North Zone Top Hole Coordinates Lat: 39°06'53.26" Lon: 80°43'03.27" Landing Point Coordinates Lat: 39°06'36.62" Lon: 80°43'03.27" Bottom Hole Coordinates Lat: 39°02'57.31" Lon: 80°41'25.08"	Notes: Well No. Van Wie 1223 S-9H UTM NAD 1983 (USSF) Top Hole Coordinates N: 14,204,576.12' E: 1,720,572.18' Landing Point Coordinates N: 14,202,892.93' E: 1,720,576.89' Bottom Hole Coordinates N: 14,180,739.51' E: 1,728,389.72'	Notes: Well No. Van Wie 1223 S-9H UTM NAD 1983 (Meters) Top Hole Coordinates N: 4,329,563.461m E: 524,431.449m Landing Point Coordinates N: 4,329,050.423m E: 524,432.885m Bottom Hole Coordinates N: 4,322,298.047m E: 526,814.240m

FILE NO: 171-12-30-FC-22
DRAWING NO: Barnes 1223 S-9H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

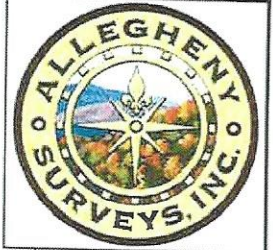
**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION**

DATE: July 29 20 24
OPERATOR'S WELL NO. Barnes 1223 S-9H
API WELL NO
47 — 017 — 06977
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,330' WATERSHED: Fink Creek QUADRANGLE: Vadis
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SURFACE OWNER: Marilyn Barnes, et al ACREAGE: 08/29/2024
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 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BH & LP MOD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,210' TVD 31,355' 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

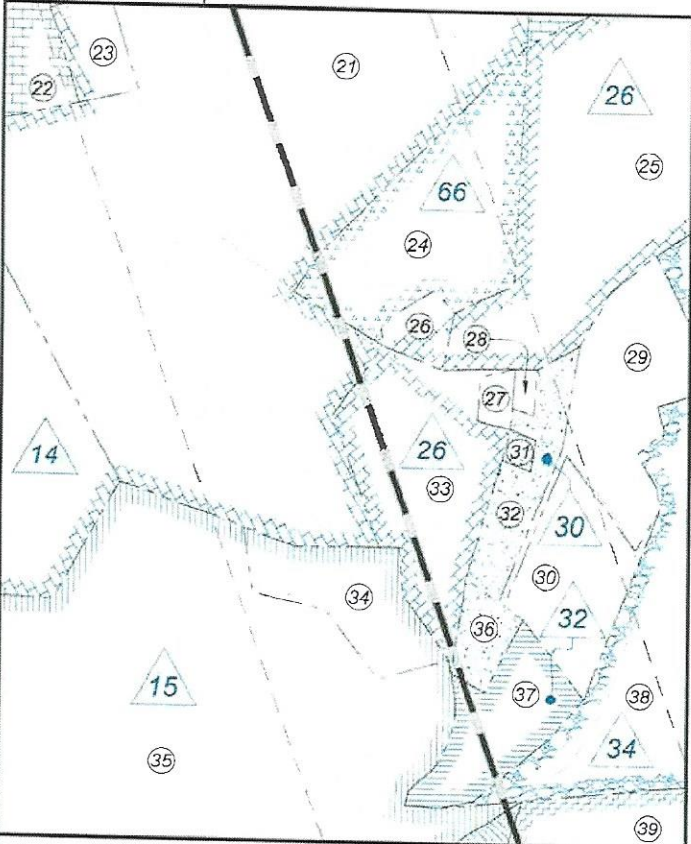


ID	Lease
1	Carolyn Rastle Bass, et al
2	James L. Marsh, et al
3	Asset Management, LLC, et al
8	HG Energy II Appalachia, LLC
10	HG Energy II Appalachia, LLC
13	William H. Hall & Mary E. Hall
14	Frank Rastle, et ux, et al
15	HG Energy II Appalachia, LLC
16	C.A. & Jane Rohr
17	Susan Marie Fair, et al
19	Carolyn Rastle Bass, et al
20	Maxine Cole Rastle, et al
22	C. Spray, et al
23	H.C. Spray, et al
25	HG Energy II Appalachia, LLC
26	J.R. & Florence Hurst
30	A.J. Spray, et ux, et al
32	Bessie V. Cahill & Zora Startcher
34	Dollie Hardman, et vir, et al
35	C.W. Radcliff, et al
36	Mike Ross, Inc., et al
41	Lydia Startcher, et al
60	Helen Bunten Keplinger & Elaine Bunten Mines
66	Diane Goulet, et al
69	Ivah R. Schmidt, et vir, et al
82	Albert & Mary Crislip
88	Andrew Edmiston, Jr., et ux, et al
96	Panacea Energy, Inc., et al

Doddridge Co. (Cove Dist.)				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	10 / 16	Marilyn Barnes, et al	W28 / 552	76.10
2	9 / 21	Carolyn R. Bass, et al	239 / 151	120.00
3	9 / 20	Clyde W. Marsh, et al	W36 / 152	149.00
4	9 / 27	Willard L. Fuller, III	215 / 149	89.00
5	10 / 17	Marilyn Barnes, et al	W28 / 552	90.00
6	9 / 28	Maxine S. Rastle	A58 / 287	53.63
7	14 / 1	Maxine S. Rastle	A58 / 287	129.04
8	13 / 17	Maxine S. Rastle	A58 / 287	116.18
9	13 / 16	Ralph T. Bunten, Jr., et al	224 / 79	114.76
10	13 / 16.1	Ralph T. Bunten, Jr., et al	224 / 79	26.90
11	13 / 17.1	Maxine S. Rastle	A58 / 287	0.13
12	13 / 18	Kevin M. Kearney	251 / 298	100.00
13	14 / 6	Gerald K. & Pamela S. Heater	225 / 18	1.28

Lewis Co. (Freemans Creek Dist.)				
No.	TM / Par	Owner	Bk / Pg	Ac.
14	1D / 5	Henry G & Sylvia Rastle	398 / 311	142.00
15	1D / 9	Yvonne R. Foster & Alice Taylor	745 / 851	32.60
16	1D / 6	Fonda W. Simmons Trust	629 / 66	83.00
17	1D / 7	Fonda W. Simmons Trust	629 / 66	100.10
18	1D / 8.1	Fonda W. Simmons Trust	629 / 66	1.40
19	1D / 8	Berkley T. & Judith E. Cook	617 / 195	6.00
20	1D / 16	Maxine S. Cole Rastle	W55 / 570	99.40
21	1E / 28	Thomas R. Riley, et al	577 / 553	96.80
22	1E / 12	Fonda W. Simmons Trust	629 / 66	197.25
23	1E / 28.1	Thomas R. Riley	544 / 394	1.00
24	1E / 27	Okey J. Smith	555 / 555	5.50
25	1E / 29	Robert E. & Ann M. White	403 / 690	16.73
26	1E / 26	M.L. Riley	230 / 197	0.48
27	1E / 34	Robert E. & Ann M. White	403 / 690	0.26
28	1E / 33	Cemetery Fink Creek	000 / 000	0.18
29	1E / 32	Danny C. & Rose M. Parker	563 / 692	3.70
30	1E / 38	Fonda W. Simmons Trust	629 / 66	2.70
31	1E / 36	Danny C. & Rose M. Parker	563 / 692	0.14
32	1E / 37	Danny C. & Rose M. Parker	563 / 692	1.60
33	1E / 25	Alfred M. & Shannon Cunningham	F32 / 126	4.84
34	1E / 15.1	Lee M. Reese & Karon L. de Silva	620 / 391	2.50
35	1E / 15	Lee M. Reese & Karon L. de Silva	620 / 391	63.38
36	1E / 24	Lee M. Reese & Karon L. de Silva	620 / 391	1.10
37	1E / 23	Fonda W. Simmons Trust	629 / 66	2.70
38	1E / 40	Richard Lenard	W44 / 285	10.78
39	1E / 44	James R. Radcliff	595 / 26	231.00
40	1E / 16	Rabiab & Joseph I. Schulte, Jr.	311 / 509	64.00
41	1E / 43	Danny C. & Timothy J. Kretzmer, et al	W13 / 195	113.00
42	1E / 41	Danny C. & Timothy J. Kretzmer, et al	W13 / 195	12.78
43	1E / 22	Michael T. Parker	784 / 409	37.06
44	1E / 42	Earl R. Oney	622 / 714	0.75
45	1E / 20	Michael T. Parker	784 / 409	35.48
46	1F / 25	Donzel W. & Betty J. Gum	776 / 943	96.70
47	1F / 52	Edwin A. Alfred	562 / 309	135.25
48	2F / 7	Hundred Resources Inc.	736 / 159	7.00
49	2F / 8	Hundred Resources Inc.	736 / 159	7.00
50	2F / 20.1	Stephen J. Scherer	591 / 84	4.00
51	2F / 22	Hundred Resources Inc.	731 / 469	50.25
52	1F / 53	WV Minerals Inc.	679 / 274	189.34

Detail 1 (1"=500')



FILE NO: 171-12-30-FC-22
DRAWING NO: Barnes 1223 S-9H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: July 29 20 24
OPERATOR'S WELL NO. Barnes 1223 S-9H
API WELL NO
47 - 017 - 06977
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,330' WATERSHED: Fink Creek

QUADRANGLE: Vadis

DISTRICT: Cove
SURFACE OWNER: Marilyn Barnes, et al

COUNTY: Doddridge

ROYALTY OWNER: Carolyn Rastle Bass, et al

ACREAGE: 123

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

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,210' TVD 31,355' 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

WW-6A1
(5/13)

Operator's Well No. Barnes 1223 S-9#

**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 Sheets****

RECEIVED
Office of Oil and Gas

AUG 9 2024

WV Department of
Environmental Protection

Co-Tenancy utilization - At least 75% of the royalty owners have consented to the lawful use or development of the natural gas mineral property on the tract. The interests of the remaining co-tenants will be secured pursuant to the Co-Tenancy Act

Horizontal Well Unit Utilization - Subject to unitization filing with the WV Oil and Gas Conservation Commission

**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

HG Energy II Appalachia, LLC
Barnes 1223 S-9H Lease Chain

1223S Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE	
X	1	HGII02150 et al	02-0010-0016-0000	HGII02150 et al	Carolyn Rastle Bass	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	520	529
					Marilyn Rastle Barnes	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	520	527
					Richard E. Spracklen	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	521	214
					Chad W. Johnson			500	298
					James J. Cava, Jr.	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	501	398
X	2	HGII03136 ET AL	02-0009-0020-0000	HGII03136 ET AL	James L. Marsh	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	618
					Carol Ann Henry	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	624
					Donna Jean Getsinger	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	622
					Jane White AKA Carolyn Jane White	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	620
					Alice Margaret Rastle Taylor	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	514	708
					Yvonne Foster	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	514	710
					Henry Gray Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	514	417
					Maxine Cole Rastle aka Maxine S. Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	512	222
					Helen J. McClain	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	516	420
					Christine A. Davis Wampler	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	512	581
					Nroma C. Bowyer AKA Norma Sue (Cole) Bowyer	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	516	422
					Cheryl DeWeese	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	521	216
					Richard Gage Spray	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	513	134
					James Edward Postle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	531	160
					Michael Eric Robertson	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	521	603
					St. Johannes Lutheran Church of St. Clara, by Phyllis Hinterer, Clara Mae Spray, Marion Zorn, Rebecca Strickling, and James Strickling Church Council Members	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	524	331
					Karen Walters Gardner	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	532	428
					William Douglas Robertson	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	532	301
					Gail Frost Vennick, a/k/a, Gail F. Vennick	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Amanda E. Hamilton	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Andrew L. Frost	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					George Kent Walters	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Deborah Lee (Spray) Anderson Guy	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Susan Lorraine (Spray) Robertson	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Janet Lynne (Spray) Masimer	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Robert Daniel Spray	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					The Estate of Timothy David Spray, by Cheryl Deweese, Administrator	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Kathleen Postle	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Joel David Robertson	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Randall Bruce Robertson	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					unknown heirs or successors of Eleanor Jean Landis	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Phillip C. Parker aka Philip C. Parker	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Pamela Kinzel AKA Pamela S. Liotta	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	387
					Asset Management, LLC Clay Gatlin, managing member Send docs to John Foster Tyra, PC (Legal Counsel) 3496 Firethorn Dr., Tuscaloosa, AL 35405	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	526	303
					Dale/Peregrine Minerals Fund, LP	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	516	478
					Southland Capital Realty Group, LLC			525	153
					T. Todd Martin, III, managing member Selwyn H. Turner, III, managing member Elizabeth Turner, managing member	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Panacea Energy, Inc.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	529	598
					Upstream Energy, LLC	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	525	151
					Billy R. Powell	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	510	370

X	3	HGII03825 ET AL	02-0009-0027-0000	HGII03825 ET AL	Estate of Nannie Bell Broocks "Red" Womack, Ellen Womack Giles, Executrix	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Rawls Energy, LLC			531	490
					James H. Rawls, Managing Member	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Homer Roberts Collins	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	528	605
					Gold City Mineral Partners, LP	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	507	304
					William Kirkpatrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	533	390
					Sylvia Kirkpatrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	533	388
					Marilyn Allen	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	510	263
					James E. Poole, Jr.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	518	278
					Dale Williston Minerals 2012-B, LP	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	391
					John C. Sipple	HG ENERGY II APPALACHIA, LLC	Drilling and Permission to Permit Agreement	535	150
Pinebelt Oil & Gas, Inc.	HG ENERGY II APPALACHIA, LLC	Drilling and Permission to Permit Agreement	535	162					
Robert M. Newsome	HG ENERGY II APPALACHIA, LLC	Drilling and Permission to Permit Agreement	535	180					
Petroleum Properties, LLC	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	70	391					
X	8	FK080709 FEE	02-0013-0018-0000	FK080709 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
X	10	FK079326 FEE	02-0013-0009-0000 02-0014-0006-0000 03-001D-0005-0000	FK079326 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
X	13	FK054822 FK079060 FEE	03-001D-0016-0000 03-001D-0008-0000 03-001D-0008-0001 03-001D-0007-0000 03-001E-0012-0000	Q101029000	WILLIAM H. HALL AND MARY E. HALL	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	24	364
					SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	570
					SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	106	494
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
					DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE		WVSOS
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558					
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220					
X	14	FK054835 FK080833 FEE	03-001E-0011-0000 03-001E-0013-0000 03-001E-0014-0000 03-001E-0026-0000 03-001E-0028-0000 03-001E-0028-0001	Q101032000	FRANK RASTLE AND MARGARET A. RASTLE, HIS WIFE; AND M. J. LOVETT	A. F. GUM AND G. B. DETERMAN	NOT LESS THAN 1/8	92	531
					A. F. GUM	G. B. DETERMAN	ASSIGNMENT	95	576
					G. B. DETERMAN	LOUIS BENNETT AND W. H. AHNER	ASSIGNMENT	95	576
					JOHNSON C. MCKINLEY AND HUNTER M. BENNETT, EXECUTORS OF THE LAST WILL AND TESTAMENT OF LOUIS BENNETT, SR. DECEASED	AGRA B. MCKINLEY	CONVEYANCE/ASSIGNMENT	1	13
					W.H. AHNER AND MYRTLE AHNER, HIS WIFE	ERNEST G. SMITH, IN TRUST	CONVEYANCE/ASSIGNMENT	15	460
					W.H. AHNER AND MYRTLE AHNER, HIS WIFE; AND ERNEST G. SMITH TRUSTEE	AGRA B. MCKINLEY	CONVEYANCE/ASSIGNMENT	117	504
					HOMER THOMPSON AND RACHAEL THOMPSON, HIS WIFE	FRANK RASTLE	CONVEYANCE/ASSIGNMENT	100	329
					FRANK RASTLE AND MARGARET A. RASTLE, HIS WIFE	AGRA B. MCKINLEY	CONVEYANCE/ASSIGNMENT	118	135
					AGRA B MCKINLEY AND JOHNSON C. MCKINLEY, HER HUSBAND	ROY TALBOTT	CONVEYANCE/ASSIGNMENT	125	428
					MARY TALBOTT IN HER OWN RIGHT AND AS ADMINISTRATRIX OF THE ESTATE OF ROY TALBOTT, DECEASED	C. M. BENNETT, THOMAS J. GILLOOLY AND W. C. BLACK, PARTNERS DBA C. M. BENNETT AND COMPANY	CONVEYANCE/ASSIGNMENT	125	429
					C. M. BENNETT, THOMAS J. GILLOOLY AND W. C. BLACK, PARTNERS DBA C. M. BENNETT AND COMPANY	GILCO OIL & GAS COMPANY	ASSIGNMENT	129	46
					GILCO OIL & GAS COMPANY	SOUTH PENN OIL COMPANY	ASSIGNMENT	138	174
					SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	570
					SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	166	494
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57					

				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848	
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1	
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170	
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS		
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220	
X	15	FK081147 FEE	03-001E-0015-0000 03-001E-0015-0001	FK081147 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
					Robert K. Hudkins	Robert K. Hudkins	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Kelly Lee Hudkins Dolan Loya	Kelly Lee Hudkins Dolan Loya	NOT LESS THAN 1/8	811	355
					Zella Keener aka Zella Jean Keener aka Zella Martin Keener	Zella Keener aka Zella Jean Keener aka Zella Martin Keener	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Teresa A. Brooks	Teresa A. Brooks	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
X	16	FK066067	03-001E-0016-0000	Q100729000	C.A. ROHR AND JANE ROHR, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	235	83
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
					DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				Susan Marie Fair	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	830	
				Janet Louise Deck	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	802	966	
				Vanessa Lynn Lucas	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	670	
				Kemp Land Services, LLC	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	918	
				DT Land Services, LLC	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	916	
				Johnson Energy Services, LLC	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	906	
				Keystone Buckeye Energy Holdings, LLC	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	904	
				Patricia Deal	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	809	772	
				Elsie Deal	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	809	784	
				Kevin Lattea	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	810	83	
				Mary Kemper Gum	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	342	
				Linda Rose O'Hara	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	804	87	
				Richard Clay Hamrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	804	466	
				John Kent Burnside	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	794	
				James B. Sumpter	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	788	
				Phillip E. Burnside	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	448	
				Bertha F. Benedum	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	452	
				James Linn Burnside	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	460	
				Katherine Sue France	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	809	780	
				Patricia Lynn Allen	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	809	393	
				Winifred Sprouse	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	804	83	
				Mary Candace Sprouse Passarella aka Candace Passarella	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	804	265	
				Robbin Emory Jennings	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	442	
				Jane E. Fitzpatrick Horn	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	804	480	
				Kimberly Byrd Brodersen AKA Kimberly D. Brodersen	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	432	
				Hilda Rose Perry	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	802	372	
				Carolyn Determan and John Determan, husband and wife	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	802	368	
				Carol D. Gum	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	368	
				Marjorie W. Hyatt, by and through Linda C. Weekley, her Agent and	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	664	
				Patrick A. Nies	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	807	706	

X	17	HGII03520 et al	03-001E-0022-0000 p/o 03-1E-0009-0000 p/o 03-1E-0017-0000	HGII03520 et al	Betty H. Craft, AKA Elizabeth Sarah Idella Craft , AKA Betty Dell Craft,	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	298
					Jack E. Waggoner	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	119
					Joseph C. Waggoner, Sr.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	139
					Linda Lou Waggoner	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	145
					Mary K. Justice, AKA Mary K. Small Justice	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	320
					Bea Ann Wilfong	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	314
					Michael Lynn Small and Terry Lynn Small, husband and wife	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	336
					Sharon Lea Senk, AKA Sharon Lea Small Senk	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	348
					Raymond C. Waggoner	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	123
					Raymond C. Waggoner	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	123
					Raymond C. Waggoner	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	123
					Margaret J. Morley	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	805	129
					Dolores E. Small	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	807	427
					Janet Rose Dawson	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	654
					Alice Faye McQueen	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	228
					Elizabeth Carol Brown	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	646
					Dorsey Frazier Hamrick, Jr.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	332
					Barbara Jean Evans	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	668
					Vickie Lynne Erickson nka Vickie Lynne Pahl	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	803	364
					William Everett Hamrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	674
					Tina Louise Hamrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	801	684
					Joseph C. Pinson	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	802	972
					Nancy Hedlund aka Nancy Roessler	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Randall Hedlund	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Phyllis Hedlund aka Phyllis Chapel	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Roger Hedlund	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					William Graban	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Margaret Larson AKA Margaret Wehr	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Cecelia Anne Gerstner	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					John S. Ramseyer	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Sara R. Klein	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Lois Ruth Thomas aka Ruth Thomas	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Mark A. Cicoff	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					The Estate of Glenna Hope Bailey a/k/a Glenna H. Courtney,	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Willard S.Courtney	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Marsha K. Merritt aka Marsha Kilgore	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Steven L. Bailey	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Nicholas L. Bailey	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Charlotte Courtney Horne	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
					Judith Kay Case	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405
Steven Jay Hamrick	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405					
James Michael Burnside	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405					
Joan Burnside Anderson	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405					
The Estate of Mark R. Fitzpatrick	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405					
Mary Kathern Hull	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas	Docket 364	405					
X	19	HGII03860 ET AL	02-0010-0017-0000	HGII03860 ET AL	Carolyn Rastle Bass	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	520	531
					Marilyn Rastle Barnes	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	520	533
X	20	HGII03857 ET AL	02-0009-0028-0000 02-0014-0001-0000	HGII02943 et al	Maxine Cole Rastle aka Maxine S. Rastle			526	409
						HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8		
					Mike Ross, Inc.	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	512	216
					Thomas Edward Rastle	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	513	132
					Michael Joseph Riley	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90
					Thomas Robert Riley	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90
					Patricia Ann Riley fka Patricia Ann Martin	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90
					Yvonne Rastle Foster	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	514	714
					Alice Rastle Taylor	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	514	706
					Ridgewood Development LLC (Samuel Hammett; managing member)			68	90
						HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT		
					Armstrong Land Management (Richard Armstrong; President)	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90
					Henry G. Rastle	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	516	21
					The Unknown Heirs or Successors of Max Albers	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90
					The Unknown Heirs or Successors of Gerald Albers	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90
					The Unknown Heirs or Successors of Nancy Albers	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90

				Josephine Sanchez	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90	
				John J. Battin, Jr.	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90	
				Jamison M. R. Battin aka Jamison Battin	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90	
				Jennifer M. Battin	HG ENERGY II APPALACHIA LLC	COTENENCY AFFIDAVIT	68	90	
X	22	FK066137	p/o 02-0013-0017-0000	Q100991000	FLORENCE T. CHAPMAN AND D. D. CHAPMAN, HER HUSBAND; H. C. SPRAY, WIDOWER; MYRTLE M. SPRAY, WIDOW; JOHN E. SPRAY AND ALICE L. SPRAY, HIS WIFE; RICHARD L. SPRAY AND ROSE LEE SPRAY, HIS WIFE; SYBIL ROBERTSON AND WILLIAM N. ROBERTSON, HER HUSBAND; GRACE WALTERS AND G. E. WALTERS, HER HUSBAND; VIOLET POSTLE; JEAN SPRAY, SINGLE; G. C. SPRAY AND LELIE SPRAY, HIS WIFE; A. J. SPRAY AND ADELINE S. SPRAY, HIS WIFE; LULU SCHMIDT, WIDOW; E.W. HOLLAND AND AXIE HOLLAND, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	58	363
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	143	345
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	135	583
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	328	398
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	332	570
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	323	187
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	337	446
					DOMINION TRANSMISSION INC	CNX GAS COMPANY AND NOBLE ENERGY INC	PARTIAL ASSIGNMENT (32%)	424	234
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	377	212
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT	449	494
					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	454	483
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	475	576
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT	479	1
X	23	FK066130	p/o 02-0013-0017-0000	Q100731000	H. C. SPRAY, WIDOWER; MABEL SPRAY, SINGLE; LUCY E. STRUBLER AND PAUL J. STRUBLER, JR., HER HUSBAND; GLEN SPRAY AND ELSIE SPRAY, HIS WIFE; FRANCES MCQUEEN AND DAVID MCQUEEN, HER HUSBAND; RUTH KOHL AND BLAINE KOHL, HER HUSBAND; DORIS BELT AND DAVID R. BELT, HER HUSBAND; MARK B. SPRAY AND ELOISE SPRAY, HIS WIFE; AND E. W. HOLLAND AND AXIE HOLLAND, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	58	358
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	143	345
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	135	583
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	328	398
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	332	570
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	323	187
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	337	446
					DOMINION TRANSMISSION INC	CNX GAS COMPANY AND NOBLE ENERGY INC	PARTIAL ASSIGNMENT (32%)	424	234
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	377	212
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT	449	416
					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	454	483
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	475	576
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT	479	1
X	25	FK080153 FEE	03-001D-0009-0000 03-001D-0010-0000 03-001D-0014-0000	FK080153 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
X	26	FK056154	03-1E-0025-0000 03-1E-0029-0000 p/o 03-1E-0026-0000	Q100494000	J. R. HURST AND FLORENCE HURST, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	172	85
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS						

				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220	
X	30	FK067889	03-001E-0036-0000, 03-001E-0037-0000, 03-001E-0024-0000	FK067889	A.J. SPRAY ET AL	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	251	141
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
					DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220					
X	32	FK067874	03-001E-0023-0000	FK067874	BESSIE V CAHILL ET AL	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	251	138
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
					DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220					
X	34	FK056153	03-001E-0040-0000 03-001E-0040-0001 03-001E-0045-0000	Q100343000	DOLLIE HARDMAN AND O. M. HARDMAN, HER HUSBAND; RELLA LOWTHER AND L. C. LOWTHER, HER HUSBAND; AND ESTIE FRYMYER	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	172	181
					HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
					CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
					CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
					CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
					DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220					
				C. W. RADCLIFF, WIDOWER; PEARL WHITE AND VIRGIL A. WHITE, HER HUSBAND; VIRGIL C. RADCLIFF AND CATHERINE E. RADCLIFF, HIS WIFE; MILDRED MCINTYRE AND JAMES W. MCINTYRE, HER HUSBAND; OPAL BRADY AND WOODROW W. BRADY, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	235	86	
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89	
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127	
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795	

X	35	FK066066 HGII0002	p/o 03-001E-0044-0000	Q100988000	CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
					DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
					NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
					DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
					DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
X	36	HGII03581 ET AL	03-001E-0041-0000	N/A	Mike Ross, Inc.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	802	363
					Waco Oil and Gas Co.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	800	674
X	41		03-001E-0043-0000		LYDIA STARCHER, SINGLE; A. L. STARCHER, SINGLE; W. R. STARCHER, SINGLE; B. J. RINEHART, WIDOWER; OLETA RINEHART, SINGLE; TURIA R. KING & ERNEST G. KING, HER HUSBAND; J. CARL RINEHART & ELSIE MCCALL RINEHART, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	236	39
					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.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651	318
					CONSOL ENERGY HOLDINGS LLC XVI	CONSOL GAS COMPANY	MERGER/NAME CHANGE	WVSOS	
					CONSOL GAS COMPANY	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	WVSOS	
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	659	521
					CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
X	60	HGII04441	02-0013-0016-0001	HGII04441	Helen Bunten Keplinger and Elaine Bunten Mines, JTWROS	HG ENERGY II APPALACHIA< LLC	NOT LESS THAN 1/8	TBD	TBD
					Diane Goulet	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	808	320
					Denis Martin aka Denis I. Martin	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	807	729
					Thomas Edward Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	796	739
					Jacquiline Robinson, aka Jacqueline Robinson	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	808	643
					Patricia Ann Riley fka Patricia Ann Martin aka Patricia Ann Riley Martin	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	808	97
					Thomas Robert Riley	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	808	95
					Yvonne Rastle Foster	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	798	21
					Alice Rastle Taylor aka Alice M. Rastle Taylor	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	798	19
					Henry G. Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	798	913
X	66	HGII03856 et al	03-001E-0027-0000	HGII03856 et al	Maxine Cole Rastle aka Maxine S. Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	804	474
					The Unknown Heirs or Successors of Okey J. Smith	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Jan Odell Stewart, a/k/a, Jan O. Stewart, a/k/a, Jan Stewart Deceased 12/28/2023, Ingham Co, MI	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Jan O. Stewart	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Jan O. Stewart	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Jan Odell Stewart, a/k/a, Jan O. Stewart, a/k/a, Jan Stewart Deceased 12/28/2023, Ingham Co, MI	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Josephine Sanchez	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					John J. Battin, Jr.	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Jamison M. R. Battin aka Jamison Battin	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405
					Jennifer M. Battin	HG ENERGY II APPALACHIA, LLC	HUO Hearing Schedules 7/30/2024, Oil & Gas Commission	Docket 364	405

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69	TBD	02-0014-0001-0000	TBD	IVAH R. SCHMIDT AND HARVEY B. SCHMIDT, HER HUSBAND; HENRY ALBERS AND ETHEL ALBERS, HIS WIFE; CLARA T. WANSTREET AND HENRY B. WANSTREET, HER HUSBAND; JOHN A. ALBERS AND MARY O. ALBERS, HIS WIFE; FRANCIS H. MEANS AND ENDA M. MEANS, HIS WIFE; BEN C. NUCKOLLS AND RUBY G. NUCKOLLS, HIS WIFE; MARGARET RASTLE, WIDOW; CLARK P. BRYSON AND VICTORIA A. BRYSON, HIS WIFE; EVIE E. BODE AND FLORENCE L. BODE, HIS WIFE; WALTER E. BODE AND NOLA J. BODE, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	58	353
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	143	345
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	135	583
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	328	398
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	332	570
				DOMINION TRANSMISSION INC	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	245	1
				CONSOL ENERGY HOLDINGS LLC XVI	CONSOL GAS COMPANY	MERGER/NAME CHANGE	293	252
				CONSOL GAS COMPANY	CNX GAS COMPANY	MERGER/NAME CHANGE	293	252
				CNX GAS COMPANY LLC	HG ENERGY II APPALACHIA LLC	ASSIGNMENT	508	457
				ALBERT CRISLIP AND MARY CRISLIP, HIS WIFE	ROBERT KRAUS AND FRANK WHELAN	NOT LESS THAN 1/8	74	414
				ROBERT A. KRAUS, DECEASED	MARY A. KRAUS (LE), THEN TO HER HEIRS	LAST WILL AND TESTAMENT	F	419
				LOTTIE M. RUPPERT AND CHARLES RUPPERT (HEIRS OF ROBERT A. KRAUS)	EDWARD J. KRAUS	DEED	158	207
				EDWARD J. KRAUS AND MARJORIE KRAUS (HEIRS OF ROBERT A. KRAUS)	RALPH B. KRAUS	DEED	190	496
				MARY A. KRAUS, DECEASED	R.M. KRAUS, RALPH B. KRAUS, GILBERT P. KRAUS, EDWARD J. KRAUS, LOTTIE M. RUPPERT, AND ANNA E. AVINGTON (HER HEIRS)	INVENTORY RECORD	47	321
THOMAS GILBERT KRAUS, DECEASED (HEIR OF ROBERT A. KRAUS)	AGNES KRAUS AND JOHN ROBERT KRAUS	MISC BOOK	17	317				
JOHN ROBERT KRAUS	AGNES KRAUS	DEED	4	576				
ANNE R. AVINGTON, DECEASED	MARY CATHERINE ATKINS, MILDRED ANN KOZAR, PAUL EDWARD AVINGTON, JR, AND MARTHA ELAINE PICKNS	LAST WILL AND TESTAMENT	22	17				
ADREW FRANCIS WHELAN, AKA FRANK WHELAN, DECEASED	ALICE WHELAN MCGARY, MARY WHELAN EDWARDS, ANDREW F. WHELAN JR, KATHERINE WHELAN SLEIGH, AND THOMAS A. WHELAN	LAST WILL AND TESTAMENT	E	468				
ALICE W. MCGARY, DECEASED	MARY WHELAN EDWARDS, KATHERINE WHELAN SLEIGH, ANDREW F. WHELAN JR, AND THOMAS A. WHELAN	LAST WILL AND TESTAMENT	F	361				
A. F. WHELAN JR, DECEASED	FRANK WHELAN JR., SARA W. ZOBRIST, AND MARY W. TIERNEY	FIDUCIARY RECORD	6	208				
MARY WHELAN EDWARDS, DECEASED	ALICE EDWARDS RILEY, THOMAS A. EDWARDS, AND EUGENE HUFFMAN EDWARDS	LAST WILL AND TESTAMENT	K	551				
KATHERINE WHELAN SLEIGH, DECEASED	ANDREW FRANCIS SLEIGH AND MARGARET MALLOY SLEIGH	LAST WILL AND TESTAMENT	L	281				
THOMAS A. WHELAN, DECEASED	FRANK WHELAN, JR (LE), THEN, ANDREW F. SLEIGH, MARY WHELAN TIERNEY, SARAH WHELAN ZOBRIST, MARY EDWARDS CUMMINGS, ALICE EDWARDS RILEY, KATHRYN L. EDWARDS, THOMAS A. EDWARDS AND EUGENE H. EDWARDS	LAST WILL AND TESTAMENT	M	591				
MARY CUMMINGS, DECEASED	ALICE EDWARDS RILEY	LAST WILL AND TESTAMENT	R	550				
THOMAS A. EDWARDS, DECEASED	JOHN CHARLES EDWARDS	LAST WILL AND TESTAMENT	V	280				
MARY WHELAN TIERNEY, DECEASED	MARY MARGARET TIERNEY, JOHN ANDREW TIERNEY, JR, AND TERRENCE ANDREW TIERNEY	LAST WILL AND TESTAMENT	U	316				
FRANK WHELAN JR, DECEASED	THOMAS R. WHELAN, A.F. WHELAN, GEORGE E. WHELAN, AND JANE WHELAN GARTON	ESTATE RECORDS	5	111				
THOMAS R. WHELAN, DECEASED	WILMA L. WHELAN, IF LIVING	LAST WILL AND TESTAMENT	52	590				
GEORGE E. WHELAN, DECEASED	KATHY S. WHELAN	LAST WILL AND TESTAMENT	52	927				
EUGENE H. EDWARDS, DECEASED	SARAH BREWSTER EDWARDS AND EUGENE H. EDWARDS, JR. (AFTER DEATH OF SARAH BREWSTER EDWARDS, THEN EQUALLY TO EUGENE H. EDWARDS, JR., AND ANN B. BYRDY)	LAST WILL AND TESTAMENT	V	631				
SARAH B. EDWARDS, DECEASED	GENE H. EDWARDS JR	LAST WILL AND TESTAMENT	F	361				
KATHERINE LOUISE EDWARDS, DECEASED	ALICE EDWARDS RILEY	LAST WILL AND TESTAMENT	5	23				
ANDREW SLEIGH, DECEASED	MARGARET SLEIGH	LAST WILL AND TESTAMENT	5	266				

X

				MARGARET MALLOY SLEIGH, DECEASED	ANDREW F. SLEIGH JR., RICHARD M. SLEIGH, AND MARY BERGIN S. SKIDMORE	LAST WILL AND TESTAMENT	6	612	
				RICHARD M. SLEIGH, DECEASED	MARY ANN SLEIGH	LAST WILL AND TESTAMENT	23	202	
				MARY ANN SLEIGH, DECEASED	STEPHEN T. SLEIGH, CHRISTINE M. POPECK, AND PAUL F. SLEIGH	LAST WILL AND TESTAMENT	31	256	
				ANDREW F. SLEIGH JR., DECEASED	SEAN RICHARD SLEIGH	LAST WILL AND TESTAMENT	30	561	
				ALICE E. RILEY, DECEASED	KATHERINE L. RILEY	LAST WILL AND TESTAMENT	25	695	
				CARNEGIE NATURAL GAS COMPANY	CARNEGIE PRODUCTION COMPANY	ASSIGNMENT	558	550	
				CARNEGIE PRODUCTION COMPANY	EQT PRODUCTION COMPANY	MERGER/NAME CHANGE	WVSOS		
				EQT PRODUCTION COMPANY	HG ENERGY II APPALACHIA LLC	ASSIGNMENT	804	453	
X	88	RRE1	p/o 03-001F-0050-0000 p/o 03-001F-0051-0000 p/o 03-001F-0052-0000	RRE1	ANDREW EDMISTON JR. AND MERLE W. EDMISTON, HIS WIFE; MATTHEW EDMISTON AND NELLIE MCWHORTER EDMISTON, HIS WIFE; EDWARD A. BRANNON AND IRMA C. BRANNON, HIS WIFE; IDA J. WARDER; ELLA M. FLANNERY; GEORGE W. NORVELL AND MARY W. NORVELL, HIS WIFE; FRANK WYATT AND VIRGINIA E. WYATT, HIS WIFE; AND LOISE EDWARDS	MCCALL DRILLING CO	NOT LESS THAN 1/8	148	80
					MCCALL DRILLING COMPANY INC	KEWANEE OIL COMPANY	ASSIGNMENT	293	132
					KEWANEE OIL COMPANY	KEWANEE INDUSTRIES INC	SPECIAL WARRANTY DEED	368	609
					KEWANEE INDUSTRIES INC	GULF OIL CORPORATION	CONVEYANCE	369	25
					GULF OIL CORPORATION	CHEVRON USA INC	MERGER/NAME CHANGE	WVSOS	
					CHEVRON USA INC	ANGERMAN ASSOCIATES INC	ASSIGNMENT	451	63
					ANGERMAN ASSOCIATES INC	PETROLEUM DEVELOPMENT CORPORATION	ASSIGNMENT	537	35
					PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC	ASSIGNMENT	640	568
					PDC MOUNTAINEER LLC	RIVER RIDGE ENERGY LLC	MERGER/NAME CHANGE	3	697
					RIVER RIDGE ENERGY LLC	HG ENERGY II APPALACHIA, LLC	JOA DRILLING AGREEMENT	562	534
X	96	HGII04005 ET AL	P/O 02-0013-0016-0000	HGII04005 ET AL	Panacea Energy, Inc.			529	596
					George S. Dennis, President	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					William Kirkpatrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	533	392
					Sylvia Kirkpatrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	533	386
					Gold City Mineral Partners, L. P.			503	114
					Fred H. Vollbeer, General Partner	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Upstream Energy, LLC			525	149
					William B. Ridgway, Jr., Managing Member	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Billy R. Powell	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	510	372
					Estate of Nannie Bell Broocks "Red" Womack, Ellen Womack Giles, Executrix	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Rawls Energy, LLC			532	96
					James H. Rawls, Managing Member	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Marilyn W. Allen	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	510	694
					James E. Poole, Jr.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	518	280
					Homer Roberts Collins	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	528	609
					Southland Capital Realty Group, LLC			525	156
					T. Todd Martin, III, managing member				
					Selwyn H. Turner, III, managing member				
					Elizabeth Turner, managing member	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
					Dale/Peregrine Minerals Fund, LP	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	516	480
Asset Management, LLC			526	301					
Clay Gatlin, managing member									
Send docs to John Foster Tyra, PC (Legal Counsel) 3496 Firethorn Dr., Tuscaloosa, AL 35405	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8							
John C. Sipple	HG ENERGY II APPALACHIA, LLC	Drilling and Permission to Permit Agreement	535	150					
Pinebelt Oil & Gas, Inc									
James W. Fugate, President	HG ENERGY II APPALACHIA, LLC	Drilling and Permission to Permit Agreement	535	162					
Robert M. Newsome	HG ENERGY II APPALACHIA, LLC	Drilling and Permission to Permit Agreement	535	180					
Petroleum Properties, LLC									
John A. Brewer, Manager	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	814	945					
Dale Williston Minerals 2012-B, LP	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT	814	945					

**MEMORANDUM OF DRILLING AGREEMENT/
PERMISSION TO PERMIT AND DRILL**

THIS MEMORANDUM OF DRILLING AGREEMENT / PERMISSION TO PERMIT AND DRILL (this "**Memorandum**") dated the 12 day of MARCH, 2024, by and between **John C. Sipple**, having an address of 1513 Ridgeland Road, W, Mobile, AL 36695 ("**Non-Operator**"), and **HG ENERGY II APPALACHIA LLC**, a Delaware corporation, having an address of 5260 DuPont Road Parkersburg, WV 26101 ("**Operator**"). NON-OPERATOR and OPERATOR are sometimes hereinafter individually referred to as a "**Party**," and collectively as the "**Parties**."

WITNESSETH:

WHEREAS, NON-OPERATOR is the lessee of record under those certain oil and gas leases and/or owner of certain oil and gas fee interests in the Target Depths (defined below) as set forth on Exhibit A attached hereto (collectively "**The Properties**") or as located within the unit more particularly set forth on Exhibit B attached hereto ("the "**Unit**"); and

WHEREAS, NON-OPERATOR and OPERATOR did execute that certain DRILLING AGREEMENT / PERMISSION TO PERMIT AND DRILL (the "**Drilling Agreement**"), executed contemporaneously herewith, in which NON-OPERATOR agreed to grant OPERATOR certain rights to operate The Properties, and the Parties wish to place this Memorandum of record to put all persons on notice of same.

NOW, THEREFORE, That for and in consideration of the sum set forth in the DRILLING AGREEMENT, paid in hand, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. The Parties hereto acknowledge the accuracy of the foregoing recitals, which are hereby incorporated herein by reference and made a part hereof.
2. The Drilling Agreement is dated the MARCH 12TH, 2024 and is effective as of MARCH 12TH, 2024 (the "**Effective Date**").
3. The term of the Drilling Agreement is for a term beginning on the Effective Date and ending Five (5) years therefrom and so long thereafter if a well is drilled hereunder, until terminated as set forth in paragraph 10 of the Drilling Agreement, or unless otherwise extended by the Parties as set forth in the Drilling Agreement.
4. The Drilling Agreement applies to the Target Depths in The Properties. "**Target Depths**" means the Marcellus Shale Formation, defined as: from the stratigraphic equivalent of the top of the Tully Limestone at 6,688 feet to the stratigraphic equivalent of the Base of the

Marcellus Shale at a depth of 6,940 feet, as seen in the HG ENERGY II APPALACHIA, LLC's KST5 - DH (API 047-033-05817) well logs dated February 9, 2015.

5. Under the Drilling Agreement, Non-Operator granted to Operator rights to conduct oil and gas operations on The Properties and the Unit, including without limitation, the right to apply for and obtain all applicable well drilling permits, horizontal unitization orders, and any governmental approvals for the drilling of one or more wellbore laterals in, under, and through the Properties in the Unit, and to drill, complete, operate, and produce oil, gas and other constituents from such wells, as well as to pool or unitize The Properties.
6. The Drilling Agreement will be binding upon Operator and Non-Operator, and their respective successors and assigns. In the event of any assignment or transfer of the Drilling Agreement, the assigning or transferring party shall require such assignee or transferee to expressly assume and be bound by the terms of the Drilling Agreement. This Memorandum shall be governed by the laws of the State of West Virginia. Operator and Non-Operator each represents and warrants that the individual signing this Memorandum on its behalf has the authority to do so and to bind the respective party. This Memorandum may be executed in any number of counterparts, each of which shall be considered an original for all purposes, and all of which, when taken together, shall constitute one and the same instrument.
7. The Drilling Agreement contains additional terms and conditions not repeated herein; nonetheless, the full terms and conditions of the Drilling Agreement shall control and this Memorandum shall not be considered in any way a modification or alteration of the Drilling Agreement.
8. This Memorandum may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute one and the same instrument.

[SIGNATURE PAGES FOLLOW]

The remainder of this page left intentionally blank.

IN WITNESS WHEREOF, the Parties have caused this This Memorandum of Drilling Agreement/Permission to Permit and Drill to be executed by their respective duly authorized representatives, as of the date first written above.

NON-OPERATOR:

By: John C. Sipple

ACKNOWLEDGEMENT

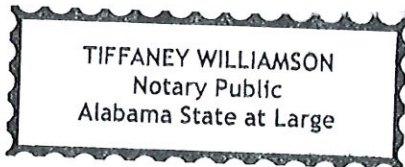
STATE OF Alabama :
COUNTY OF Baldwin :

BEFORE ME, a Notary Public in and for said county and state, personally appeared John C. Sipple, who acknowledged to me that he is a duly authorized officer of said company, and that he did execute the foregoing instrument and that the same is his free act and deed and the free act and deed of said company.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal at Fairhope Al., this 12 day of March, 2024

My Commission Expires: November 8, 2025

Tiffany Williamson
Notary Public



OPERATOR:

HG ENERGY II APPALACHIA, LLC


By: 
Jared Hall - President

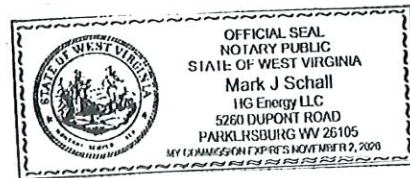
ACKNOWLEDGEMENT

STATE OF WEST VIRGINIA :
COUNTY OF WOOD :

BEFORE ME, a Notary Public in and for said county and state, personally appeared Jared Hall, President of HG Energy II Appalachia LLC, who acknowledged to me that he is duly authorized officer of said company, and that he did execute the foregoing instrument and that the same is his free act and deed and the free act and deed of said company.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal at
PARKERSBURG WV, this 1 day of APRIL, 20 24

My Commission Expires: 11/2/2026

Notary Public



This instrument prepared by
HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101

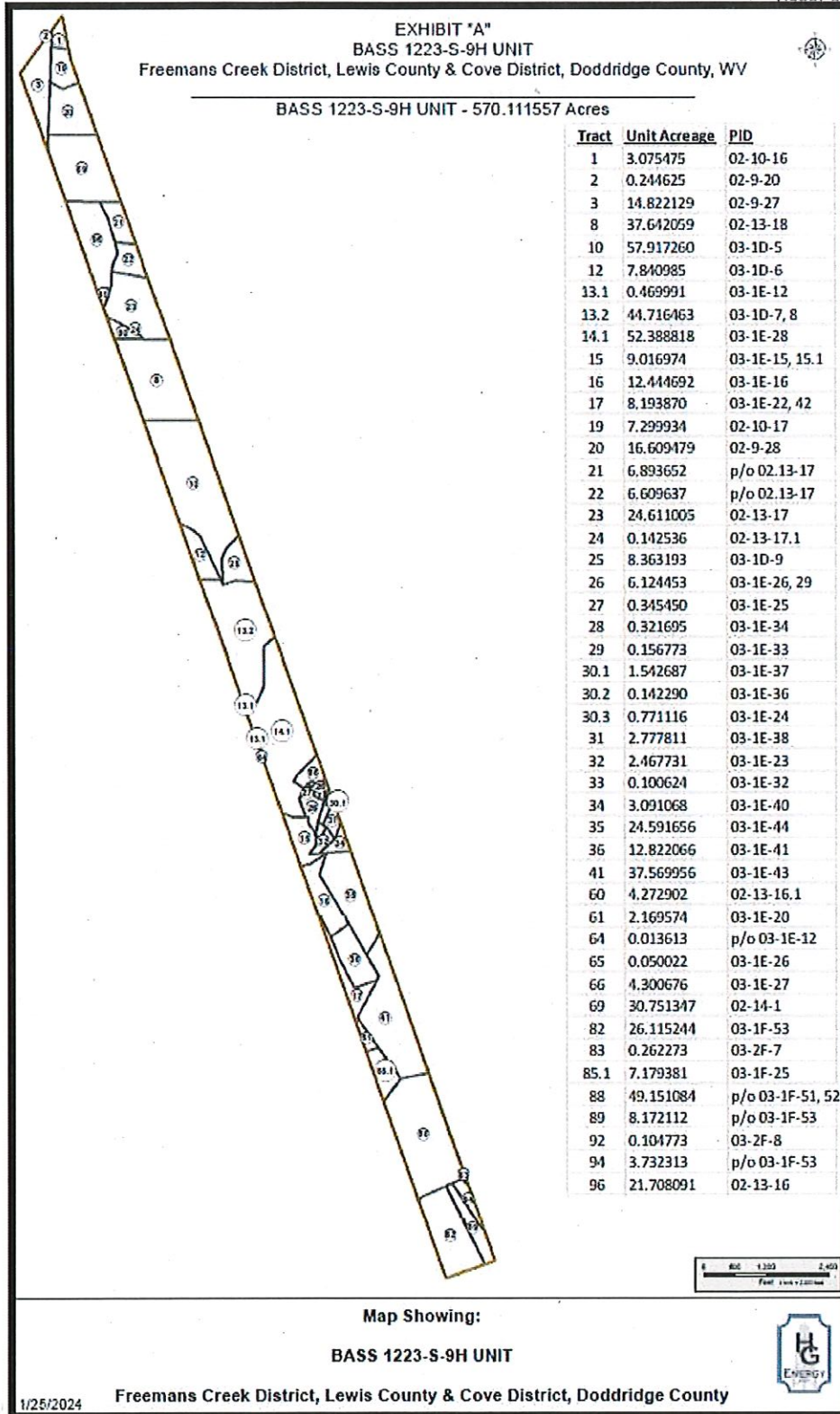
EXHIBIT A

PROPERTIES

County	District	State	Grantor	Grantee	Date	Parcel #	Book	Page
Doddridge	Cove	WV	Asset Management, LLC	John C. Sipple	8-23-2013	p/o 2-13-16 2-9-27	312	372

Doddridge County
 Lorena C. (Cate) Slater, Clerk
 Instrument 360724
 04/16/2024 @ 10:01:22 AM
 MEMORANDUM OF O&G LEASE
 Book 535 @ Page 150
 Pages Recorded 6
 Recording Cost \$ 13.00

Exhibit "B"
Preliminary Unit Plat



HG ENERGY
 ALEX JOHNS
 5260 DUPONT RD
 PARKERSBURG WV 26101-7719

**MEMORANDUM OF DRILLING AGREEMENT/
PERMISSION TO PERMIT AND DRILL**

THIS MEMORANDUM OF DRILLING AGREEMENT / PERMISSION TO PERMIT AND DRILL (this "Memorandum") dated the 22 day of MARCH, 20 24, by and between **Robert M. Newsome**, having an address of P.O. Box 766, Montrose, AL 36559-0766 ("**Non-Operator**"), and **HG ENERGY II APPALACHIA LLC**, a Delaware corporation, having an address of 5260 DuPont Road Parkersburg, WV 26101 ("**Operator**"). NON-OPERATOR and OPERATOR are sometimes hereinafter individually referred to as a "**Party**," and collectively as the "**Parties**."

WITNESSETH:

WHEREAS, NON-OPERATOR is the lessee of record under those certain oil and gas leases and/or owner of certain oil and gas fee interests in the Target Depths (defined below) as set forth on Exhibit A attached hereto (collectively "**The Properties**") or as located within the unit more particularly set forth on Exhibit B attached hereto ("the "**Unit**"); and

WHEREAS, NON-OPERATOR and OPERATOR did execute that certain DRILLING AGREEMENT / PERMISSION TO PERMIT AND DRILL (the "**Drilling Agreement**"), executed contemporaneously herewith, in which NON-OPERATOR agreed to grant OPERATOR certain rights to operate The Properties, and the Parties wish to place this Memorandum of record to put all persons on notice of same.

NOW, THEREFORE, That for and in consideration of the sum set forth in the DRILLING AGREEMENT, paid in hand, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. The Parties hereto acknowledge the accuracy of the foregoing recitals, which are hereby incorporated herein by reference and made a part hereof.
2. The Drilling Agreement is dated the MARCH 22, 20 24 and is effective as of MARCH 22, 20 24 (the "**Effective Date**").
3. The term of the Drilling Agreement is for a term beginning on the Effective Date and ending Five (5) years therefrom and so long thereafter if a well is drilled hereunder, until terminated as set forth in paragraph 10 of the Drilling Agreement, or unless otherwise extended by the Parties as set forth in the Drilling Agreement.
4. The Drilling Agreement applies to the Target Depths in The Properties. "**Target Depths**" means the Marcellus Shale Formation, defined as: from the stratigraphic equivalent of the top of the Tully Limestone at 6,688 feet to the stratigraphic equivalent of the Base of the

08/23/2024

Marcellus Shale at a depth of 6,940 feet, as seen in the HG ENERGY II APPALACHIA, LLC's KST5 - DH (API 047-033-05817) well logs dated February 9, 2015.

5. Under the Drilling Agreement, Non-Operator granted to Operator rights to conduct oil and gas operations on The Properties and the Unit, including without limitation, the right to apply for and obtain all applicable well drilling permits, horizontal unitization orders, and any governmental approvals for the drilling of one or more wellbore laterals in, under, and through the Properties in the Unit, and to drill, complete, operate, and produce oil, gas and other constituents from such wells, as well as to pool or unitize The Properties.
6. The Drilling Agreement will be binding upon Operator and Non-Operator, and their respective successors and assigns. In the event of any assignment or transfer of the Drilling Agreement, the assigning or transferring party shall require such assignee or transferee to expressly assume and be bound by the terms of the Drilling Agreement. This Memorandum shall be governed by the laws of the State of West Virginia. Operator and Non-Operator each represents and warrants that the individual signing this Memorandum on its behalf has the authority to do so and to bind the respective party. This Memorandum may be executed in any number of counterparts, each of which shall be considered an original for all purposes, and all of which, when taken together, shall constitute one and the same instrument.
7. The Drilling Agreement contains additional terms and conditions not repeated herein; nonetheless, the full terms and conditions of the Drilling Agreement shall control and this Memorandum shall not be considered in any way a modification or alteration of the Drilling Agreement.
8. This Memorandum may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute one and the same instrument.

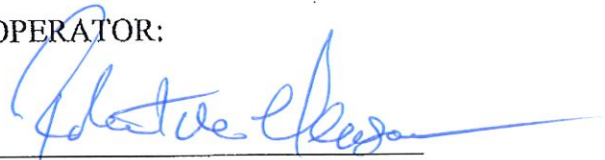
[SIGNATURE PAGES FOLLOW]

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08/23/2024

IN WITNESS WHEREOF, the Parties have caused this This Memorandum of Drilling Agreement/Permission to Permit and Drill to be executed by their respective duly authorized representatives, as of the date first written above.

NON-OPERATOR:

By: 
Its: Robert M. Newsome

INDIVIDUAL ACKNOWLEDGMENT

COMMONWEALTH/STATE OF Alabama)
COUNTY OF Baldwin)

The foregoing instrument was acknowledged before me this 22nd day of March, 2024, by Robert M. Newsome.

MY COMMISSION EXPIRES: 07/14/2026

(Seal)




Notary Public

OPERATOR:

HG ENERGY II APPALACHIA, LLC

By:


Jared Hall - President

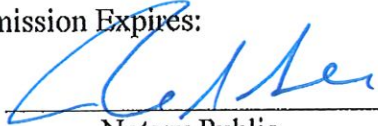
ACKNOWLEDGEMENT

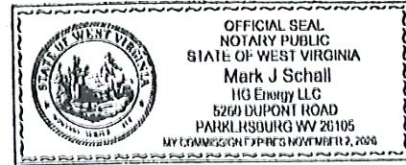
STATE OF WEST VIRGINIA :
COUNTY OF WOOD :

BEFORE ME, a Notary Public in and for said county and state, personally appeared Jared Hall, President of HG Energy II Appalachia LLC, who acknowledged to me that he is duly authorized officer of said company, and that he did execute the foregoing instrument and that the same is his free act and deed and the free act and deed of said company.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal at PARKERSBURG, WV, this 1 day of APRIL, 2024.

My Commission Expires:


Notary Public



This instrument prepared by
HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101

08/23/2024

EXHIBIT A

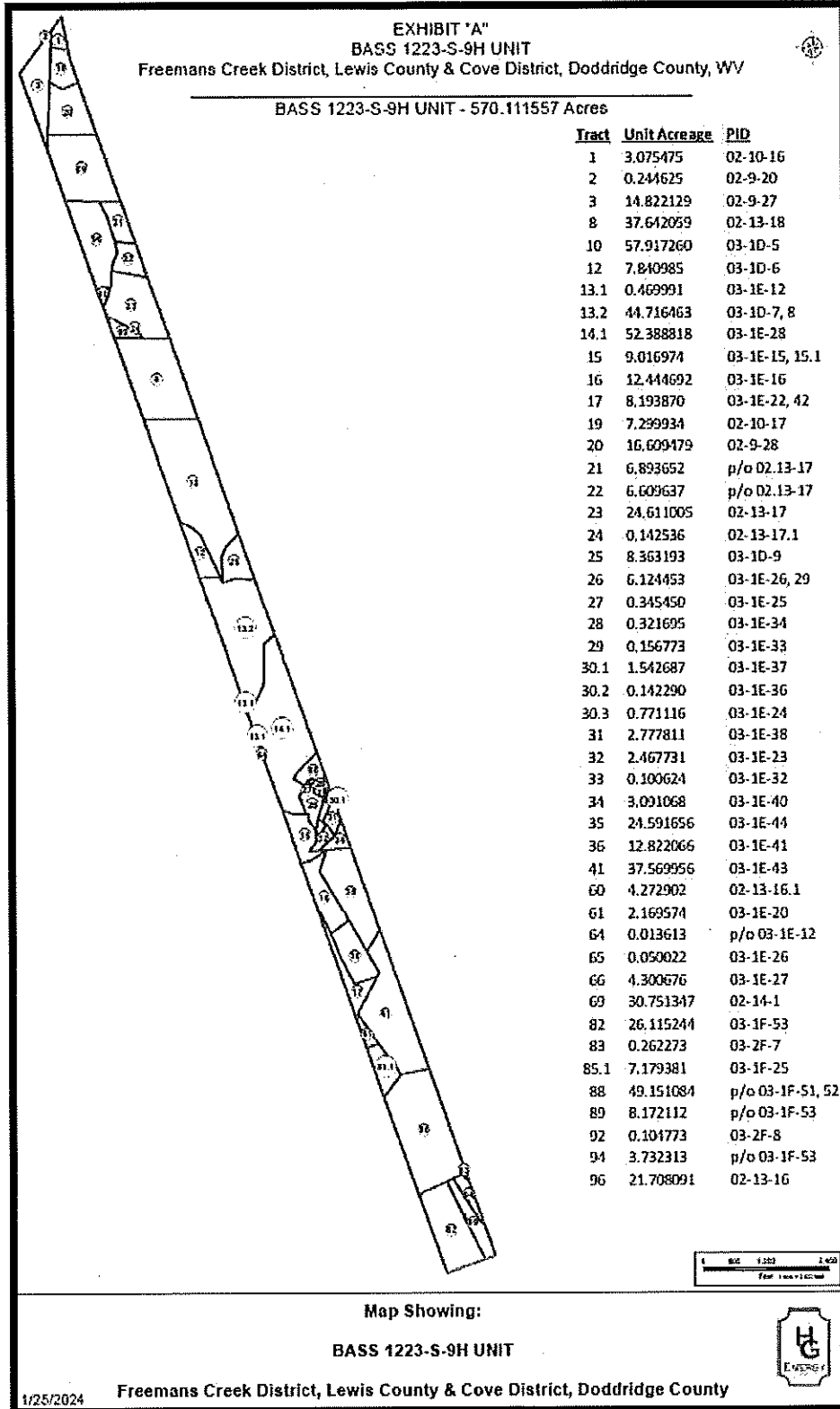
PROPERTIES

County	District	State	Grantor	Grantee	Date	Parcel #	Book	Page
Doddridge	Cove	WV	Asset Management, LLC	Robert M. Newsome	8-23-2013	p/o 2-13-16 2-9-27	312	380

Doddridge County
 Lorena C. (Catee) Slater, Clerk
 Instrument 360729
 04/16/2024 @ 10:01:27 AM
 MEMORANDUM OF O&G LEASE
 Book 535 @ Page 180
 Pages Recorded 6
 Recording Cost \$ 13.00

Exhibit "B"
Preliminary Unit Plat

HG ENERGY
 ALEX JOHNS
 5260 DUFOUR RD
 PARKERSBURG WV 26101-7719



**MEMORANDUM OF DRILLING AGREEMENT/
PERMISSION TO PERMIT AND DRILL**

THIS MEMORANDUM OF DRILLING AGREEMENT / PERMISSION TO PERMIT AND DRILL (this "**Memorandum**") dated the 8TH day of MARCH, 2024 by and between **Pinebelt Oil & Gas, Inc.**, having an address of 1292 Bagdad Cove, Gulf Breeze, FL 32563 ("**Non-Operator**"), and **HG ENERGY II APPALACHIA LLC**, a Delaware corporation, having an address of 5260 DuPont Road Parkersburg, WV 26101 ("**Operator**"). NON-OPERATOR and OPERATOR are sometimes hereinafter individually referred to as a "**Party**," and collectively as the "**Parties**."

WITNESSETH:

WHEREAS, NON-OPERATOR is the lessee of record under those certain oil and gas leases and/or owner of certain oil and gas fee interests in the Target Depths (defined below) as set forth on Exhibit A attached hereto (collectively "**The Properties**") or as located within the unit more particularly set forth on Exhibit B attached hereto ("the "**Unit**"); and

WHEREAS, NON-OPERATOR and OPERATOR did execute that certain DRILLING AGREEMENT / PERMISSION TO PERMIT AND DRILL (the "**Drilling Agreement**"), executed contemporaneously herewith, in which NON-OPERATOR agreed to grant OPERATOR certain rights to operate The Properties, and the Parties wish to place this Memorandum of record to put all persons on notice of same.

NOW, THEREFORE, That for and in consideration of the sum set forth in the DRILLING AGREEMENT, paid in hand, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. The Parties hereto acknowledge the accuracy of the foregoing recitals, which are hereby incorporated herein by reference and made a part hereof.
2. The Drilling Agreement is dated the MARCH 8TH, 2024 and is effective as of MARCH 8TH, 2024 (the "**Effective Date**").
3. The term of the Drilling Agreement is for a term beginning on the Effective Date and ending Five (5) years therefrom and so long thereafter if a well is drilled hereunder, until terminated as set forth in paragraph 10 of the Drilling Agreement, or unless otherwise extended by the Parties as set forth in the Drilling Agreement.
4. The Drilling Agreement applies to the Target Depths in The Properties. "**Target Depths**" means the Marcellus Shale Formation, defined as: from the stratigraphic equivalent of the top of the Tully Limestone at 6,688 feet to the stratigraphic equivalent of the Base of the

08/23/2024

Marcellus Shale at a depth of 6,940 feet, as seen in the HG ENERGY II APPALACHIA, LLC's KST5 - DH (API 047-033-05817) well logs dated February 9, 2015.

5. Under the Drilling Agreement, Non-Operator granted to Operator rights to conduct oil and gas operations on The Properties and the Unit, including without limitation, the right to apply for and obtain all applicable well drilling permits, horizontal unitization orders, and any governmental approvals for the drilling of one or more wellbore laterals in, under, and through the Properties in the Unit, and to drill, complete, operate, and produce oil, gas and other constituents from such wells, as well as to pool or unitize The Properties.
6. The Drilling Agreement will be binding upon Operator and Non-Operator, and their respective successors and assigns. In the event of any assignment or transfer of the Drilling Agreement, the assigning or transferring party shall require such assignee or transferee to expressly assume and be bound by the terms of the Drilling Agreement. This Memorandum shall be governed by the laws of the State of West Virginia. Operator and Non-Operator each represents and warrants that the individual signing this Memorandum on its behalf has the authority to do so and to bind the respective party. This Memorandum may be executed in any number of counterparts, each of which shall be considered an original for all purposes, and all of which, when taken together, shall constitute one and the same instrument.
7. The Drilling Agreement contains additional terms and conditions not repeated herein; nonetheless, the full terms and conditions of the Drilling Agreement shall control and this Memorandum shall not be considered in any way a modification or alteration of the Drilling Agreement.
8. This Memorandum may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute one and the same instrument.

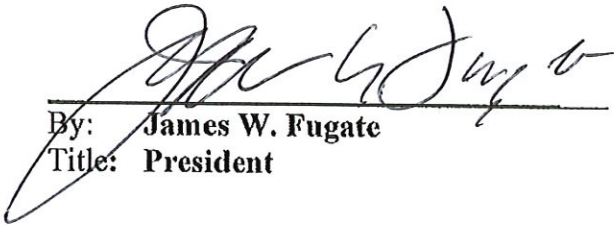
[SIGNATURE PAGES FOLLOW]

The remainder of this page left intentionally blank.

IN WITNESS WHEREOF, the Parties have caused this This Memorandum of Drilling Agreement/Permission to Permit and Drill to be executed by their respective duly authorized representatives, as of the date first written above.

NON-OPERATOR:

Pinebelt Oil & Gas, Inc


By: James W. Fugate
Title: President

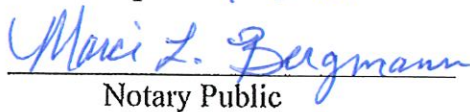
ACKNOWLEDGEMENT

STATE OF Florida :
COUNTY OF Santa Rosa :

BEFORE ME, a Notary Public in and for said county and state, personally appeared James W. Fugate, President of Pinebelt Oil and Gas, Inc., who acknowledged to me that he is duly authorized officer of said company, and that he did execute the foregoing instrument and that the same is his free act and deed and the free act and deed of said company.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal at
, this 8 day of March, 20 24

My Commission Expires: 1-6-26


Notary Public



OPERATOR:

HG ENERGY II APPALACHIA, LLC

By:

Jared Hall
Jared Hall - President

ACKNOWLEDGEMENT

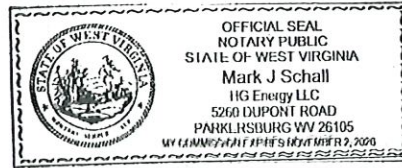
STATE OF WEST VIRGINIA :
COUNTY OF WOOD :

BEFORE ME, a Notary Public in and for said county and state, personally appeared Jared Hall, President of HG Energy II Appalachia LLC, who acknowledged to me that he is duly authorized officer of said company, and that he did execute the foregoing instrument and that the same is his free act and deed and the free act and deed of said company.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal at
PARKERSBURG, WV, this 1 day of APRIL, 2024.

My Commission Expires: 11/2/2026

[Signature]
Notary Public



This instrument prepared by
HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101

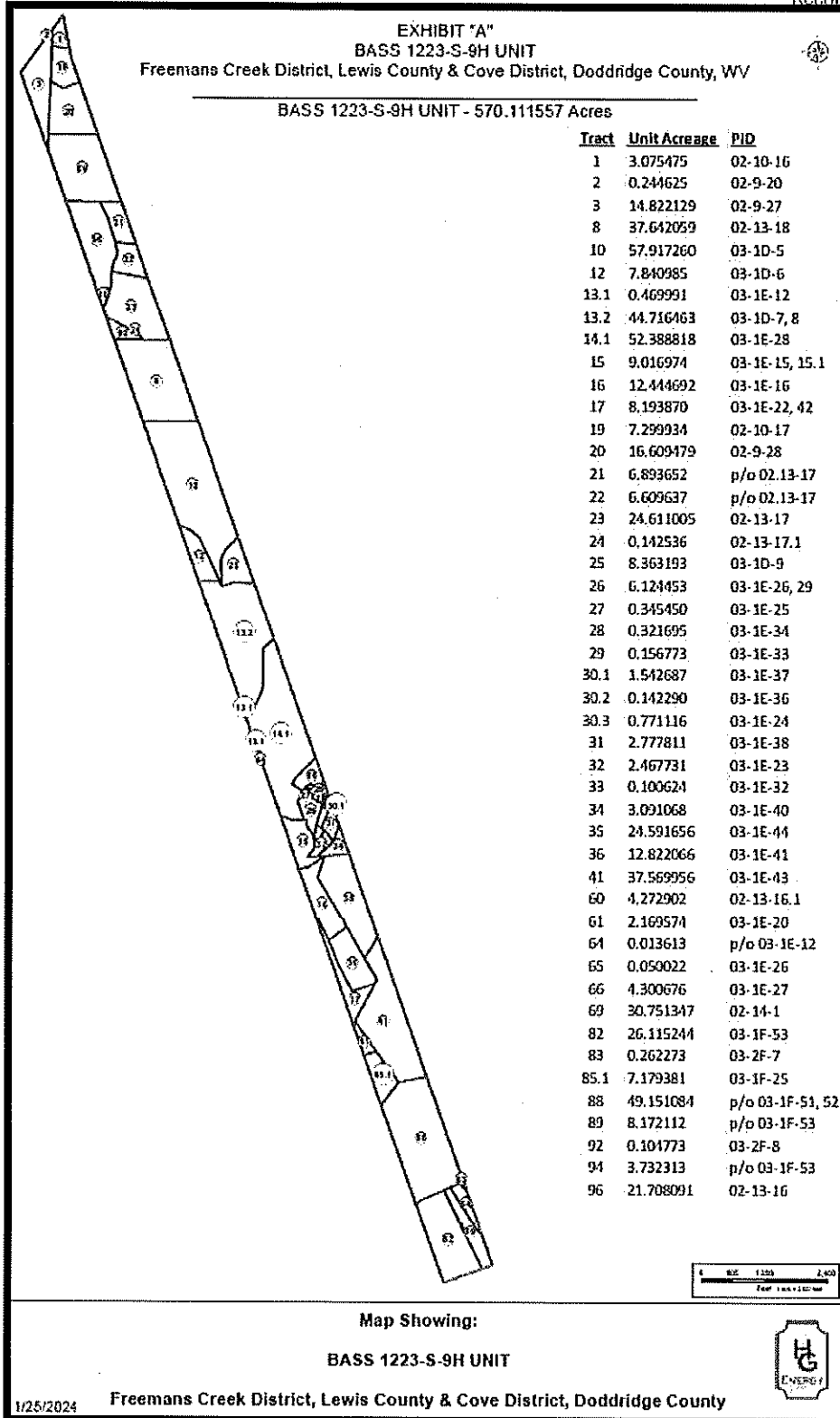
EXHIBIT A

PROPERTIES

County	District	State	Grantor	Grantee	Date	Parcel #	Book	Page
Doddridge	Cove	WV	Asset Management, LLC	Pinebelt Oil & Gas, Inc.	8-23-2013	p/o 2-13-16 2-9-27	312	376

Doddridge County
 Lorena C. (Catee) Slater, Clerk
 Instrument 360726
 04/16/2024 @ 10:01:24 AM
 MEMORANDUM OF O&G LEASE
 Book 535 @ Page 162
 Pages Recorded 6
 Recording Cost \$ 13.00

Exhibit "B"
Preliminary Unit Plat



HG ENERGY
 ALEX JOHNS
 5260 DUPONT RD
 PARKERSBURG WV 26101-7719

HG Energy II Appalachia, LLC

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

July 29, 2024

*Chc #46180
7565 cc*

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

RE: Barnes 1223 S-9H Drill Permit Revision Request – (47-041-06977)
Cove District, Doddridge County
West Virginia

Dear Mr. Blevins -

Per our discussions, enclosed are revised forms (survey plat, mylar, WW-6B, casing schematic, AOR and WW-6A1) and a check for expedited service for the 1223 S-9H well work permit revision request. We ask the permit be modified to include additional acquired leases resulting in extended total measured depth and horizontal leg for the specified lateral.

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.

Very truly yours,

Diane White

Diane C. White

Enclosures

cc: Isaiah Richards – WV DEP State Inspector

RECEIVED
Office of Oil and Gas

AUG 9 2024

WV Department of
Environmental Protection

08/23/2024