



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, November 30, 2018
WELL WORK PERMIT
Horizontal 6A / New Drill

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

Re: Permit approval for GOODNIGHT 1402 N-2H
47-085-10374-00-00

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

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

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


James A. Martin
Chief

Operator's Well Number: GOODNIGHT 1402 N-2H
Farm Name: KENNETH PAUL GOODNIGHT
U.S. WELL NUMBER: 47-085-10374-00-00
Horizontal 6A New Drill
Date Issued: 11/30/2018

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: _____

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101

DATE: November 26, 2018
ORDER NO.: 2018-W-11

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.*, to HG Energy II Appalachia, LLC (hereinafter "HG" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. HG is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 5260 Dupont Road Parkersburg, WV 26101.
3. On September 5, 2018 HG submitted a well work permit application identified as API# 47-085-10374. The proposed well is to be located on the Goodnight 1409 Pad in Murphy District of Ritchie County, West Virginia.
4. On September 5, 2018 HG requested a waiver for Wetlands JB and C outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-085-10374.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.”

ORDER

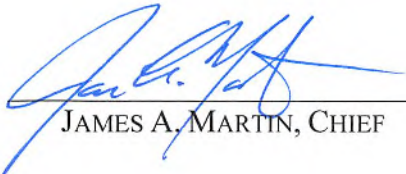
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for the Wetlands JB and C from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-085-10374. The Office of Oil and Gas hereby **ORDERS** that HG shall meet the following site construction and operational requirements for the Goodnight 1409 Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetlands JB and C shall have triple stacked twelve inch (12”) compost filter sock to prevent sediment from reaching the wetland. This along with rip-rap level spreaders, temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

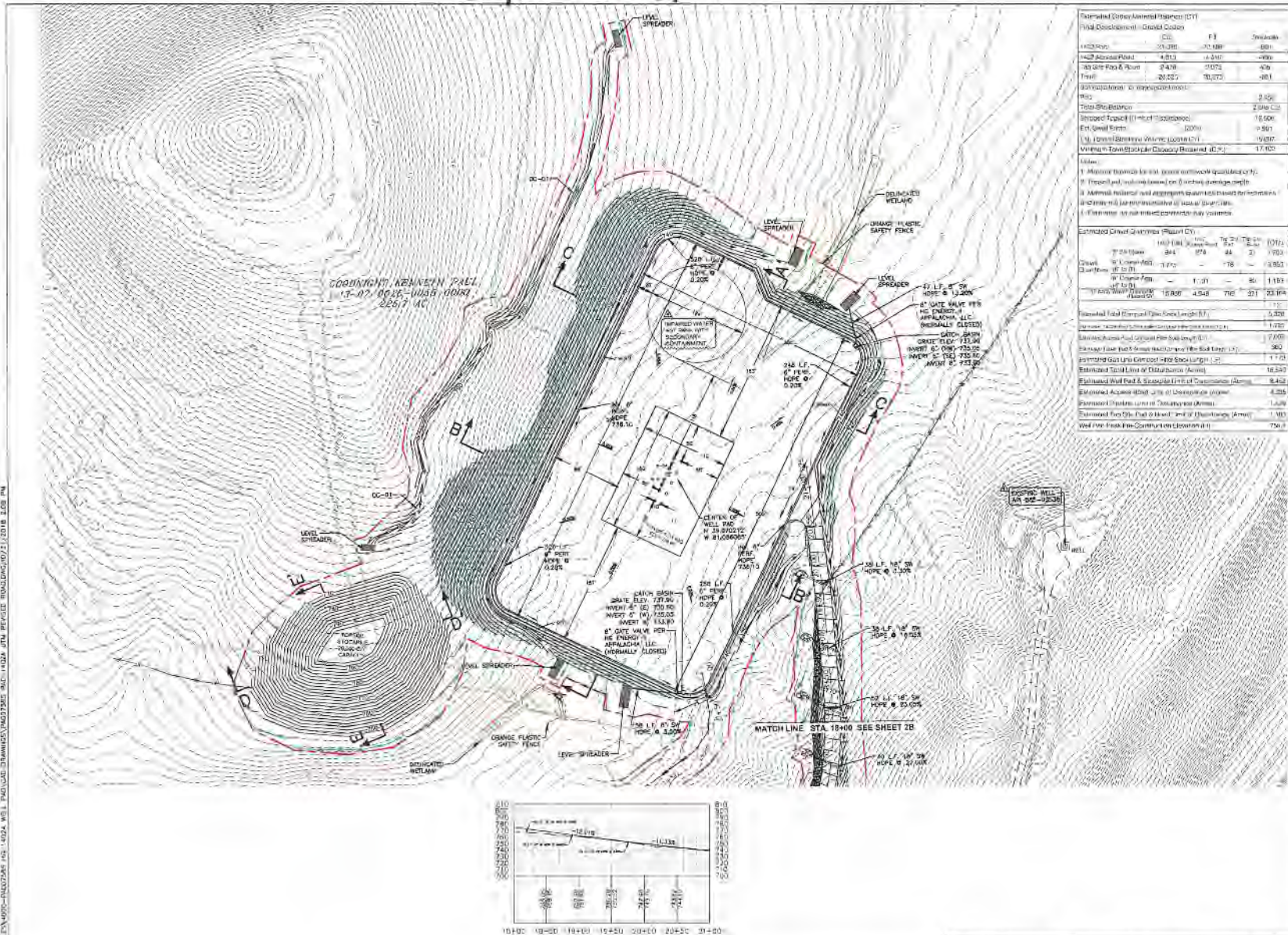
Thus ORDERED, the 26th day of November, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF

Attachment 1



Proposed Construction Materials (CMT)
Risk Development - Grand County

Material	CU	F1	Drainage
1402 PAD & TAP	4.81%	4.81%	4.81%
1402 PAD & TAP	2.41%	2.41%	2.41%
1402 PAD & TAP	20.22%	20.22%	20.22%

Estimated Total Stormwater Runoff (CMT)
 Runoff: 2.45
 Total Sedimentation: 2.45
 Proposed Project (11) Total Sedimentation: 18.50
 Erosion Control (11) Total Sedimentation: 16.05
 U.S. Environmental Protection Agency (EPA) 1972
 Minimum Sedimentation Capacity Required (EPA): 17.00

Estimated Drive Distances (Project City)

From	To	Distance (mi)
1402 PAD & TAP	1402 PAD & TAP	0.00
1402 PAD & TAP	1402 PAD & TAP	0.00
1402 PAD & TAP	1402 PAD & TAP	0.00

Estimated Total Stormwater Runoff (CMT)

Material	Runoff (cfs)
1402 PAD & TAP	2.45
1402 PAD & TAP	2.45
1402 PAD & TAP	2.45

Estimated Drive Distances (Project City)

From	To	Distance (mi)
1402 PAD & TAP	1402 PAD & TAP	0.00
1402 PAD & TAP	1402 PAD & TAP	0.00
1402 PAD & TAP	1402 PAD & TAP	0.00



- NOT WORK FROM NOTES:**
1. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 2. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 3. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 4. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 5. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 6. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 7. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 8. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 9. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 10. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 11. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.
 12. CONTRACTOR SHALL VERIFY THE CONSTRUCTION WITH AND BEHIND THE EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING EROSION CONTROL STRUCTURES.

REVISIONS:

NO.	DATE	DESCRIPTION
1	8/16/12	ADDITIONAL TO WELL NO. 8 ACCESS ROAD SURVEYING DETAILS
2	8/22/12	PROVIDE EROSION CONTROL MEASURES TO PROTECT EXISTING EROSION CONTROL STRUCTURES
3	8/16/12	REVISE SITE PLAN
4	10/22/12	REVISIONS FOR 1402 PAD & TAP SITE



SCALE: 1"=100'

SITE DEVELOPMENT PLAN WITH EROSION AND SEDIMENTATION CONTROLS
 HG 1402 PAD & TAP SITE
 MURPHY DISTRICT
 RITCHIE COUNTY, WEST VIRGINIA

DESIGNED FOR:
 HG ENERGY II APPALACHIA, LLC
 PARKERSBURG, WEST VIRGINIA

PROJECT: 1402 PAD & TAP SITE; DATE: 10/24/12; FILE: 1402 PAD & TAP SITE; REVISION: 1402 PAD & TAP SITE; DATE: 10/24/12

WEST VIRGINIA **CALL BEFORE YOU DIG!** Dial 811 or 800.245.4848

APPROVED: **Penn E&R**
 ENGINEER: **111 RAW COURT, DUNBAR, WV 26030**
 PROJECT: **1402 PAD & TAP SITE**
 DRAWING NUMBER: **1402 PAD & TAP SITE**
 SHEET: **2A**

COORDINATES: UTM WITH NAD 83 DATUM, ZONE 17, U.S. FOOT, CENTRAL

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: 47-085-10374

Operator's Well Number: Goodnight 1402N-2H

Well Operator: HG Energy II Appalachia, LLC

Well Number: Goodnight 1402 N-2H

Well Pad Name: HG 1402 Pad

County, District, Quadrangle of Well Location: Ritchie County, Murphy District, Smithville Quad

Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.

This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:

§22-6A-12(b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows:

- (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir.
- (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake.
- (3) For a groundwater source, the distance shall be measured from the wellhead or spring.

The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.

§22-6A-12(c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section.

Answer in the space provided, or use additional pages as necessary to fully answer the questions below:

- 1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.**

The project lies south of SR47, (Staunton Turnpike).

Wetlands for which the waiver is sought include the Wetland JB and Wetland C.

- 2. Justify the proposed activity by describing alternatives to this project that were considered.**

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable alternative

a. The No-Action Alternative for this site is the HG 1402 well pad not being constructed. This results in HG not utilizing acquired assets, and landowners not receiving anticipated compensation for leased land.

b. See attached Figure 1. Location to Northwest was evaluated, but was determined as having insufficient size and topography for required HG 1402 well pad sizing. This location would also involve excessive tree removal.

c. One hundred foot buffer to wetlands North and South of well pad cannot be maintained due to construction limits required to construct the HG 1402 well pad. The site is limited to the North and South by the extents of the existing wetlands. The site is limited to the East and West by topographic conditions that could result in slope stability issues during and after construction.

d. The proposed HG 1402 well pad is the least environmentally damaging practicable alternative as it does not disturb any riparian buffers, requires minimal tree removal, disturbs the minimal amount of wetlands required to properly construct the well pad, and avoids potentially hazardous slope stability issues.

- 3. Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.**

The contractor shall delineate sensitive areas, LOD, and shall install barriers where equipment may not be parked, stage, operated, or located for any purpose before construction activities commence. E&S controls will be installed as necessary during initial site access to minimize accelerated erosion and sedimentation. Perimeter controls (compost filter sock) shall be installed immediately after the site is accessed. Land clearing and grading shall commence only after all downslope E&S controls have been constructed and stabilized. E&S controls shall be maintained during all construction activities. Upon completion of construction, stabilization will be provided including seeding & mulching. Temporary controls shall be removed only once the site is stabilized. A 2' berm will be constructed around the pad to capture any discharges. A french drain will be installed on the perimeter of the pad to capture any runoff from the well pad surface. The french drain consists of 6" perforated HDPE pipe, with an impermeable liner surrounding the backfill. The french drain will flow to two catch basins located on the pad. The basins outlet through HDPE pipes with gate valves installed. The valves shall be closed during any drilling activity or operations, and no discharge from the pad shall occur during drilling activities.

- 4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.**

- a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

See attached HG 1402 Well Pad Drawing Set. Orange plastic safety fence shall be installed around extents of wetlands where possible. Efforts shall be made to limit the amount of earth disturbance adjacent to and within wetlands. All E&S controls shall be inspected on a regular basis. Damaged or improperly functioning E&S controls shall be replaced immediately.

- LEGEND**
- PROPOSED 1402 WELL PAD
 - - - LIMIT OF DISTURBANCE
 - - - ALTERNATIVE 1402
 - - - WELL PAD LOCATION
 - - - 100' WETLAND BUFFER



REFERENCE:

1. TOPOGRAPHY & AERIAL IMAGERY OBTAINED FROM GROUND DATA, INC. AND DIGITAL ELEVATION DATASET
2. EXISTING WETLANDS DELINEATED BY ARMY ENVIRONMENTAL, INC.



REVISION	DATE	DESCRIPTION

FIGURE 1
ALTERNATIVE LOCATION MAP
HG 1402 PAD & IMPOUNDMENT
MURPHY DISTRICT
RITCHIE COUNTY, WV

PREPARED FOR
HG ENERGY II, APPALACHIA
PARKERSBURGH, WV

APPROVED MEP 11/20/2018
 CHECKED MEP 11/20/2018
 DRAIN DIA 11/20/2018
 PROJECT NO. 4003-PAD07715
 DRAWING NUMBER
7585-01A



WW-6A7
(6-12)

OPERATOR: HG Energy II Appalachia, LLC WELL NO: Goodnight 1402 N-2H

PAD NAME: Goodnight 1402

REVIEWED BY: Diane White SIGNATURE: _____

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
- DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
- DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
- DEP Waiver and Permit Conditions
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions

WW-6B
(04/15)

API NO. 47- _____
 OPERATOR WELL NO. 1402 N-2H
 Well Pad Name: Goodnight 1402

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. 494519932 Ritchie Murphy Smithville, WV 7.5
 Operator ID County District Quadrangle

2) Operator's Well Number: 1402 N-2H Well Pad Name: Goodnight 1402

3) Farm Name/Surface Owner: Kenneth Paul Goodnight Public Road Access: SR 42

4) Elevation, current ground: 755' Elevation, proposed post-construction: 739'

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):
5796', 55' Thick, 4204 psi

8) Proposed Total Vertical Depth: 5830'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 19322'

11) Proposed Horizontal Leg Length: 13069'

12) Approximate Fresh Water Strata Depths: 68', 83', 108', 747'

13) Method to Determine Fresh Water Depths: Historical data within close proximity to the well site

14) Approximate Saltwater Depths: 997', 1278', 1483'

15) Approximate Coal Seam Depths: NA

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

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

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

Depth: _____

Seam: _____

Owner: _____

RECEIVED
Office of Oil and Gas

NOV 11 2018

Michael Stoff
11/8/18

WW-6B
(04/15)

API NO. 47- _____
 OPERATOR WELL NO. 1402 N-2H
 Well Pad Name: Goodnight 1402

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	J-55	94	120'	120'	Drilled In
Fresh Water	13 3/8"	New	J-55	54.5	800'	800'	CTS
Coal							
Intermediate	9 5/8"	New	J-55	40	2650'	2650'	CTS
Production	5 1/2"	New	P-110	23	19321'	19321'	CTS
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	20"	0.438	2110		Type 1, Class A	
Fresh Water	13 3/8"	17.5"	0.380	2730		Type 1, Class A	40% excess, yield = 1.20, CTS
Coal							
Intermediate	9 5/8"	12 1/4"	0.395	3950		Type 1, Class A	40% excess, yield = 1.20, CTS
Production	5 1/2"	8 1/2"	0.415	14520	11500	Type 1, Class A	20% excess, lead yield = 1.18, CTS
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

RECEIVED
Office of Oil and Gas

NOV 11 2018

WV Department of
Environmental Protection

MBC
11/8/18

WW-6B
(10/14)

API NO. 47- _____
OPERATOR WELL NO. 1402 N-2H
Well Pad Name: Goodnight 1402

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 5,830 feet. Drill to estimated 19,321 TMD, stimulate and be capable of producing the Marcellus Formation. Should an unanticipated void be encountered 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 multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water and chemicals. See attached list. Maximum pressure not to exceed 11,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.348

22) Area to be disturbed for well pad only, less access road (acres): 8.26

23) Describe centralizer placement for each casing string:

Conductor - N/A
Surface Casing - Bow Springs (over collars) on first 2 joints then every third joint to 100' from surface
Intermediate Casing - Bow Springs (over collars) on first 12 joints, then every third joint to 100' from surface
Production Casing - 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 5.0' long joint to the top of the curve.

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

Conductor - Already grouted in
Surface Casing - 15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess/Yield=1.20 / CTS
Intermediate Casing - *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 CTS
Production Casing - *Lead: 14.5 ppg PCE-PNE-1 + 0.3% bwoc R3 + 1% bwoc ECI + 0.75 gal/9K FP13L + 0.3% bwoc MPA17020% Excess/Lead/Yield=1.19/Tail/Yield=1.94/CTS

25) Proposed borehole conditioning procedures:

Conductor - Once at casing setting depth, ensure hole is clean at TD
Surface Casing - Circulate & condition @ TD w/ Air. RIN w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/50% of poly flocc, then clear casing w/ Fresh Water prior to pumping cement.
Intermediate Casing - Circulate & condition @ TD w/ Air. RIN w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/50% of poly flocc, then clear casing w/ Fresh Water prior to pumping cement.
Production Casing - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

RECEIVED
Office of Oil and Gas

NOV 11 2018

WV Department of
Environmental Protection

*Note: Attach additional sheets as needed.

4700010374



**Goodnight 1402 N-2H
Marcellus Shale Horizontal
Ritchie County, WV**

Goodnight 1402 N-2H SHL

14188193.04N 1615968.8E

Ground Elevation 738'

Goodnight 1402 N-2H LP

14188612.76N 1615699.93E

Azm 340.016°

Goodnight 1402 N-2H BHL

14200890.23N 1611235.29E

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	20"	20" 94# J-55	Conductor	0	120	AIR	Casing "Drilled In" with Dual Rotary Rig	N/A	Once at casing setting depth, ensure hole is clean at TD	Conductor casing = 0.438" wall thickness Burst=2110 psi
	17.5"	13-3/8" 54.5# J-55 BTC	Surface Casing	0	800	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Bow Springs (over collars) on first 2 joints then every third joint to 100' from surface	Circulate & condition @ TD w/ Air. RIH w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 8% bentonite Gel/50# of poly flake, then clear casing w/ Fresh Water prior to pumping cement.	Surface casing = 0.380" wall thickness Burst=2730 psi
	12.25"	9-5/8" 40# J-55 BTC	Big Lime	1706	1807	AIR	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. 1.20 Yield. CTS	Bow Springs (over collars) on first 12 joints, then every third joint to 100' from surface	Circulate & condition @ TD w/ Air. RIH w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 8% bentonite Gel/50# of poly flake, then clear casing w/ Fresh Water prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=3950 psi
			Big Injun	1816	1830					
			Berea	2174	2199					
			Gordon	2566	2590					
	8.5" Vertical	5-1/2" 23# P-110 HC CDC HTQ	Intermediate Casing	0	2650	AIR and/or 9.0ppg SOBM	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=14520 psi Note:Actual centralizer schedules may be changed due to hole conditions
			Warren	3266						
			Riley	4212						
			Benson	4512	4541					
			Alexander	4690						
			Rhinestreet	5004						
			Elk	5154						
			Hamilton	5328						
			Cashaqua	5480						
			Middlesex	5614						
	West River	5724								
	8.5" Curve	5-1/2" 23# P-110 HC CDC HTQ	Marcellus	5796		11.5ppg- 12.5ppg SOBM		Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.		
			TMD / TVD	19321	5830					
	8.5" Lateral	5-1/2" 23# P-110 HC CDC HTQ	Onondaga	5866		11.5ppg- 12.5ppg SOBM				
LP @ 5830' TVD / 6252' MD			8.5" Hole - Cemented Long String 5-1/2" 23# P-110 HC CDC HTQ			+/-13069' ft Lateral			TD @ +/-5830' TVD +/-19321' MD	
X=centralizers										

NOV 11 2018
RECEIVED
Office of Oil and Gas

MAG
11/8/18

4708 5 10374

Goodnight 1402 Well Pad (N-1H, N-2H, N-3H, N-4H)

Cement Additives

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Portland cement</td> <td>90 - 100</td> <td>65997-15-1</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> <tr> <td>Magnesium oxide</td> <td>1 - 5</td> <td>1309-48-4</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>0.1 - 1</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Portland cement	90 - 100	65997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
Ingredient name	%	CAS number																			
Portland cement	90 - 100	65997-15-1																			
Calcium oxide	1 - 5	1305-78-8																			
Magnesium oxide	1 - 5	1309-48-4																			
Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7																			
Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>bentonite</td> <td>90 - 100</td> <td>1302-78-9</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7									
Ingredient name	%	CAS number																			
bentonite	90 - 100	1302-78-9																			
Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																			
Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium chloride</td> <td>90 - 100</td> <td>10043-52-4</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
Ingredient name	%	CAS number																			
Calcium chloride	90 - 100	10043-52-4																			
Cello Flake	Lost Circulation	Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
Ingredient name	%	CAS number																			
No hazardous ingredient																					
FP-13L	Foam Preventer	FP-13L is a clear liquid organic phosphate antifoaming agent used in cementing operations. It is very effective minimizing air entrapment and preventing foaming tendencies of latex systems.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Tributyl phosphate</td> <td>90 - 100</td> <td>126-73-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	126-73-8												
Ingredient name	%	CAS number																			
Tributyl phosphate	90 - 100	126-73-8																			
Granulated Sugar	Retarder	Used to retard cement returns at surface. A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Sucrose</td> <td>90 - 100</td> <td>57-50-1</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Sucrose	90 - 100	57-50-1												
Ingredient name	%	CAS number																			
Sucrose	90 - 100	57-50-1																			
EC-1			<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium magnesium oxide</td> <td>90 - 100</td> <td>37247-91-9</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium magnesium oxide	90 - 100	37247-91-9												
Ingredient name	%	CAS number																			
Calcium magnesium oxide	90 - 100	37247-91-9																			
MPA-170	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
Ingredient name	%	CAS number																			
No hazardous ingredient																					
Poz (Fly Ash)	Base	A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7	Calcium oxide	1 - 5	1305-78-8									
Ingredient name	%	CAS number																			
Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																			
Calcium oxide	1 - 5	1305-78-8																			
R-3	Retarder	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Organic acid salt</td> <td>40 - 50</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
Ingredient name	%	CAS number																			
Organic acid salt	40 - 50	Trade secret.																			
S-5	Surfactant	Used to water wet casing and formation to facilitate cement bonding.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>2-Butoxyethanol</td> <td>20 - 30</td> <td>111-76-2</td> </tr> <tr> <td>Proprietary surfactant</td> <td>10 - 20</td> <td>Trade secret.</td> </tr> <tr> <td>D-Glucoopyranose, oligomeric, C10-16-alkyl glycosides</td> <td>5 - 10</td> <td>110615-47-9</td> </tr> <tr> <td>Alkylarylsulfonate amine salt</td> <td>1 - 5</td> <td>Trade secret.</td> </tr> <tr> <td>Polyoxyalkylenes</td> <td>0.1 - 1</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucoopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.	Polyoxyalkylenes	0.1 - 1	Trade secret.
Ingredient name	%	CAS number																			
2-Butoxyethanol	20 - 30	111-76-2																			
Proprietary surfactant	10 - 20	Trade secret.																			
D-Glucoopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9																			
Alkylarylsulfonate amine salt	1 - 5	Trade secret.																			
Polyoxyalkylenes	0.1 - 1	Trade secret.																			

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of Environmental Protection

4708 10374

List of Frac Additives by Chemical Name and CAS #
Goodnight 1402 Well Pad (N-1H, N-2H, N-3H, N-4H)

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

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Goodnight 1402 N-2H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907

Watershed (HUC 10) South Fork Hughes River Quadrangle Smithville, WV 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: NA

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number TBD - At next anticipated well)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

RECEIVED
Office of Oil and Gas
NOV 02 2018

WV Department of
Environmental Protection

Will closed loop system be used? If so, describe: Yes, cuttings and fluids will be collected in a closed loop system, re-used or hauled to an approved disposal site or landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air, Freshwater and SOB M

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Water, Soap, KCl, Barite, Base Oil, Wetting Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Approved Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? See Attached

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Diane White

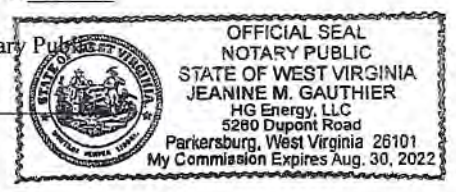
Company Official (Typed Name) Diane White

Company Official Title Agent

Subscribed and sworn before me this 31st day of October, 2018

Jeanine M. Gauthier - Jeanine M. Gauthier Notary Public

My commission expires Aug 30, 2022



HG Energy II Appalachia, LLC

4708 10374

Proposed Revegetation Treatment: Acres Disturbed 15.348 Prevegetation pH

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Maintain E&S controls through the drilling and completion process

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Doff

Comments: Pre-seed/mulch as soon as reasonably possible per regulation.

Upgrade E&S if needed per WV DEP E&S manual.

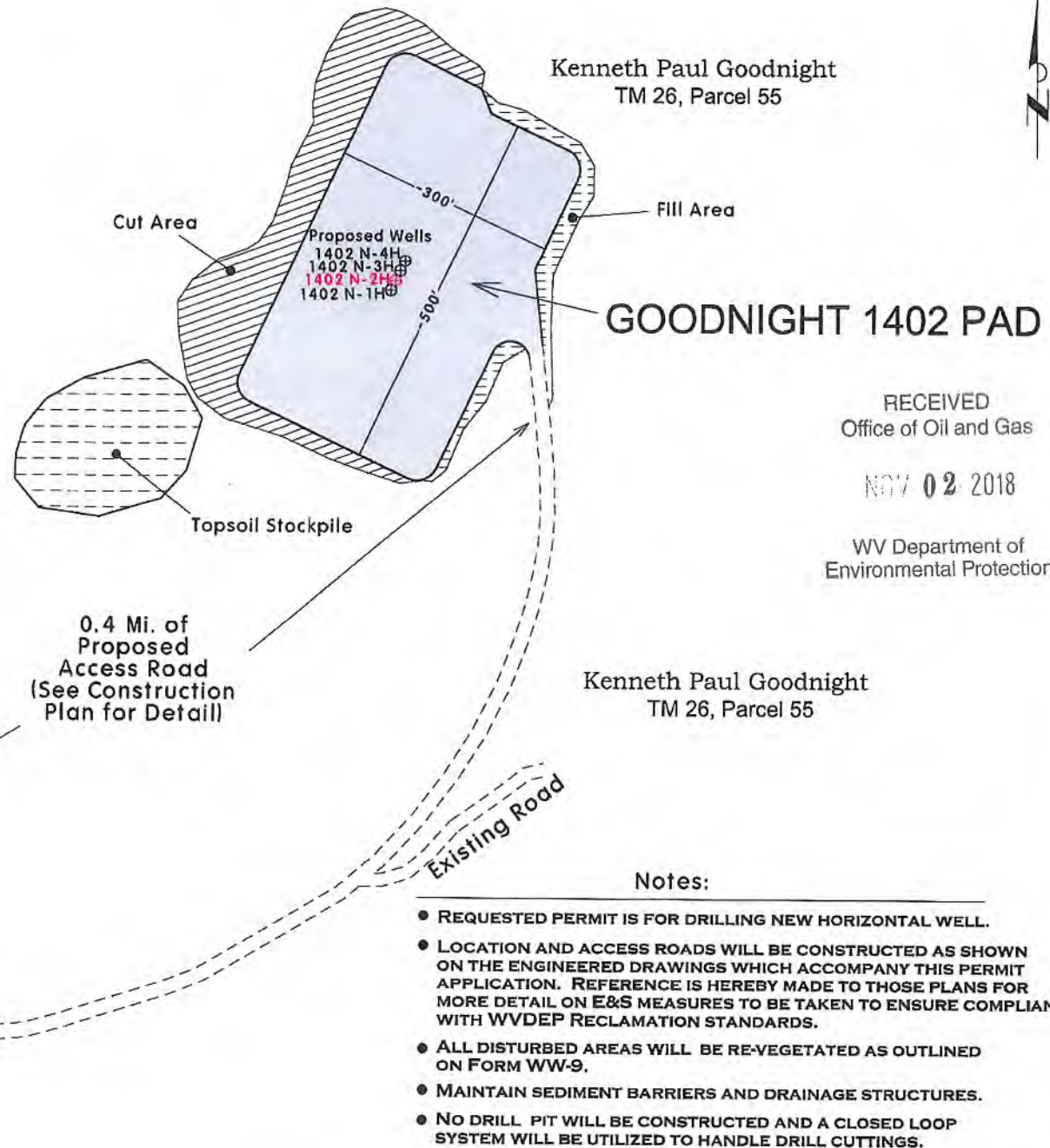
RECEIVED Office of Oil and Gas SEP 5 2018 WV Department of Environmental Protection

Title: Oil & Gas Inspector Date: 8-27-18

Field Reviewed? (X) Yes () No

Reclamation Plan For: Goodnight 1402 PAD

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



GOODNIGHT 1402 PAD

RECEIVED
Office of Oil and Gas

NOV 02 2018

WV Department of
Environmental Protection

Kenneth Paul Goodnight
TM 26, Parcel 55

Kenneth Paul Goodnight
TM 26, Parcel 55

Notes:

- REQUESTED PERMIT IS FOR DRILLING NEW HORIZONTAL WELL.
- LOCATION AND ACCESS ROADS WILL BE CONSTRUCTED AS SHOWN ON THE ENGINEERED DRAWINGS WHICH ACCOMPANY THIS PERMIT APPLICATION. REFERENCE IS HEREBY MADE TO THOSE PLANS FOR MORE DETAIL ON E&S MEASURES TO BE TAKEN TO ENSURE COMPLIANCE WITH WVDEP RECLAMATION STANDARDS.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- NO DRILL PIT WILL BE CONSTRUCTED AND A CLOSED LOOP SYSTEM WILL BE UTILIZED TO HANDLE DRILL CUTTINGS.
- DRAWING NOT TO SCALE.

Cuttings Disposal/Site Water**Cuttings -Haul off Company:**

Eap Industries, Inc. DOT # 0876278
1875 Smith Two State Rd. Atlasburg, PA 15004
1-888-294-5227

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

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

Disposal Locations:

Apex Environmental, LLC Permit # 06-08438
11 County Road 7B
Amsterdam, OH 43903
740-543-4389

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

Sycamore Landfill Inc. Permit #R30-079001 05-2010
4301 Sycamore Ridge Road
Hurricane, WV 25526
304-562-2511

Max Environmental Technologies, Inc. Facility Permit # PAD004835146 / 301071
233 Max Lane
Yukon, PA 25968
724-722-3500

Max Environmental Technologies, Inc. Facility Permit # PAD05087072 / 301359
200 Max Drive
Bulger, PA 15019
724-796-1571

Waste Management Kelly Run Permit # 100663
1901 Park Side Drive
Elizabeth, PA 15037
412-384-7569

Waste Management South Hills (Arnoni) Permit # 100592
3100 Hill Road
Library, PA 15129
724-348-7013
412-384-7569

Waste Management Arden Permit # 100172
200 Rangos Lane
Washington, PA 15301
724-222-3272

Waste Management Meadowfill Permit # 1032
1488 Dawson Drive
Bridgeport, WV 26330

Brooke County Landfill Permit # SWF-103-97 / WV 0109029
Rd 2 Box 410
Colliers, WV 26035
304-748-0014

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185
 Rt 1 Box 156A
 New Martinsville, WV 26035
 304-455-3800

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

Energy Solutions Services, Inc. Permit # R-73006-L24
 1560 Bear Creek Road
 Oak Ridge, TN 37830

Northern A-1 Environmental Services Permit ID MID020906814
 3947 US 131 North, PO Box 1030
 Kalkaska, MI 49646
 231-258-9961

Water Haul off Companies:

Dynamic Structures, Clear Creek DOT # 720485
 3790 State Route 7
 New Waterford, OH 44445
 330-892-0164

Nabors Completion & Production Services Co.
 PO Box 975682
 Dallas, TX 75397-5682

Select Energy Services, LLC
 PO Box 203997
 Dallas, TX 75320-3997

Nuverra Environmental Solutions
 11942 Veterans Memorial Highway
 Masontown, WV 26542

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

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

Disposal Locations:

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

Solidification/Incineration
 Soil Remediation, Inc. Permit # 02-20753
 6065 Arrel-Smith Road
 Lowellville, OH 44436
 330-536-6825

Adams #1 (Buckeye Brine, LLC)
 Permit # 34-031-2-7177
 23986 Airport Road
 Coshocton, OH 43812
 740-575-4484
 512-478-6545

CMS of Delaware Inc. DBA CMS Oilfield Serv
 301 Commerce Drive
 Moorestown, NJ 08057

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

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

Equipment Transport
 1 Tyler Court
 Carlisle, PA 17015

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

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

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

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

Kemble 1-D Well
 Permit # 8780
 7675 East Pike
 Norwich, Oh 43767
 614-648-8898
 740-796-6495

RECEIVED
 Office of Oil and Gas
 SEP 5 2018
 WV Department of
 Environmental Protection

Adams #2 (Buckeye Brine, LLC)
2205 Westover Road
Austin Tx 78703
Permit # 34-031-2-7178
740-575-4484
512-478-6545

Adams #3 (Buckeye Brine, LLC)
Permit #34-031-2-7241-00-00
2630 Exposition, Suite 117
Austin, TX 78703
512-478-6545

Mozena #1 Well (SWIW # 13)
Permit # 34-157-2-5511-00-00
5367 E. State Street
Newcomerstown, OH 43832
740-763-3966

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

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

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

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

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

Chapin #7 UIC (SWIW #7)
Permit # 34-083-2-4137-00-00
Elkhead Gas & Oil Company
12163 Marne Rd. NE
Newark, OH 43055
740-763-3966

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

4708510374

HG Energy II Appalachia, LLC

Site Safety Plan

**Goodnight 1402 Well Pad
461 Big Springs Road
Smithville, Ritchie County, WV**

August 2018: Version 1

**For Submission to
West Virginia Department of Environmental Protection,
Office of Oil and Gas**

HG Energy II Appalachia, LLC.

5260 Dupont Road

Parkersburg, WV 26101

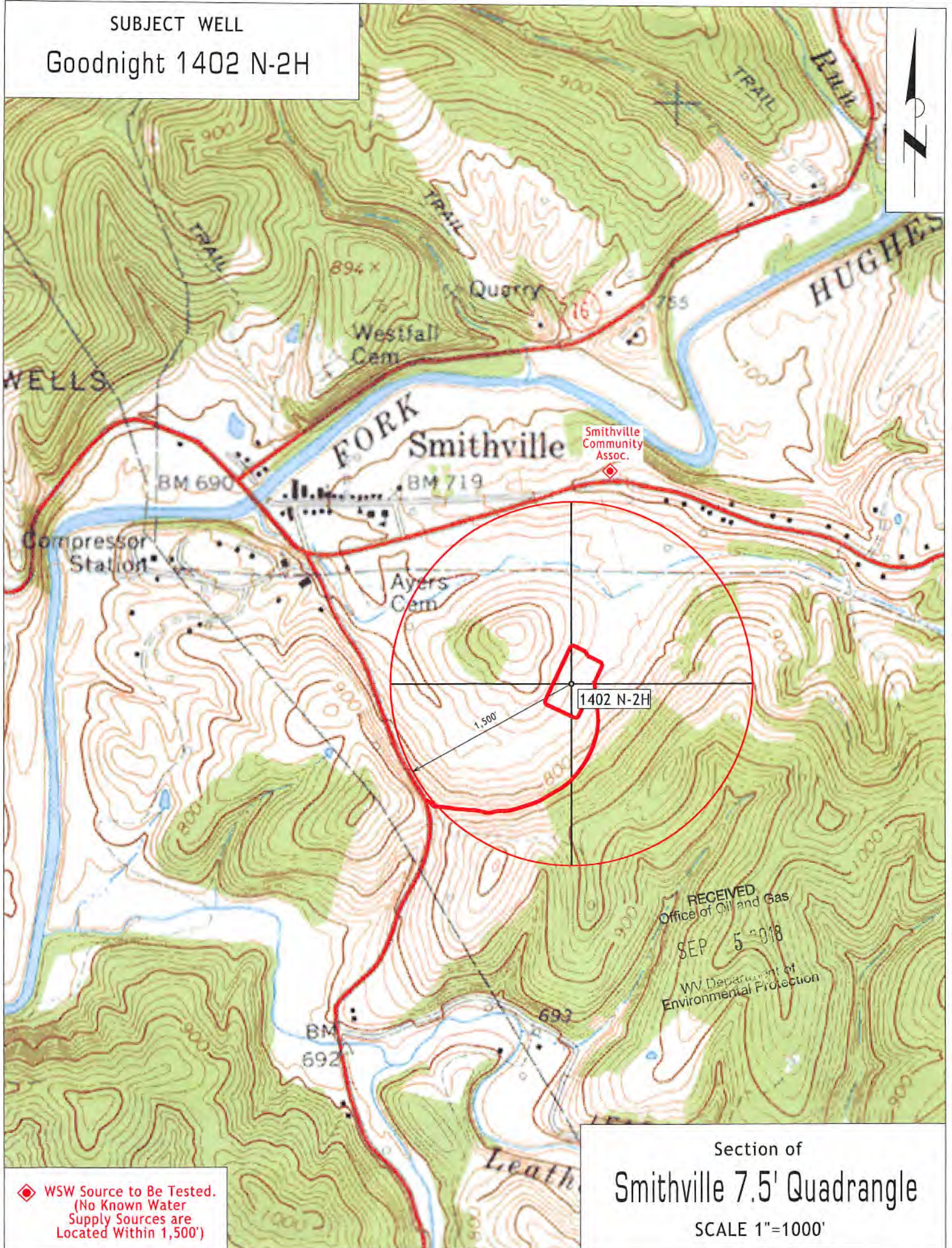
RECEIVED
Office of Oil and Gas

SEP 5 2018

WV Department of
Environmental Protection

Michael Doff
8-27-18

SUBJECT WELL
Goodnight 1402 N-2H



Smithville
Community
Assoc.

1402 N-2H

1,500

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

◆ WSW Source to Be Tested.
(No Known Water
Supply Sources are
Located Within 1,500')

Section of
Smithville 7.5' Quadrangle
SCALE 1"=1000'



RECEIVED
 Office of Oil and Gas
 SEP 5 2018

WV Department of
 Environmental Protection

Goodnight 1402 N-2H
 Marcellus Shale Horizontal
 Ritchie County, WV

Ground Elevation		738'		Goodnight 1402 N-2H SHL				14188193.04N 1615968.8E			
Azim		340.016°		Goodnight 1402 N-2H LP				14188612.76N 1615699.93E			
WELLBORE DIAGRAM		340.016°		Goodnight 1402 N-2H BHL				14200890.23N 1611235.29E			
HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS		
20"	20" 94# J-55	Conductor	0	120	AIR	Casing "Drilled In" with Dual Rotary Rig	NM	Once at casing setting depth, ensure hole is clean at TD	Conductor casing = 0.438" wall thickness Burst=2110 psi		
17.5"	13-8/8" 54.5# J-55 BTC	Surface Casing	0	750	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Bow Springs (over collars) on first 2 joints then every third joint to 100' from surface	Circulate & condition @ TD w/ Air, R/H w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/500 of poly flake, then clear casing w/ Fresh Water prior to pumping cement.	Surface casing = 0.380" wall thickness Burst=2730 psi		
12.25"	9-5/8" 40# J-55 BTC	Big Lime	1705	1807	AIR	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess, 1.20 Yield, CTS	Bow Springs (over collars) on first 12 joints, then every third joint to 100' from surface	Circulate & condition @ TD w/ Air, R/H w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/500 of poly flake, then clear casing w/ Fresh Water prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=3850 psi		
		Big Injunt	1815	1830							
		Berea	2174	2199							
		Gordon	2568	2590							
Intermediate Casing			0	2650							
8.5" Vertical		Warren	3266		AIR and/or 9.0ppg SOBM	Lead: 14.5 ppg POZ/PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.18 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=14520 psi Note: Actual centralizer schedules may be changed due to hole conditions		
		Riley	4212								
		Benson	4512	4541							
8.5" Curve	5-1/2" 23# P-110 HC CDC HTQ	Alexander	4680		11.5ppg- 12.5ppg SOBM		Run 1 spiral centralizer every 3 joints from the 1st 5 ft long joint to the top of the curve.				
		Rhinastreat	5004								
		Elk	5154								
		Hamilton	5328								
		Castaqua	5480								
		Middlesex	5514								
8.5" Lateral		Washt River	5724		11.5ppg- 12.5ppg SOBM						
		Marcellus	5796								
		TMD / TVD	19321	5830							
Onondaga			5966								

LP @ 5830' TVD / 6252' MD

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

+/-13069' ft Lateral

TD @ +/-5830' TVD +/-19321' MD

X=centralizers

BHL is located on topo map 7,264 feet south of Latitude: 39°07'30"
 SHL is located on topo map 4,785 feet south of Latitude: 39°05'00"

SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

	SURFACE OWNER	DIST-TM/PAR
1	KENNETH PAUL GOODNIGHT	07-26/55
2	AYERS CEMETERY	07-26/55.1
3	HAMMETT LAND & MINERALS LLC	07-26/5.2
4	JENNINGS DARWIN CUNNINGHAM II	07-26/11
5	HAMMETT LAND & MINERALS LLC	07-26/4
6	ALFAB INCORPORATED	07-26/6
7	C. M. ELLIOTT HRS (CHAS. M.) C/O MARY CARPENTER C. W. ELLIOTT HRS C/O MARY C. OLDAKER LONNIE W. ELLIOTT HRS C/O JANET SUE ELLIOTT LUVINA J. ELLIOTT DAVID P., JR. & JANET SUE ELLIOTT RAY ELLIOTT JOHN J., II & ELLYSON MARY OLDAKER C/O MARY C. OLDAKER ELZONA PROST HRS KENNETH H. PARKS, WILLIAM TYRAN & MARY PARKS C/O BARBARA J. BARKER AND ROBERT H. PARKS LYDIA M. PARKS EST & F. EUSTACE C/O LYDIA ENOS HAUGHT FARM LLC E. CLIFFORD WOLFE WILLIAM B. ELLIOTT TIMOTHY AMOS CLAYTON & JOE L. SWEETCRAFT, CATHY ANN TRUESDELL ERNEST J. DYE, NORMA J. COTRILL & LOIS C. PORTER EDWARD LEE PORTER JR., EDWIN LEE PORTER SR., GARY MICHAEL & STEVEN TODD PORTER JUDY L. MILLER MARY LOU NATH EDDIE C. WATSON IRENA W. CONLEY EDNA HARDMAN ERNEST L. HARTSHORN MARY ELIZABETH HILTON CARPENTER SUE ELLIOTT NORRIS	07-18/30
8	A. J. SCOTT HAUGHT FAMILY TRUST	07-18/19
9	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/18
10	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/15
11	DANIEL R. & SAMANTHA J. BOONE	07-18/17
12	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/7

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M)
 N:4324570.00
 E:492548.28
 UTM 17-NAD83(FT)
 N:14188193.40
 E:1615968.80
 LAT/LON DATUM-NAD83
 LAT:39.070197
 LON:-81.086141

APPROX. LANDING POINT
UTM 17-NAD83(M)
 N:4324697.82
 E:492468.32
 UTM 17-NAD83(FT)
 N:14188612.76
 E:1615699.93
 LAT/LON DATUM-NAD83
 LAT:39.071348
 LON:-81.087090

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M)
 N:4328440.00
 E:491105.50
 UTM 17-NAD83(FT)
 N:14200890.23
 E:1611235.29
 LAT/LON DATUM-NAD83
 LAT:39.105057
 LON:-81.102870



	LESSOR	DIST-TM/PAR
A	M. A. AYERS	07-26/55
B	J. R. WESTFALL	07-26/5.2
C	PARKS/ WILSON	07-26/4
D	HAUGHT/EVANS	07-26/11
E	MARY ELLIOT HEIRS	07-26/6
F	MARY E. SCOTT	07-18/30
G	A. ELLIOTT	07-18/19
H	OP SMITH/HFT(HAUGHT)	07-18/18
J	R. JOHNSON	07-18/17
K	PARKS	07-18/15

Blue Mountain
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

FILE #: GOODNIGHT 1402 N-2H
 DRAWING #: GOODNIGHT 1402 N-2H
 SCALE: 1" = 2000'
 MINIMUM DEGREE
 OF ACCURACY: 1/2500
 PROVEN SOURCE
 OF ELEVATION: U.S.G.S. MONUMENT
THOMAS 1498.81'

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*
 R.P.E.: _____ L.L.S.: P.S. No. 2000



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: AUGUST 14, 2018
 OPERATOR'S WELL #: GOODNIGHT 1402 N-2H
 API WELL #: 47 85 10374 H6A
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: SOUTH FORK HUGHES RIVER ELEVATION: 739'±

COUNTY/DISTRICT: RITCHIE / MURPHY QUADRANGLE: SMITHVILLE, WV 7.5'

SURFACE OWNER: KENNETH PAUL GOODNIGHT ACREAGE: 239.924±

OIL & GAS ROYALTY OWNER: M. A. AYERS ACREAGE: 1279.302±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 5,830'± TMD: 19,322'±

WELL OPERATOR HG ENERGY II APPALACHIA, LLC DESIGNATED AGENT DIANE C. WHITE
 Address 5260 DUPONT ROAD Address 5260 DUPONT ROAD
 City PARKERSBURG State WV Zip Code 26101 City PARKERSBURG State WV Zip Code 26101

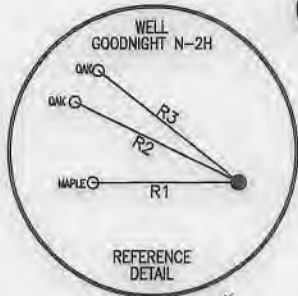
BHL is located on topo map 5,544 feet west of Longitude: 81°05'00"
 SHL is located on topo map 797 feet west of Longitude: 81°05'00"

GOODNIGHT 1402 N-2H

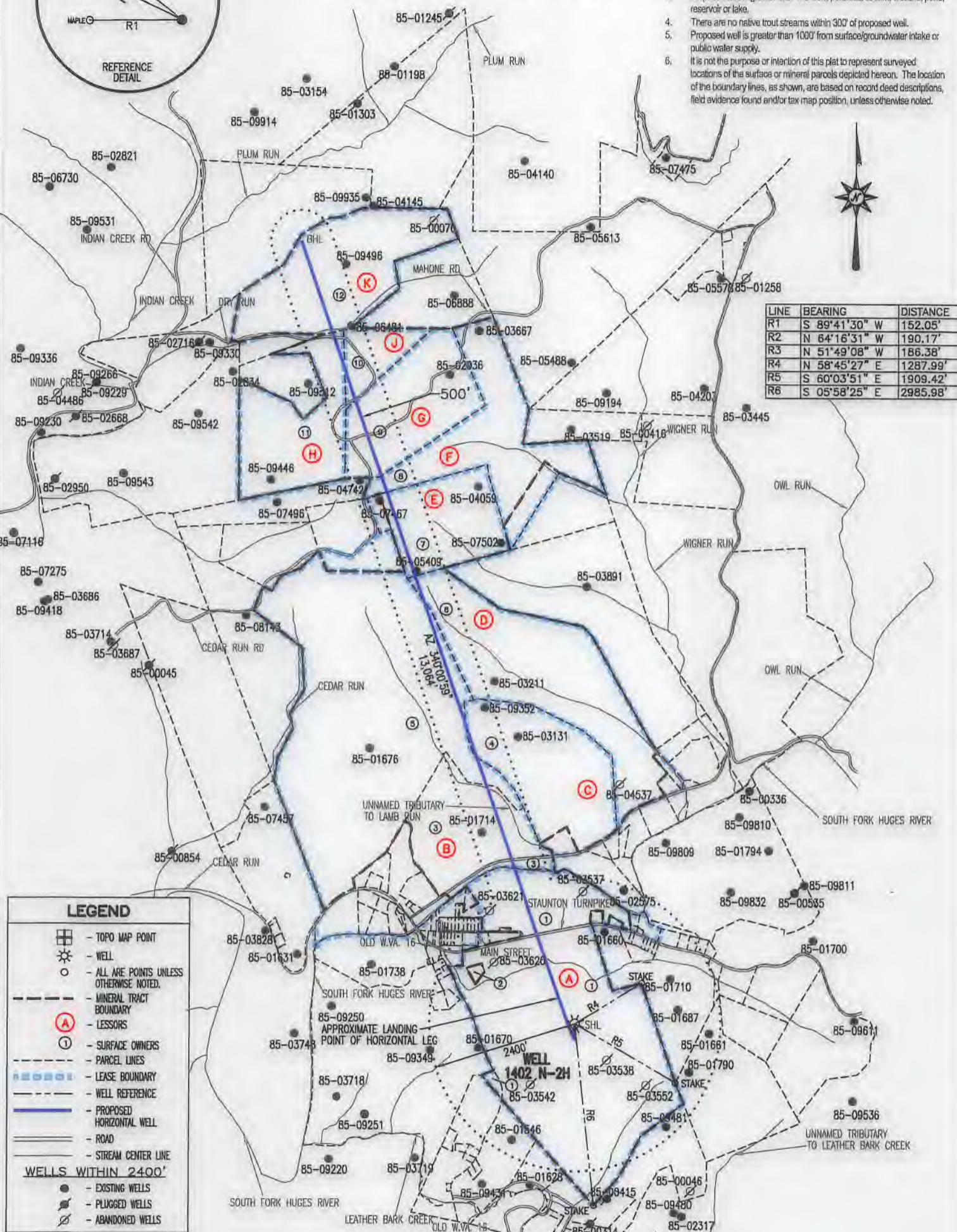
PAGE 2 OF 2

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. There are no existing buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
6. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.



LINE	BEARING	DISTANCE
R1	S 89°41'30" W	152.05'
R2	N 64°16'31" W	190.17'
R3	N 51°49'08" W	186.38'
R4	N 58°45'27" E	1287.99'
R5	S 60°03'51" E	1909.42'
R6	S 05°58'25" E	2985.98'



LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT BOUNDARY
- LESSORS
- SURFACE OWNERS
- PARCEL LINES
- LEASE BOUNDARY
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE

WELLS WITHIN 2400'

- EXISTING WELLS
- PLUGGED WELLS
- ABANDONED WELLS

SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83(M)
 N:4324570.00
 E:492548.28
 UTM 17-NAD83(FT)
 N:14188193.40
 E:1615968.80
 LAT/LON DATUM-NAD83
 LAT:39.070197
 LON:-81.086141

APPROX. LANDING POINT
 UTM 17-NAD83(M)
 N:4324697.82
 E:492466.32
 UTM 17-NAD83(FT)
 N:14188612.76
 E:1615699.93
 LAT/LON DATUM-NAD83
 LAT:39.071348
 LON:-81.087090

BOTTOM HOLE LOCATION (BHL)
 UTM 17-NAD83(M)
 N:4328440.00
 E:491105.50
 UTM 17-NAD83(FT)
 N:14200890.23
 E:1611235.29
 LAT/LON DATUM-NAD83
 LAT:39.105057
 LON:-81.102870

AUGUST 14, 2018

Blue Mountain
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

George D. Six



WW-6A1
 (3/13)

Operator's Well No. _____

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
 Chapter 22, Article 6A, Section 5(a)(5)
 IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
-------------------------	-----------------------	-----------------------	---------	-----------

See Attached Sheet

**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

RECEIVED
 Office of Oil and Gas
 SEP 5 2018

HG Energy II Appalachia, LLC
Goodnight 1402 N-2H

HG Plat Number	MPID	Original Lessor	Original Lessee	Royalty	Book	Page
A)	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	M. A. Ayers and Mary Ayers, his wife	W. J. Burke	Not less than 1/8	LB 21	174
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Mars Oil and Gas Company	Mountain State Gas Company		LB 25	258
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Mountain State Gas Company	Hope Natural Gas Company		LB 30	423
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Hope Construction and Refining Company	South Penn Natural Gas Company		LB 74	263
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	South Penn Natural Gas Company	South Penn Oil Company		DB 138	575
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Hope Natural Gas Company	Consolidated Gas Supply Corp.		DB 151	436
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Company	Pennzoil United, Inc.		DB 159	453
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Consolidated Gas Supply Corp.	Consolidated Gas Transmissions Corp		LB 169	756
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Company	Pennzoil Products Company		LB 193	18
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Company	Pennzoil Products Company		DB 223	696
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Products Company	Pennzoil Exploration and Production Company		DB 267	630
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Devon Energy Production	East Resources, Inc.		DB 277	96
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	East Resources, Inc.	HG Energy, LLC		LB 252	830
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Dominion Exploration and Production, Inc.	Dominion Transmission, Inc		LB 251	621
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Dominion Transmission, Inc.	Consol Energy Holdings LLC XVI		LB 251	648
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Dominion Resources, Inc., Dominion Transmission, Inc., and Consol Energy Holdings XVI	CNX Gas Company		LB 253	841
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	CNX Gas Company	Noble Energy, Inc.		LB 254	811
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	CNX Gas Company	Noble Energy, Inc.		LB 304	287
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Noble Energy, Inc.	HG Energy II Appalachia, LLC		LB 309	251

B)	7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7-26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26-15, 7-26-15.2, 7-26-15.1, 7-26-16	J. R. Westfall and ML, his wife	Hope Natural Gas Company	Not less than 1/8	LB 27	275
	7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7-26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26-15, 7-26-15.2, 7-26-15.1, 7-26-16	Hope Construction and Refining Company	South Penn Natural Gas Company		LB 74	262

RECEIVED
 Office of Oil and Gas
 SEP 5 2018
 WV Department of
 Environmental Protection

7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	South Penn Natural Gas Company	Hope Natural Gas Company	LB 78	274
7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	Hope Natural Gas Company	Consolidated Gas Supply Corp.	151	436
7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	Consolidated Gas Supply Corp.	Consolidated Gas Transmissions Corp	LB 169	756
7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	Dominion Exploration and Production, Inc.	Dominion Transmission, Inc	LB 251	621
7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	Dominion Transmission, Inc	Consol Energy Holdings LLC XVI	LB 251	648
7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	CNX Gas Company	Noble Energy, Inc.	LB 254	811
7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	CNX Gas Company	Noble Energy, Inc.	LB 304	287
7-26-4, 7-26-4.1, 7-26-4.2, 7-26-4.3, 7-26-4.4, 7-26-5, 7-26-5.1, 7-26-5.2, 7- 26-14, 7-26-14.1, 7-26-14.2, 7-26-14.3, 7-26-14.4, 7-26-14.5, 7-26-14.6, 7-26- 15, 7-26-15.2, 7-26-15.1, 7-26-16	Noble Energy, Inc.	HG Energy II Appalachia, LLC	LB 309	32

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

		Sherman H. Parks and Delia Parks, his wife and C. F. Wilson and Bessie I.		Not less than 1/8	LB 85	8
C)	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Wilson, his wife	Glenn L. Haught		LB 85	52
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Sidney Renehan		LB 85	170
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Margaret Sperry		LB 86	517
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	LW Bodge		LB 91	397
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Paul Bertram		LB 123	465
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Paul McCoy			
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	LW Bodge	Eldon J. Haught and/or Mary Haught, H/W		LB 103	293
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Glenn L. Haught and/or Bernice Haught		LB 104	31
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Sydney Renehan	Glenn L. Haught and/or Bernice Haught		LB 109	296
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Misco Industries, FKA Montani Iron & Supply Co.	Warren R. Haught		LB 145	323
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Warren R. Haught and Lenna G. Haught	710 Corporation		LB 176	609
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Haught Oil Producing Corporation	710 Corporation		LB 180	791
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	710 Corporation	Lenna G. Haught		LB 211	514
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Lenna G. Haught	HAH Petroleum, Inc.		LB 212	88
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	HAH Petroleum, Inc.	Hughes Resources, Inc.		LB 222	15
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Hughes Resources, Inc.	HAH Petroleum, Inc.		LB 223	332

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Ira M. Haught Karen I. Harris and	Whittle Corporation	DB 276	283
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Kenton E. Harris Pamela J. Stanley and	Whittle Corporation	LB 237	844
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Gary R. Stanley	Whittle Corporation	LB 237	845
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Ida Mae Parks	Whittle Corporation	LB 237	843
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Lenna G. Haught	710 Corporation	LB 234	600
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Warren R. Haught	710 Corporation	LB 234	601
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Pamela J. Stanley Oma Jean Lynch and	Whittle Corporation	LB 239	351
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Richard C. Lynch	Whittle Corporation	LB 239	352
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Karen I Harris	Whittle Corporation	LB 239	408
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Ida Mae Haught Parks	Whittle Corporation	LB 239	670
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Eldon J. Haught Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Petroedge Resources, LLC	LB 239	925
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	Quest Cherokee, LLC	LB 246	1062
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	UIV, LLC	UIV, LLC	LB 297	556
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	UIV, LLC	Alpha Helix Energy, LLC	LB 297	587
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	710 Corporation	Whittle Corporation	LB 308	27
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Burdett Sperry Roming	Alpha Helix Energy, LLC	LB 312	195
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Anne R. Decker	Alpha Helix Energy, LLC	LB 312	198
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC	LB 308	796
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Burning Springs Energy, LLC	(HG)Energy II Appalachia, LLC	INS#	201800006269

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

D)	7-26-6, 7-26-6.2, 7-26-6.3	Pansy S. Lemon now Pansy Lemon Evans & Clarence S. Evans, her husband	Glenn L., Warren R. & Eldon J. Haught, DBA Glenn L. Haught & Sons, Smithville, W.Va.	Not less than 1/8	LB 108	232
	7-26-6, 7-26-6.2, 7-26-6.3	Glenn L., Warren R. & Eldon J. Haught, DBA, Glenn L. Haught & Sons	L. E. Haught		LB 110	33
	7-26-6, 7-26-6.2, 7-26-6.3	Glenn L., Warren R. & Eldon J. Haught, DBA, Glenn L. Haught & Sons	Glenn L. Haught and/or Bernice Haught		LB 111	186
	7-26-6, 7-26-6.2, 7-26-6.3	Warren R. Haught and Lenna G. Haught	M. F. Frederick		LB 118	233
	7-26-6, 7-26-6.2, 7-26-6.3	710 Corporation	710 Corporation		LB 176	609
	7-26-6, 7-26-6.2, 7-26-6.3	Lenna G. Haught	Lenna G. Haught		LB 211	514
	7-26-6, 7-26-6.2, 7-26-6.3	Lenna G. Haught	HAH Petroleum, Inc.		LB 212	88
	7-26-6, 7-26-6.2, 7-26-6.3	Ira M. Haught	Whittle Corporation		DB 276	283
	7-26-6, 7-26-6.2, 7-26-6.3	Oma Jean Lynch and Richard C. Lynch	Whittle		LB 237	842
	7-26-6, 7-26-6.2, 7-26-6.3	Ida Mae Parks	Whittle Corporation		LB 237	843
	7-26-6, 7-26-6.2, 7-26-6.3	Karen I. Harris and Kenton E. Harris	Whittle Corporation		LB 237	844
	7-26-6, 7-26-6.2, 7-26-6.3	Pamela J. Stanley and Gary R. Stanley	Whittle Corporation		LB 237	845
	7-26-6, 7-26-6.2, 7-26-6.3	710 Corporation	Whittle Corp.		LB 234	182
	7-26-6, 7-26-6.2, 7-26-6.3	Whittle Corporation	Petroedge Resources, LLC		LB 237	136
	7-26-6, 7-26-6.2, 7-26-6.3	Petroedge Resources, LLC	Petroedge Resources, LLC		LB 237	515
	7-26-6, 7-26-6.2, 7-26-6.3	Pamela J. Stanley	Whittle Corporation		LB 239	351
	7-26-6, 7-26-6.2, 7-26-6.3	Oma Jean Lynch and Richard C. Lynch	Whittle Corporation		LB 239	352
	7-26-6, 7-26-6.2, 7-26-6.3	Karen I Harris	Whittle Corporation		LB 239	408
	7-26-6, 7-26-6.2, 7-26-6.3	Alan R. Haught	Petroedge Resources, LLC		LB 239	631
	7-26-6, 7-26-6.2, 7-26-6.3	Ida Mae Haught Parks	Whittle Corporation		LB 239	670
	7-26-6, 7-26-6.2, 7-26-6.3	Eldon J. Haught	Petroedge Resources, LLC		LB 239	925
	7-26-6, 7-26-6.2, 7-26-6.3	Warren R. Haught and Lenna G. Haught	Whittle Corporation		LB 241	538
	7-26-6, 7-26-6.2, 7-26-6.3	Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Quest Cherokee, LLC		LB 246	1062
	7-26-6, 7-26-6.2, 7-26-6.3	Postrock Mid Continent Production, LLC	PostRock Eastern Production, LLC		LB 254	553
	7-26-6, 7-26-6.2, 7-26-6.3	UIV, LLC	Alpha Helix Energy, LLC		LB 297	587
	7-26-6, 7-26-6.2, 7-26-6.3	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC		LB 297	556
	7-26-6, 7-26-6.2, 7-26-6.3	710 Corporation	Whittle Corporation		LB 308	27
	7-26-6, 7-26-6.2, 7-26-6.3	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC		LB 308	796
	7-26-6, 7-26-6.2, 7-26-6.3	Burning Springs Energy, LLC	HO Energy II Appalachia, LLC		INS#	201800006269

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

E)	7-18-29, 7-18-30	Bonnie C. Keister	Warren R. Haught	Not less than 1/8	LB 126	383
		Michael P. Elliott, James W. Elliott, Linda L. Elliott, Gary J. Weber, and Gary J. Weber Guardian of Timothy A. Weber, (Mary C Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	357
	7-18-29, 7-18-30	Shirley J. Ash, Roy L. Ash, Gary A. Elliott, Youn Su Elliott, Bonnie L. Mayle (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	359
	7-18-29, 7-18-30	James W Elliott and Wanda Jean Elliott (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	379
	7-18-29, 7-18-30	Robert Elliott Donald M. Elliott, David Paul Elliot and his wife Janet Sue Elliott, Gary Blaine Norris and his wife Sue Ellen Norris (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	385
	7-18-29, 7-18-30	Barbara E. Nicoloff, Joseph W. Butcher and Mary Kay Butcher (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	381
	7-18-29, 7-18-30	Velma Collins and C H Collins	Warren R. Haught	Not less than 1/8	LB 127	97
	7-18-29, 7-18-30	Edna B Oldaker and John J Oldaker	Warren R. Haught	Not less than 1/8	LB 126	377
	7-18-29, 7-18-30	Warren R Haught and Lenna G Haught	710 Corporation		LB 176	609
	7-18-29, 7-18-30	710 Corporation	F&S Drilling, Inc		LB 186	528
	7-18-29, 7-18-30	710 Corporation	F&S Drilling, Inc		LB 190	698
		F&S Drilling, Inc by Frank J Keating, President and F&S Drilling, by Frank J Keating as General Partner	710 Corporation		LB 211	37
	7-18-29, 7-18-30	710 Corporation	Whittle Corp		LB 234	182
	7-18-29, 7-18-30	Whittle Corporation	Petroedge Resources, LLC		LB 237	136
	7-18-29, 7-18-30	PetroEdge Resources, LLC	PetroEdge Resources (WV), LLC		LB 237	515
	7-18-29, 7-18-30	Whittle Corporation Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Petroedge Resources (WV), LLC		LB 246	511
	7-18-29, 7-18-30		Quest Cherokee, LLC		LB 246	1062
	7-18-29, 7-18-30	PostRock MidContinent Production, LLC	PostRock Eastern Production, LLC		LB 254	553
	7-18-29, 7-18-30	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC		LB 297	556
	7-18-29, 7-18-30	UIV, LLC	Alpha Helix Energy, LLC		LB 297	587
	7-18-29, 7-18-30	710 Corporation	Whittle Corp		LB 308	27
	7-18-29, 7-18-30	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC		LB 308	796

RECEIVED
Office of Oil and Gas
796
SEP 15 2018
WV Department of
Environmental Protection

	7-18-29, 7-18-30	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC	INS#	201800006269
		Mary E Scott, Bessie Scott, Sarah Scott, all single, LB Scott and Eva O Scott, his wife, Viola M Scott, widow and Viola M Scott, Guardian of Mary E Scott, Opal M Scott and Ernest M Scott, AA Scott and Eddie A Scott, his wife, GD McElroy and GD McElroy, Guardian, Allie J Scott, May Lamo and Harold Lamp, her husband	Hope Natural Gas Company	Not less than 1/8	LB 43 357
F)	7-18-19, 7-18-31, 7-18-32	Hope Natural Gas Company	Consolidated Gas Supply Corporation		DB 151 436
	7-18-19, 7-18-31, 7-18-32	Consolidated Gas Supply Corp.	Consolidated Gas Transmissions Corp		LB 169 756
	7-18-19, 7-18-31, 7-18-32	Dominion Exploration and Production, In. Dominion	Dominion Transmission, Inc Consol Energy Holdings LLC		LB 251 621
	7-18-19, 7-18-31, 7-18-32	Transmission, Inc	XVI		LB 251 648
	7-18-19, 7-18-31, 7-18-32	CNX Gas Company	Noble Energy, Inc.		LB 254 811
	7-18-19, 7-18-31, 7-18-32	CNX Gas Company	Noble Energy, Inc.		LB 304 287
	7-18-19, 7-18-31, 7-18-32	Noble Energy, Inc.	HG Energy II Appalachia, LLC		LB 309 32

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

G)	7-18-18	Ada M Elliot, widow, Ray Elliott and Helen Elliott, his wife, Louie G Elliott and Wilma Elliott, his wife, Charles A Elliott and Velma Elliott, his wife, Chantilla Buzzard, widow, Ora Mae McAtee and Bill McAtee, her husband, Kenneth Buzzard and Bernice Buzzard, his wife, Okey L. Buzzard and Geraldine Buzzard, his wife, Maurice D Buzzard and Helen M Buzzard, his wife, Dora J Wright and Kenneth E Wright, her husband, Donald Buzzard and Madeline Buzzard, his wife, Burl P Buzzard and Anne D Buzzard, his wife, and Dorothy Lou White and Willard Ray White, her husband	Alegheny Land and Mineral Company Columbia Natural Resources, Inc	Not less than 1/8	LB 89	314
	7-18-18	Alamco, Inc	Inc		DB 269	668
	7-18-18	Columbia Natural Resources, Inc	Chesapeake Appalachia, LLC		DB 294	520
	7-18-18	Chesapeake Appalachia, LLC	Statoilhydro USA Onshore Properties, Inc		LB 247	875
	7-18-18	Chesapeake Appalachia, LLC	Statoilhydro USA Onshore Properties, Inc		LB 247	884
	7-18-18	Chesapeake Appalachia, LLC	SWN Production Company, LLC		LB 208	707
	7-18-18	SWN Production Company, LLC. And Statoilhydro USA Onshore Properties, Inc	HG Energy II Appalachia, LLC		INS#	201800005399
H)	7-18-17	Haught Family Trust	Whittle Corporation	Not Less than 1/8	LB 240	397
	7-18-17	Whittle Corp	Burning Springs Energy, LLC	Fee	LB 308	796
	7-18-17	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC		INS#	201800006269

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

J)	7-18-15	Ruth E. Johnson, Ronald Johnson, Wilmer and Beverly Johnson, Sara L and Emmet R Berry, Jr. Edith Farris, Ilene V Williams, George H Williams	Warren R Haught	Not less than 1/8	LB 155	526
	7-18-15	Frank I Allebaugh and Pearl E Allebaugh Warren R Haught and Lenna G Haught	Warren R Haught	Not less than 1/8	LB 156	551
	7-18-15	710 Corporation	710 Corporation		LB 176	609
	7-18-15	Lenna G Haught	Lenna G Haught		LB 211	514
	7-18-15	Lenna G Haught	HAH Petroleum, Inc		LB 212	88
	7-18-15	HAH Petroleum	Hughes Resources, Inc		LB 222	15
	7-18-15	Hughes Resources, Inc	HAH Petroleum		LB 223	332
	7-18-15	Lenna G Haught HAH Petroleum, Inc, by Trustee	HAH Petroleum, Inc		LB 224	644
	7-18-15	Whittle Corporation	Whittle Corporation		LB 276	283
	7-18-15	Petroedge Resources, LLC	Petroedge Resources, LLC		LB 237	136
	7-18-15	Quest Eastern Resources, LLC	Petroedge Resources, LLC		LB 237	515
	7-18-15	Quest Eastern Resources, LLC	Quest Cherokee, LLC		LB 246	1062
	7-18-15	Quest Eastern Resources, LLC	Quest Cherokee, LLC		LB 252	307
	7-18-15	PostRock MidContinent Production, LLC	PostRock Eastern Production, LLC		LB 254	553
	7-18-15	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC		LB 297	556
	7-18-15	UIV, LLC	Alpha Helix Energy, LLC		LB 297	587
	7-18-15	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC		LB 308	796
	7-18-15	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC ✓		INS#	201800006269

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

K)	7-18-7	Ethel Haught, WT Parks and Carrie V Parks, his wife, Carrie B Waggoner and Pearl P Waggoner, his wife, Paul Ryan and Mary Ryan, his wife, and Kenneth H Parks and Rose Parks, his wife	Dale Wolfe	Not less than 1/8	LB 121	202
	7-18-7	Sylvia Snyder and Lelia Atkinson	Dale Wolfe	Not less than 1/8	LB 121	300
	7-18-7	Dale Wolfe	Warren R Haught	Fee	LB 123	154
		Emerson Jones and Joan Jones, his wife, OW Gatrell and Camilla Gatrell, his wife, Barbara Doak and Clyde Doak, Jr., her husband and Bill Stout and Jeannette Stout, his wife	Dale Wolfe	Not less than 1/8	LB 122	13
	7-18-7	Dale Wolfe	Warren R Haught	Fee	LB 123	152
	7-18-7	Dale Wolfe	Warren R Haught	Fee	LB 123	150
	7-18-7	Warren R Haught	Glenn L Haught and Sons	Fee	LB 127	495
	7-18-7	Glenn L Haught and Sons Landmark Resources Corp.	Landmark Resources Corp.	Fee	LB 126	594
	7-18-7	Landmark Resources Corp.	Glenn L Haught and Sons	Fee	LB 133	448
		Barry D Haught and Warren R Haught, DBA Glenn L Haught and Sons	Haught, Inc.	Fee	LB 152	155
	7-18-7	Haught, Inc.	Warren R Haught	Fee	LB 173	496
	7-18-7	Warren R Haught and Lenna G Haught	710 Corporation	Fee	LB 176	609
	7-18-7	Haught Oil Producing, formerly Haught, Inc	710 Corporation	Fee	LB 180	791
	7-18-7	710 Corporation	Lenna G Haught	Fee	LB 211	514
	7-18-7	Lenna G Haught	HAH Petroleum, Inc	Fee	LB 212	88
	7-18-7	HAH Petroleum	Hughes Resources, Inc	Fee	LB 222	15
	7-18-7	Hughes Resources, Inc	HAH Petroleum	Fee	LB 223	332
	7-18-7	Lenna G Haught	HAH Petroleum, Inc	Fee	LB 224	644

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

	HAH Petroleum, Inc, by				
7-18-7	Trustee	Whittle Corporation	Fee	LB 276	283
7-18-7	710 Corporation	Whittle Corporation	Fee	LB 234	182
7-18-7	Lenna G. Haught	710 Corporation	Fee	LB 234	600
7-18-7	Warren R. Haught	710 Corporation	Fee	LB 234	601
7-18-7	Whittle Corporation	Petroedge Resources, LLC	Fee	LB 237	136
	Petroedge Resources, LLC				
7-18-7	Quest Eastern Resources, LLC	Petroedge Resources, LLC	Fee	LB 237	515
7-18-7	Quest Eastern Resources, LLC	Quest Cherokee, LLC	Fee	LB 246	1062
7-18-7	Quest Eastern Resources, LLC	Quest Cherokee, LLC	Fee	LB 252	307
7-18-7	Postrock Mid Continent Production, LLC	PostRock Eastern Production, LLC	Fee	LB 254	553
	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for				
7-18-7	PostRock Energy Corp.	UIV, LLC	Fee	LB 297	556
7-18-7	UIV, LLC	Alpha Helix Energy, LLC	Fee	LB 297	587
7-18-7	710 Corporation	Whittle Corporation	Fee	LB 308	27
	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC				
7-18-7	Burning Springs Energy, LLC	Burning Springs Energy, LLC	Fee	LB 308	796
7-18-7	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC ✓		INS#	201800006269

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection



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

August 21, 2018

Laura Adkins
WV DEP
Division of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Drilling Under Roads – Goodnight 1402 N-2H
Murphy District, Ritchie County
West Virginia

Dear Ms. Adkins:

HG Energy II Appalachia, LLC, has the right to drill, stimulate and produce wells that are drilled under the County and State Roads as designated on the plats.

Should you have any questions or desire further information, please contact me at dwhite@hgenergyllc.com or 304-420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

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

Date of Notice Certification: 09/04/2018

API No. 47- _____
Operator's Well No. Goodnight 1402 N-2H
Well Pad Name: Goodnight 1402

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>492548.3</u>
County:	<u>Ritchie</u>		Northing:	<u>4324570.0</u>
District:	<u>Murphy</u>	Public Road Access:		<u>SR 47</u>
Quadrangle:	<u>Smithville WV 7.5'</u>	Generally used farm name:		<u>Kenneth Paul Goodnight</u>
Watershed:	<u>South Fork Hughes River</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
---	---

Required Attachments:

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

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

Certification of Notice is hereby given:

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

Well Operator:	<u>HG Energy II Appalachia, LLC</u>	Address:	<u>5260 Dupont Road</u>
By:	<u>Diane White <i>Diane White</i></u>		<u>Parkersburg, WV 26101</u>
Its:	<u>Agent</u>	Facsimile:	<u>304-863-3172</u>
Telephone:	<u>304-420-1119</u>	Email:	<u>dwhite@hgenergyllc.com</u>



Subscribed and sworn before me this 4th day of September, 2018.

Cassidy A. Boardman Notary Public

My Commission Expires 7/31/2022

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

WW-6A
(9-13)

API NO. 47- _____ - _____
OPERATOR WELL NO. Goodnight 1402 N-2H
Well Pad Name: Goodnight 1402 **4708310374**

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 8/24/18 **Date Permit Application Filed:** 8/31/18

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
 Name: Kenneth Paul Goodnight ✓
 Address: 17155 Staunton Tpke
Smithville, WV 26178

Name: _____
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: See Above
 Address: _____

Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
 Name: NA
 Address: _____

COAL OWNER OR LESSEE
 Name: NA
 Address: _____

COAL OPERATOR
 Name: NA
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: NA
 Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: NA
 Address: _____

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas

SEP 5 2018

WV Department of
Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

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

RECEIVED
Office of Oil and Gas
SEP 5 2018

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WV Department of Environmental Protection

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- _____ - _____
OPERATOR WELL NO. Goodnight 1402 N-2H
Well Pad Name: Goodnight 1402

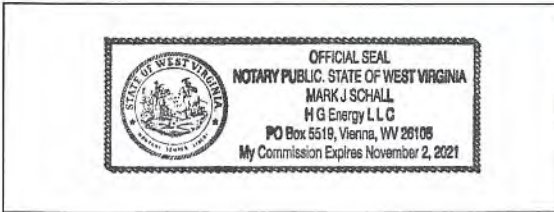
Notice is hereby given by:

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

Address: 5260 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-863-3172

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.



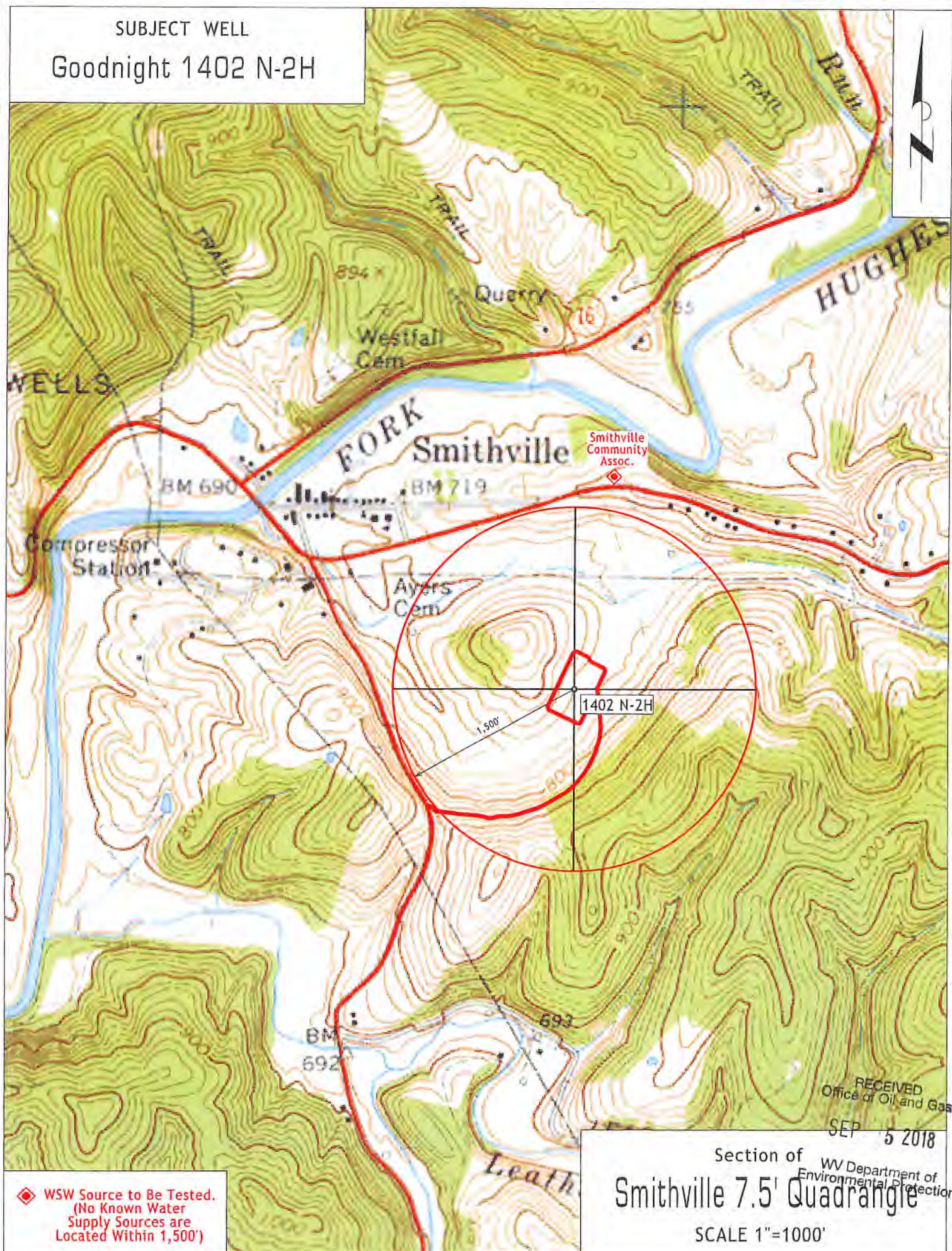
Subscribed and sworn before me this 24 day of August, 2018.

[Signature] Notary Public

My Commission Expires 11/2/2021

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

SUBJECT WELL
Goodnight 1402 N-2H



◆ WSW Source to Be Tested.
(No Known Water
Supply Sources are
Located Within 1,500')

RECEIVED
Office of Oil and Gas
SEP 5 2018

Section of WV Department of
Environmental Protection
Smithville 7.5' Quadrangle
SCALE 1"=1000'

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 6/25/18 **Date of Planned Entry:** 7/02/18

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
 REGISTERED MAIL
 METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Kenneth Paul Goodnight

Address: 17155 Staunton Turnpike
Smithville, WV 26178

Name: _____

Address: _____

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: NA

Address: _____

MINERAL OWNER(s)

Name: ** See Attached List **

Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.070197 & 81.086141</u>
County: <u>Ritchie</u>	Public Road Access: <u>SR 47</u>
District: <u>Murphy</u>	Watershed: <u>South Fork of the Hughes River</u>
Quadrangle: <u>Smithville 7.5'</u>	Generally used farm name: <u>Kenneth Paul Goodnight</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC

Telephone: 304-420-1119

Email: dwhite@hgenergyllc.com

Address: 5260 Dupont Road
Parkersburg, WV 26101

Facsimile: 304-863-3172

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Page 1 Continued

Mineral Owners

Ashley Price Rose & Kelley M Rose ✓
1265 Pine Island Rd.
Merritt Island, FL 32953

Bettie Louise Alberts Parks ✓
224 Carrington Dr.
Pawleys Island, SC 29585

Betty Lucille Delaney ✓
3509 Old Pittsburg Rd
New Castle, PA 16105

Beverly Ann Wilson Moorefield ✓
3327 17th Street NW
Washington, DC 20010

Black Gold Group LTD ✓
PO Box 85
Strasburg, OH 44680

Camilla Gatrell ✓
2367 Murraysville Rd
Raavenswood, WV 26164

Carlene Bea Murphy ✓
11012 Corundite Road NW
Massillon, OH 44646

Carol Ann and John Joseph Annie ✓
1322 Village Drive
South Charleston, WV 25309

Caroline E. Middleton ✓
519 Bellwood Street
Ashland City, TN 37015

Carolyn Diana Welch ✓
333 West High Street
Harrisville, WV 26362

Carolyn R. Parks Fulper ✓
HC 68 Box 24
Smithville, WV 26178

Carrie Parks Scarbro ✓
109 Stone Street
Mt Hope, WV 25880

Cathie I & Michael W Krosse ✓
327 Taggart Ave. NE
Massillon, OH 44646

Cecil Edward Perry, Jr. ✓
1704 Westerfield Road
Virginia Beach, VA 23455

Charles B & Barbara J Parks ✓
5766 SW 87th Ave.
Cooper City, FL 33328

Charles E. Conley ✓
115 Woodridge Drive
Elyria, OH 44035

Cherie A. Meyer ✓
539 Brighton Ave.
Portland, ME 04102

Cherly L. Delaney ✓
44 Valley View Drive
New Wilmington, PA 16142

Chester Vincent Smith ✓
858 Basswood Ave.
Canal Fulton, OH 44614

Christina L. Baker ✓
1990 Hemlock St.
Columbus, OH 43217

Christopher Pierce Harper ✓
212 Oakwood Dr.
Matthews, NC 28104

Clifford Frank Scott, Jr
& Sharon Scott ✓
1678 Leisure World
Meza, AZ 85206

Colleen Salisbury ✓
317 Whiskey Creek Ct
Ocoee, FL 34761

Connie Vanessa Fulgham ✓
3928 W 158th St
Cleveland, OH 44111
RECEIVED
Office of Oil and Gas
SEP 5 2018

Craig Arthur & Beth A Lefevre ✓
611 Stanley Ave.
Clarksburg, WV 26301

D. Joan Jones ✓
15 Devonshire Court
Harrisville, WV 26362

Daniel Lee & Patty N. Hinson ✓
46 Oak Street
Folkston, GA 31537
WV Department of
Environmental Protection

WW-6A3
(1-12)

Goodnight 1402 N-2H

Page 1 Continued

Mineral Owners

Daniel S. Middleton ✓
422 NE 103rd Street, Apt. 16E
Kansas City, MO 64155

Dawn & Robert W. Fetzer ✓
28135 West Drive
Canyon Lake, CA 92587

Deborah A & James L Schafer ✓
2718 CR 150
Millersburg, OH 44654

Deborah L & Kevin L Yocum ✓
4208 Ledge Circle
Glen Allen, VA 23059-5398

Debra M Bennington ✓
4035 Snaffle Bit Rd
Lebanon, IN 46052

Debra R & Nelson A Thiel ✓
5548 Rice Road
Boston, NY 14025

Denver Lee & Mary K. Rose ✓
6304 Firetower Rd.
Kiln, MS 39556

Donald E. Parks, Jr. ✓
107 N Smith Street
Fayetteville, WV 25840

Donald Kirby Stout ✓
110 Countryside Dr
Senoia, GA 30276

Donald Ray Hedge, Jr & Jill M Hedge ✓
419 Smith Street
Fredericksburg, VA 22405

Donna and George Sturnick ✓
1055 Carbon Road
Greensburg, PA 15601

Donna J. Parks Stanley ✓
122 3rd Street
New London, OH 44805

Donnetta M & Gregory H Hayduke ✓
3403 Verplank Road
Clay, NY 13041

Douglas Mason & Susan Morrison ✓
408 Inverness Lane
Salsburg, NC 28146

Edna Mae Hardman ✓
2278 Oxbow Circle
Stone Mountain, GA 30087-1215

Elizabeth Lynn & Phillip I Gallogly ✓
521 Belvedere Drive
Mount Vernon, OH 43050

Elizabeth S. Warner ✓
1205 Golden Harvest Drive
St. Peters, MO 63376

Eric and Sharon Kay Mauser ✓
5706 Scenic Avenue
Mexico, NY 13114

Eric L Cottrill ✓
6800 Granite Ave, APT 723
Tulsa, OK 74136

Ernest Clifford Wolfe ✓
5453 Mandarin Circle
Hixon, TN 37343-6803

Ernest Neal & Lisa Lynn Smith ✓
8684 Sunset Valley Ave. NW
Canal Fulton, OH 44614

Eva A. Snyder ✓
405 Goffs Rd
Harrisville, WV 26362

Eva M. Humphrey ✓
2600 E Allred Avenue Lot A7
Meza, AZ 85206

Evelyn Virginia Vance ✓
233 Furnace Road
Wardensville, WV 26851

Fred W & Rebecca C Hedge ✓
8110 Old Plank Rd
Fredericksburg, VA 22407

Freda Mae Parks ✓
& William D Miller
4863 Orange Tree Pl
Venice, FL 34293

G. Stanley Cox & Bette L. Cox ✓
Estate Planning Trust
6210 Langton Circle
Westerville, OH 43082

RECEIVED
Office of Oil and Gas
SEP 5 2018

WV Department of
Environmental Protection

Mineral Owners

Garrod J Lamp and Jackie Lamp
6988 Blue Cedar Road
Leesburg, FL 34748 ✓

Garry Gene & Bettina Frances King
1918 Harding Path.
The Villages, FL 32162 ✓

George H Williams, III
PO Box 222461
Anchorage, AK 99522-2461 ✓

George Warren Long
& Pedro Luis Robles
1161 N Hiatus Road
Pembroke Pines, FL 33026 ✓

Gloria Jean Fisher
3080 School Street
Clarksburg, WV 26301 ✓

Gregery Allen Raber
208 Brooklyn Ave.
Weston, WV 26452 ✓

Harold McKinley Hedge
801 Boone Farm Rd
Asheboro, NC 27205 ✓

Haught Cemetery, Inc.
PO Box 1
Harrisville, WV 26362-0001 ✓

Haught Family Trust
210 E Main St
Harrisville, WV 26362 ✓

Helen Marsh Testamentary Trust
WS Marsh, Janice Standish &
WC Marsh, Co-Trustee
26 Gate 8
Carolina Shores, NC 28467 ✓

Helen May McHenry
65 Crab Run
Smithville, WV 26178-7044 ✓

Hester Geraldine Tichy
607 55th Street
Vienna, WV 26105 ✓

Hilda M. Deem
5607 4th Avenue
Vienna, WV 26105 ✓

Ira M. Haught, Robin J Cook
and Kelsey Haught
210 E Main Street
Harrisville, WV 26362 ✓

Jack Andrew Scott
1515 Hilbish Avenue
Akron, OH 44312 ✓

James D. Roberts
5207 3rd Ave.
Vienna, WV 26105 ✓

James E. Lynch
1400 Blennerhassett Ave
Parkersburg, WV 26101 ✓

James H & Robyn A King
973 Ellsworth Drive
Grayslake, IL 60030 ✓

James Keith Gabbert
PO Box 297
Prosperity, WV 25909 ✓

James M. Hedge, Sr.
& Ivy S. Hedge
316 Woodford St.
Fredericksburg, VA 22401 ✓

James & Roberta McCoy
PO Box 5
Smithville, WV 26178-0005 ✓

Janice H & Stewart C. Buckler
1651 Dares Beach Rd
Prince Frederick, MD 20678 ✓

Jason Scott Marshall
337 Bethel Grange Road
Winchester, VA 22603 ✓

Jeffrey A Schad
1320 Lewiston Drive
Westfield, IN 46074 ✓

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

WW-6A3Goodnight 1402 N-2H(1-12)Page 1 ContinuedMineral Owners

Jennifer Black & John W. Linville ✓
321 Mexico Rd
Edenton, NC 27932

Jill Renee & Daniel L Fisher ✓
1272 Morten Stret
Cincinnati, OH 45208

John G Rogers, Jr ✓
and Omah Geraldine Rogers
341 Parsons Ridge Road
Proctor, WV 26055

John Kevin Stout ✓
RT 1 Box 147
Cairo, WV 26337

John Thomas Hedge ✓
5595 E Irlo Bronson
Memorial Hwy. Lot 7
Saint Cloud, FL 34771

Joseph D. Gartrell ✓
PO Box 31
New Philadelphia, OH 44663

Joy Sharon Spino ✓
28 Woodsdale Cemetery Rd
Grafton, WV 26354

Joy Sharon Spino ✓
901 W Washington Street
Grafton, WV 26354

Joyce E. Zentner, Elaine Black
& Paul J Zentner ✓
6906 Greenbrook Circle
Citrus Heights, CA 95621

Joyce Elaine Michael Lee Strouse ✓
16080 McKenzie Road
Mount Vernon, OH 43050

Judith A. Bonnett ✓
1949 Loadstar Avenue
The Villages, FL 32162-7055

Judith Kaye Lamp ✓
9 Northern Drive
Millersburg, OH 44654

Karen Patricia Winant & Brian E. Daly ✓
341 Irish Rose Rd
Saint Augustine, FL 32092

Karl John Spino ✓
1661 Victory Ave
Grafton, WV 26354

Karleena Marie Lamp ✓
2001 Judson Road
Kokomo, IN 46901

Kathleen Horne ✓
P.O. Box 962
Oakland, FL 34760

Keegan Wayne Lamp ✓
7405 Creyts Road
Dimondale, MI 48821

Kelsey Jean Lamp ✓
1121 Gould Road
Lansing, MI 8917

Kenneth J Delaney ✓
109 W Sheridan Avenue
New Castle, PA 16105

Kenneth Paul Goodnight ✓
PO Box 7
Smithville, WV 26178-0007

Kerri E. Rose ✓
122 Mitchner Ave
Satsuma, FL 32189

Kristopher James Lamp ✓
2001 Judson Road
Kokomo, IN 46901

Larry Oran & Brenda Sue Lantz ✓
9932 George Washington Hwy
Bridgeport, WV 26330

Lawrence & Joan Doores ✓
730 10th Street Dr,
Conover, NC 28613

Lawrence Ray & Karen Lamp ✓
5640 Township Road 353
Millersburg, OH 44654

Lawrence S & Joanne Marie Parks ✓
1252 Skylark Ave
Marco Island, FL 34145

Leona Ernest Haught, Jr. ✓
16837 Staunton Tpke
Smithville, WV 26178

RECEIVED
Office of Oil and Gas
SEP 5 2018

WV Department of
Environmental Protection

WW-6A3(1-12)Page 1 ContinuedMineral Owners

Lila Claire Riddle ✓
3891 Alfalfa Lane
Fayetteville, PA 17222

Linda K. Linger ✓
979 Broadway
West Long Branch, NJ 07764

Lois Ann Delaney ✓
109 W Sheridan Avenue
New Castle, PA 16105

Lois Louise Simonton ✓
5604 Wadesville Rd
Belleville, WV 26133

Loretta F. Parks Stanley ✓
1361 County Rd 16
New London, OH 44851

Loretta M. Parks Stiffler ✓
2155 Nottingham Drive
Winter Park, FL 32792

Lori Rose & Jacques Savoie ✓
191 Pelican Rd
Venice, FL 34293

Lorna Kay Parks ✓
125 Wilderness Lane
Williamsburg, VA 23188

Lyman Gregory Rose ✓
& Elizabeth L Rose ✓
6322 Sanctuary Woods Ct
Burke, VA 22015

Margaret Ann & Paul L. Mulligan, Jr ✓
415 Glen Avenue
Clarksburg, WV 26301

Mark Lane Rogers ✓
1907 Fairview Ridge Road
New Matamoras, OH 45767

Mary Jo Finch ✓
826 Country Club Drive
Sistersville, WV 26175

Mary Kathryn Atkinson ✓
5 River Crest
Vienna, WV 26105

Mary Lee Lutton ✓
2010 Glendale Avenue
New Castle, PA 16105

Mary Parks Ryan ✓
42 Hope Hill
Mannington, WV 26582

Matthew Thomas & Beth Anne Smith ✓
4649 13th St. NW
Canton, OH 44708

Maureen Parks Bruenski ✓
624 West Chestnut Street
Junction City, KS 66441

Melody Ann Dunn ✓
701 Heritage Drive
Trenton, OH 45067

Michael David Stout ✓
2270 Canton Hwy
Cumming, GA 30040

Myrald Cantley ✓
11 Beech Drive
Jim Thorpe, PA 18229-9553

Myrtle Lamp ✓
2001 Judson Road
Kokomo, IN 46901

Nancy Joan Hedge ✓
and Billy G Pilkington ✓
202 York Dr.
Portsmouth, VA 23702

Nicole Parks Slaughter ✓
107 North Smith Street
Fayetteville, WV 25840

Nora E. Akers ✓
4465 19th Ave
Parkersburg, WV 26101

Orma M. Wilson Johnson ✓
3315 Higley Rd
Rocky River, OH 44116

Patricia Anne Mauser ✓
686 Idlewood Blvd
Baldwinsville, NY 13027

Paul Kester Scott ✓
1430 S Juniper St, Apt A
Escondido, CA 92025

RECEIVED
Office of Oil and Gas
SEP 5 2018

WV Department of
Environmental Protection

WW-6A3
(1-12)

Page 1 Continued

Mineral Owners

Penelope J & James C. Slifka ✓
559 S Colfax Ave
Elmhurst, IL 60126

Phyllis Sweeting ✓
1503 United Street
Key West, FL 33040

Randall Jeffery Stout ✓
RT 1 Box 10
Petroleum, WV 26161

Randolph Harvey Lamp ✓
1256 Lennox Avenue NE
Massillon, OH 44646

Rebecca Dee VanGordon ✓
3505 Berkley Ct
Liverpool, NY 13090

Rhonda Parks ✓
109 Stone Street
Mount Hope, WV 25880

Richard A Hedge ✓
and Patricia Lynn Conley
1525 Trail Ct.
Grove City, OH 43123

Richard Charles Rose, Jr. ✓
and Cindy Ann Rose
11624 Falling Leaf Trl
Jacksonville, FL 32258

Richard L Repko ✓
1055 Carbon Road
Greensburg, PA 15601

Ridgewood Development, LLC ✓
955 Bull Creek Rd
Waverly, WV 26184-7070

Robert Craig Hobbs ✓
632 Carriage Lake Dr
Lexington, SC 29072

Robert H. Parks ✓
791 Collins Rd
Little Hocking, OH 45742

Robert Lynn Hedge ✓
8576 Executive Dr
Norfolk, VA 23503

Robert Marcus Hinson ✓
& Mary Kaye Hinson
16 Hickory Ct
Williamsburg, VA 23188

Robert R. Delaney ✓
616 Sand Hill Road
Mount Pleasant, PA 15666

Ronald Parks ✓
6101 Valley Park Drive
Huntsville, AL 35810

Ronald R. Nutt ✓
723 Wigner Ave
Harrisville, WV 26362

Rosa Parks ✓
52723 Trinter Rd
Vermillion, OH 44089

Russell R. Conley ✓
501 Foxtrail Drive
Hazelwood, OH 63042

Sandra S McCleaster ✓
1935 Stoner Ave, NE
Massillon, OH 44646

Sandra Sue Magdars ✓
& Robert John Magdars
1690 S 100 E
Orem, UT 84058

Sara L. Berry ✓
497 Pitchercane Rd
Hot Springs, AK 71901

Scott A & Kristy Morrison ✓
1701 19th Ave
Parkersburg, WV 26101

Scott Stephen Hedge ✓
and Donna M Hedge
6466 Old Myrtle Rd
Suffolk, VA 23434

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

WW-6A3
(1-12)

Page 1 Continued

Mineral Owners

Sharon E & David Yedinak
119 Willow Drive
Streator, IL 61364

Sondra Maylene Lamp
2001 Judson Road
Kokomo, IN 46901

Society Lee
42428 Chisolm Trl
Murrieta, CA 92562

Stefanie Ann Stout Minor
372 Fowler Rd
Harrisville, WV 26362

Stephen Glen Doak
412 First St
Pensboro, WV 26415

Stephen L & Pamela Sue Mauser
8502 Gaskin Road
Baldwinsville, NY 13027

Steven B. Rhoades
PO Box 310
Grants, NM 87020

Steven Blaine Lamp
9486 Rohrland Street NW
Massillon, OH 44646

Steven Douglas Showers
163 Hood Pole Run Rd
Mount Clare, WV 25309

Susan & Ronald William Reynolds
1683 Hawkey Hill Road
Proctor, WV 26055

Terri J. James
405 Sheffield Avenue, NE
Massillon, OH 44646

Theresa Gail Lamp
2001 Judson Road
Kokomo, IN 46901

Thermal Lee Bickerstaff
113 Cumberland St, Apt 3
Caldwell, OH 43724

Thomas E Armstrong
712 Barnhart Street
Streator, IL 61364

Thomas Eugene Hinson, Sr
and Janis Lyn Hinson
8420 Old Ocean View Rd
Norfolk, VA 23518

Timothy Amos Clayton
7867 Hazelgreen Rd
Smithville, WV 26178-7387

Toni M. Layfield
356 Pine Twist Rd
Elizabeth, WV 26143

Virginia R. Parks Boswell
847 Telegraph Rd
Stafford, VA 22554

Walter Augustine Hedge
aka Walter A Hedge
1481 Taft Rd
Chesapeake, VA 23322

William B. Elliott
70 Betsy Lane
Belpre, OH 45714-9336

William Richard Stout
1808 Spring St
Parkersburg, WV 26101

William Scott & Shannon Lea Smith
586 Moon Bay Dr, Unit 4
Kuttawa, KY 42055

William Thomas Lamp
and Sara Eileen Lamp
1307 S Parrot Ave, Lot 95
Okeechobee, FL 34974

Wilmer & Beverly Johnson
571 Bronx Corner Rd.
Ray, OH 45672

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

WW-6A3
(1-12)

4708th 10374
Goodnight 1402 N-2H

Page 1 Continued

Mineral Owners

Rene Ann Costello ✓
2028 E Lincoln Ave
Decatur, IL 62521

Rene Ann Costello ✓
109 Oak Crest Drive
Partlow, VA 22534

Vieva May Harlow ✓
337 Chestnut Ridge Rd
Winston Salem, NC 27104

Vieva May Harlow ✓
1244 Arbor Road
Winston Salem, NC 27104

Glyndon H Ellis Trust ✓
James W Ellis, Co-Trustee
124 Merrimack Place
Chocowinity, NC 27817

Glyndon H Ellis Trust ✓
Karla Hughes, Co-Trustee
4601 Kenbridge Drive
Greensboro, NC 27410

Donna Hedge Williamson &
Reps C Williamson ✓
485 Inn Rd
Buchanan, VA 24066

Donna Hedge Williamson &
Reps C Williamson ✓
3315 Trenholm Rd
Powhatan, VA 23139

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

4708510374

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 06/27/2018

Date Permit Application Filed: 07/11/2018

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection

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

- HAND DELIVERY
- CERTIFIED MAIL RETURN RECEIPT REQUESTED

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

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

Name: Kenneth Paul Goodnight
Address: 17155 Staunton Tpke
Smithville, WV 26178

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>492546.3</u>
County:	<u>Ritchie</u>		Northing:	<u>4324565.9</u>
District:	<u>Murphy</u>	Public Road Access:		<u>SR 47</u>
Quadrangle:	<u>Smithville 7.5'</u>	Generally used farm name:		<u>Kenneth Paul Goodnight</u>
Watershed:	<u>South Fork of the Hughes River</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com
Facsimile: 304-863-3172

Authorized Representative: Diane White
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com
Facsimile: 304-863-3172

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 06/28/2018 **Date Permit Application Filed:** 07/11/2018

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

CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: Kenneth Paul Goodnight Name: _____
Address: 17155 Staunton Tpke Address: _____
 Smithville, WV 26178 _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>492548.3</u>
County:	<u>Ritchie</u>		Northing:	<u>4324570.0</u>
District:	<u>Murphy</u>	Public Road Access:	<u>SR 47</u>	
Quadrangle:	<u>Smithville 7.5'</u>	Generally used farm name:	<u>Kenneth Paul Goodnight</u>	
Watershed:	<u>South Fork of the Hughes River</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator:	<u>HG Energy II Appalachia, LLC</u>	Address:	<u>5260 Dupont Road</u>
Telephone:	<u>304-420-1119</u>		<u>Parkersburg, WV 26101</u>
Email:	<u>dwhite@hgenergyllc.com</u>	Facsimile:	<u>304-863-3172</u>

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact the Office of Oil and Gas DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
SEP 5 2018
WV Department of
Environmental Protection



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Thomas J. Smith, P. E.
 Secretary of Transportation/
 Commissioner of Highways

September 10, 2018

Jill M. Newman
 Deputy Commissioner

James A. Martin, Chief
 Office of Oil and Gas
 Department of Environmental Protection
 601 57th Street, SE
 Charleston, WV 25304

Subject: DOH Permit for the Goodnight 1402 Well Pad, Harrison County
 N-2H Well Site

Dear Mr. Martin,

This well site will be accessed from Permit #03-2018-0485 issued to HG Energy II Appalachia for access to the State Road for a well site located off of Ritchie County 16 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

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

Cc: Diane C. White
 HG Energy II, LLC
 CH, OM, D-3
 File

RECEIVED
 Office of Oil and Gas

SEP 12 2018

WV Department of
 Environmental Protection

List of Frac Additives by Chemical Name and CAS #
Goodnight 1402 Well Pad (N-1H, N-2H, N-3H, N-4H)

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

RECEIVED
Office of Oil and Gas

SEP 5 2018

WV Department of
Environmental Protection

CONSTRUCTION IMPROVEMENT PLANS WITH EROSION AND SEDIMENT CONTROLS HG 1402 PAD & TAP SITE

**APPROVED
WVDEP OOG**

11 / 29 / 2018

MURPHY DISTRICT
RITCHIE COUNTY
WEST VIRGINIA

CONSTRUCTION SEQUENCE

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



Estimated Gross Material Balance (CY)			
Pad Development - Grand Option	Cut	Fill	Stockpile
1402 Pad	21,328	22,188	460
1402 Access Road	4,813	4,418	-406
Tap Site Pad & Road	2,409	2,073	405
Total	28,550	28,679	459
Total Adjustment for Aggregate Import			
Pad		3,104	
Total Site Balance		2,688	Cut
20' Deep Topsoil Limit of Disturbance		12,506	
Est. Swell Factor (20%)		9,507	
Est. Topsoil Stockpile Volume (Loose CY)		19,007	
Minimum Total Topsoil Quantity Required (CY)		17,762	

- Notes:
1. Material balance for est. gross earthwork quantities only.
 2. Topsoil est. volume based on 6 inches average depth.
 3. Material balance and aggregate quantities based on estimates and may not be representative of actual quantities.
 4. Estimates do not reflect contractor pay volumes.

Estimated Grand Quantities (Placed CY)				
Grade	1402 Pad Access Road	1402 Tap Site	1402 Pad	TOTAL
2' SA Stone	844	274	44	1,162
8" Capstone	3,775	-	775	4,550
8" Capstone	-	1,101	-	1,101
1402 Well Pad (Placed CY)	16,906	4,066	789	21,761
Estimated Total Compacted Filter Stock Length (LF)				5,320
Estimated 1402 Pad 5' Storage Compaction Stock Length (LF)				1,725
Estimated Access Road Compaction Stock Length (LF)				2,602
Estimated 1402 Pad & Access Road Compaction Stock Length (LF)				3,327
Estimated Gas Line Compact Filter Stock Length (LF)				1,172
Estimated Total Limit of Disturbance (Acres)				15,949
Estimated Well Pad & Stockpile Limit of Disturbance (Acres)				8,452
Estimated Access Road Limit of Disturbance (Acres)				1,335
Estimated Pipeline Limit of Disturbance (Acres)				1,379
Estimated Tap Site Pad & Road Limit of Disturbance (Acres)				1,183
Well Pad Pad Pre-Construction Elevation (ft)				755.1

SHT. NO.	SHEET TITLE
1	TITLE SHEET
2A-2C	SITE LAYOUT PLANS
3	WELL PAD, STOCKPILE, & TAP PAD SECTIONS
4A-4B	ACCESS ROAD SECTIONS
5A-5G	GENERAL NOTES & DETAILS
6A-6C	RESTORATION PLAN
7	PROPERTY MAP

RECORD OWNER	RECORD LOT #	RECORD AREA OF LOT	AREA WITHIN LOD
GOODNIGHT KENNETH PAUL	43-07-0055-0000	225.7 AC	15,949 AC
TOTAL LIMIT OF DISTURBANCE			15,949 AC

1402A ACCESS ROAD ENTRANCE	LATITUDE	LONGITUDE
	N 39.067296°	W 81.080269°

WELL #	LAT	LONG.
N-24	N 39.070187°	W 81.086411°
N-34	N 39.070234°	W 81.089518°

THIS DRAWING IS THE PROPERTY OF PENN ENVIRONMENTAL & REMEDIATION, INC. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF PENN ENVIRONMENTAL & REMEDIATION, INC. A SEPARATE NOTICE OF VIOLATION WILL BE ISSUED FOR ANY SUCH VIOLATION. THIS DRAWING MUST BE RETURNED TO THE OFFICE OF THE ENGINEER UPON COMPLETION OF THE PROJECT.

REVISION	DATE	DESCRIPTION
1	8/16/18	ADJUSTMENTS TO WELL PAD & ACCESS ROAD SURFACE DETAILED
2	8/23/18	REVISED STOCKPILE, LEANING & LIMITS OF DISTURBANCE
3	9/19/18	REVISED SITE ENTRANCE
4	10/30/18	REVISING PER DEP COMMENTS



TITLE SHEET
HG 1402 PAD & TAP SITE
MURPHY DISTRICT
RITCHIE COUNTY, WEST VIRGINIA

PREPARED FOR
HG ENERGY II APPALACHIA, LLC
PARKERSBURG, WEST VIRGINIA

APPROVED: MGP 08/15/2018
DESIGNED: MGP 08/05/2018
DRAWN: SJA 08/08/2018
PROJECT NO.: 4000-PAD07585

DRAWING NUMBER
PAD07585-001
SHEET 1

111 RYAN COURT, PITTSBURGH, PA 15205
412-722-1222

WEST VIRGINIA 811 CALL BEFORE YOU DIG! Dial 811 or 800.245.4848

WEST VIRGINIA 811 SERVICE IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING, AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE.



S:\PROJECT FILES\4000-PAD07585 HG 1402A WELL PRODUCTION DOWNSIDE\PAD07585 PAD 1402A TITLE SHEET\DWG\1402A\T01B.205.PDW

