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**west virginia** department of environmental protection

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

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

June 01, 2016

**WELL WORK PERMIT**

**Partial Plug**

This permit, API Well Number: 47-1502906, issued to CUNNINGHAM ENERGY, LLC, 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: KING 20H  
Farm Name: TAYLOR, ROBERT  
**API Well Number: 47-1502906**  
**Permit Type: Partial Plug**  
Date Issued: 06/01/2016

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil X / Gas X / Liquid injection      / Waste disposal      /  
(If "Gas, Production      or Underground storage     ) Deep      / Shallow X

5) Location: Elevation 1291' Watershed TRIBUTARY OF PORTER CREEK  
District      County      Quadrangle     

6) Well Operator CUNNINGHAM ENERGY, LLC 7) Designated Agent RYAN E. M. CUNNINGHAM  
Address 3230 PENNSYLVANIA AVE. Address 1212 STAUNTON RD.  
CHARLESTON, WV 25302 CHARLESTON, WV 25314

8) Oil and Gas Inspector to be notified Name JEREMY JAMES  
Address P.O. BOX 36  
CLENDENIN, WV 25045  
9) Plugging Contractor Name C & J ENERGY  
Address 770 INDUSTRIAL PARK ROAD  
JANE LEW, WV 26378

10) Work Order: The work order for the manner of plugging this well is as follows:

- Run drill pipe to TD - 2242'
- Pump 15 bbls of Pure Scrub Spacer
- Follow with 275 sacks of cement
- Follow with 5 bbls of Pure Scrub Spacer
- Displace to Necessary Depth - Plug will be set to 800'
- All flowback will be placed into a 100 bbl. tank

*Partial Plug*  
*JS*  
*5/24/16*

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MAY 24 2016  
WV Department of  
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector *Jonathan Newlan* Date 5-24-16

1) Date: May 23, 2016  
2) Operator's Well Number  
King 20  
3) API Well No.: 47 - 15 - 02906

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Robert Taylor</u> ✓	Name _____
Address <u>1967 Bomont Road</u>	Address _____
<u>Bomont, WV 25030</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Jeremy James</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 36</u>	Name _____
<u>Clendenin, WV 25045</u>	Address _____
Telephone <u>304-951-2596</u>	_____

**TO THE PERSONS NAMED ABOVE:** You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator \_\_\_\_\_  
 By: Ryan E. M. Cunningham  
 Its: Member  
 Address 3230 Pennsylvania Avenue  
Charleston, WV 25302  
 Telephone 304-344-9291

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MAY 24 2016  
WV Department of  
Environmental Protection



Subscribed and sworn before me this 24<sup>th</sup> day of May 2016  
\_\_\_\_\_  
My Commission Expires January 23, 2022  
Notary Public

**Oil and Gas Privacy Notice**

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyoffier@wv.gov](mailto:depprivacyoffier@wv.gov).

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Cunningham Energy LLC OP Code 26-2139186

Watershed (HUC 10) TRIBUTARY OF PORTER CREEK Quadrangle ELKHURST 7.5'

Elevation 1291' County CLAY District UNION

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

Will a pit be used for drill cuttings? Yes \_\_\_\_\_ No X

If so, please describe anticipated pit waste: Cement / spacer (gel)

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 39-2210 UIC / 39-2296 UIC )
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? NO

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. \_\_\_\_\_

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

Additives to be used in drilling medium? \_\_\_\_\_

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. \_\_\_\_\_

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

-Landfill or offsite name/permit number? \_\_\_\_\_

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 [Signature] MAY 24 2016

Company Official (Typed Name) RYAN E. M. CUNNINGHAM

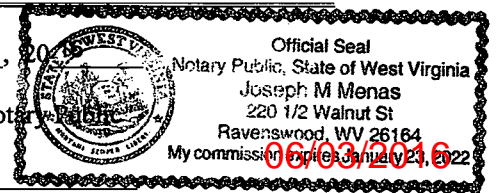
Company Official Title MEMBER

WV Department of Environmental Protection

Subscribed and sworn before me this 24<sup>th</sup> day of May 2016

[Signature] Notary Public

My commission expires January 23, 2022



Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch HAY - 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre
KY - 31	40
ALSIKE CLOVER	50
ANNUAL RYE	15

Seed Type	Area II lbs/acre
ORCHARD GRASS	15
ALSIKE CLOVER	5

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Douglas Newton

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Title: Southern Inspector Supervisor Date: 5-24-16

Field Reviewed?  Yes  No

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MAY 24 2016  
WV Department of  
Environmental Protection **06/03/2016**

**SURFACE OWNER WAIVER**

Operator's Well  
Number

KING 20H

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A**

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.  
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

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

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) 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.

**Comments must be in writing.** Your comments must 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.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

**If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.**

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B and a survey plat.

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Office of Oil and Gas

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON  
ETC.

FOR EXECUTION BY A CORPORATION,  
WV Department of  
Environmental Protection

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name  
By  
Its

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

06/03/2016  
Date

API No.	<u>47-1502906</u>
Farm Name	<u>TAYLOR, ROBERT</u>
Well No.	<u>KING 20H</u>

**INSTRUCTIONS TO COAL OPERATORS  
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

**WAIVER**

The undersigned coal operator \_\_\_\_\_/ owner \_\_\_\_\_/ lessee \_\_\_\_\_/ of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Its \_\_\_\_\_

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Environmental Protection

06/03/2016

# Cunningham Energy, LLC. King 20H



**HUPP Surveying & Mapping**

PO Box 841, RAFTERSVILLE, WV 26147  
Ph: (304)354-3015, Fax: (304)354-3016, Email: huppsurveying@aol.com

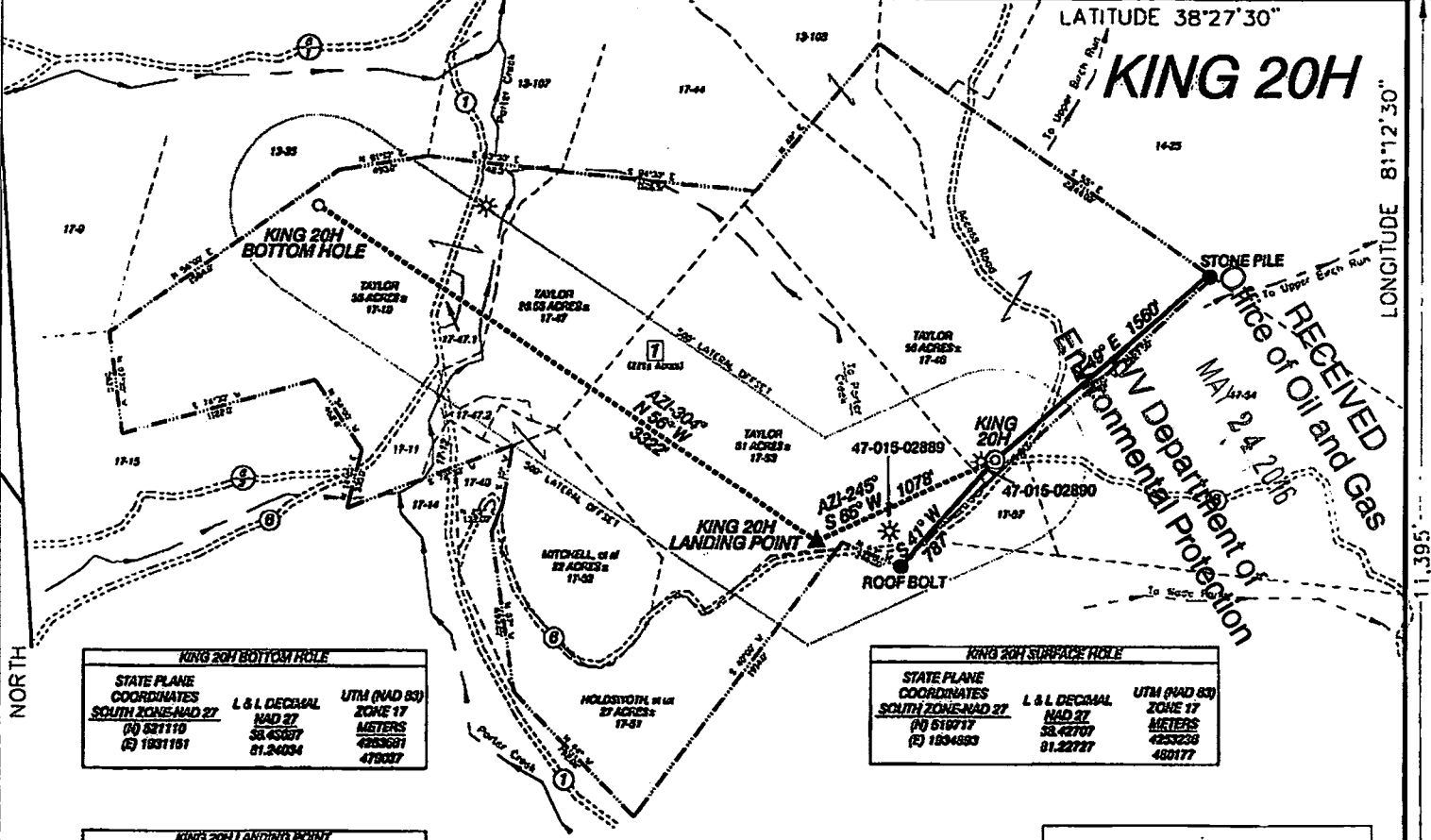
1" = 1000'  
Elkhurst Quad

Cunningham Energy, LLC  
3230 Pennsylvania Ave.  
Charleston, WV 25302

06/03/2016



# KING 20H

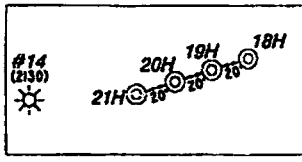


KING 20H BOTTOM HOLE		
STATE PLANE COORDINATES SOUTH ZONE NAD 27	L & L DECIMAL NAD 27	UTM (NAD 83) ZONE 17
(N) 681110	38.45357	METERS 4283681
(E) 1831151	81.24034	METERS 478937

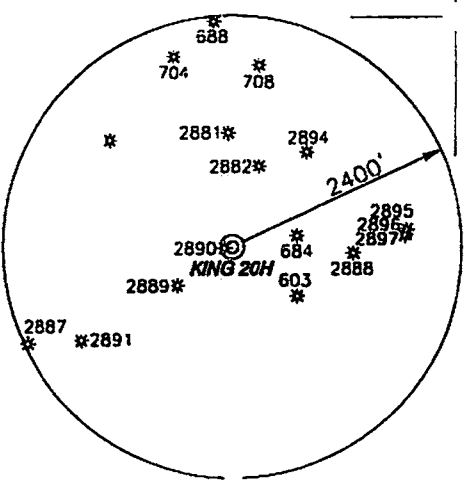
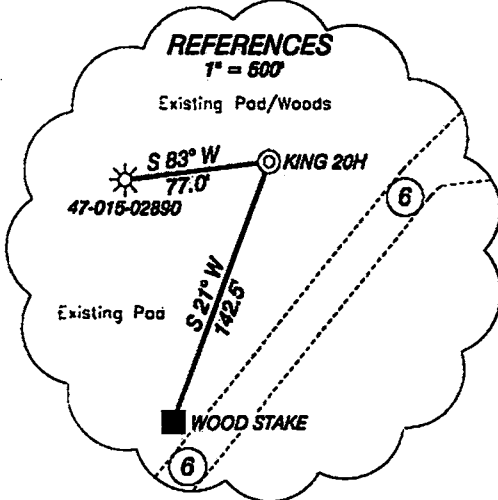
KING 20H SURFACE HOLE		
STATE PLANE COORDINATES SOUTH ZONE NAD 27	L & L DECIMAL NAD 27	UTM (NAD 83) ZONE 17
(N) 618977	38.42707	METERS 4283228
(E) 1834883	81.22727	METERS 480177

KING 20H LANDING POINT		
STATE PLANE COORDINATES SOUTH ZONE NAD 27	L & L DECIMAL NAD 27	UTM (NAD 83) ZONE 17
(N) 618298	38.42682	METERS 4283059
(E) 1833914	81.23088	METERS 478978

KING 20H		
LEASE	LESSOR	ACREAGE
1	CUNNINGHAM ENERGY, LLC.	228±

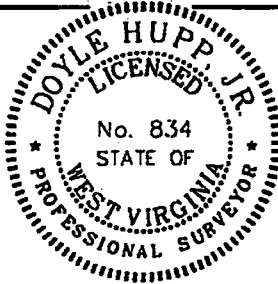


LINE LEGEND	
LEASE BOUNDARY	---
SURFACE BOUNDARY	----
CRUISE/STREAM	~~~~~
ROADS	=====
PROPOSED LATERAL	-----
100' LATERAL OFFSET	.....



- NOTES ON SURVEY**
- NO DWELLINGS WITHIN 625' WERE FOUND.
  - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
  - TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
  - WELL LAT./LONG. ESTABLISHED BY SC-GPS(OPUS).
  - SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF CLAY COUNTY IN JANUARY, 2014 AND INFORMATION PROVIDED BY CUNNINGHAM ENERGY LLC.
  - WELLS SHOWN ARE TAKEN FROM RECORDS OF WVDEP

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE JUNE 2, 2014  
 OPERATORS WELL NO. KING 20H  
 API WELL NO. 47-015-02906H  
 STATE COUNTY PERMIT

P.S. 834  
 HUPP Surveying & Mapping  
 P.O. Box 647 Grantsville, WV 26147  
 (304) 354-7035 EMAIL: hupp@trionet.net

MINIMUM DEGREE OF ACCURACY	<u>1/2500</u>	FILE NO.	<u>W2138 (BK71-1)</u>
PROVEN SOURCE OF ELEVATION	<u>SG-GPS (OPUS)</u>	SCALE	<u>1" = 1000'</u>

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

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

LOCATION :  
 ELEVATION 1291' WATERSHED TRIBUTARY OF PORTER CREEK  
 DISTRICT UNION COUNTY CLAY QUADRANGLE ELKHURST 7.5'

SURFACE OWNER ROBERT TAYLOR ACREAGE 51±  
 ROYALTY OWNER CUNNINGHAM ENERGY, LLC. LEASE ACREAGE 228± **06/03/2016**

PROPOSED WORK : LEASE NO. \_\_\_\_\_  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION BIG INJUN  
 ESTIMATED DEPTH TVD- 2,150' MD-5,200'

WELL OPERATOR CUNNINGHAM ENERGY, LLC. DESIGNATED AGENT RYAN CUNNINGHAM  
 ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302 ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302

172872014

COUNTY NAME PERMIT