



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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Monday, January 30, 2017
WELL WORK PERMIT
Coal Bed Methane Well / Plugging

CNX GAS COMPANY LLC (A)
POST OFFICE BOX 1248

JANE LEW, WV 263786506

Re: Permit approval for RLHC-310A
47-081-01459-00-00

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: RLHC-310A
Farm Name: CLEAR FORK COAL COMPANY
U.S. WELL NUMBER: 47-081-01459-00-00
Coal Bed Methane Well / Plugging
Date Issued: 1/30/2017

Promoting a healthy environment.

02/03/2017

PERMIT CONDITIONS

West Virginia Code §22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date _____, 20____
2) Operator's
Well No. RLHC-310A
3) API Well No. 47-081 - 01459

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 ____ / Gas x / Liquid injection ____ / Waste disposal ____ /
(If "Gas, Production x or Underground storage ____) Deep ____ / Shallow x

5) Location: Elevation 2246 ft. Watershed Workman Creek of Clear Fork
District Clear Fork County Raleigh Quadrangle Pax

6) Well Operator CNX Gas Company LLC 7) Designated Agent Anthony Kendziora
Address 627 Claypool Hill Mall Road Address One Dominion Drive
Cedar Bluff, VA 24609 Jane Lew, WV 26378

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gary Kennedy Name Skyline Contracting Inc.
Address PO Box 268 Address PO Box 663
Nimitz, WV 25978 Oakwood, VA 24631

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

RECEIVED
Office of Oil and Gas

NOV. 09 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  Date 11/2/16

02/03/2017

API 47-081-01459 Plugging ProcedureWell # RLHC-310A

Note: This is only an access hole for RLHC-310BR (Pinnate Horizontal well).

1. Move in rig up and verify TD (1460')
2. Set a cast iron bridge plug at the bottom of the 7" casing. (Approximately 1395')
3. Run tubing to 1395' and set Class A cement plug from 1395' to 730'. Spot 100' 6% gel spacer from 730' to 630'. Cement from 630' to surface with Class A cement.
4. Install steel plugging monument with API# and date.
5. Reclaim Location



8101459 P

State of West Virginia
Division of Environmental Production
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name Clear Fork Coal Company

Operator Well No.: RLHC-310A

LOCATION Elevation: 2246

Quadrangle: Pax, WV

District: Clear Fork County: Raleigh
Latitude: 10130 Feet South of 37 Deg. 55 Min. 00 Sec.
Longitude: 11030 Feet West of 81 Deg. 20 Min. 00 Sec.

Company:

Penn Virginia Oil & Gas Corporation	Casing and Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: <u>Seven Sheridan Square, Suite 200</u>	<u>16"</u>	<u>35'</u>	<u>35'</u>	<u>-</u>
<u>Kingsport, TN 37660</u>	<u>11 3/4"</u>	<u>567'</u>	<u>567'</u>	<u>325.68 Cu F</u>
Agent: <u>Bryant Bowman</u>	<u>7"</u>	<u>1406'</u>	<u>1406'</u>	<u>194.7 Cu Ft</u>
Inspector: <u>Terry Urban</u>				
Date Permit Issued: <u>11/13/2007</u>				
Date Well Work Commenced: <u>12/04/2007</u>				
Date Well Work Completed: <u>03/10/2008</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): <u>1,460</u>				
Fresh Water Depth (ft): <u>None Reported</u>				
Salt Water Depth (ft): <u>None Reported</u>				
Is coal being mined in area (N/Y)? <u>Y</u>				
Coal Depths (ft):				

OPEN FLOW DATA

Producing formation No production from this well Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests: _____ Hours

Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests: _____ Hours

Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANE, TEC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: _____
By: JAMES R. BURNS
Date: 10/29/08

RECEIVED
Office of Oil & Gas
NOV 14 2008
WV Department of
Environmental Protection

8101459P

<u>FORMATIONS</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>REMARKS</u>
Sand/Shale	0000	0394	
Coal	0394	0396	
Sand/Shale	0396	0493	
Coal	0493	0496	
Sand/Shale	0496	0885	
Coal	0885	0886	
Sand/Shale	0886	1090	
	1090	1090	TD Vertical Section; Plug back to 1000' TVD and begin curve for Horizontal Laterals

[Handwritten signature]

WW-4A
Revised 6-07

1) Date: _____
2) Operator's Well Number _____
RLHC-310A

3) API Well No.: 47 - 081 - 001459

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>Clear Fork Coal Company</u>	Name <u>Republic Energy, Inc.</u>
Address <u>P O Box 265</u>	Address <u>4101 Slate Drive</u>
<u>Jullian, WV 25529-0265</u>	<u>Scarbro, WV 25917</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Gary Kennedy</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 268 252 Circle Ave.</u>	Name _____
<u>Nimitz, WV 25978 Ranelle, WV 25962</u>	Address _____
Telephone <u>304-382-8402</u>	

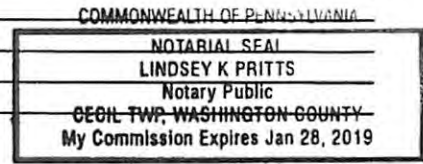
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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.

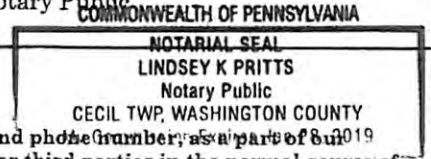
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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 CNX Gas Company LLC
 By: [Signature]
 Its: Permitting Manager
 Address 627 Claypool Hill Mall Road
Cedar Bluff, VA 24609
 Telephone 276-596-5137



Subscribed and sworn before me this 3 day of November, 2016
Lindsey K. Pritts Notary Public
 My Commission Expires January 28, 2019



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 depprivacyofficer@wv.gov.

CNX Gas Company LLC

Proposed Revegetation Treatment: Acres Disturbed 1.5 Prevegetation pH to be determined

Lime based on pH Tons/acre or to correct to pH 7

Fertilizer type ¹⁰⁻²⁰⁻²⁰ _____

Fertilizer amount 550 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
orchard grass	<u>25</u>		
birdsfoot trefoil	<u>15</u>		
lidino clover	<u>10</u>		

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

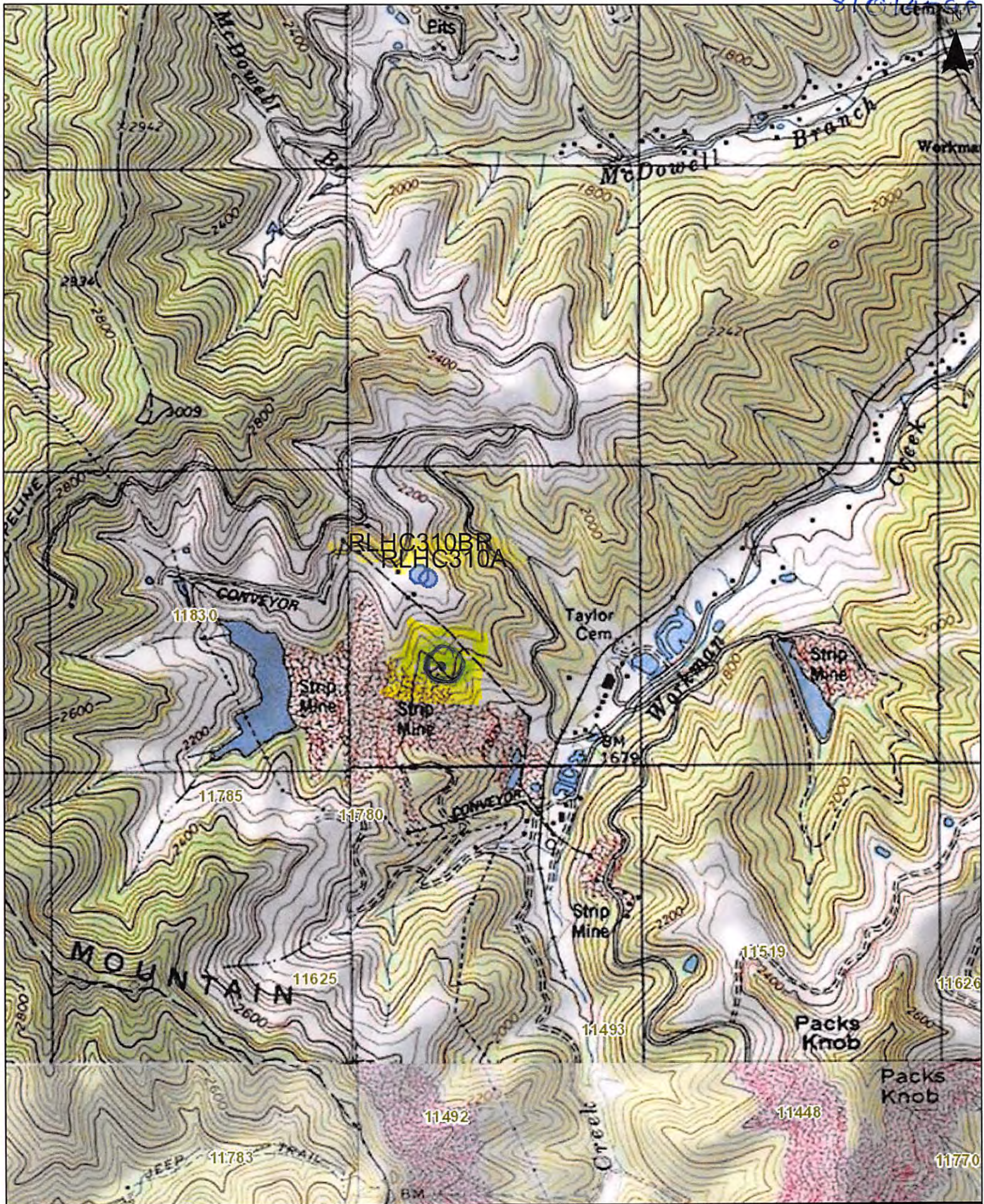
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Greg Kennedy*

Comments: _____

Title: *Inspector* Date: *11/2/16*

Field Reviewed? () Yes () No



Legend

- CNX Upper Devonian Well Pad Centers - Proposed Labels
- CNX Upper Devonian Well Laterals - Drilled Labels
- CNX Upper Devonian Well Laterals - Proposed Labels

Handwritten signature

0 425 850 1700 2550 Feet

Date: 10/21/2016 Prepared By: Web AppBuilder for ArcGIS

This product was generated by CONSOL Energy's WEB Map. Intended for Internal Use Only.



AmGIS Web Map
02/03/2017

RLHC-310A
47-081-01459

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-081-01459 WELL NO.: RLHC-310A

FARM NAME: Clear Fork Coal Company

RESPONSIBLE PARTY NAME: CNX Gas Company LLC

COUNTY: Raleigh DISTRICT: Clear Fork

QUADRANGLE: Pax

SURFACE OWNER: Clear Fork Coal Company

ROYALTY OWNER: Rowland Land Company

UTM GPS NORTHING: 4193327.04

UTM GPS EASTING: 467323.95 GPS ELEVATION: 2246 ft.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential
Real-Time Differential

Mapping Grade GPS : Post Processed Differential
Real-Time Differential

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

[Signature]
Signature

Foreman Production
Title

11/3/16
Date



PENN VIRGINIA OIL & GAS

RLHC-310A

SCALE: 1" = 2000'

WELL LOCATION GEOMETRY

Line	Well Number		Bearing	Distance
	From	To		
L1	1159	RLHC-310A	N25°51'21"E	2750.37'
L2	RLHC-310A	RLHC-310B	N49°03'54"W	352.50'
L3	RLHC-310B	Black Gum	N79°00'34"E	4591.81'
L4	Black Gum	1159	S56°38'41"W	6513.70'

PROPOSED WELL COORDINATES

N:323873.39
E:1892772.66
WV SOUTH ZONE
NAD 27

PROPOSED DATE OF DRILLING COMPLETION 12/2007

PROPOSED DATE OF STIMULATION (IF ANY) NONE

ROWLAND LAND COMPANY

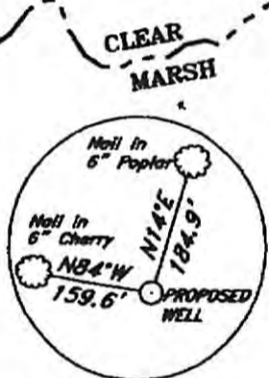
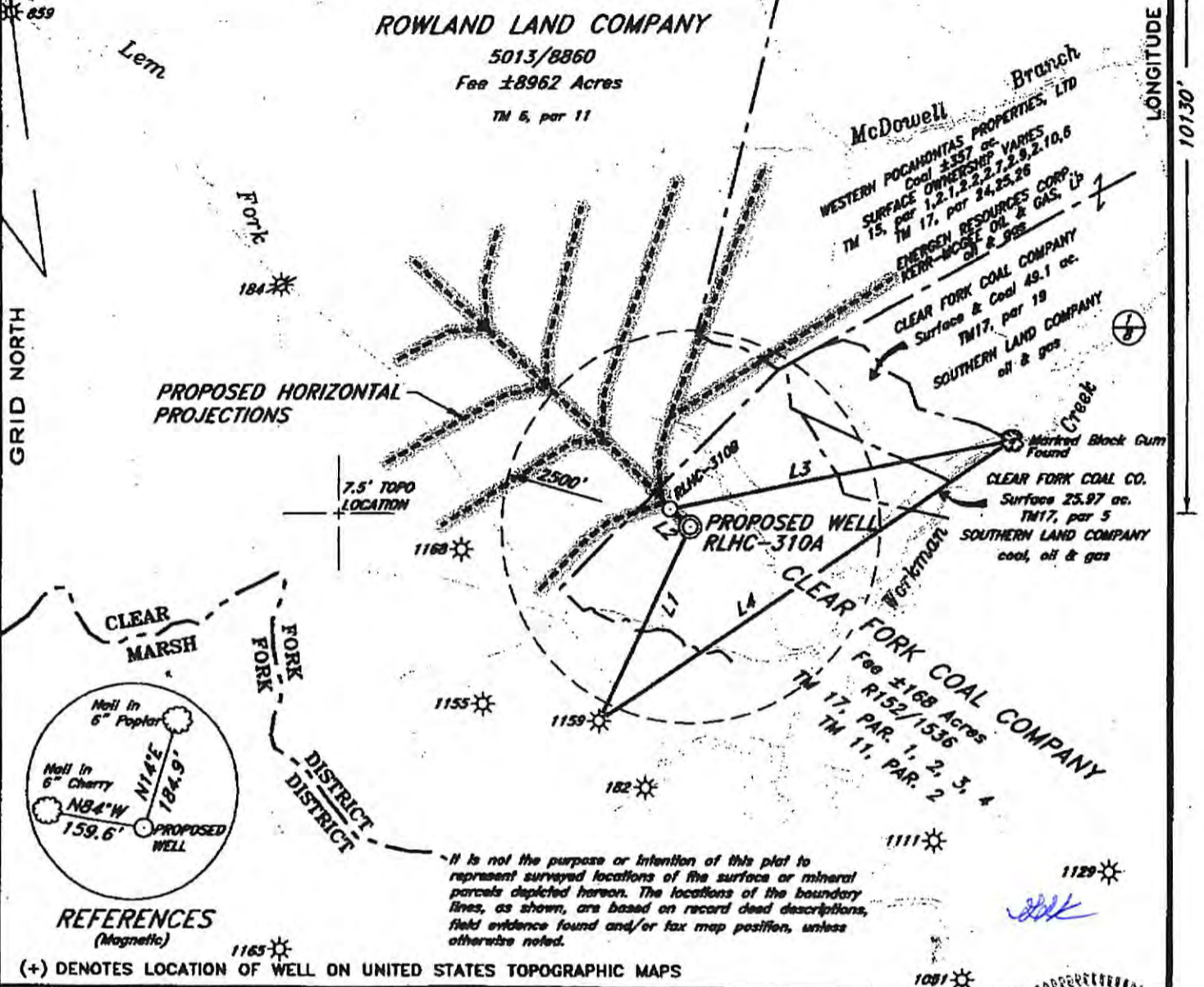
5013/8860
Fee ±8962 Acres
TM 5, par 11

McDowell Branch
WESTERN POCAHONTAS PROPERTIES, LTD
Coal ±357 ac
SURFACE OWNERSHIP VARIES
TM 15, par 1, 2, 1, 2, 2, 2, 7, 2, 9, 2, 10, 6
TM 17, par 24, 25, 26
ENERGEN RESOURCES CORP.
KERR-MCCOY OIL & GAS, LP
Oil & Gas

CLEAR FORK COAL COMPANY
Surface & Coal 49.1 ac.
TM17, par 19
SOUTHERN LAND COMPANY
oil & gas

Clear Fork Creek
Marked Black Gum Found
CLEAR FORK COAL CO.
Surface 25.97 ac.
TM17, par 5
SOUTHERN LAND COMPANY
coal, oil & gas

CLEAR FORK COAL COMPANY
Fee ±168 Acres
RT152/1536
TM 17, PAR. 1, 2, 3, 4
TM 11, PAR. 2



REFERENCES (Magnetic)

It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The locations of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1"=2000'
MINIMUM DEGREE OF ACCURACY 1:2500
PROVEN SOURCE OF ELEVATION GPS - NAD 27
WV SOUTH ZONE

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) Dwight D. Bowman
R.P.E. L.L.S. 736



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

DATE SEPTEMBER 28, 2007
OPERATOR'S WELL NO. RLHC-310A
API WELL NO. 47-081-01459-C

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
STATE COUNTY PERMIT

LOCATION: ELEVATION 2246' WATERSHED WORKMAN CREEK OF CLEAR FORK
DISTRICT CLEAR FORK COUNTY RALEIGH
QUADRANGLE PAX, WV

SURFACE OWNER CLEAR FORK COAL COMPANY ACREAGE ±168 AC
OIL & GAS ROYALTY OWNER CLEAR FORK COAL COMPANY LEASE ACREAGE ±168 AC
LEASE NO. _____

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

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION Lower Beekley ESTIMATED DEPTH 1325

WELL OPERATOR PENN VIRGINIA OIL & GAS CORPORATION DESIGNATED AGENT BRYANT BOWMAN
ADDRESS 2550 EAST STONE DRIVE SUITE 110 ADDRESS PO BOX 6
KINGSPORT, TN 37660 ALUM CREEK, WV 25003

02/03/2017

FORM WV-6

LONGITUDE 81°20'10"

10130'

COUNTY NAME PERMIT