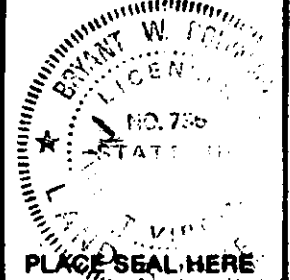


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=2000'
 MINIMUM DEGREE OF ACCURACY 1:2500
 PROVEN SOURCE OF ELEVATION IRON BAR SOUTH OF LOCATION ELE 1726.46

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 ENERGY.
 (SIGNED) [Signature]
 R.P.E. _____ L.L.S. 736



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE 01-08, 1996
 OPERATOR'S WELL NO. LC-144
 API WELL NO. 47-005-01642
 STATE LC COUNTY BOONE PERMIT

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

LOCATION: ELEVATION 2064' WATERSHED POND FORK
 DISTRICT CROOK COUNTY BOONE
 QUADRANGLE PILOT KNOB 7.5'

SURFACE OWNER POCAHONTAS LAND CORPORATION ACREAGE 29500+
 OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORPORATION LEASE ACREAGE 29500+
 LEASE NO. _____

PROPOSED WORK: DRILL X 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: GORDON ESTIMATED DEPTH 4500 6-6 247 JAN 31 1997

WELL OPERATOR WEST VIRGINIA OIL & GAS CORP. DESIGNATED AGENT DANA BLACKSHIRE
 ADDRESS 800 EXECUTIVE PARK BLVD. SUITE 300 ADDRESS PO BOX 460

FORM WW-6

04885

ALLS INC.

COUNTY NAME PERMIT

RECEIVED
WV Division of
Environmental Protection

State of West Virginia
NOV 2 1997 Division of Environmental Protection
Section of Oil and Gas

Permitting
Office of Oil & Gas Well Operator's Report of Well Work

Farm name: POCAHONTAS LAND CORP. Operator Well No.: LC-144

LOCATION: Elevation: 2,064.00 Quadrangle: PILOT KNOB

District: CROOK County: BOONE
Latitude: 7600 Feet South of 37 Deg. 50Min. 0 Sec.
Longitude 10070 Feet West of 81 Deg. 30 Min. 0 Sec.

Company: PENN VIRGINIA OIL AND GAS
999 EXEC. PARK BLVD., STE. 300
KINGSPORT, TN 37660-0000

Agent: DANA BLACKSHIRE

Inspector: RICHARD CAMPBELL
Permit Issued: 01/30/97
Well work Commenced: 04/09/97
Well work Completed: 05/29/97
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 2392'
Fresh water depths (ft) Damp at
43'
Salt water depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13 3/8"	37'	37'	0
7"	1995'	1995'	606 cu ft

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 108-110, 224-230,
453-460, 638-640, 1342-1344

OPEN FLOW DATA

Producing formation Ravencliff Pay zone depth (ft) _____
Gas: Initial open flow 2773 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 2773 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 31 Hours
Static rock Pressure 475 psig (surface pressure) after 121 days

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 CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENN VIRGINIA OIL AND GAS CORPORATION

By: William M. Ryan
Date: 11/20/97

DEC 1 1997

DETAILS OF PERFORATIONS, FRACTURING, OR PHYSICAL CHANGE, ETC.

Natural Completion

<u>FORMATIONS</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>REMARKS</u>
Sand, Shale, & Coal	0	1344	
Shale	1344	1400	
Sand	1400	1464	
Shale	1464	1508	
Sand	1508	1590	
Shale	1590	1614	
Sand & Shale	1614	1910	
Shale	1910	1992	
Sand	1992	2082	
Shale	2082	2117	
Sand & Shale	2117	2153	
Ravencliff	2153	2230	Gas check @ 2154' - 2180' - 2773 MCF
Avis Limestone	2230	2266	
Sand & Shale	2266	2392	

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: 1013 **COLUMBIA NATURAL RESOURCES, INC.** 10460 (3) 497
 - 2) Operator's Well Number: **822954** 3) Elevation: **962.40'**
 - 4) Well type: (a) Oil / or Gas X/
(b) If Gas: Production X/ Underground Storage /
Deep / Shallow X/
- Proposed Target Formation(s): **DEVONIAN SHALE**
 Proposed Total Depth: **4605 Feet**
 Approximate fresh water strata depths: **N/A**
 Approximate salt water depths: **700'**
 Approximate coal seam depths: **460'**
- 10) Does land contain coal seams tributary to active mine? Yes / No X/
 - 11) Proposed Well Work: **TO DRILL AND STIMULATE** *New Well*
 - 12)

RECEIVED
Division of Environmental Protection
APR 13 1997
Permitting Office of Oil & Gas

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	SIZE	GRADE	WEIGHT PER FT.	FOR DRILLING	LEFT IN WELL	FILL-UP (CU.FT.)
Conductor	13 3/8	L. S.	48#	AS NEEDED		3805/18-11.3
Fresh Water	9 5/8	L. S.	36#	320	320	CS 130
Coal						3805/18-11.2.2
Intermediate	7	J	20#	1680	1680	CS 328
Production	4 1/2	J	10.5#	4605	4605	260
Tubing	2 3/8	J	4.6#		4600	3805/18-11.1
Liners						

PACKERS: Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond _____ (Type)
 Agent

23474

10069704

REC
WV
Environ
Permitting
Office of Oil & Gas
1997

1) Date: APRIL 15, 1997
2) Operator's well number
822954
3) API Number 47 - 005 - 1646

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

NOTICE OF APPLICATION FOR A WELL WORK PERMIT

- 4) **Surface owner(s) to be served:**
- (a) Name: HORSE CREEK COAL LAND CO.
% M. WILLIAMSON WATTS SECY.
Address: P. O. BOX 98
MADISON, VA 22727
- 5) (a) **Coal Operator:**
Name: HOBET MINING & CONSTRUCTION CO.
Address: P. O. BOX 6100
HUNTINGTON, WV 25770
- (b) **Coal Owner(s) with Declaration**
Name: SAME AS SURFACE
Address:
- (C) Name:
Address:
- 6) **Inspector:**
Name:
Address:
Telephone: (304)
- (C) **Coal Lessee with Declaration:**
Name:
Address:

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

___ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
___ Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2).

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties, by:

- ___ Personal Service (Affidavit attached)
X Certified Mail (Postmarked postal receipt attached)
___ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

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.

Well Operator COLUMBIA NATURAL RESOURCES

By: [Signature]

Its: VICE PRESIDENT

Address: P. O. Box 6070

Charleston, WV 25362-0070

Telephone: (304) 353-5000

Subscribed and sworn before me this 15th day of APRIL, 19 97

[Signature] Notary Public

My Commission expires APRIL 25, 2000