

BOONE COUNTY
CROOK DISTRICT

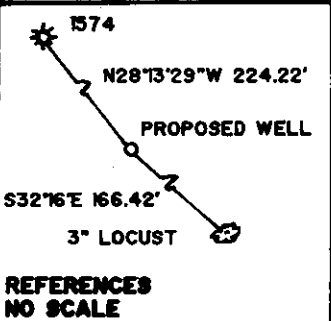
WYOMING COUNTY
OCEANA DISTRICT

COORDINATES
140484.01
-100770.56

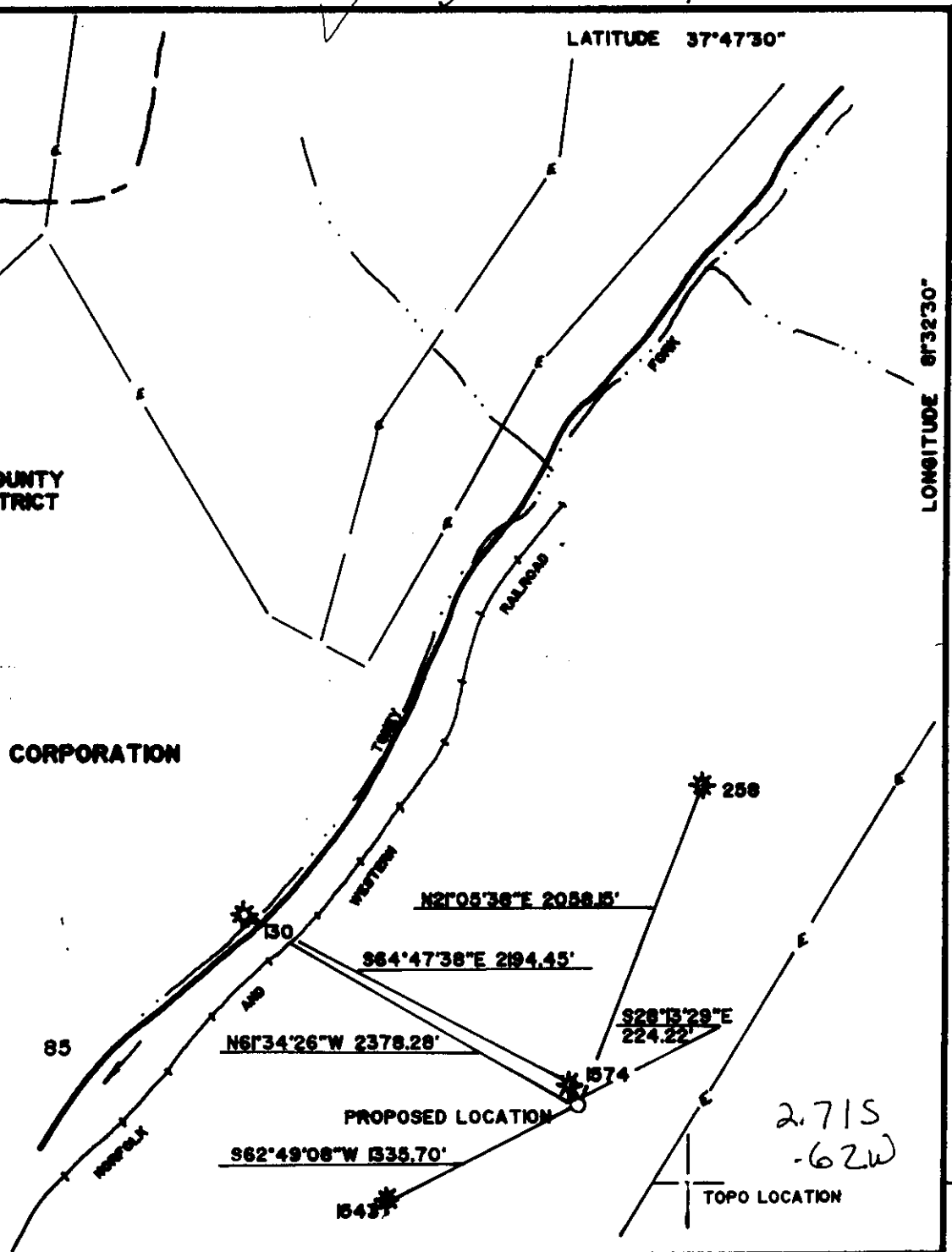
POCAHONTAS LAND CORPORATION

NORTH

14300'

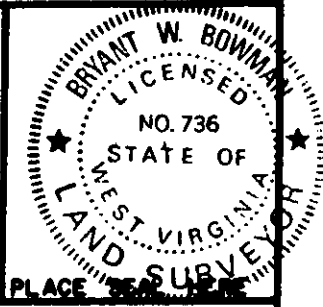


REFERENCES
NO SCALE



FILE NO. _____
 DRAWING NO. _____
 SCALE $\Gamma=1000'$ _____
 MINIMUM DEGREE OF ACCURACY $\frac{1}{2000}$ _____
 PROVEN SOURCE OF ELEVATION COPPER PLUG IN ROCK ELEVATION 2789

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



WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 #10 McJUNKIN ROAD
 NITRO, WEST VIRGINIA 25143-2506



DATE MAY 23, 19 97
 OPERATOR'S WELL NO. 18C-17
 API WELL NO. 47-109-01007-C
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 2400 WATER SHED TONY FORK
 DISTRICT OCEANA COUNTY WYOMING
 QUADRANGLE PLOT KNOR, WY 7.8'

SURFACE OWNER POCAHONTAS LAND CORPORATION ACREAGE 28500±
 OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORPORATION LEASE ACREAGE 28500±
 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 Cool CLEAN OUT AND REPLUG _____ ESTIMATED DEPTH 2150' SEP 12 1997

TARGET FORMATION _____
 WELL OPERATOR PENN VIRGINIA OIL & GAS CORP DESIGNATED AGENT DANA BLACKBURN
 ADDRESS 999 EXECUTIVE PARK BLVD, SUITE 300 ADDRESS PO BOX 480
KINGSPORT, TN 37680 RAVENCLIFF, WV 25933

WR-35

09-8-97
API # 47-109-01667 C

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: POCAHONTAS LAND CORP. Operator Well No.: 16C-117

LOCATION: Elevation: 2,400.00 Quadrangle: PILOT KNOB

District: OCEANA County: WYOMING
Latitude: 14300 Feet South of 37 Deg. 47Min. 30 Sec.
Longitude 3250 Feet West of 81 Deg. 32 Min. 30 Sec.

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

Agent: ~~DANA BLACKSHIRE~~
Harry Jewell
Inspector: OFIE HELMICK
Permit Issued: 09/10/97
Well work Commenced: 10/07/97
Well work Completed: 02/04/98
Verbal Plugging _____
Permission granted on: _____
Rotary Cable _____ Rig _____
Total Depth (feet) 2150'
Fresh water depths (ft) _____
Damp at 1075'
Salt water depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13 3/8"	43'	43'	0
9 5/8"	176'	176'	83
4 1/2"	2082'	2082'	706

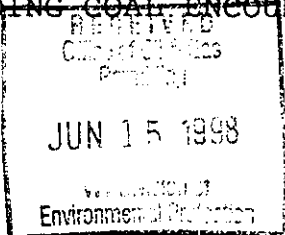
Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

OPEN FLOW DATA

Poca 6, L Fire Creek, Fire Creek,
Producing formation Beckley & U Beckley coals Pay zone depth (ft) _____
Gas: Initial open flow 0 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow show MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure 360 psig (surface pressure) after N/A 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 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: 6/9/98

JUN 22 1998

WYO 1667C

FORM WR-35R
(REVERSE)

PERMIT #: 47-109-01667-C
WELL#: 16C-117

DETAILS OF PERFORATIONS, FRACTURING, OR PHYSICAL CHANGE, ETC

Stage 1 Perforated the Fire Creek coal at 1879' - 1879.5' with 2 holes, the Lower Fire Creek coal at 1904.5' - 1905' with 2 holes and the Poca 6 coal at 1947' - 1947.5' with 2 holes. Breakdown with 500 gallons 15% HCL acid, 500 gallons 7.5% HCL acid and water. Treated with 209 barrels water, 6130 lbs 12/20 sand and 353,000 SCF N₂.

ATR: 20 BPM

ATP: 2850 psi

ISIP: 2310 psi

Stage 2 Perforated the Upper Beckley coal at 1754' and 1755' with 2 holes and the Beckley coal at 1841.5' - 1844.5' with 4 holes. Breakdown with 750 gallons of 7.5 % HCL acid and water. Treated with 298 barrels water, 8,350 lbs 12/20 sand and 420,000 SCF of N₂.

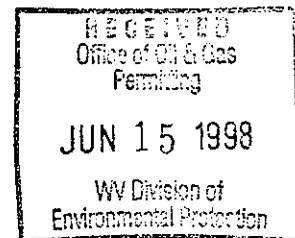
ATR: 20 BPM

ATP: 3220 psi

ISIP: 2300 psi

<u>FORMATIONS</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>REMARKS</u>
Sand & Shale	0	302	
Coal	302	307	
Sand	307	379	
Sand & Shale	379	538	
Coal	538	542	
Sand & Shale	542	658	
Coal	658	662	
Sand & Shale	662	1754	
Upper Beckley Coal	1754	1755	
Sand & Shale	1755	1841	
Beckley Coal	1841	1846	
Sand & Shale	1846	1878	
Fire Creek Coal	1878	1880	
Sand & Shale	1880	1904	
Lower Fire Creek Coal	1904	1905	
Sand & Shale	1905	1946	
Poca 6 Coal	1946	1948	
Sand & Shale	1948	2132	

Gas check - No shows reported



STATE OF WEST VIRGINIA 109-16670
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

- 1) Well Operator: PENN VIRGINIA OIL & GAS CORPORATION 37355 (6) 547
- 2) Operator's Well Number: 160-117 3) Elevation: 2400
- 4) Well type: (a) Oil / or Gas X / *Issued 09/10/1997*
 (b) If Gas: Production X / Underground Storage / *Expired 09/10/1999*
 Deep / Shallow /
- Proposed Target Formation(s): Little Raleigh, U. Beckley, Beckley, Poca 6, 5, & 4
- Proposed Total Depth: 2150 feet
- Approximate fresh water strata depths: 100
- Approximate salt water depths: N/A
- Approximate coal seam depths: 270, 500, 690, 810, 820, to be treated: 1600, 1710, 1800, 1965 2020
- Does land contain coal seams tributary to active mine? Yes X / No /
- Proposed Well Work: Drill & complete CBM Well in coals listed above

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS			CEMENT Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor						<i>380918-11.3</i>
Fresh Water	9 5/8	L.S.	26	150	150	50
Coal						<i>380918-11.2.2</i>
Intermediate						
Production	4 1/2	M-65	9.5	2150	2150	225
Tubing						<i>380918-11.1</i>
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only

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

24208

1010 244 / 27

1) Date: May 24, 1997
2) Operator's well number
16C-117
3) API Well No: 47 - 100 - 1667-C
State County Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served: 5) (a) Coal Operator:
- (a) Name Pocahontas Land Corp Name Eastern Associated Coal Corp
 Address Post Office Box 1517 Address 800 Laidley Tower
Bluefield, WV 24701 Charleston, WV 25324
- (b) Name _____ (b) Coal Owner(s) with Declaration
 Address _____ Name Pocahontas Land Corporation
 Address Post Office Box 1517
Bluefield, WV 24701
- (c) Name _____ Name _____
 Address _____ Address _____
- 6) Inspector Mr. Ofie Helmick (c) Coal Lessee with Declaration
 Address Post Office Box 398 Name _____
Brenton, WV 24818-0398 Address _____
 Telephone (304)-543-0764

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)
 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, 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 PENN VIRGINIA OIL & GAS CORPORATION
 By: *C.M. Randolph*
 Its: Vice President
 Address 999 Executive Park Blvd., Suite 300
Kingsport, TN 37660
 Telephone 1-423-392-0500

Subscribed and sworn before me this 21st day of August, 1997

Kita Nelson

Notary Public

My commission expires 2-13-99