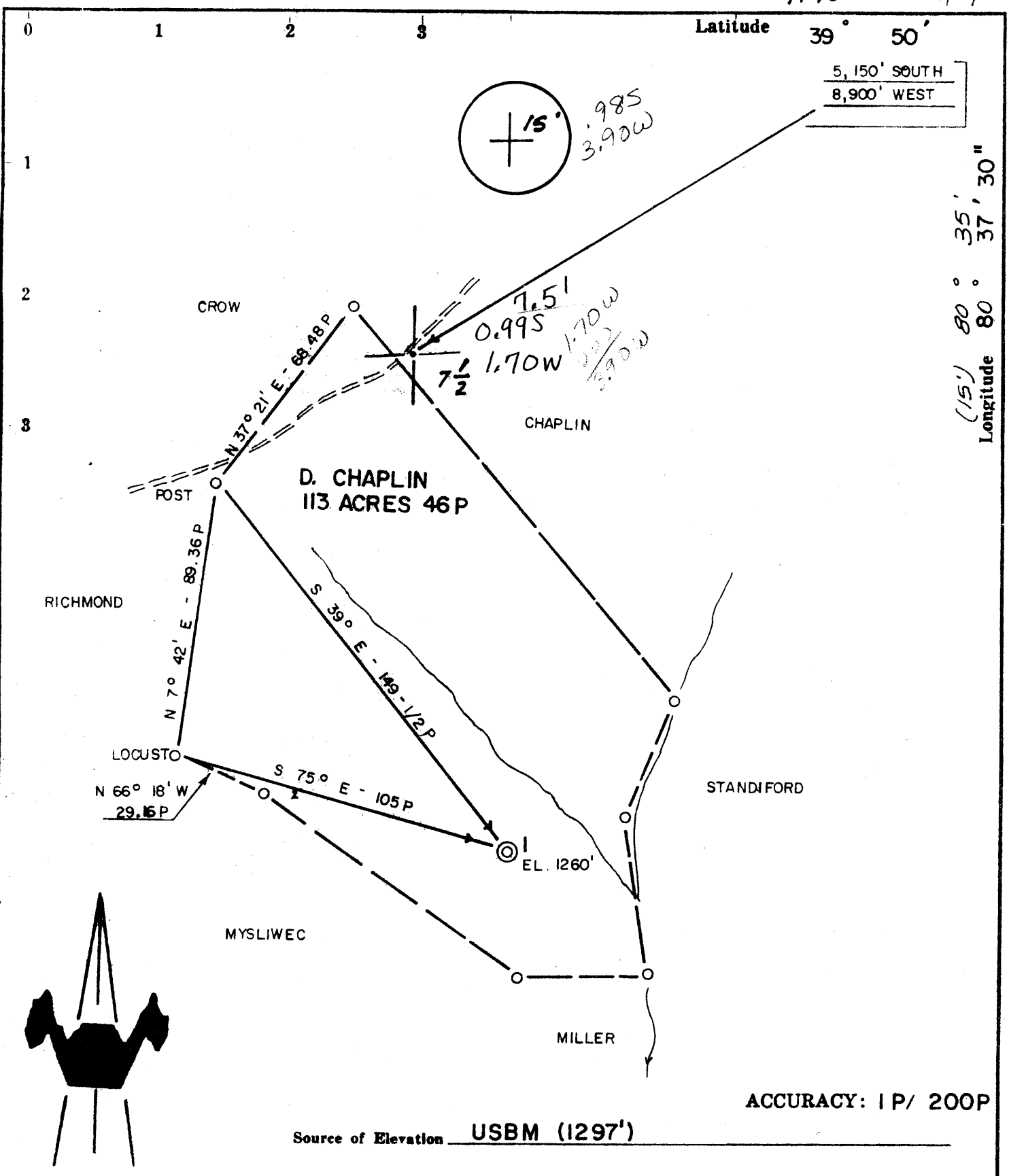


1140

3/31/78



ACCURACY: 1 P/ 200 P

Source of Elevation USBM (1297')

- New Location
- Drill Deeper
- Abandonment 5/23/78
- Fracture
- Redrill

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Chet Waterman

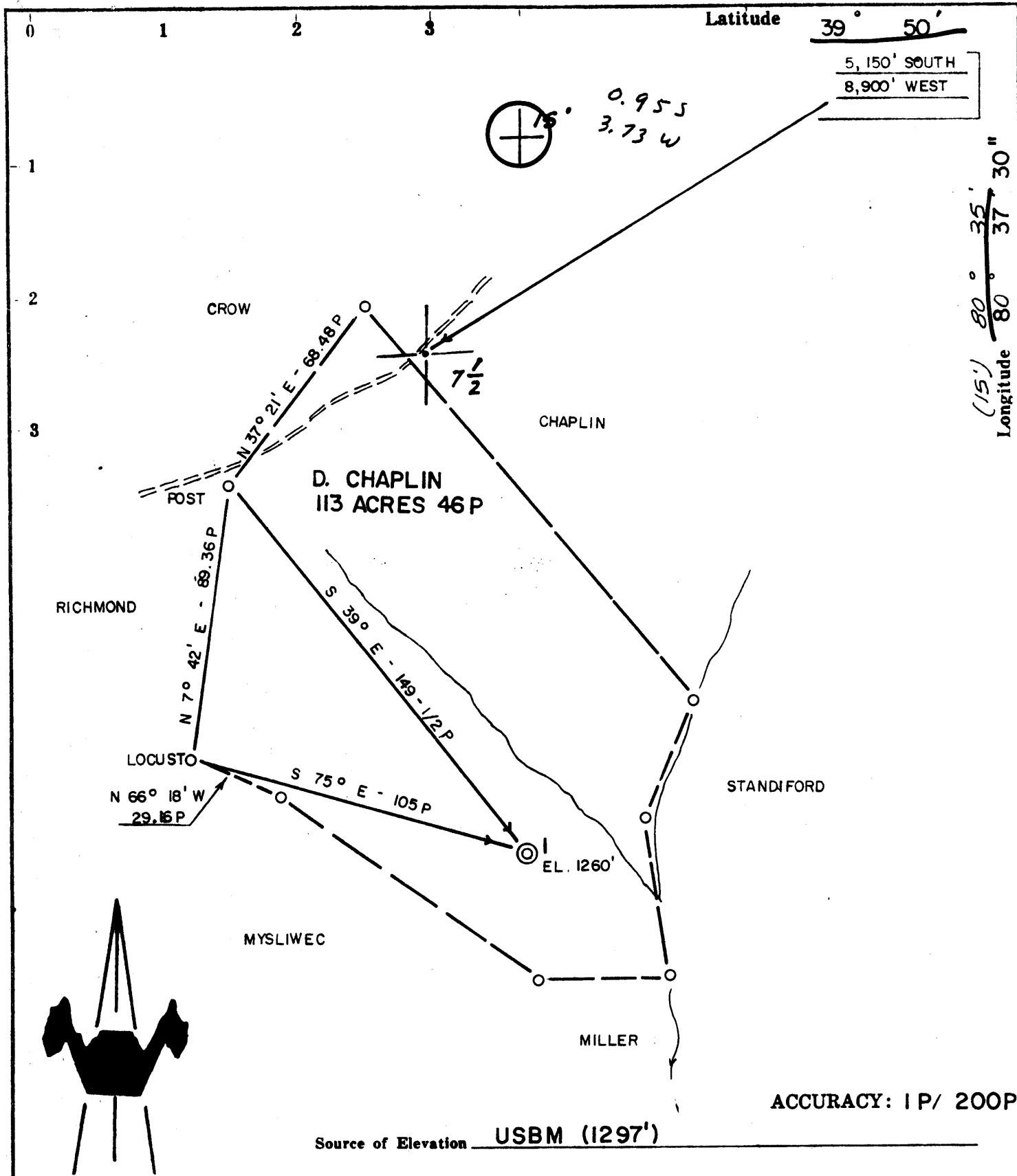
Company APPALACHIAN EXPL. & DEV., INC.
 Address CHARLESTON, WV
 Farm D. CHAPLIN, M. CHAPLIN
 Tract Acres 113AC46P Lease No.
 Well (Farm) No. 1 Serial No. SC
 Elevation (Spirit Level) 1260', CAMERON 15'
 Quadrangle GLEN EASTON (7.5' SERIES)
 County MARSHALL District MEADE
 Engineer CHET WATERMAN
 Engineer's Registration No. 3788
 File No. 78003-65 Drawing No.
 Date 2/16/78 Scale 1" = 40P

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. MARS-568-P

— Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown. JUL 24 1979

— Denotes one inch spaces on border line of original tracing. **47-051**



- New Location
- Drill Deeper
- Abandonment
- Fracture
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 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. MARS-568

Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.

Denotes one inch spaces on border line of original tracing.

47-051 APR 10 1978



RECEIVED
JUN 17 1978

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division DEPT. OF MINES

WELL RECORD 469

Quadrangle Glen Easton (7.5' Series)

Permit No. Mars-568

Rotary X Oil _____
Cable _____ Gas X Show
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company <u>Appalachian Exploration & Dev., Inc.</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 628, Charleston, W.Va. 25322</u>	Size			
Farm <u>D. Chaplin</u> Acres <u>113 ac-46P</u>	20-16			
Location (waters) <u>Upper Bowman Run</u>	Cond.			
Well No. <u>1</u> Elev. <u>1260'</u>	13-10"			
District <u>Meade</u> County <u>Marshall</u>	9 5/8			
The surface of tract is owned in fee by <u>M. Chaplin</u>	8 5/8	1089'	1089'	
Address <u>R.D. #2, Box 230, Moundsville, W.V.</u>	7			
Mineral rights are owned by <u>Same as above</u>	5 1/2			
Address <u>Same as above</u>	4 1/2	3064'	3064'	
Drilling Commenced <u>4-11-78</u>	3			
Drilling Completed <u>4-20-78</u>	2			
Initial open flow _____ cu. ft. _____ bbls.	Liners Used			
Final production <u>P & A</u> cu. ft. per day _____ bbls.				
Well open _____ hrs. before test _____ RP.				

Well treatment details:

Attach copy of cementing record.

Perforated Gordon 2964-2980' (12 holes), Fract with 300 sks. 80/100 sand and 300 sks. 20/40 sand in 825 bbls. Average treating pressure 2600#. Maximum treating pressure 3900#. Final treating pressure 2700#. Average injection rate 12 BPM. ISIP 2300#; 15 min.; 1500#.

Perforated Injun 2324-2338' (10 holes). Fract with 150 sks. 80/100 and 400 sks. 20/40 sand in 714 bbls. Average injection rate 12 BPM. Average treating pressure 3200#. Maximum treating pressure 3600#. Final treating pressure 3100#. ISIP 1700#. 15 min., 1550#. (cont')

Coal was encountered at 680 Feet 24 Inches
Fresh water 680; 830; 950 Feet Salt Water 1680'; 1990 Feet
Producing Sand XXXXXXXXXXXXXXXXXXXX Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand and Shale			0	225		
Shale			225	388		
Sand and Shale			388	574		
Shale			574	680		
Coal'			680	682		
Sand			682	930		
Sand and Shale			930	1141		
Shale			1141	1439		
Sand			1439	1454		
Shale			1454	1500		
Sand and Shale			1500	1712		
Shale			1712	1789		
Salt Sand			1789	1814		
Shale			1814	1872		
Salt Sand			1872	1912		
Shale			1912	2057		
Big Lime			2057	2116	*	
Shale			2116	2166		
Sand			2166	2256		
Sand and Shale			2256	2318		
Big Injun Sand			2318	2346	*	
Shale			2346	2956		
Gordon Sand			2956	2992	* Show of gas	

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet ¹ _{to}	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			2992	T.D.	L.T.D. 3148' D.T.D. 3150'	
<u>Cement Record</u>						
<u>Casing</u>			<u>No. of sks.</u>		<u>Type Cement</u>	
8-5/8"			170 sks.		50/50 Pozmix with 3% CaCl ₂ ; 1/4# celloflake/sk. Tailed in with 150 sks. Class A Neat with 3% CaCl ₂ Cement circulated.	
4-1/2"			50 sks.		RFC Set Model N bridge plug @ 2900'. Perforated @ 2450' Cemented with 135 sks. Set Model N bridge plug at 2250'	
<u>Well treatment details: (cont')</u>						
Perforated Salt Sand 1802-1890' (18 holes). Acidized with 2000 gals. MGA. Average treating pressure 1500#. Final treating pressure 1900#. Maximum of 3000#. Average injection rate 3.5 BPM. ISIP 1100#; 10 min., 900#. 15 min., 700#.						

Date May 25, 1978
 APPALACHIAN EXPLORATION & DEVELOPMENT, INC.
 APPROVED James L. Cramblett Owner
 Regional Manager, Drilling & Production
 (P.L.)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

Surface Owner M. Chaplin
Address R.D. #2, Box 230
Moundsville, W.Va. 26041
Mineral Owner Same as above.
Address Same as above.
Coal Owner Consolidation Coal Company
Address Attn: Mr. Bill Yavalek
Box 537, Moundsville, W.Va. 26041
Coal Operator Same as Coal Owner.
Address Same as shown for Coal Owner.

DATE March 13, 1978
Company Appalachian Exploration & Development, Inc.
Address Box 628, Charleston, W.Va. 25322
Farm D. Chaplin Acres 113ac-46P
Location (waters) Upper Bowman Run
Well No. 1 Elevation 1260'
District Meade County Marshall
Quadrangle Glen Easton (7.5' Series)

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22,
of the W. Va. Code, the location is hereby approved

for drilling. This permit shall expire if TO BE NOTIFIED
operations have not commenced by 7-31-78 Phillip Tracy
Inspector
ADDRESS Middlebourne, W. Va.
PHONE 758-4573

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated July 25 19 73 by Dana A. Chaplin made to McCombs, Conrad & Barrett and recorded on the 8th day of August 1975, in Marshall County, Book 451 Page 189.

NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day X before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours,
Appalachian Exploration & Development, Inc.
(Sign Name) James R. Cramblitt
Well Operator

Address
of
Well Operator

Box 628
Street
Charleston
City or Town
West Virginia 25322
State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

MARS-568

PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

47-051

Signed by James R. Cramblitt

5/11/78

