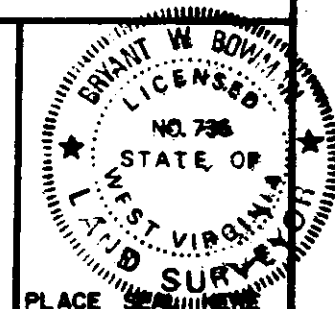


FILE NO. _____
 DRAWING NO. _____
 SCALE 1-2000
 MINIMUM DEGREE OF ACCURACY 1-2000
 PROVEN SOURCE OF ELEVATION 2433 NE. DE LOCATION

CO: 081 PMT: 610
 Loc Digitized from OGIS 7.5' Mylar
 QUAD: 331 DATE: 25-MAY-90
 LAT: 37 50.0 Miles South: 2.58
 LONG: 81 15.0 Miles West: 1.23
 AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) Raymond Bowman
 R. P. E. _____ L. L. S. 736



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



Department of Mines
 Oil & Gas Division

DATE 5/24, 1982
 OPERATOR'S WELL NO. 12AC
 API WELL NO. 47-081-0610
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS", PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW
 LOCATION: ELEVATION 2418 WATER SHED UGLY BRANCH DE MILLERS CAMP BRANCH
 DISTRICT TRAP HILL COUNTY RALEIGH
 QUADRANGLE EGLLES 7 1/2' 4 1/2' SE
 SURFACE OWNER CRAB ORCHARD COAL & LAND CO. ACREAGE 1221
 OIL & GAS ROYALTY OWNER CRAB ORCHARD COAL & LAND CO. LEASE ACREAGE 7883
 LEASE NO. FRB
 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 B36 LIME ESTIMATED DEPTH 3209 301 06 1982
 WELL OPERATOR PEACE OPERATING CO. DESIGNATED AGENT FLOYD WILCOX
 ADDRESS 201 DUNBAR DEEKE PARK DUNBAR, WEST VIRGINIA ADDRESS 201 DUNBAR DEEKE PARK DUNBAR, WEST VIRGINIA
6-6 - D - 4000000 - Slab Fork (249)



DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

10/14 - Perforated Big Lime, 22 holes (2944'-2954'). 10/15 - Acidized Big Lime: 500 gal. 28% HCl, 8,000 gal. gelled 15% HCl; breakdown pressure approx. 200 psi; fluids taken on vacuum. Instant shut in pressure 0 psi.

10/18 - Perforated Maxton (46 holes): 2608'-12' (8 holes); 2619'-23' (8 holes); 2642'-46' (8 holes); 2650'-61' (22 holes). Foam frac'd Maxton: Breakdown pressure 0 psi; average treating pressure 1600 psi; maximum treating pressure 1700 psi. 15,000# 80/100, 45,000# 20/50, 207 bbls fluid, up to 10#/gal. of sand as 75 Q foam at 7 bbls/min. 1000 gal. 15% HCl, 207 bbls. total fluid. Instant shut in pressure 1100 psi; 15 min shut in pressure 900 psi.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand and shale			0	1479	Water: 80', 1 gal./min. 125', 5 gal./min. Some water at 3010'
Sandy Shale			1479	1602	
Princeton			1602	1662	
Shale			1662	1810	Gas checks: 1878' - no show 2455' - no show 2856' - 58/10 W 2" = 321 MCF 2917' - 58/10 W 2" = 321 MCF 2967' - 46/10 W 2" = 286 MCF 2983' - 44/10 W 2" = 280 MCF 3032' - 32/10 W 2" = 239 MCF 3107' - 32/10 W 2" = 239 MCF
Ravenclyff			1810	1845	
Avis			1845	1880	
Sand and shale			1880	2602	
Lower Maxton			2602	2614	
Sand and shale			2614	2710	
Little Lime			2710	2807	
Pencil Cave			2807	2856	
Big Lime			2856	TD	

DTD - 3107
LTD - 3082

Log tops from G.L.

(Attach separate sheets as necessary)

Peake Operating Company
Well Operator
By: Floyd B Wiley
Date: October 28, 1982

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



Date: June 14, 19 82

Operator's Well No. Crab Orchard #12-AC

API Well No. 47 - 081 - 0610

State County Permit

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

WELL TYPE: Oil / Gas X
(If "Gas", Production X / Underground storage / Deep / Shallow X)

LOCATION: Elevation: 2418' Watershed: Ugly Branch of Millers Camp Creek
District: Trap Hill County: Raleigh Quadrangle: Eccles 7 1/2'

WELL OPERATOR Peake Operating Company DESIGNATED AGENT Floyd B. Wilcox
Address 201 Dunbar Office Park Address 201 Dunbar Office Park
Dunbar, WV 25064 Dunbar, WV 25064

OIL & GAS ROYALTY OWNER Crab Orchard Coal & Land Co.
Address P. O. Box 443
Charleston, WV 25322

COAL OPERATOR Westmoreland Coal Company
Address Tams, WV 25933

Acreage 7882

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Crab Orchard Coal & Land Company
Address P. O. Box 443
Charleston, WV 25322

SURFACE OWNER Crab Orchard Coal & Land Co.
Address P. O. Box 443
Charleston, WV 25322
Acreage 1221

Name Attn: Rick Gregg

FIELD SALE (IF MADE) TO: **RECEIVED**
Address N/A

JUN 14 1982 COAL LESSEE WITH DECLARATION ON RECORD:

OIL & GAS INSPECTOR TO BE NOTIFIED
Name D. Craig Duckworth
Address P. O. Box 454
Mt. Lookout, WV 26678

OIL AND GAS DIVISION Westmoreland Coal Company
WV DEPARTMENT OF MINES
Address Tams, WV 25933
Attn: Randy Hansford

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease X
other contract / dated June 19, 19 81, to the undersigned well operator from Crab Orchard
Coal & Land Company
(IF said deed, lease, or other contract has been recorded:)

Recorded on July 27, 19 81, in the office of the Clerk of the County Commission of Raleigh County, West
Va., in Lease Book 46 at page 772. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate /
Plug off old formation / Perforate new formation /
Other physical change in well (specify)

—planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to
make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the
Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to
the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to
the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY
TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION COMMIS-
SION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

BLANKET BOND

Peake Operating Company
By Floyd B. Wilcox ^{Well Operator}
Its Attorney-in-Fact

