

LONGITUDE 81° 17' 30"

12680'

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 3410
 PROVEN SOURCE OF ELEVATION USC&GS BM on Bridge over Turnpike Elev 1497.50

CO: 019 PMT: 510
 Loc Digitized from OGIS 7.5' Mylar
 QUAD: 537 DATE: 12-JUN-90
 LAT: 38 00.0 Miles South: 2.40
 LONG: 81 17.5 Miles West : 1.02
 (SIGNED) Stephen N. Parko
 R.P.E. 8982 L.L.S. _____

PLACE SEAL HERE

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

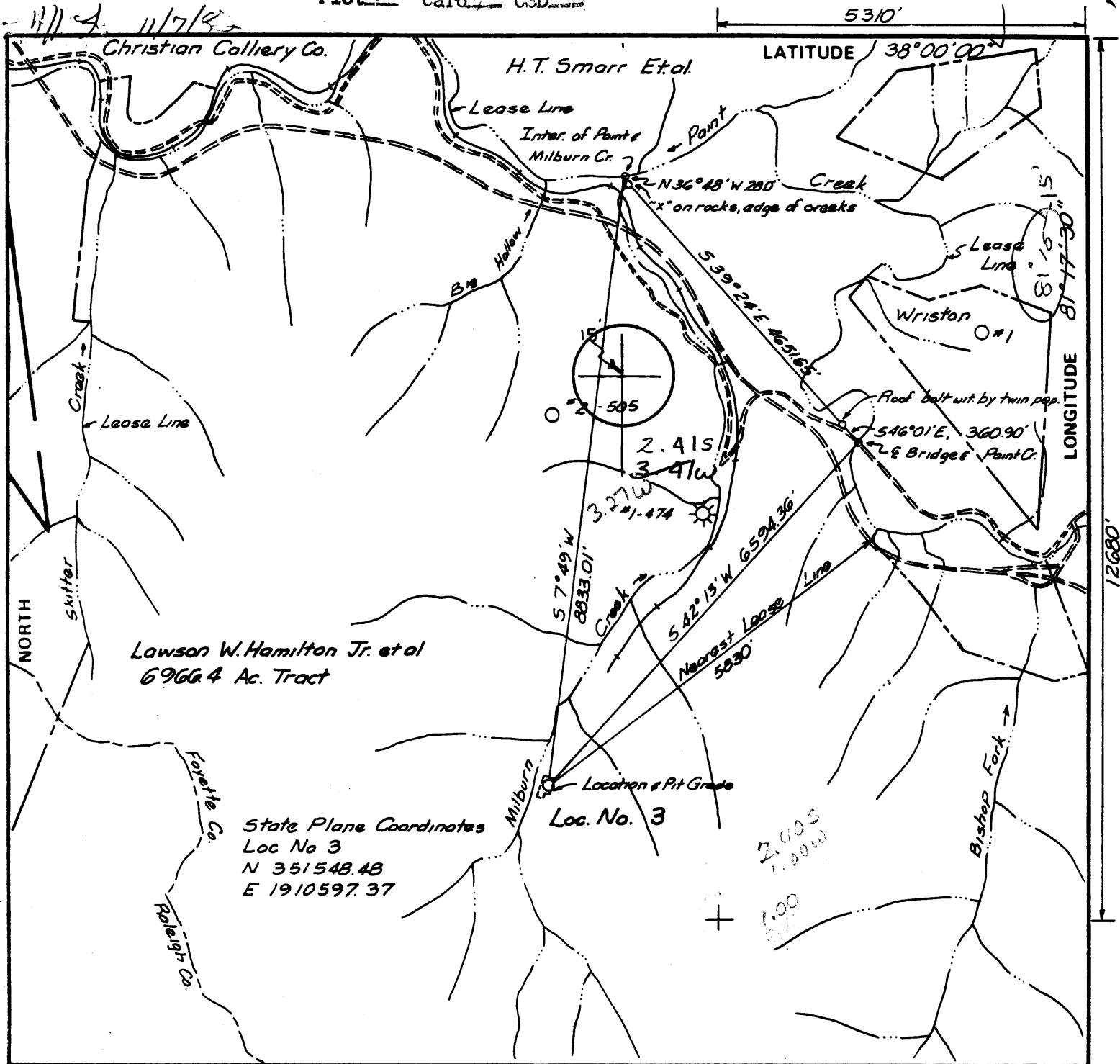


DATE Nov 1, 1982
 OPERATOR'S WELL NO. 3- Ser #096211
 API WELL NO. 47-019-0510-E
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 1625.8 WATER SHED Milburn Creek of Point Creek of Kanawha River
 DISTRICT Valley COUNTY Fayette
 QUADRANGLE Pax ECCLES NE1
 SURFACE OWNER Lawson W. Hamilton Jr. et al ACREAGE 6615.4
 OIL & GAS ROYALTY OWNER Lawson W. Hamilton Jr. et al LEASE ACREAGE 6966.4
 LEASE NO. 62824
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Onondaga Lime ESTIMATED DEPTH 6406
 WELL OPERATOR Ashland Exploration Inc DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391 Ashland Ky 41114 ADDRESS P.O. Box 156 Brenton WV 24816

FAY 0510



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 3410
 PROVEN SOURCE OF ELEVATION USC&GS BM on Bridge over Turnpike Elev 1497.50

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) Stephen N. Parko
 R.P.E. 8982 L.L.S. _____

PLACE SEAL HERE

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



DATE Nov 1, 1982
 OPERATOR'S WELL NO. 3 - Ser #096211
 API WELL NO. _____
47 - 019 - 0510
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 1625.8 WATER SHED Milburn Creek of Point Creek of Kanawha River
 DISTRICT Valley COUNTY Fayette
 QUADRANGLE Pqx 7 1/2 of NE Eccles 15'
 SURFACE OWNER Lawson W. Hamilton Jr. et al ACREAGE 6615.4
 OIL & GAS ROYALTY OWNER Lawson W. Hamilton Jr. et al LEASE ACREAGE 6966.4
 LEASE NO. 62824
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Onondaga Lime ESTIMATED DEPTH 6406
 WELL OPERATOR Ashland Exploration Inc DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391 Ashland Ky 41114 ADDRESS P.O. Box 156 Brenton WV 24818

NOV 22 1982



Date 5/5/83
Operator's _____
Well No. 3
Farm Lawson Hamilton
API No. 47 - 019 - 0510

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas XX / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production XX / Underground Storage ___ / Deep XX / Shallow ___ /)

LOCATION: Elevation: 1625.8' Watershed Milburn Creek of Paint Cr. of Kanawha River
District: Valley County Fayette Quadrangle Pax

COMPANY Ashland Exploration, Inc.
ADDRESS P. O. Box 391, Ashland, Ky. 41114
DESIGNATED AGENT Forrest Burkett
ADDRESS P. O. Box 156, Brenton, WV 24818
SURFACE OWNER Lawson W. Hamilton, Jr. etal
ADDRESS P. O. Box 175, Hansford, WV 24103
MINERAL RIGHTS OWNER Lawson W. Hamilton, Jr. etal
ADDRESS P. O. Box 175, Hansford, WV 24103
OIL AND GAS INSPECTOR FOR THIS WORK Craig Duckworth
ADDRESS P. O. Box 454, Mt. Lookout WV
PERMIT ISSUED 11-3-82
DRILLING COMMENCED 1-3-83
DRILLING COMPLETED 1-15-83

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	66'	66'	100 sks
9 5/8			
8 5/8	1631'	1631'	350 sks
7			
5 1/2			
4 1/2	6338'	6338'	280 sks
3			
2		5900'	
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

GEOLOGICAL TARGET FORMATION Onondaga Lime Depth _____ feet
Depth of completed well 6370 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 30 feet; Salt 615 feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 5610-6082 feet
Gas: Initial open flow 156 Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 78 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 hours
Static rock pressure 1365 psig (surface measurement) after 83 ^{days} ~~hours~~ shut in
(If applicable due to multiple completion:--)
Second producing formation: _____ Pay zone depth _____ feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

(Continue on reverse side)

FILE # 510

(REVERSE)

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

Perf Devonian Shale 40H/5610-6082. Pumped 18 bbl 28% HCl, displace w/KCl wtr. Pumped @ 15 BPM @ 2100#, ISIP 1450#, TL&AW 204 bbl. Frac w/75 Quality foam w/10,000# 80/100 & 30,000# 20/40 sand. BD @ 3600#, ATP 3600#, MTP 4300# @ 6 BPM (wtr) ISIP 4200#, TSLF 210 bbl, TL&FW 319 bbl. w/1265 MCF N₂.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fr and salt water, coal, oil and c
Shale			0	140	Fresh water @ 30'
Sand & Shale			140	230	
Sand			230	350	
Shale & Sand			350	515	Salt water @ 515'
Salt Sand			515	1102	
Shale			1102	1423	
Ravencliff			1423	1560	
Shale			1560	1650	
Middle Maxton			1650	1685	
Shale			1685	1903	
Lower Maxton			1903	1977	
Shale			1977	1989	
Little Lime			1989	2056	
Pencil Cave			2056	2092	
Big Lime			2092	2388	
Shale & Sand			2388	2530	
Upper Weir			2530	2550	
Shale			2550	2602	
Lower Weir			2602	2670	
Shale			2670	2916	
Coffee Shale			2916	2941	
Berea			2941	2973	
Devonian Shale			2973	3148	
Gordon			3148	3164	
Devonian Shale			3164	6335	
Onondaga Lime			6335	TD	

DTD 6400
LTD 6370

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.

Well Operator

By: Steve J. King

Date: 5/5/83

Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations including

RECEIVED

SEP 24 1984



- 1) Date: September 20, 19 84
- 2) Operator's Lawson Hamilton No. 3
Well No. Serial No. 096211
- 3) API Well No. 47 - 019 - 0510 - FRAC
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
OIL & GAS DIVISION
DEPT. OF MINES APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas /
B (If "Gas", Production / Underground storage / Deep / Shallow)
- 5) LOCATION: Elevation: 1625.8 Watershed: Milburn Cr. of Paint Cr. of Kanawha River
District: Valley County: Fayette Quadrangle: Pax
- 6) WELL OPERATOR Ashland Exploration, Inc. 7) DESIGNATED AGENT Forrest Burkett
Address P. O. Box 391 Address Box 156
Ashland, KY 41114 Brenton, WV 24818
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
Name Rodney G. Dillon Name Tri-State Well Service
Address P.O. Box 30, Scarbro, WV 25917 Address Box 299, 1 Berea Plaza
304/469-2015 Bridgeport, WV 26330
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
Plug off old formation / Perforate new formation /
Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Maxton
- 12) ~~Estimated~~ depth of completed well, 6370 feet
- 13) Approximate trata depths: Fresh, 30 feet; salt, 615 feet.
- 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes / No /

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well			
Conductor	13 3/8	H-40	48	X		76	76	100 sks.	Kinds	
Fresh water									Sizes	
Coal										
Intermediate	8 5/8	K-55	24	X		1642	1642	350 sks.		
Production	4 1/2	J-55	10.5	X		6348	6348	560 sks.	Depths set	
Tubing	2 3/8	J-55	4.7	X		5900	5900			
Liners									Perforations:	
									Top	Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-019-0510-FRAC Date October 25, 1984

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires October 25, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>10</u>	<u>MW</u>	<u>TS</u>	<u>TS</u>	<u>500</u> <u>192</u>

Margaret J. Hass
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.



1) Date: November 1, 1982
 2) Operator's Well No. 3, Serial No. 096211
 3) API Well No. 47 State 019 County 0510 Permit

DRILLING CONTRACTOR:
Ray Resources Drilling Co.
2101 Washington St., East
Charleston, WV 25311

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production _____ / Underground storage _____ / Deep X / Shallow _____ /)
- 5) LOCATION: Elevation: 1625.5 Watershed: Millhorn Cr. of Paint Cr. of Kanawha River
 District: Valley County: Yayette Quadrangle: Pax
- 6) WELL OPERATOR Ashland Exploration, Inc. 11) DESIGNATED AGENT Forrest Burgett
 Address P. O. Box 391 Address P. O. Box 156
Ashland, KY 41114 Brenton, WV 24815
- 7) OIL & GAS ROYALTY OWNER Lawson W. Hamilton, Jr. etal 12) COAL OPERATOR None
 Address P.O. Box 175 Address _____
Hansford, WV 24103
 Acreage 5955.4
- 8) SURFACE OWNER Lawson W. Hamilton, Jr. etal 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address P.O. Box 175 Name Hansford Coal Company
Hansford, WV 24103 Address P.O. Box 175
 Acreage 6615.4 Hansford, WV 24103
- 9) FIELD SALE (IF MADE) TO:
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name D. Craig Buckworth Address _____
P.O. Box 454
Mt. Lookout, WV 26070
- 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Name _____ Address _____
- 15) PROPOSED WORK: Drill _____ / Drill deeper _____ / Redrill _____ / Fracture or stimulate X /
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Montana Limestone
 17) Estimated depth of completed well, _____ feet
 18) Approximate water strata depths: Fresh, _____ feet; salt, top of salt sand feet.
 19) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No X /

RECEIVED
 NOV 03 1982
 OIL & GAS DIVISION
 DEPT. OF MINES

20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	13 5/8	H-40	48	X		30	30	15 SKS	Kinds
Fresh water									
Coal									Sizes
Intermediate	8 5/8	X-55	24	X		1760	1760	Circulate	
Production	4 1/2	X-55	10.5	X		6406	6406	As Required	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

- 21) EXTRACTION RIGHTS
 Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
- If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) 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.
- Notary: W. H. Hamilton Signed: John R. Burgett
 My Commission Expires April 21, 1986 Its: Regional Civil Engineer

OFFICE USE ONLY
 47-019-0510 **DRILLING PERMIT** November 18 1982

Permit number _____ Date _____
 This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector.** (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24-hours before actual permitted work has commenced.)
 Permit expires _____ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
-------	--------	-------	--------	-----

Administrator, Office of Oil and Gas