

1-5-84

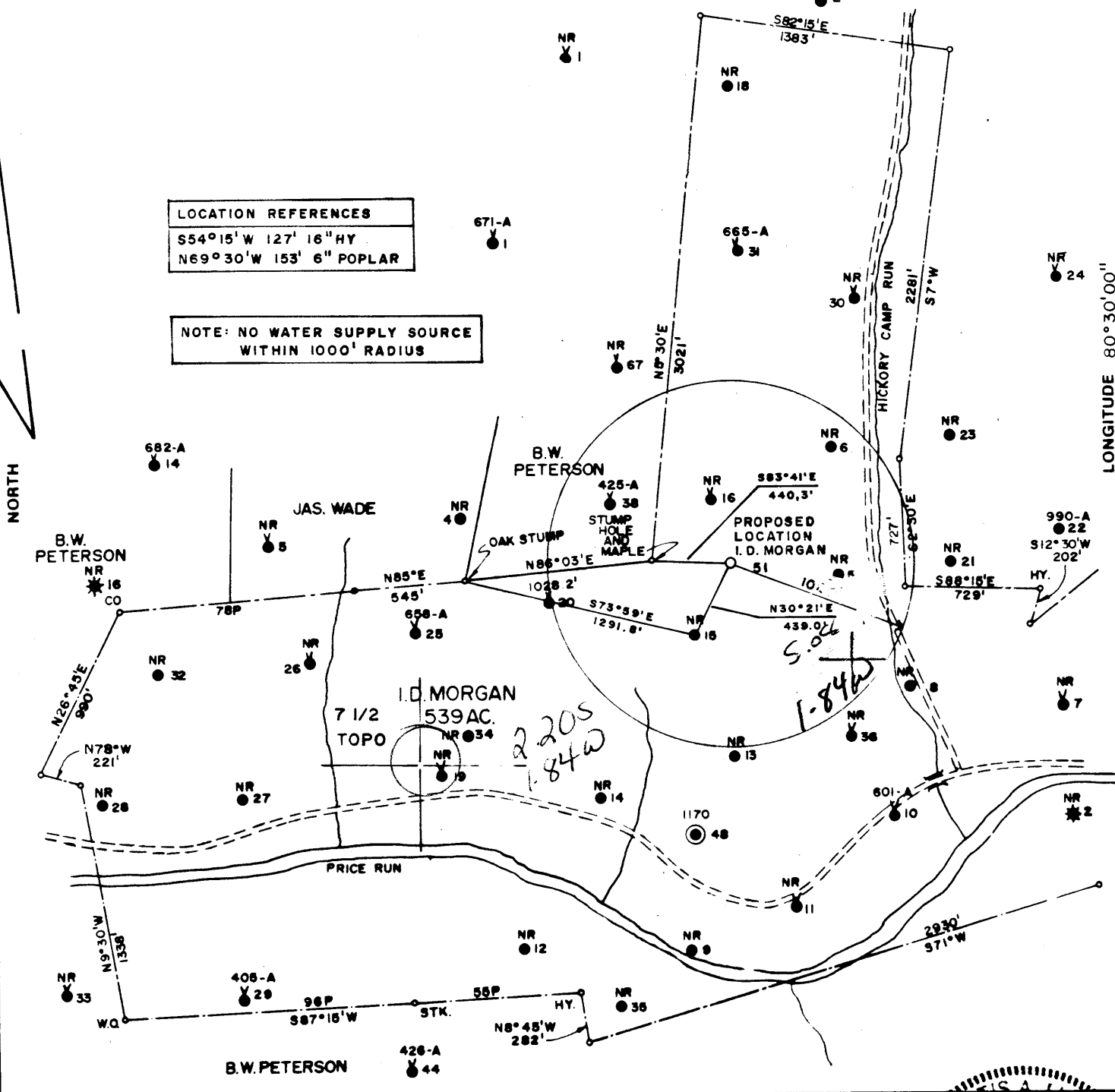
9,720' 39 35'

CODE _____ CARD _____ PLOT _____ NR 3

LATITUDE 39°32'30"

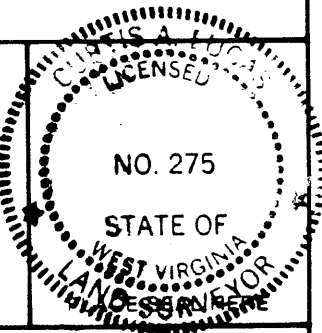
LOCATION REFERENCES
 S54°15'W 127' 16" HY
 N69°30'W 153' 6" POPLAR

**NOTE: NO WATER SUPPLY SOURCE
 WITHIN 1000' RADIUS**



FILE NO. 487
 MAP N59 SQS N485, E5
 SCALE 1" = 800'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION USGS B.M. AT PRICETOWN ELEV. 895'

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) Curtis A. Lucas
 CURTIS A. LUCAS LLS 275



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



DATE OCTOBER 10 1984
 FARM I.D. MORGAN NO 51
 API WELL NO.

47 - 103 - 1320-L1

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL X
 (IF "GAS.") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___

LOCATION: ELEVATION 1234' WATER SHED PRICE RUN
 DISTRICT GRANT COUNTY WETZEL
 QUADRANGLE BIG RUN 7 1/2' 254 Littleton 15' S66

SURFACE OWNER BROWN & WITTKAMPER ACREAGE 301.44 AC.
 OIL & GAS ROYALTY OWNER JOSEPH D. MORGAN AGT. LEASE ACREAGE 539 AC.
 LEASE NO. 12117-50

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 3214'
 WELL OPERATOR PENNZOIL COMPANY 673 DESIGNATED AGENT JAMES A. CREWS
 ADDRESS P.O. BOX 1588 ADDRESS P.O. BOX 1588
PARKERSBURG, W.V. 26101 PARKERSBURG, W.V. 26101

NOV 13 1984

FORM IV-0 (8-78) H I HALL

- 1) Date: October 10, 19 84
 2) Operator's Well No. I. D. Morgan No. 51
 3) SIC Code _____
 4) API Well NO. 47 - 103 - 1320-LI
State County Permit
 5) UIC Permit No. UICAR10301AP

STATE OF WEST VIRGINIA

NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION

for the

OFFICE OF OIL AND GAS, DEPARTMENT OF MINES, AND FOR
(CLASS II WELLS ONLY)

THE DIVISION OF WATER RESOURCES, DEPARTMENT OF NATURAL RESOURCES

- 6) WELL TYPE: Liquid injection / Gas injection (not storage) _____ / Waste disposal _____
- 7) LOCATION: Elevation: 1234 Watershed: Price Run
 District: Grant County: Wetzel Quadrangle: Big Run 7.5'
- 8) WELL OPERATOR Pennzoil Company 9) DESIGNATED AGENT James A. Crews
 Address P. O. Box 1588 Address P. O. Box 1588
Parkersburg, W. Va. 26101 Parkersburg, W. Va.
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED 11) DRILLING CONTRACTOR:
 Name Robert Lowther Name _____
 Address General Delivery Address _____
Middlebourne, W. Va. 26149
- 12) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate _____
 Plug off old formation _____ / Perforate new formation _____ / Convert _____
 Other physical change in well (specify) _____
- 13) GEOLOGICAL TARGET FORMATION, Big Inj Depth 2409 feet (top) to 2427 feet (bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 3214 ft Gordon 3134 3154
- 15) Approximate water strata depths; Fresh, _____ feet; salt, _____ feet.
- 16) Approximate coal seam depths: Pittsburgh Coal @ approx. 1024-1031
- 17) Is coal being mined in the area? Yes _____ / No /
- 18) Virgin reservoir pressure in target formation 80 psig. Source Estimated
- 19) Estimated reservoir fracture pressure BI-3120 G-3435 psig (BHFP)
- 20) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour: BI-10BBI G-10BBI bottom hole pressure BI-2120psi; G-2435ps
- 21) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES: Fresh water from shallow water supply well treated with bactericides and other chemicals to maintain water quality, also, produced water from waterflood operations will be
- 22) FILTERS (IF ANY): cartridges / produced water from waterflood operations will be
- 23) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL: _____ / reinjected as becomes necessary

24) 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									Kinds
Fresh water									
Coal									Sizes
Intermediate	<u>8-5/8</u>	<u>H-40</u>	<u>20.0</u>	<input checked="" type="checkbox"/>		<u>1084</u>	<u>1084</u>	<u>Cement to surface</u>	
Production	<u>4-1/2</u>	<u>K-55</u>	<u>9.5</u>	<input checked="" type="checkbox"/>		<u>3214</u>	<u>3214</u>	<u>300 sks.</u>	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

- 25) APPLICANT'S OPERATING RIGHTS were acquired from Jacob Morgan
 by deed _____ / lease / other contract _____ / dated May 3, 19 1893, of record in the
Wetzel County Clerk's office in Lease Book 38 at page 520

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-103-1320-LI

November 7 19 84

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. 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 (if required) construction and reclamation plan, subject to any modifications and conditions specified below.

Permit expires November 7, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
✓	✓	<i>MJ</i>	<i>MJ</i>	18096

Theodore Street
Administrator, Office of Oil and Gas

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

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

OFFICE USE ONLY

This part of Form IV-3(b) is to record the dates of certain occurrences and any follow-up inspections.

	Date	Follow-up inspection(s)
Application received		
Well work started		
Total depth reached		
Well Record received		
Reclamation completed		
OTHER INSPECTIONS		
Reason:		
Reason:		