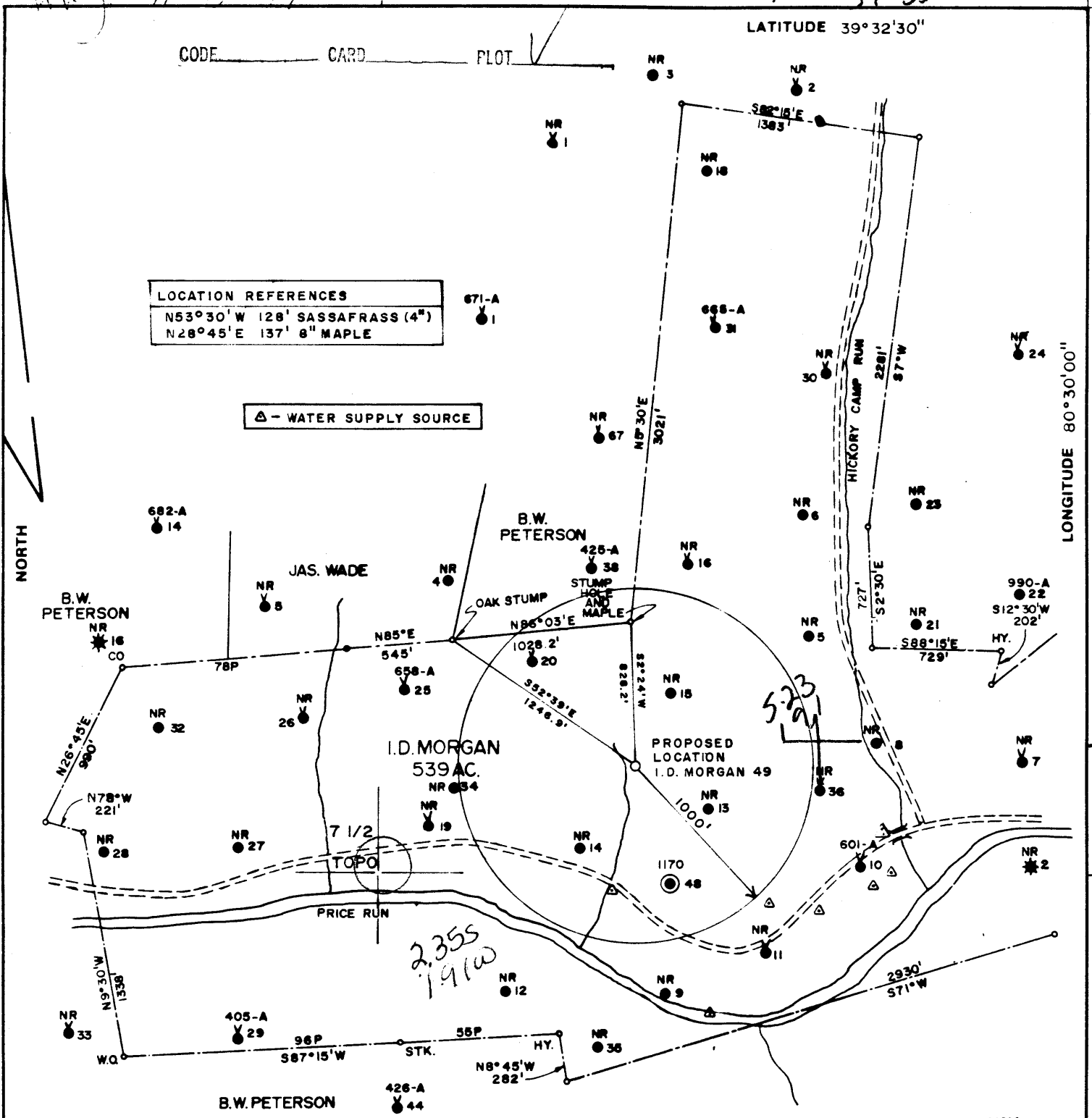


19130' - 39 35" LATITUDE 39°32'30"

CODE \_\_\_\_\_ CARD \_\_\_\_\_ PLOT V

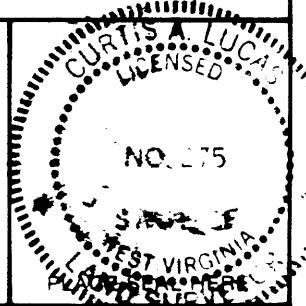
LOCATION REFERENCES	
N53°30'W	128' SASSAFRASS (4")
N28°45'E	137' 8" MAPLE

△ - WATER SUPPLY SOURCE



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. 49  
 API WELL NO

47 - 103 - 1318-41

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION X WASTE DISPOSAL  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE DEEP SHALLOW \_\_\_  
 LOCATION: ELEVATION 1113' WATER SHED PRICE RUN  
 DISTRICT GRANT COUNTY WETZEL  
 QUADRANGLE BIG RUN 7 1/2' 254 Littleton 15' SE9  
 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) \_\_\_\_\_

STATE COUNTY PERMIT  
 ACCORDING TO DEP'S  
 Cancelled 12-22-86

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION GORDON ESTIMATED DEPTH 3,093'  
 WELL OPERATOR PENNZOIL COMPANY 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

- 1) Date: October 10, 19 84  
 2) Operator's Well No. I. D. Morgan No. 49  
 3) SIC Code \_\_\_\_\_  
 4) API Well NO. 47 - 103 - 1318-LI  
State County Permit  
 5) UIC Permit No. UIC2R10301AP

**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: 1113 Watershed: Price Run  
 District: Grant County: Wetzel Quadrange: 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  
 Name Robert Lowther 11) DRILLING CONTRACTOR:  
 Address General Delivery Name \_\_\_\_\_  
Middlebourne, W. Va. 26149 Address \_\_\_\_\_
- 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 Injun Depth 2288 feet(top) to 2306 feet(bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 3093 ft. Gordon 3013 3033
- 15) Approximate water strata depths; Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.
- 16) Approximate coal seam depths: Pittsburgh Coal @ 902e-910700'
- 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-10 Bbl.G-10Bbl Bottom hole pressure BI-2120psi;G-2435psi
- 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
- 22) FILTERS (IF ANY): cartridges
- 23) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL: /will be 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									Sizes
Coal									Depths set
Intermediate	<u>8-5/8</u>	<u>H-40</u>	<u>20.0</u>	<u>X</u>		<u>963</u>	<u>963</u>	<u>Cement to surface</u>	Perforations:
Production	<u>4-1/2</u>	<u>K-55</u>	<u>9.5</u>	<u>X</u>		<u>3093</u>	<u>3093</u>	<u>300 sks.</u>	Top Bottom
Tubing									
Liners									

25) APPLICANT'S OPERATING RIGHTS were acquired from Jacob Morgan, et al  
 by deed \_\_\_\_\_ / lease  / other contract \_\_\_\_\_ / dated May 3, 19 93, 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 47-103-1318-LI November 5 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 5, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	Fee:
		<i>[Signature]</i>	<i>[Signature]</i>	18094

*[Signature]*  
Theodore Streit  
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:		