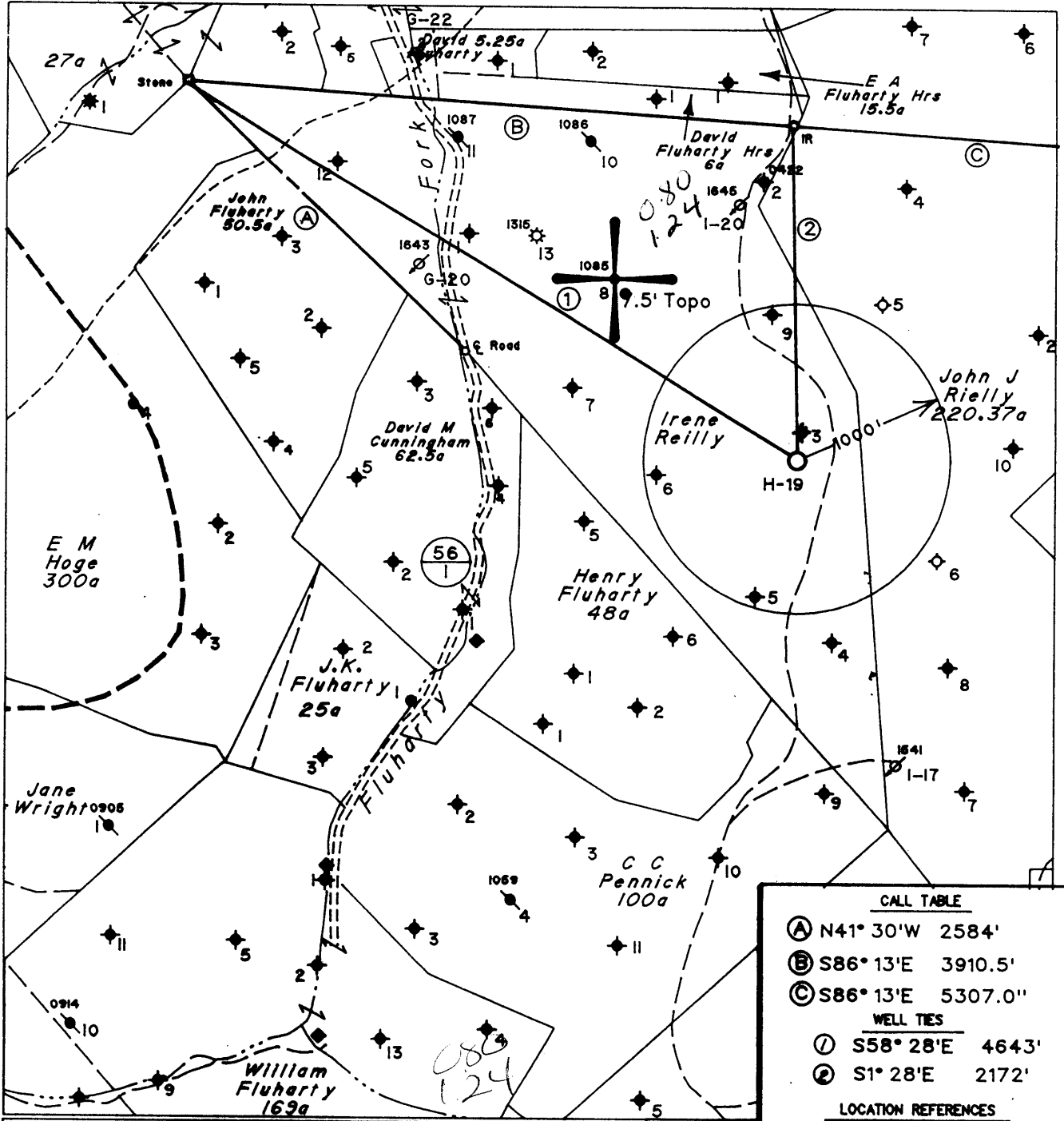


GS 4/10/95

6,550'

LATITUDE 39° 30' 00"

LONGITUDE 80° 40' 00"



Note: No Known Water Supply Sources Are Located Within 1000' Of Proposed Well

Denotes a Water Supply Source

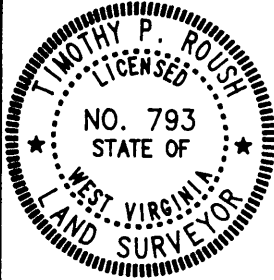
(H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

| CALL TABLE          |                   |
|---------------------|-------------------|
| (A)                 | N41° 30'W 2584'   |
| (B)                 | S86° 13'E 3910.5' |
| (C)                 | S86° 13'E 5307.0' |
| WELL TIES           |                   |
| (1)                 | S58° 28'E 4643'   |
| (2)                 | S1° 28'E 2172'    |
| LOCATION REFERENCES |                   |
| S70° 39'E           | 91' 10" Red Oak   |
| N37° 52'E           | 125' 4" Red Oak   |

FILE NO. 603  
 MAP NO. N57 N 3 S E W 4  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION USGS BM - 902

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) *Timothy P. Roush*  
 TIMOTHY P. ROUSH PS 793



STATE OF WEST VIRGINIA  
 DIVISION OF ENERGY  
 OIL AND GAS SECTION



DATE March 23, 19 95  
 FARM Irene Reilly NO. H-19  
 API WELL NO. 47-103-1677-5

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1382' WATERSHED Fluharty Fork  
 DISTRICT Green COUNTY Wetzel  
 QUADRANGLE Centerpoint NS NW

SURFACE OWNER State of West Virginia ACREAGE 190.35 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE 191 Ac.  
 LEASE NO. 15634-50

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

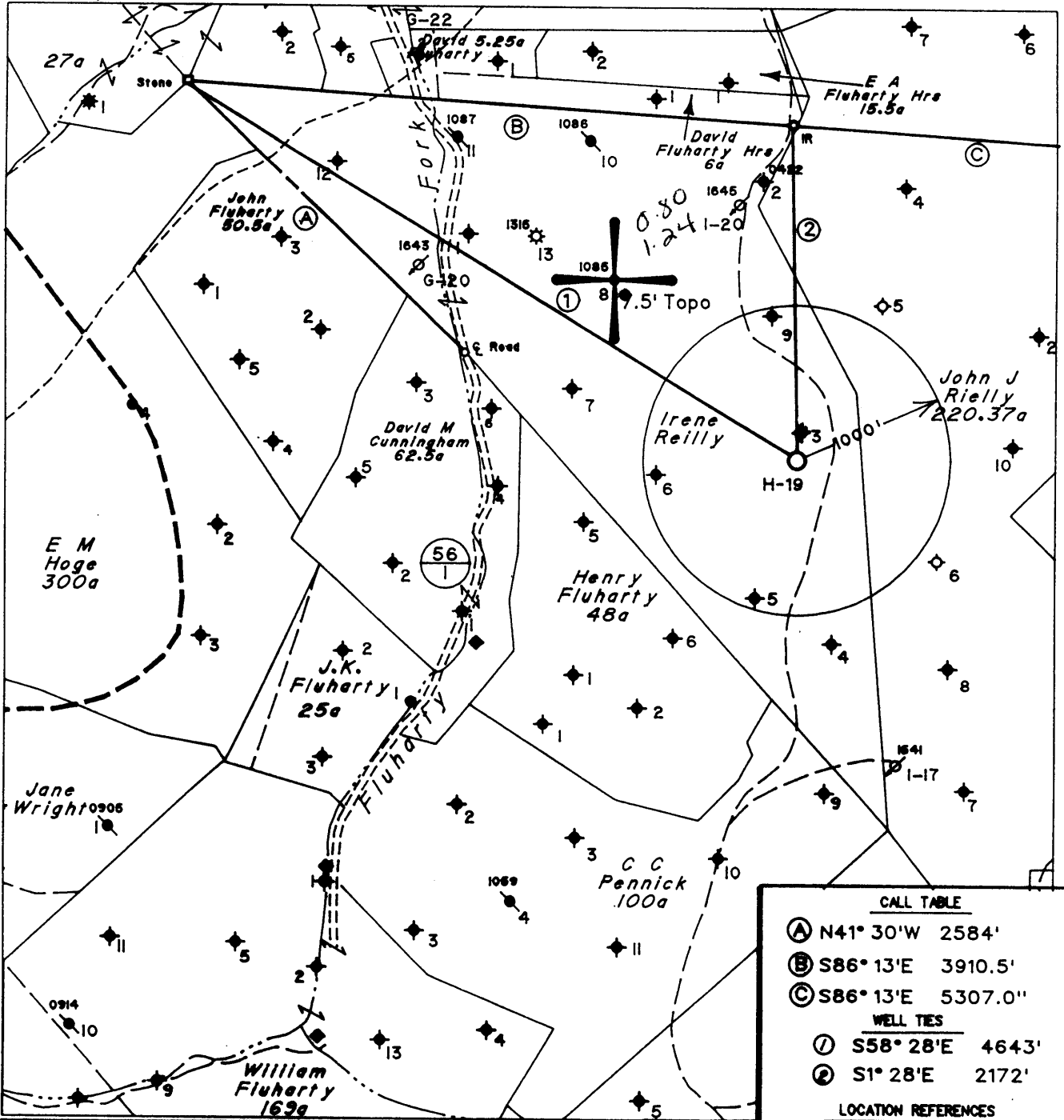
PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION Gordon ESTIMATED DEPTH 3375'  
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT James A. Crews  
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519  
Vienna, W.Va. 26105 Vienna, W.Va. 26105

APR 27 1995

8-0 95

FORM IV-6

G's 4/10/95



| CALL TABLE          |                    |
|---------------------|--------------------|
| (A)                 | N41° 30' W 2584'   |
| (B)                 | S86° 13' E 3910.5' |
| (C)                 | S86° 13' E 5307.0' |
| WELL TIES           |                    |
| (1)                 | S58° 28' E 4643'   |
| (2)                 | S1° 28' E 2172'    |
| LOCATION REFERENCES |                    |
| S70° 39' E          | 91° 10' Red Oak    |
| N37° 52' E          | 125' 4" Red Oak    |

Note: No Known Water Supply Sources Are Located Within 1000' Of Proposed Well

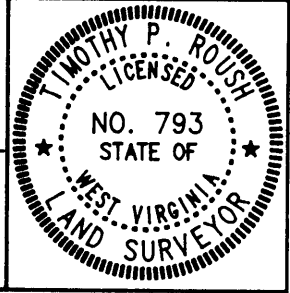
Denotes a Water Supply Source

(H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 603  
 MAP NO. N57 N 3 S E W 4  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION USGS BM - 902

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) *Timothy P. Roush*  
 TIMOTHY P. ROUSH PS 793



STATE OF WEST VIRGINIA  
 DIVISION OF ENERGY  
 OIL AND GAS SECTION



DATE March 23, 19 95  
 FARM Irene Reilly NO. H-19  
 API WELL NO. 47-103-1677-5

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1382' WATERSHED Fluharty Fork  
 DISTRICT Green COUNTY Wetzel  
 QUADRANGLE Centerpoint NW

SURFACE OWNER State of West Virginia ACREAGE 190.35 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 191 Ac.  
 LEASE NO. 15634-50

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 Gordon ESTIMATED DEPTH 3375'  
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT James A. Crews  
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519  
Vienna, W.Va. 26105 Vienna, W.Va. 26105

MAY 5 1995

WR-35 **RECEIVED**  
 WV Division of  
 Environmental Protection

05-31-95  
 API # 47-103-1677-S

APR 10 1996

State of West Virginia  
 Division of Environmental Protection  
 Section of Oil and Gas

Permitting  
 Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: WVA PUBLIC LAND CORP.

Operator Well No.: I. REILLY H-19

LOCATION: Elevation: 1,382  
 District: GREEN  
 Latitude: 4,200 Feet south of  
 Longitude: 6,550 Feet west of

Quadrangle: CENTERPOINT  
 County: WETZEL  
 39 Deg 30 Min 0 Sec.  
 80 Deg 40 Min 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY  
 P.O. BOX 5519  
 VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK  
 Inspector: RANDAL MICK  
 Permit Issued: 5/31/95  
 Well work Commenced: 6/25/95  
 Well work Completed: 8/18/95  
 Verbal plugging permission granted on:  
 Rotary X Cable      Rig       
 Total Depth (feet) 3,385'  
 Fresh water depths (ft) NA  
 Salt water depths (ft) NA  
 Is coal being mined in area (Y/N)      N  
 Coal Depths (ft):      NA

| Casing & Tubing Size | Used in Drilling | Left in Well | Cement Fill Up Cu. Ft. |
|----------------------|------------------|--------------|------------------------|
| 8-5/8                | 660'             | 660'         | To Surface             |
| 4 1/2"               | 3366'            | 3366'        | 170 SKS                |
|                      |                  |              |                        |
|                      |                  |              |                        |

OPEN FLOW DATA \*Waterflood Injection Well

Producing formation GORDON Pay zone depth (ft) 3224-3287  
 Gas: Initial open flow \* MCF/d Oil: Initial open flow \* Bbl/d  
 Final open flow \* MCF/d Final open flow \* Bbl/d  
 Time of open flow between initial and final tests \* Hours  
 Static rock pressure \* psig (surface pressure) after \* Hours  
 Second producing formation      Pay zone depth (ft)       
 Gas: Initial open flow      MCF/d Oil: Initial open flow      Bbl/d  
 Final open flow      MCF/d Final open flow      Bbl/d  
 Time of open flow between initial and final tests      Hours  
 Static rock pressure      psig (surface pressure) after      Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY  
 By: *Philip Ondrusek*  
 Date: 4/8/96

**Treatment:**

Perforated Gordon 3258-3262 (16 Holes) Treated via 4 1/2" Casing w/300 gal.  
15% HCl Acid, 251 BBL gelled water & 6900# 20/40 Sand.

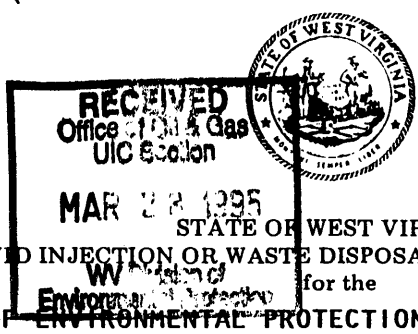
**Well Log:**

|              |       |   |       |
|--------------|-------|---|-------|
| Sand & Shale | 0     | - | 1710' |
| Sand         | 1710' | - | 1758' |
| Shale        | 1758' | - | 1802' |
| Sand         | 1802' | - | 1858' |
| Sand & Shale | 1858' | - | 2168' |
| Sand         | 2168' | - | 2230' |
| Shale        | 2230' | - | 2377' |
| Sand         | 2377' | - | 2417' |
| Sand & Shale | 2417' | - | 2503' |
| Sand         | 2503' | - | 2654' |
| Shale        | 2654' | - | 3224' |
| Gordon       | 3224' | - | 3287' |
| T.D          | 3385' |   |       |

10/91

20614

- 1) Date: March 24, 19 95
- 2) Operator's Well No. Irene Reilly H-19
- 3) SIC Code \_\_\_\_\_
- 4) API Well NO. 47 - 103 - 1677-LI  
State County Permit
- 5. UIC Permit No. \_\_\_\_\_



*Issued 05/31/95  
Expires 05/31/97*

STATE OF WEST VIRGINIA  
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
for the  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

- 6) WELL TYPE: Liquid injection  / Gas injection (not storage) \_\_\_\_\_ / Waste disposal \_\_\_\_\_
- 7) LOCATION: Elevation: 1382 Watershed: Fluharty Fork 356  
District: Green County: Wetzel Quadrangle: Centerpoint
- 8) WELL OPERATOR Pennzoil Products Company 37450 9) DESIGNATED AGENT James A. Crews  
Address P. O. Box 5519 Address P. O. Box 5519  
Vienna, WV 26105 Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED Name Mike Underwood  
Address Route 2, Box 135  
Salem, WV 26426
- 11) DRILLING CONTRACTOR:  
Name \_\_\_\_\_  
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, Gordon Depth 3262 feet(top) to 3277 feet(bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 3375 ft.
- 15) Approximate water strata depths; Fresh, 562 feet; salt, 1589 feet.
- 16) Approximate coal seam depths: 1194
- 17) Is coal being mined in the area? Yes \_\_\_\_\_ / No
- 18) Virgin reservoir pressure in target formation 1400 psig. Source Estimated
- 19) Estimated reservoir fracture pressure 3500 psig (BHFP)
- 20) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour: 25 Bottom hole pressure 2332
- 21) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES: Fresh water, produced water, bactericides and other chemicals as needed to maintain water quality & improve oil recovery.
- 22) FILTERS (IF ANY): Cartridge and/or Coalbed filters
- 23) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL: \_\_\_\_\_

24) CASING AND TUBING PROGRAM

| CASING OR TUBING TYPE | SPECIFICATIONS |       |                |     |      | FOOTAGE INTERVALS |              | CEMENT FILLUP OR SACKS (Cubic feet) | PACKERS                     |
|-----------------------|----------------|-------|----------------|-----|------|-------------------|--------------|-------------------------------------|-----------------------------|
|                       | Size           | Grade | Weight per ft. | New | Used | For drilling      | Left in well |                                     |                             |
| Conductor             |                |       |                |     |      |                   |              |                                     | Kinds                       |
| Fresh water           | 8-5/8"         | L.S.  | 20             | X   |      | 632               | 632          | Cement to surface                   | Sizes                       |
| Coal                  |                |       |                |     |      |                   |              |                                     |                             |
| Intermediate          |                |       |                |     |      |                   |              |                                     |                             |
| Production            | 4-1/2"         | J-55  | 10.5           | X   |      | 3375              | 3375         | Cement over salt sand               | Depths set                  |
| Tubing                |                |       |                |     |      |                   |              |                                     |                             |
| Liners                |                |       |                |     |      |                   |              |                                     | Perforations:<br>Top Bottom |

- 25) APPLICANT'S OPERATING RIGHTS were acquired from Irene Reilly et al  
by deed \_\_\_\_\_ / lease  / other contract \_\_\_\_\_ / dated September 23, 1985, of record in the  
Wetzel County Clerk's office in Lease Book 47 at page 193

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

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-103-1677-LI

Date May 30<sup>th</sup> 19 95

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 5-31-97 unless well work is commenced prior to that date and prosecuted with due diligence.

|   |  |                 |                   |                        |
|---|--|-----------------|-------------------|------------------------|
| Bond: <input checked="" type="checkbox"/> | Agent: <input checked="" type="checkbox"/> | Plat: <u>18</u> | Casing: <u>18</u> | Fee: <u>CK # 21494</u> |
|---|--|-----------------|-------------------|------------------------|

*Michael W. Fair*  
CHIEF, 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

*Irene Reilly # 3 well must be re-entered and converted to a monitoring well before injection may begin*

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) | Date(s) |
|-----------------------|------|-------------------------|---------|
| Application received  |      |                         |         |
| Well work started     |      | " "                     |         |
| Total depth reached   |      | " "                     |         |
| Well Record received  |      | " "                     |         |
| Reclamation completed |      | " "                     |         |

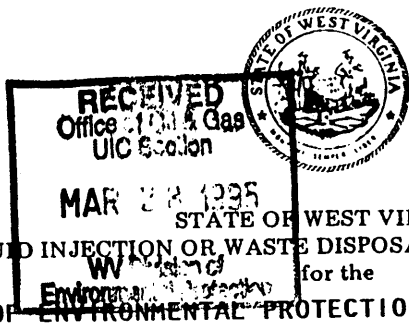
OTHER INSPECTIONS

Reason: \_\_\_\_\_  
Reason: \_\_\_\_\_

10/51

20614

- 1) Date: March 24, 19 95
- 2) Operator's Well No. Irene Reilly H-19
- 3) SIC Code \_\_\_\_\_
- 4 API Well NO. 47 - 103 - 1677-LI  
State County Permit
- 5. UIC Permit No. \_\_\_\_\_



STATE OF WEST VIRGINIA  
 NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
 for the  
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

Issued 05/03/95

Expires 05/03/97

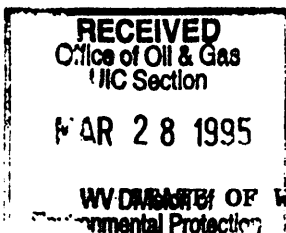
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- 7) LOCATION: Elevation: 1382 Watershed: Fluharty Fork 386  
District: Green County: Wetzel Quadrangle: Centerpoint
- 8) WELL OPERATOR Pennzoil Products Company 37450 9) DESIGNATED AGENT James A. Crews  
Address P. O. Box 5519 4670 Address P. O. Box 5519  
Vienna, WV 26105 Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED Name Mike Underwood  
Address Route 2, Box 135  
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- 11) DRILLING CONTRACTOR:  
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Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_ / Convert \_\_\_\_\_  
Other physical change in well (specify) \_\_\_\_\_
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bactericides and other chemicals as needed to maintain water quality & improve oil  
recovery.
- 22) FILTERS (IF ANY): Cartridge and/or Coalbed filters
- 23) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL: \_\_\_\_\_

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             | 8-5/8"         | L.S.  | 20             | X   |      | 632               | 632          | Cement to surface                    | Sizes         |
| Coal                    |                |       |                |     |      |                   |              |                                      |               |
| Intermediate Production | 4-1/2"         | J-55  | 10.5           | X   |      | 3375              | 3375         | Cement over salt sand                | Depths set    |
| Tubing                  |                |       |                |     |      |                   |              |                                      | Perforations: |
| Liners                  |                |       |                |     |      |                   |              |                                      | Top Bottom    |

25) APPLICANT'S OPERATING RIGHTS were acquired from Irene Reilly et al  
 by deed \_\_\_\_\_ / lease  / other contract \_\_\_\_\_ / dated September 23, 1985, of record in the  
Wetzel County Clerk's office in Lease Book 47 at page 193

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



1) Date March 24, 1995  
Operator's  
2) Well No. Irene Reilly H-19  
3) SIC Code  
4) API Well No. 47 - 103 - 1677  
State County Permit

NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
for the

DIVISION OF OIL AND GAS, DEPARTMENT OF ENERGY

6) SURFACE OWNER(S) OF RECORD TO BE SERVED

7 (i) COAL OPERATOR N/A

Address \_\_\_\_\_

(i) Name WV Public Land Corporation  
Address Bldg. #3, Room 643  
1900 Kanawha Blvd. E.

7 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:

(ii) Name Charleston, WV 25305  
Address \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:

(iii) Name Attn: Gary Foster  
Address 1304 Goose Run Road  
Fairmont, WV 26554

Name \_\_\_\_\_

Address \_\_\_\_\_

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

- (1) The Application for a Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work, and
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is \_\_\_\_\_, 19\_\_\_\_.

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM WW-3(B)) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22B of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Director of the Division of Oil and Gas, West Virginia Department of Energy, with respect to a well at the location described on the attached Application and depicted on attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Director.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Pennzoil Products Company

Well Operator

By Timothy P. Roush Timothy P. Roush

Its Supervisor, Surveying/Mapping

Telephone (304) 422-6565