

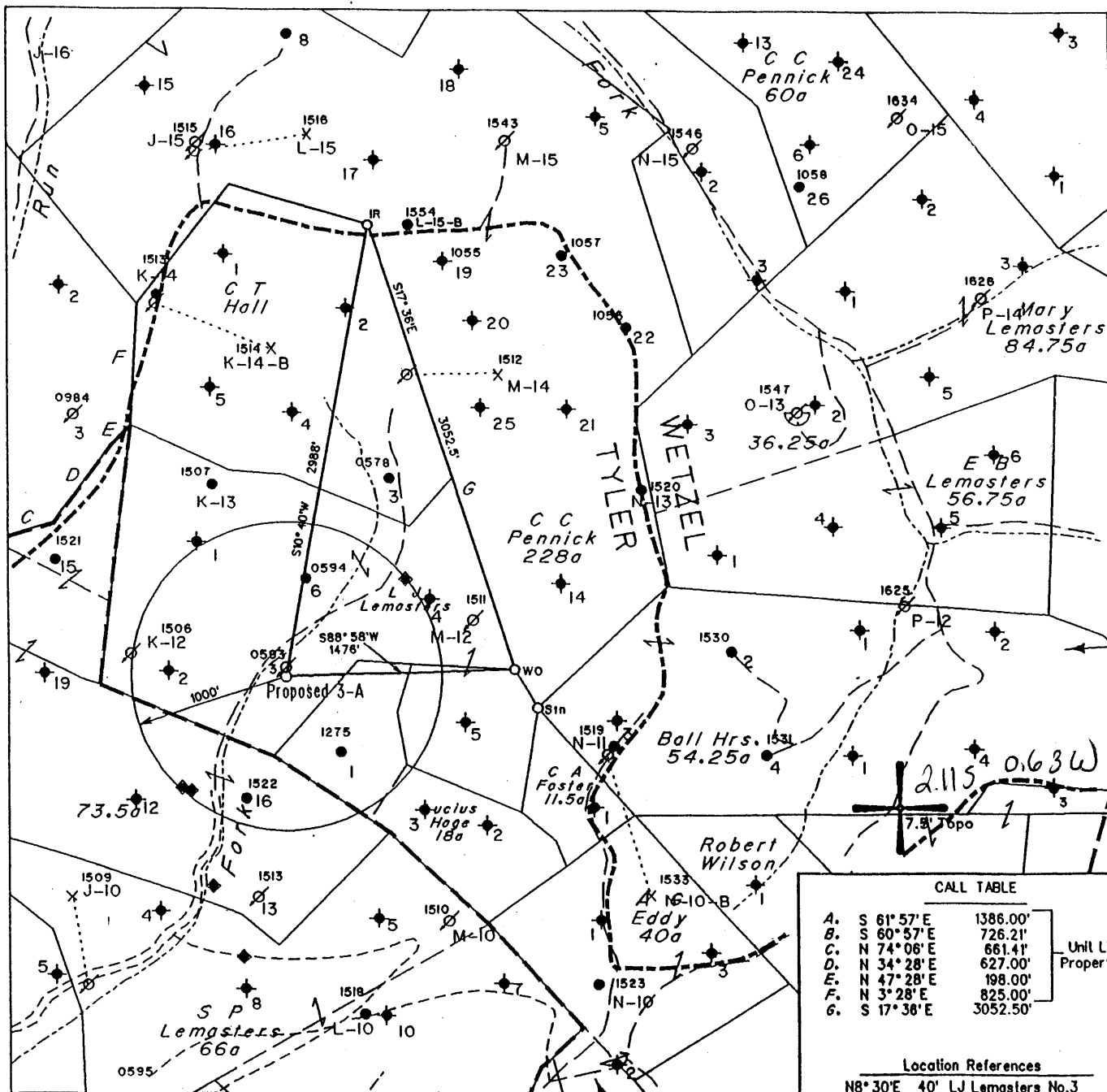
BS 10-14-97

LATITUDE 39° 30' 00"

3,300'

LONGITUDE 80° 40' 00"

11,150'



Note: All Known Water Supply Sources Located Within 1000' Of Proposed Well Are Shown

◆ Denotes a Water Supply Source

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

| CALL TABLE |             |          |
|------------|-------------|----------|
| A.         | S 61° 57' E | 1386.00' |
| B.         | S 60° 57' E | 726.21'  |
| C.         | N 74° 06' E | 661.41'  |
| D.         | N 34° 28' E | 627.00'  |
| E.         | N 47° 28' E | 198.00'  |
| F.         | N 3° 28' E  | 825.00'  |
| G.         | S 17° 36' E | 3052.50' |

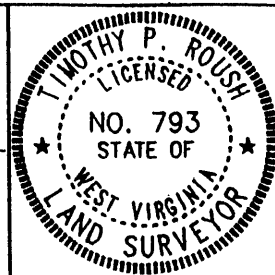
Unit Line & Property Line

Location References  
 N8° 30' E 40' L.J. Lemasters No. 3  
 S37° 47' W 211' Power Pole  
 N58° 05' E 163' 18" Gum

FILE NO. 408  
 MAP NO. N47 N 1 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



WEST VIRGINIA  
 Division of Environmental Protection  
 Office of Oil and Gas  
 10 McJunkin Road  
 Nitro, West Virginia 25143-2506



DATE September 26, 1997  
 FARM L.J. Lemasters NO. 3-A  
 API WELL NO. 47-095-01687-S

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_ MONITORING \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_

LOCATION: ELEVATION 1017' WATERSHED Lefthand Fork  
 DISTRICT McElroy COUNTY Tyler  
 QUADRANGLE Centerpoint

SURFACE OWNER Donald L. McCoy ACREAGE 71 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE  
 LEASE NO. 67696-00

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 3050'

WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT Philip S. Ondrusek  
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519  
 Vienna, W.Va. 26105 Vienna, W.Va. 26105

01/19/1998

Center Point 2

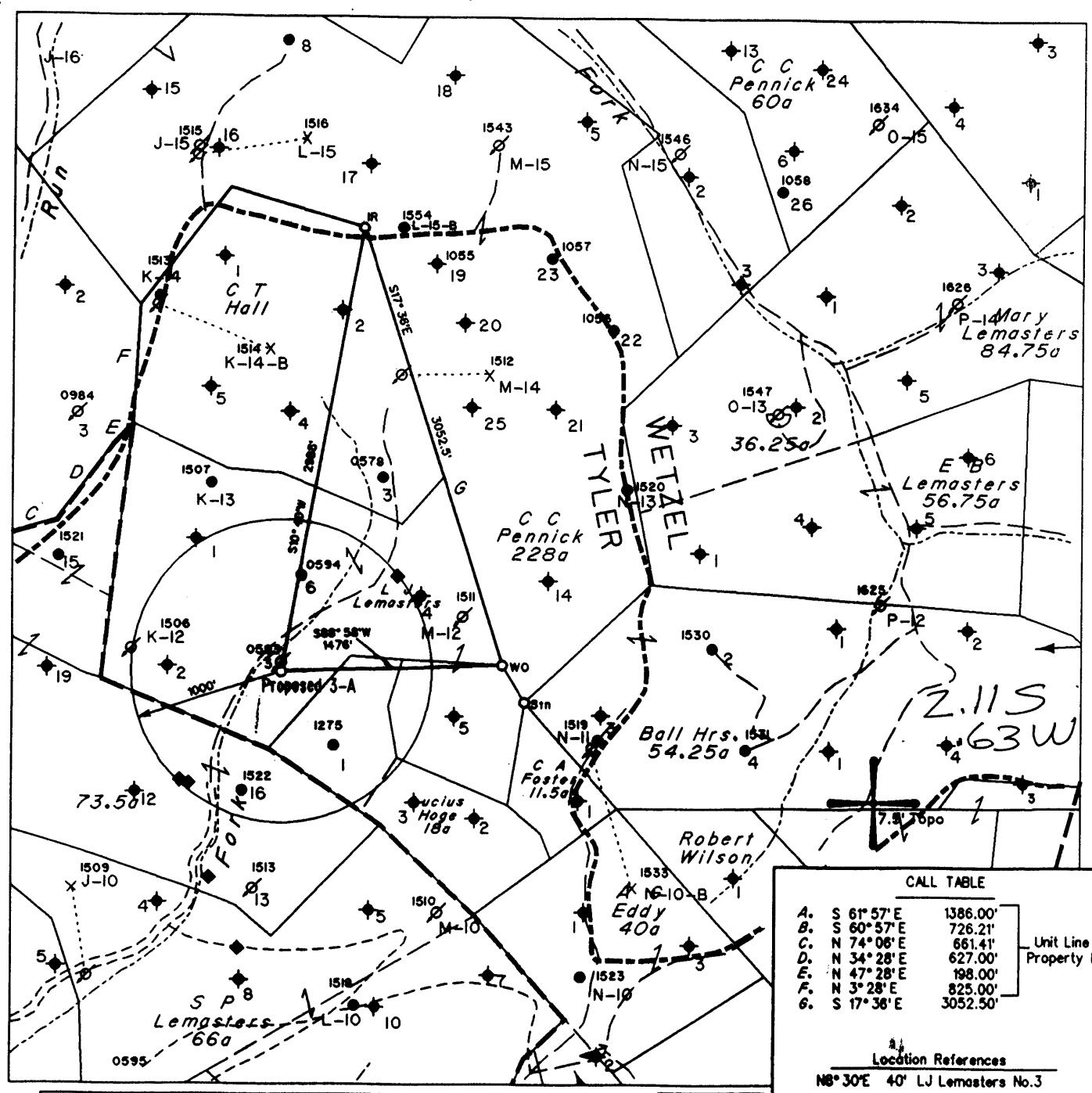
FORM IV-6

3,300'

GS 10-14-97

LATITUDE 39° 30' 00"

LONGITUDE 80° 40' 00"



Note: All Known Water Supply Sources Located Within 1000' Of Proposed Well Are Shown

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

◆ Denotes a Water Supply Source

| CALL TABLE |             |          |
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Unit Line & Property Line

Location References

N8° 30' E 40' L.J. Lemasters No. 3

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FILE NO. 408

MAP NO. N47 N 1 S E W 4

SCALE 1" = 1000'

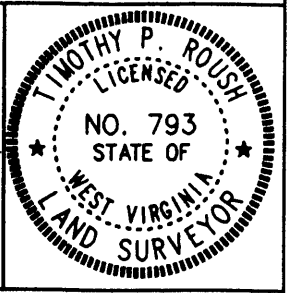
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(SIGNED) *Timothy P. Roush*

TIMOTHY P. ROUSH PS 793



WEST VIRGINIA

Division of Environmental Protection

Office of Oil and Gas

•10 McJunkin Road

Nitro, West Virginia 25143-2506



DATE September 26, 19 97

FARM L.J. Lemasters NO. 3-A

API WELL NO. 47-095-01687-S

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_ MONITORING \_\_\_

(IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_

LOCATION: ELEVATION 1017' WATERSHED Lefthand Fork

DISTRICT McElroy COUNTY Tyler

QUADRANGLE Centerpoint

SURFACE OWNER Donald L. McCoy ACREAGE 71 Ac.

OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE

LEASE NO. 67696-00

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 3050'

WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT Philip S. Ondrusek

ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519

Vienna, W.Va. 26105 Vienna, W.Va. 26105

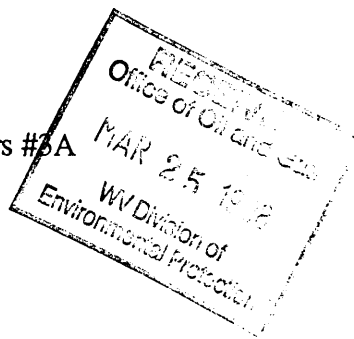
80 OCT 17 1997

WR-35

API # 47 -095- 1687 14-Oct-97

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

Well Operator's Report of Well Work



Farm name: McCoy, Donald L.
LOCATION: Elevation: 1,017.00
District: Mc Elroy
Latitude: 3,300 Feet south of
Longitude: 11,150 Feet west of

Operator Well No.: L.J. Lemasters #5A
Quadrangle: Center Point
County: Tyler
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: Mike Underwood

Permit Issued: 10/14/97
Well work Commenced: 11/11/97
Well work Completed: 1/23/98

Verbal plugging
permission granted on:
Rotary X Cable Rig

Total Depth (feet) 2990'
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Table with 4 columns: Casing & Tubing Size, Used in Drilling, Left in Well, Cement Fill Up Cu. Ft.
Rows include data for 8-5/8" and 4 1/2" casing sizes.

OPEN FLOW DATA \*Well was drilled as a waterflood injection well. No open-flow data was obtained

Producing formation Gordon Pay zone depth (ft) 2,935'
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: [Signature]
Date: 3/17/98 9-14-98

TL 1687

**Treatment :**

Perforated Gordon sand with 28 holes from 2929'-2940' K.B. Fractured with 300 gals 15% HCL and 202 bbls gelled water and 11,000 lbs. 20/40 sand

**Well Log :**

All depth are relative to K.B.

|      |                    |
|------|--------------------|
| 0    | 272 Sand and Shale |
| 272  | 460 sand           |
| 460  | 528 Shale          |
| 528  | 655 sand           |
| 655  | 722 Shale          |
| 722  | 800 sand           |
| 800  | 838 Shale          |
| 838  | 933 sand           |
| 933  | 1380 Shale         |
| 1380 | 1548 sand          |
| 1548 | 1640 Shale         |
| 1640 | 1778 sand          |
| 1778 | 1854 Shale         |
| 1854 | 1880 sand          |
| 1880 | 2050 Shale         |
| 2050 | 2144 Big Lime      |
| 2144 | 2382 Big Injun     |
| 2382 | 2906 Shale         |
| 2906 | 2935 Gordon Stray  |
| 2935 | 2944 Gordon        |
| 2944 | 3020 Shale         |

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

Well Operator's Report of Well Work

Farm name: McCoy, Donald L.

Operator Well No.: L.J. Lemasters

RECEIVED  
Office of Oil & Gas  
UIC Section  
JAN 21 1998  
WV Division of  
Environmental Protection

LOCATION: Elevation: 1,017.00

Quadrangle: Center Point

District: McElroy  
Latitude: 11,150' Feet south of  
Longitude: 3,300' Feet west of

County: Tyler  
39 Deg 30 Min 0 Sec.  
80 Deg 40 Min 0 Sec.

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

| Casing & Tubing | Used in Drilling | Left in Well | Cement Fill Up Cu. Ft. |
|-----------------|------------------|--------------|------------------------|
| Size<br>8 5/8"  | 292'             | 292'         | 175 Sacks              |
| 4 1/2"          | 2989.6'          | 2989.6'      | 275 Sacks              |
|                 |                  |              |                        |
|                 |                  |              |                        |
|                 |                  |              |                        |

Agent: PHILIP S. ONDRUSEK

Inspector: Mike Underwood

Permit Issued: 10/14/97

Well work Commenced: 11/11/97

Well work Completed: 1/19/98

Verbal plugging permission granted on:

Rotary  Cable  Rig

Total Depth (feet) 2,990'

Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N

Coal Depths (ft): NA

OPEN FLOW DATA

\*Well was drilled as a waterflood injection well. No open-flow data was obtained

Producing formation Gordon Pay zone depth (ft) 2,893'-2,955'

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: Donald B. Bright

Date: 1-20-98

JAN 23 1998

**Treatment :**

**Perforations:**

**2,929' - 2,933' and 2,937' - 2,940' : 4 holes/ft (28 holes)**

**Treatment:**

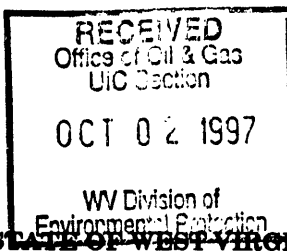
**Treated via 4.5" Casing with 300 gals. 15% HCl, 202 bbls. cross-linked gelled water and 11,000 lbs. of 20/40 sand.**

**Well Log :**

|              |      |   |      |
|--------------|------|---|------|
| Sand & Shale | 0    | - | 460  |
| Sand         | 460  | - | 530  |
| Sand & Shale | 530  | - | 900  |
| Sand         | 900  | - | 940  |
| Sand & Shale | 940  | - | 1090 |
| Shale        | 1090 | - | 1130 |
| Sand & Shale | 1130 | - | 1380 |
| Sand         | 1380 | - | 1420 |
| Sand & Shale | 1420 | - | 1640 |
| Sand         | 1640 | - | 1675 |
| Sand & Shale | 1675 | - | 1800 |
| Shale        | 1800 | - | 1860 |
| Sand         | 1860 | - | 1890 |
| Sand & Shale | 1890 | - | 2150 |
| Sand         | 2150 | - | 2250 |
| Sand & Shale | 2250 | - | 2330 |
| Shale        | 2330 | - | 2893 |
| Gordon       | 2893 | - | 2955 |
| Sand & Shale | 2955 | - | 3000 |

Depth driller 2990  
 Depth logger 3000

*Handwritten notes:*  
 2990-3000  
 2990-3000



1) Date September 26, 1997  
 2) Well No. L.J. Lemasters No.3-A  
 3) SIC Code \_\_\_\_\_  
 4) API Well No. 47 - 095 - 1687-S  
 State            County            Permit             
 5) UIC Code \_\_\_\_\_

*Issued 10/14/97*  
*Expires 10/14/99*

24454

**NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION**

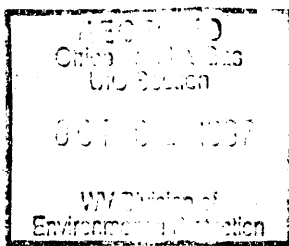
**for the  
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**

- WELL TYPE: Liquid Injection  Gas Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_
- LOCATION: Elevation 1015 Watershed Left Hand Fork  
 District McElroy County Tyler Quadrangle            Centerpoint
- WELL OPERATOR: Pennzoil Products Company 4670 9) DESIGNATED AGENT: Philip S. Ondrusek  
P.O. Box 5519 P.O. Box 5519  
Vienna, WV 26105 Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED: Name Mike Underwood 11) DRILLING CONTRACTOR:  
 Address Route 2, Box 135 Name \_\_\_\_\_  
Salem, WV 26426 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 2910 Ft. (Top) to 2930 Ft. (Bottom)
- 14) Estimated depth of completed well (or actual depth of existing well) 3050 Ft.
- 15) Approximate water strata depths: Fresh 195 Ft. Salt 1222 Ft.
- 16) Approximate coal seam depths: 855 Ft.
- 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.
- 20) Maximum proposed injection operations: Volume per hour 25 bbl Bottom Hole Pressure 2332 psig.
- 21) Detailed identification of materials to be injected, including additives: Fresh water, produced water, bactericides and other chemicals as needed to maintain water quality and improve oil recovery.
- 22) Filters (if any): Cartridge filters and/or coal bed 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 | PACKERS      |
|-----------------------|----------------|-------|--------|-----|------|-------------------|--------------|------------------------|--------------|
|                       | Size           | Grade | Weight | New | Used | For Drilling      | Left in Well |                        |              |
| Conductor             |                |       |        |     |      |                   |              |                        | Kinds        |
| Fresh Water           | 8 5/8"         | L.S.  | 20#    | X   |      | 282               | 282          | Cement To              |              |
| Coal                  |                |       |        |     |      |                   |              | Surface                | Sizes        |
| Intermediate          |                |       |        |     |      |                   |              |                        |              |
| Production            | 4 1/2"         | J-55  | 10.5#  | X   |      | 3050              | 3050         | Cement Over            | Depths Set   |
| Tubing                |                |       |        |     |      |                   |              | Salt Sand              |              |
| Liners                |                |       |        |     |      |                   |              |                        | Perforations |
|                       |                |       |        |     |      |                   |              |                        | Top Bottom   |
|                       |                |       |        |     |      |                   |              |                        |              |

25) APPLICANTS OPERATING RIGHTS were acquired from S.P. & L.J. Lemasters  
 by Deed \_\_\_\_\_ Lease  Other Contract \_\_\_\_\_ Dated April 5, 1894 of record in the  
Tyler County Clerk's Office in Deed Book 23 Page 98



1) Date September 26, 1997  
2) Well No. L.J. Lemasters No.3-A  
3) SIC Code \_\_\_\_\_  
4) API Well No. 47 - 095 - 16 87-5  
State            County            Permit           

**STATE OF WEST VIRGINIA**  
**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  
  
(i) Name Donald L. McCoy  
Address Alvy, WV 26322  
  
(ii) Name \_\_\_\_\_  
Address \_\_\_\_\_  
  
(iii) Name \_\_\_\_\_  
Address \_\_\_\_\_

6 (iv) ADDITIONAL SURFACE OWNERS  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
  
7 (ii) COAL OWNER WITH DECLARATION ON RECORD:  
Name N/A  
Address \_\_\_\_\_  
  
7(iii) COAL LESSEE WITH DECLARATION ON RECORD:  
Name N/A  
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 \_\_\_\_\_

**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   
Its Supervisor, Surveying/Mapping  
Telephone (304) 422-6565