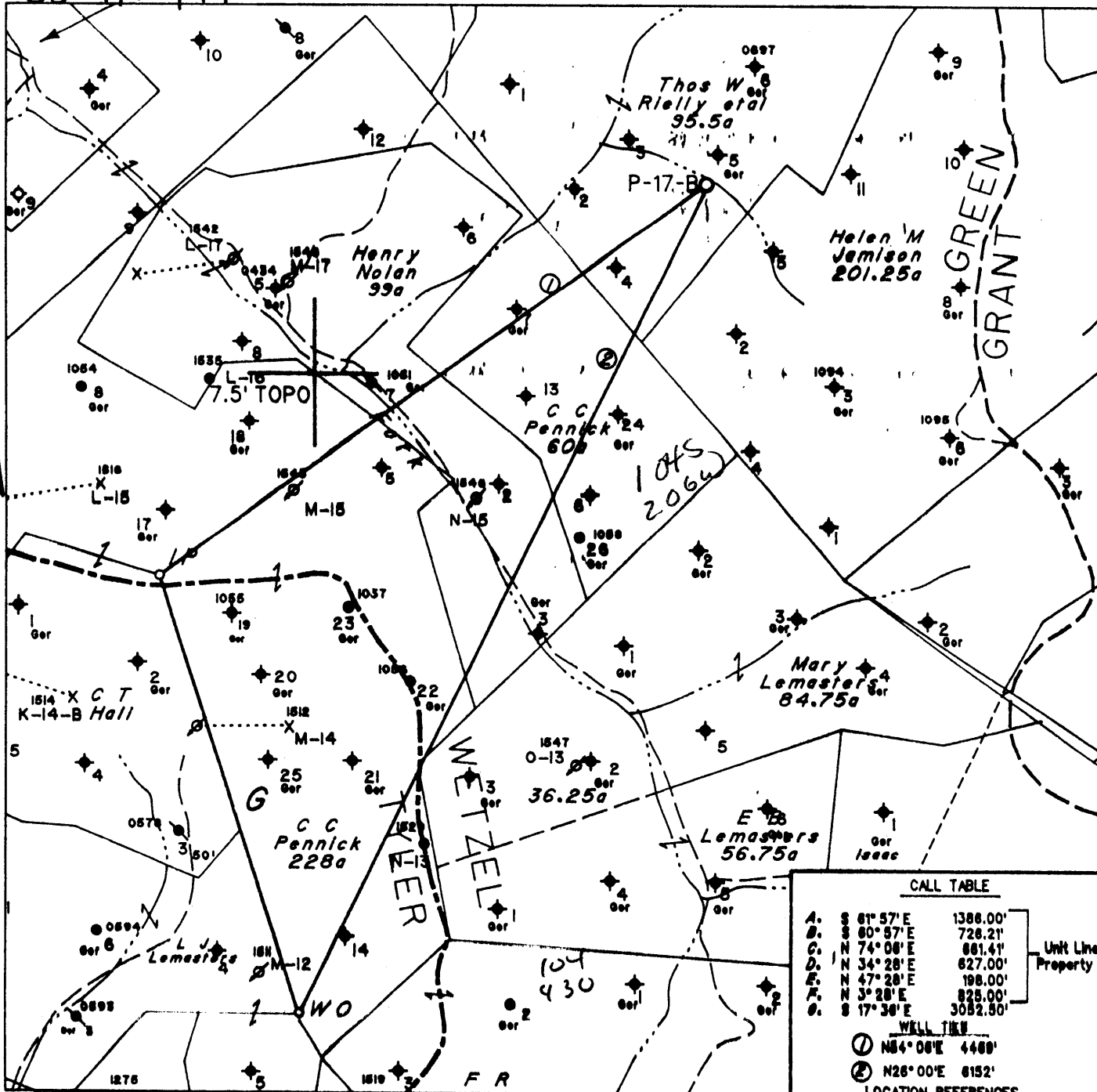


MS 4/29/94



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

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

CALL TABLE		
A.	S 61° 57' E	1388.00'
B.	S 60° 57' E	728.21'
C.	N 74° 06' E	881.41'
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

WELL TIE

- ① N84° 06' E 4480'
- ② N26° 00' E 8152'

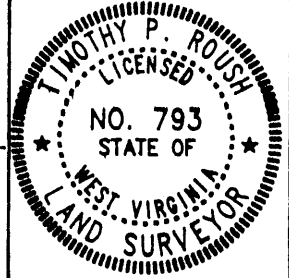
LOCATION REFERENCES

- 888° 0'E 109' 3" Redbud
- 827° 48' W 130' 8" Oak
- 860° 58' W 157' 8" Ash

FILE NO. 1797
 MAP NO. N58 N 3 S E W 3
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION F.R. Ball No. 9
(47-095-0548) - 1152'

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 April 19, 19 94
 FARM T.W. Reilly NO. P-17-B
 API WELL NO. 47-103-1628-41

WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1030' WATERSHED Piney Fork
 DISTRICT Green COUNTY Wetzel
 QUADRANGLE Centerpoint dis NC

SURFACE OWNER State of West Virginia ACREAGE 95 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE 95.5 Ac.
 LEASE NO. 57094-00

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 Gordon ESTIMATED DEPTH 3010'
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT James A. Crews
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519
673 ADDRESS P. O. Box 5519
4670 ADDRESS P. O. Box 5519
 Vienna, W.Va. 26105 Vienna, W.Va. 26105

8-095

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

Well Operator's Report of Well Work

Farm name: WVA. PUBLIC LANDS Operator Well No.: TOM REILLY P17B

LOCATION: Elevation: 1,030.00 Quadrangle: CENTER POINT

District: GREEN County: WETZEL
Latitude: 5500 Feet South of 39 Deg. 30Min. Sec.
Longitude 10900 Feet West of 80 Deg. 37 Min. 30 Sec.

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

Agent: JAMES A. CREWS

Inspector: RANDAL MICK
Permit Issued: 05/12/94
Well work Commenced: 08/26/94
Well work Completed: 10/20/94

Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3055
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

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

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 8-5/8	308	308	To surface 110 sks.
4-1/2	2996.9	2996.9	300 sks.

OPEN FLOW DATA

* Water Injection Well

Producing formation Gordon Pay zone depth (ft) 2910-2974
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: 1/4/95

TREATMENT

Perforated with 16 holes 2954'-2962'. Treated with 300 gallons 15% HCL acid, 282 barrels gelled water and 7000# of 20/40 sand.

WELL LOG

Sand & Shale	0'- 971'
Sand	971'- 985'
Sand & Shale	985'-1450'
Sand	1450'-1494'
Sand & Shale	1494'-1761'
Sand	1761'-1808'
Sand & Shale	1808'-2073'
Little Lime	2073'-2084'
Shale	2084'-2116'
Big Lime	2116'-2184'
Shale	2184'-2202'
Big Injun	2202'-2334'
Shale	2334'-2910'
Gordon	2910'-2974'
T.D.	3055'

APR 26 94



- 1) Date: April 21, 1994
- 2) Operator's Well No. Thomas W. Reilly #P-17-B
- 3) SIC Code _____
- 4) API Well NO. 47 - 103 - 1628-LI
State County Permit
- 5) UIC Permit No. _____

19102

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

103-1628
Issued 05/12/94
Expired 05/12/96

- 6) WELL TYPE: Liquid injection Gas injection (not storage) _____ Waste disposal _____
- 7) LOCATION: Elevation: 1030 Watershed: Piney Fork District: Green County: Wetzel Quadrange: Centerpoint
- 8) WELL OPERATOR Pennzoil Products Company Address P. O. Box 5519 Vienna, WV, 26105
- 9) DESIGNATED AGENT James A. Crews Address P. O. Box 5519 Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED 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 2910 feet (top) to 2925 feet (bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 3010 ft.
- 15) Approximate water strata depths: Fresh, 210 feet; salt, 1237 feet.
- 16) Approximate coal seam depths: 842 feet
- 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: Freshwater, produced water, bactericides and other chemicals as needed to maintain water quality and 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									Kind
Fresh water	8-5/8	LS	20	X		280'	280'	Cement to surface	Size
Coal									
Intermediate									
Production	4-1/2	J-55	10.5	X		3010'	3010'	Cement over salt sand	Depth set
Tubing									Perforations:
Liners									Top Bottom

25) APPLICANT'S OPERATING RIGHTS were acquired from Union National Bank of West Virginia by deed _____ / lease / other contract _____ / dated August 31, 1983 of record in the Wetzel County Clerk's office in Lease Book 65A at page 408

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

PR 2 : 9L

1) Date April 21, 1994
Operator's _____
2) Well No. Thomas W. Reilly #P-17-B
3) SIC Code _____
4) API Well No. 47 - 095 - 1628
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 WV Public Land Corporation
Address Bldg. #3, Room 643
1900 Kanawha Blvd. E.

(ii) Name Charleston, WV 25305
Address _____

(iii) Name Dep't. of Natural Resources
1304 Goose Run Road
Address Fairmont, WV 26554
Attn: Gary Foster

7 (i) COAL OPERATOR NA
Address _____

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

7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:
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 [Signature] Timothy P. Roush
Its Supervisor, Surveying Mapping
Telephone (304) - 21-6565