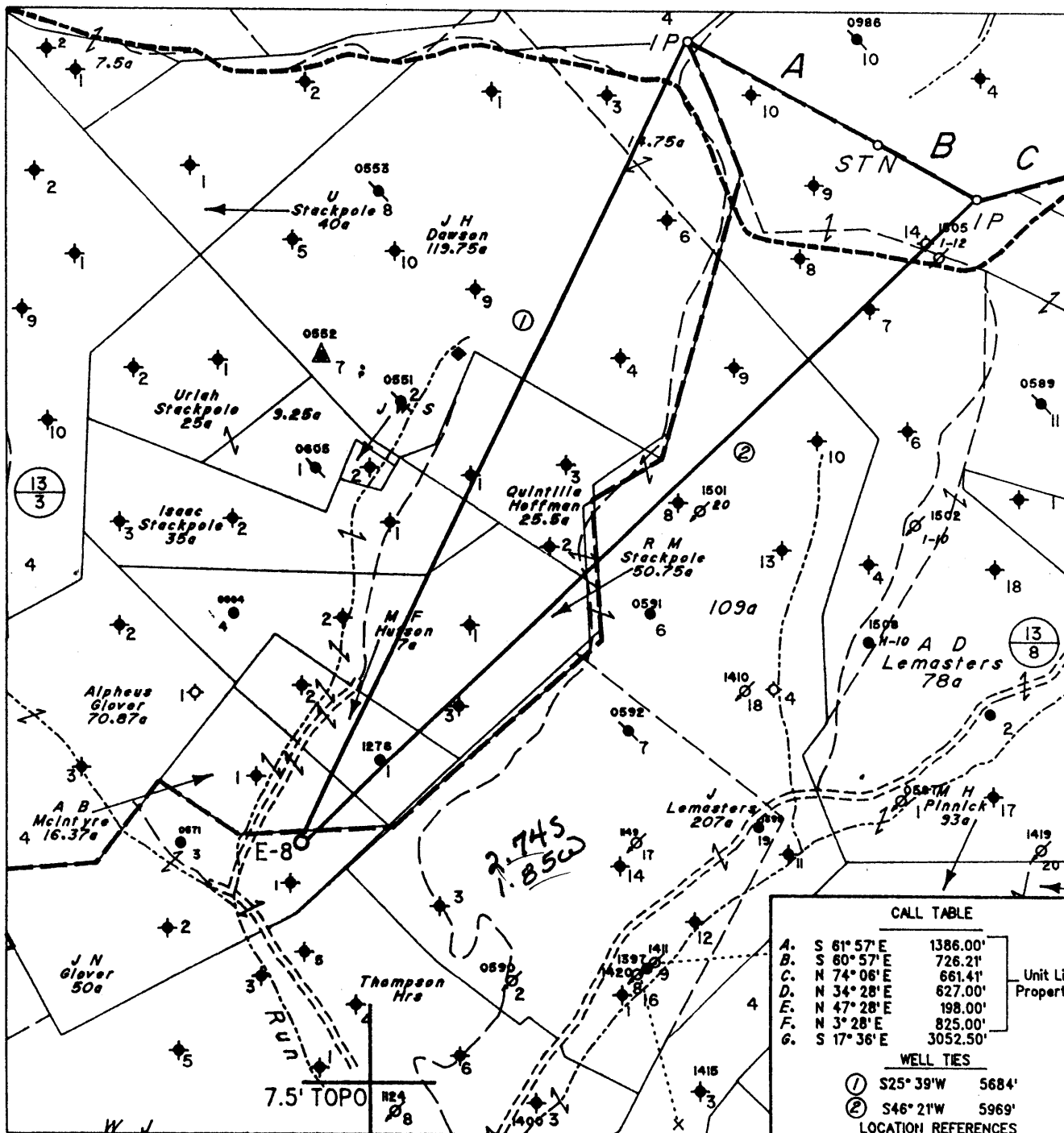


5-25-93



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	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

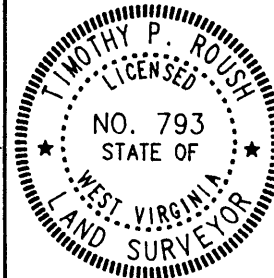
WELL TIES		
①	S25° 39' W	5684'
②	S46° 21' W	5969'

LOCATION REFERENCES		
N16° 27' E	137' 14"	Pine
N67° 57' E	160' 6"	Maple
S64° 58' E	169' 4"	White Oak

FILE NO. 1785
 MAP NO. N47 N 1 S E W5
 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 May 4, 1993
 FARM J.N. Glover NO. E-8
 API WELL NO. 47-095-1543-L1

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1001' WATERSHED Stackpole Run
 DISTRICT McElroy 5 COUNTY Tyler
 QUADRANGLE Centerpoint 15 NW

SURFACE OWNER Hugh & Darlene Carlton ACREAGE 50 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 50 Ac.
 LEASE NO. 13254-50

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 2990
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT James A. Crews
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519
Vienna, W.Va. 26105 623 Vienna, W.Va. 26105

MAY 11 1993

8-095

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

Well Operator's Report of Well Work

Farm name: CARLTON, HUGH & DARLENE Operator Well No.: J.N. GLOVER E-8

LOCATION: Elevation: 1,001.00 Quadrangle: CENTER POINT

District: MCELROY County: TYLER
Latitude: 10950 Feet South of 39 Deg. 30Min. Sec.
Longitude 8500 Feet West of 80 Deg. 40 Min. Sec.

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

Agent: JAMES A. CREWS

Inspector: MIKE UNDERWOOD
Permit Issued: 06/07/93
Well work Commenced: 06/13/93
Well work Completed: 05/13/94

Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3021'
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			To surface
8-5/8	263'	263'	50 sks.
4-1/2	2994.94'	2994.94'	300 sks.

OPEN FLOW DATA

WATER INJECTION WELL

Producing formation Gordon Pay zone depth (ft) 2870'-2888'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/c
Final open flow _____ MCF/d Final open flow _____ Bbl/c
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/c
Final open flow _____ MCF/d Final open flow _____ Bbl/c
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: 7/8/94

TREATMENT

Perforated: Gordon with 15 holes 2879--2886'
Treated with 300 gal. 15% HCL, 350 bbls. gelled water
and 7000# 20/40 sand.

WELL LOG

Sand & Shale	0 - 870
Pittsburg LS	870 - 898
Sand & Shale	898 - 1604
Sand	1604 - 1695
Sand & Shale	1695 - 2028
Big Injun	2028 - 2300
Shale	2300 - 2658
Berea	2658 - 2663
Shale	2663 - 2864
Stray	2864 - 2870
Gordon	2870 - 2888
T.D.	3021

MAY 11 93
WV Division of
Environmental Protection



- 1) Date: May 7, 19 93
- 2) Operator's Well No. J. N. GLOVER E-8
- 3) SIC Code _____
- 4) API Well NO. 47 State - 095 County - 1543-LI Permit
- 5. UIC Permit No. _____

Issued 06/07/93

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

Expires 06/07/95

17360

17360

- WELL TYPE: Liquid injection / Gas injection (not storage) _____ / Waste disposal _____
- LOCATION: Elevation: 1001' Watershed: Stackpole Run
District: McElroy County: Tyler Quadrangle: Centerpoint *286*
- 8) WELL OPERATOR Pennzoil Products Co. 37450 9) DESIGNATED AGENT J.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 11) DRILLING CONTRACTOR:
Name Mike Underwood Name _____
Address Rt. #2, Box 135 Address _____
Salem, WV 26426
- 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 2891 feet(top) to 2905 feet(bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 2990 ft.
- 15) Approximate water strata depths; Fresh, 181 feet; salt, > 300 feet.
- 16) Approximate coal seam depths: 813'
- 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 2380
- 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 filters and/or coal bed filters
- 23) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL: _____

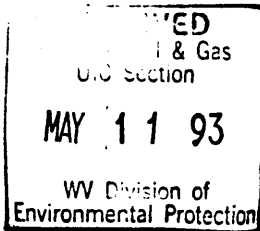
24) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT 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		755	755	Cement to Surface	Sizes
Coal									
Intermediate									
Production	4 1/2	J-55	10.5	X		2990	2990	Cement over Salt Sand	Depths set
Tubing									
Liners									Perforations: Top Bottom

25) APPLICANT'S OPERATING RIGHTS were acquired from J. N. & M. L. Glover
by deed _____ / lease / other contract _____ / dated June 8, 1994, of record in the
Tyler County Clerk's office in Book 23 at page 360

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

FORM WW-3(A)
Obverse



1) Date May 7, 1993
Operator's _____
2) Well No. J. N. GLOVER E-8
3) SIC Code _____
4) API Well No. 47 - 095 - 1547
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 Hugh & Darlene Carlton
Address 4955 S. Sanford Avenue
Sanford, FL 32773
 - (ii) Name Coastal Lumber Company
Address P.O. Box 979
Buckannon, WV 26201
 - (iii) Name _____
Address _____
- 7 (i) COAL OPERATOR N/A
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) 422-6565