

Call Table	
A	S20°W 62 P.
B	S61°14'E 709.5'
C	N77°47'E 594.0'
D	N60°34'E 701.0'
E	N19°W 40 P.
WELL TIES	
①	N35°33'E 4560'
②	N57°43'E 4174'
LOCATION REFERENCES	
N42°45'E	88' 8" Ash
S41°07'E	82' 3" Maple
S75°41'W	78' 8" Walnut

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

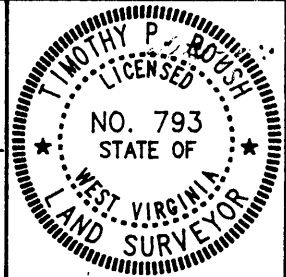
◆ Denotes a Water Supply Source

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

FILE NO. 1820
 MAP NO. N47 N S1 E W4
 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 May 6, 19 96
 FARM Martha Elder NO. 11
 API WELL NO. 47-095-0146-5

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 893' WATERSHED McIntyre Fork
 DISTRICT McElroy COUNTY Tyler
 QUADRANGLE Centerpoint 7.5'

SURFACE OWNER Forrest Glover ACREAGE 95.5 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 187.25 Ac.
 LEASE NO. 99174-00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) 8-0 to 96

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Gordon ESTIMATED DEPTH 2893'
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT Philip S. Ondrusek
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519
4670 ADDRESS Vienna, W.Va. 26105

JAN 21 1997
Permitting
Office of Oil & Gas

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

Well Operator's Report of Well Work

Farm name: Glover, Forrest etal

Operator Well No.: M. Elder #11

LOCATION: Elevation: 893.00'

Quadrangle: Center Point

District: McElroy

County: Tyler

Latitude: 7,850' Feet south of

39 Deg 27 Min 30 Sec.

Longitude: 7,100' Feet west of

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: 6/10/96

Well work Commenced: 7/24/96

Well work Completed: 10/4/96

Verbal plugging

permission granted on:

Rotary Cable Rig

Total Depth (feet) 2925'

Fresh water depths (ft) NA

Salt water depths (ft) NA

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

Coal Depths (ft): 292-294

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	220'	220'	180 Sacks
4 1/2"	2896.7'	2896.7'	275 Sacks

OPEN FLOW DATA

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

Producing formation Gordon Pay zone depth (ft) 2764-2782

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: 1/7/97

JAN 21 1997

Treatment :

Perforations:

2774' - 2780' - 4 holes/ft.(24 holes)

Treatment:

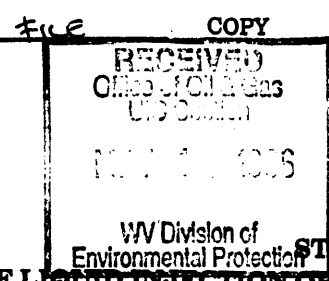
Treated via 4.5" Casing with 300 gals. 15% HCl, 220 bbls.

Borate cross-linked gelled water and 13,500 lbs. of 20/40 sand.

Well Log :

TD = 2925'

Sand & Shale	0	-	230
Shale	230	-	292
Coal	292	-	296
Shale	296	-	534
Sand	534	-	592
Shale	592	-	764
Sand	764	-	796
Shale	796	-	1112
Sand	1112	-	1127
Shale	1127	-	1146
Sand	1146	-	1182
Shale	1182	-	1254
Sand	1254	-	1320
Shale	1320	-	1486
Sand	1486	-	1502
Shale	1502	-	1684
Sand	1684	-	1720
Shale	1720	-	1944
Sand	1944	-	1960
Big Lime	1960	-	2014
Big Injun	2014	-	2140
Shale	2140	-	2764
Gordon	2764	-	2782
Shale	2782	-	2934



1) Date May 7, 1996
 2) Well No. Martha Elder No.11
 3) SIC Code _____
 4) API Well No. 47 - 095 - 1646-LI
 State County Permit
 5) UIC Code Issued 06/10/96
Expires 06/10/98

22136

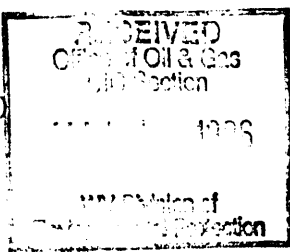
STATE OF WEST VIRGINIA
 NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
 for the
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

- WELL TYPE: Liquid Injection Gas Injection _____ Waste Disposal _____
- 7) LOCATION: Elevation 839 Watershed McIntyre Fork
 District McElroy County Tyler Quadrangle _____ Centerpoint 286
- 8) WELL OPERATOR: Pennzoil Products Company
P.O. Box 5519
Vienna, WV 26105
- 9) DESIGNATED AGENT: Philip S. Ondrusek
P.O. Box 5519
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 2699 Ft. (Top) to 2714 Ft. (Bottom)
- 14) Estimated depth of completed well (or actual depth of existing well) 2839 Ft.
- 15) Approximate water strata depths: Fresh 30 Ft. Salt 1046 Ft.
- 16) Approximate coal seam depths: 651 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		200	200	Cement To	
Coal								Surface	Sizes
Intermediate									
Production Tubing	4 1/2"	J-55	10.5#	X		2839	2839	Cement Over	Depths Set
Liners								Salt Sand	Perforations
									Top Bottom

25) APPLICANTS OPERATING RIGHTS were acquired from Martha E. Elder et al.
 by Deed _____ Lease Other Contract _____ Dated July 9, 1993 of record in the
Tyler County Clerk's Office in Deed Book 305 at Page 131



FORM WW-3(A)
Obverse

1) Date May 7, 1996
2) Well No. Martha Elder No.11
3) SIC Code _____
4) API Well No. 47 - 095 - 1646-61
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 Forrest Glover
Address P.O. Box 332
Middlebourne, WV 26149

(ii) Name Marie A. Walters
Address c/o Dale Nice
P.O. Box 34

(iii) Name Reader, WV-26167
Address _____

7 (i) COAL OPERATOR:
Name N/A
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 *[Signature]*
Its Supervisor, Surveying/Mapping
Telephone (304) 422-6565

**OFFICE USE ONLY
DRILLING PERMIT**

Permit number 47-095-1646-LI

June 10 19 96
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 6-10-98 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>MS</u>	Casing: <u>AS</u>	Fee: <u>CR#</u>
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030134498

[Handwritten Signature]

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

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: _____