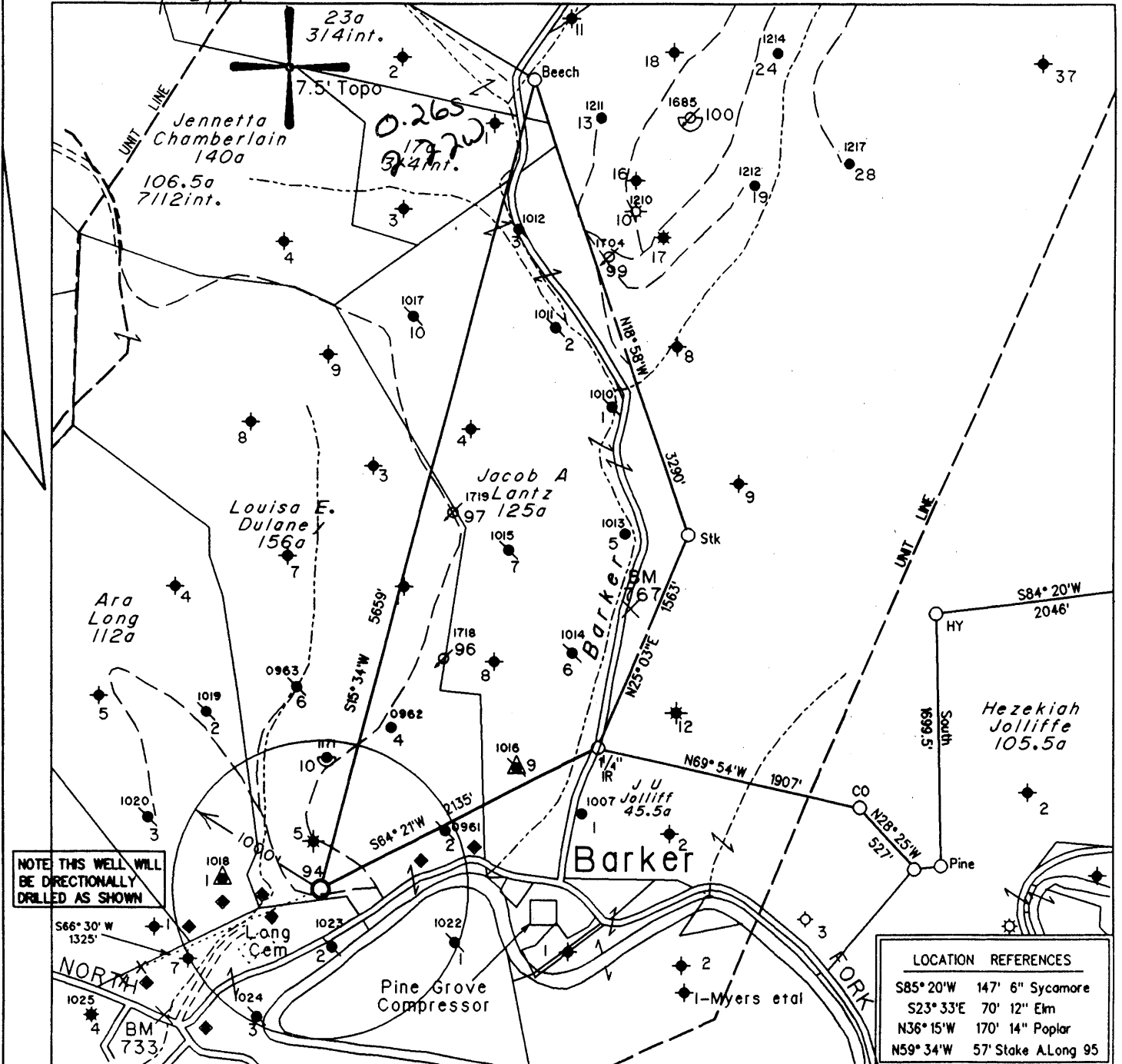


GS 6/26/97



NOTE THIS WELL WILL BE DIRECTIONALLY DRILLED AS SHOWN

LOCATION REFERENCES	
S85° 20' W	147' 6" Sycamore
S23° 33' E	70' 12" Elm
N36° 15' W	170' 14" Poplar
N59° 34' W	57' Stake A. Long 95

Note: All known water supply sources within 1000' of proposed well are shown.

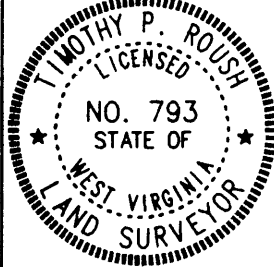
◆ - Denotes a Water Supply Source

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

FILE NO. 1683  
 MAP NO. N 68 N 10 S E W 3  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION USGS BM - 838'

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 June 19, 19 97  
 FARM Mary B. Long NO. 94  
 API WELL NO. 47-103-01742-5

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 822' WATERSHED North Fork of Fishing Creek  
 DISTRICT Grant COUNTY Wetzel  
 QUADRANGLE Pine Grove

Directional well

SURFACE OWNER Paul Able ACREAGE 128.5 Ac.  
 OIL & GAS ROYALTY OWNER Robert B. Myers et al. LEASE ACREAGE 200 Ac.  
 LEASE NO. 24891-50

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 3160' MD

JUL 14 1997

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

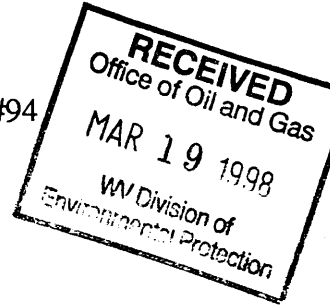
8-0 40

WR-35

10-Jul-97  
API # 47 -103- 1742

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

Well Operator's Report of Well Work



Farm name: Able, Paul etal  
LOCATION: Elevation: 822.00  
District: Grant  
Latitude: 1,425 Feet south of  
Longitude: 11,700 Feet west of

Operator Well No.: Mary B. Long #94  
Quadrangle: Pine Grove  
County: Wetzell  
39 Deg 35 Min 0 Sec.  
80 Deg 37 Min 30 Sec.

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

Agent: PHILIP S. ONDRUSEK

Inspector: Randal Mick

Permit Issued: 7/11/97

Well work Commenced: 7/24/97

Well work Completed: 9/11/97

Verbal plugging permission granted on:

Rotary X Cable \_\_\_\_\_ Rig \_\_\_\_\_

Total Depth (feet) 3433'

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"	793'	793'	360 Sacks
4 1/2"	3434.00'	3434.00'	315 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) 3,343

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: 3/16/98

MAR 18 1998

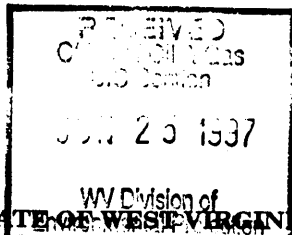
**Treatment :**

Perforated Gordon sand with 20 holes from 3349'-3354' K.B. Fractured with 300 gals 15% HCL and 180 bbls gelled water and 9000 lbs. 20/40 sand

**Well Log :**

All depth are relative to K.B. This well was directionally drilled.

0	731 Sand and Shale
731	1129 Shale
1129	1153 sand
1153	1211 Shale
1211	1337 sand
1337	1435 Shale
1435	1529 sand
1529	1573 Shale
1573	1607 sand
1607	1637 Shale
1637	1649 sand
1649	1795 Shale
1795	1885 Big Lime
1885	2151 Big Injun
2151	3280 Shale
3280	3322 Gordon Stay
3322	3343 Shale
3343	3364 Gordon
3364	3450 Shale



1) Date June 4, 1997  
 2) Well No. Mary B. Long No.94  
 3) SIC Code \_\_\_\_\_  
 4) API Well No. 47 - 103 - 1742-LI  
 State            County            Permit             
 5) UIC Code \_\_\_\_\_

*Issued 07/11/97  
 expires 07/11/99*

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**

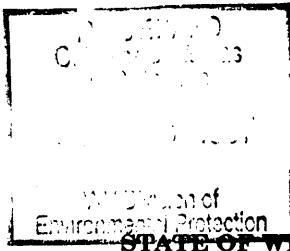
23970

- WELL TYPE: Liquid Injection X Gas Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_
- LOCATION: Elevation 822 Watershed North Fork of Fishing Creek  
 District Grant (4) County Wetzel Quadrangle            Pine Grove 548
- WELL OPERATOR: Pennzoil Products Company 37450  
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 Randal Mick  
 Address 111 Blackshere Drive  
Mannington, WV 26582
- 11) DRILLING CONTRACTOR: Name \_\_\_\_\_  
 Address \_\_\_\_\_
- 12) PROPOSED WELL WORK: Drill X Drill Deeper \_\_\_\_\_ Redrill \_\_\_\_\_ Stimulate X  
 Note: Well Will Be Drilled Directionally Plug Off Old Formation Perforate New Formation \_\_\_\_\_ Convert \_\_\_\_\_  
S66-30W 1325' to Bottom Hole Location Physical Change in Well (specify) New Drill
- 13) Geological target formation Gordon 419 Depth 2652 TVD Ft. (Top) to 2672 TVD Ft. (Bottom)
- 14) Estimated depth of completed well (or actual depth of existing well) 3080 MD Ft.
- 15) Approximate water strata depths: Fresh 30 Ft. Salt 1122 Ft.
- 16) Approximate coal seam depths: 582 Ft.
- 17) Is coal being mined in the area? Yes X 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 indentification 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	Size	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS	PACKERS
		Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	8 5/8"	L.S.	20#	X		820	820	Cement To	
Coal								Surface	Sizes
Intermediate									
Production	4 1/2"	J-55	10.5#	X		3160	3160	Cement Over	Depths Set
Tubing								Salt Sand	
Liners									Perforations
									Top Bottom

25) APPLICANTS OPERATING RIGHTS were acquired from Mary B. Long et al.  
 by Deed \_\_\_\_\_ Lease X Other Contract \_\_\_\_\_ Dated March 22, 1901 of record in the  
Wetzel County Clerk's Office in            Lease Book 67 at Page 581



1) Date	<u>June 20, 1997</u>		
2) Well No.	<u>Mary B. Long No.94</u>		
3) SIC Code	_____		
4) API Well No.	<u>47</u>	<u>103</u>	<u>1742-41</u>
	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 Paul Able  
 Address Rt. 2, Box 10  
Jacksonburg, WV 26377

(ii) Name Herbert & Hester Slaughter  
 Address HC 62, Box 16  
Pine Grove, WV 26419

(iii) Name \_\_\_\_\_  
 Address \_\_\_\_\_

7 (i) COAL OPERATOR:  
 Name N/A  
 Address \_\_\_\_\_

7 (ii) COAL OWNER WITH DECLARATION ON RECORD:  
 Name DUPECH, Inc.  
 Address 6451 Pleasant St.  
Library, PA 15129

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 \_\_\_\_\_

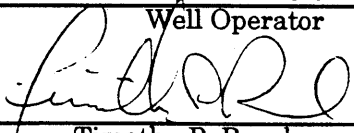
THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM WW-3(B)) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

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   
 Timothy P. Roush  
 Supervisor, Surveying/Mapping

Telephone (304) 422-6565