

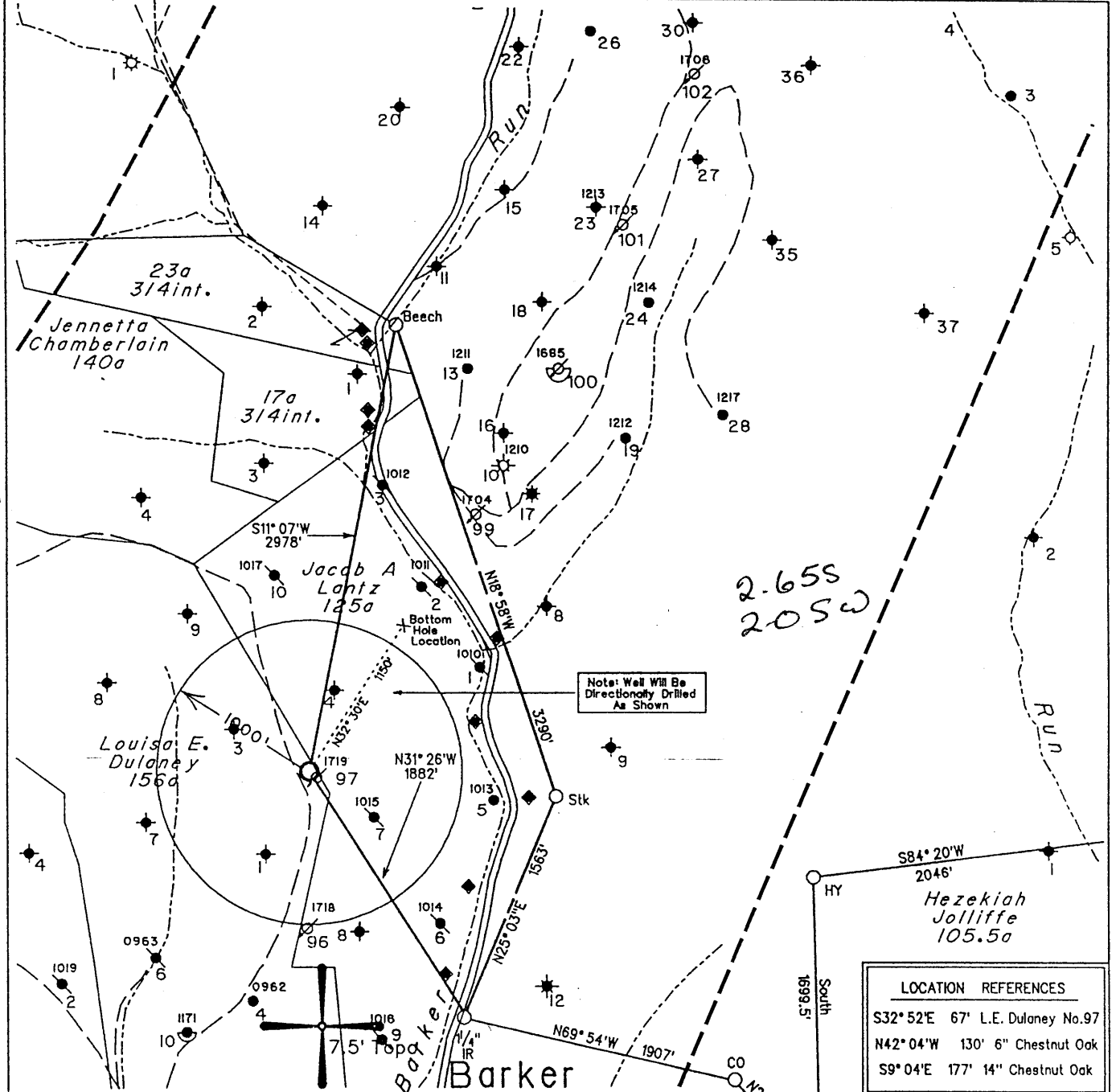
10,825'

LATITUDE 39° 37' 30"

LONGITUDE 80° 37' 30"

14,000'

GS 6/12/97



2.65S
2.05W

LOCATION REFERENCES	
S32° 52'E	67' L.E. Dulaney No.97
N42° 04'W	130' 6" Chestnut Oak
S9° 04'E	177' 14" Chestnut Oak

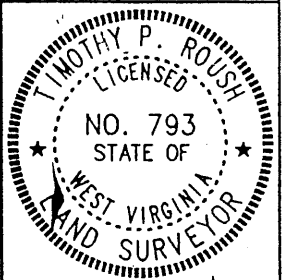
Note: No Known Water Supply Sources Are Located Within 1000' Of Proposed Well

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

FILE NO. 400
 MAP NO. N68 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 4, 19 97
 FARM J.A. Lantz NO. 98 Rev.
 API WELL NO. 47-103-01720-8

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1300' WATERSHED North Fork of Fishing Creek
 DISTRICT Grant COUNTY Wetzel
 QUADRANGLE Pine Grove

SURFACE OWNER Paul Able et al ACREAGE 128.5 Ac.
 OIL & GAS ROYALTY OWNER Robert B. Myers LEASE ACREAGE 125 Ac.

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

FEB 02 1999

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Gordon ESTIMATED DEPTH 3600' MD
 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

FEB 02 1999

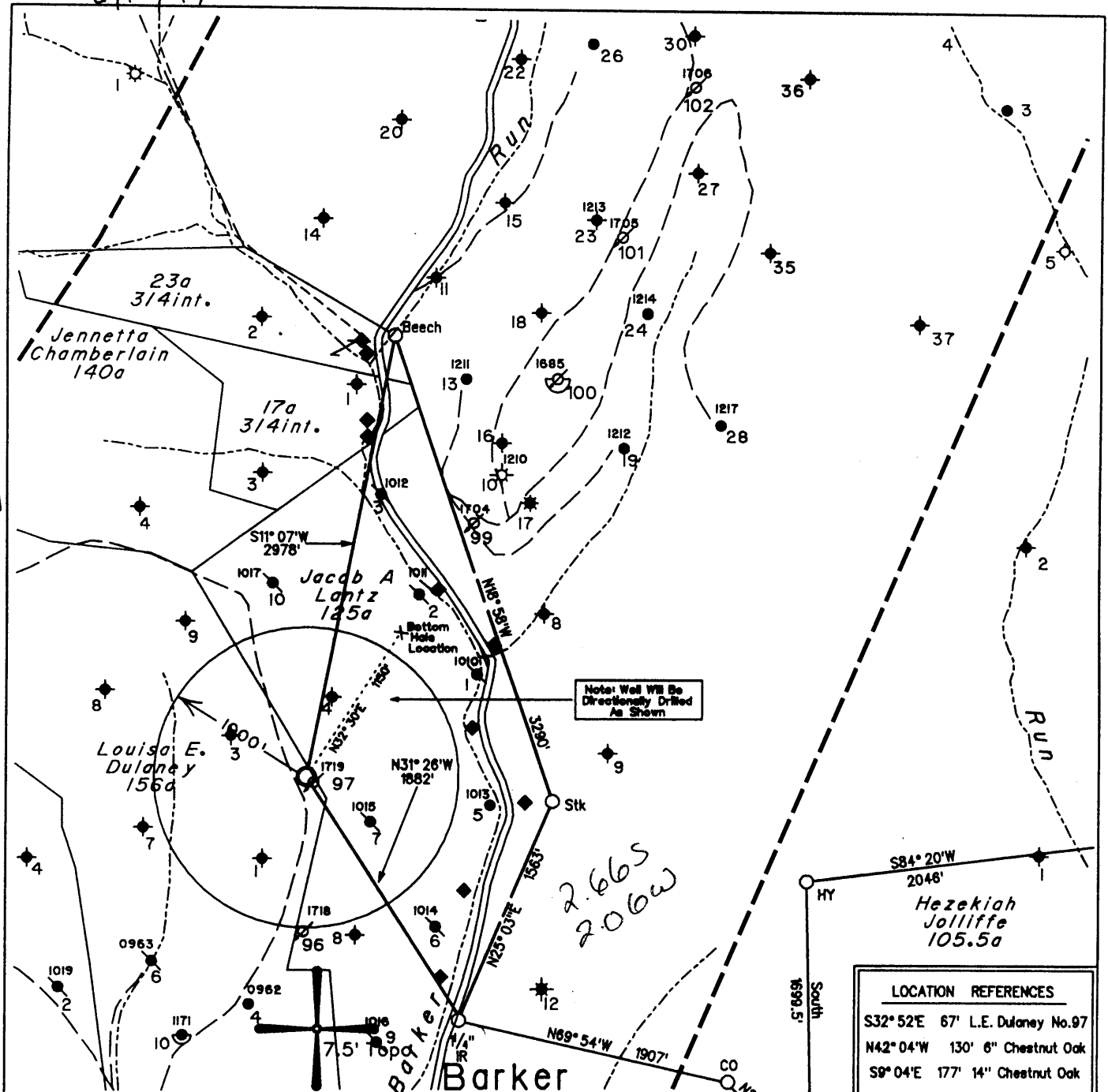
Pine Grove W

WET 1720 CANC.

GS 6/12/97

LATITUDE 39° 37' 30"

LONGITUDE 80° 37' 30"



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

LOCATION REFERENCES	
S32° 52' E	67' L.E. Dulaney No. 97
N42° 04' W	130' 6" Chestnut Oak
S9° 04' E	177' 14" Chestnut Oak

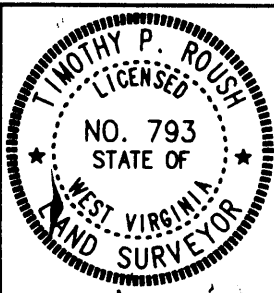
◆ Denotes a Water Supply Source

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

FILE NO. 400
 MAP NO. N68 N 10 S E W 3
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION USGS BM - 838'

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(SIGNED) Timothy P. Roush
 TIMOTHY P. ROUSH PS 793



STATE OF WEST VIRGINIA
 DIVISION OF ENERGY
 OIL AND GAS SECTION



DATE June 4, 19 97
 FARM J.A. Lantz NO. 98 Rev.
 API WELL NO. 47-103-01720-2

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1300' WATERSHED North Fork of Fishing Creek
 DISTRICT Grant COUNTY Wetzel
 QUADRANGLE Pine Grove
 SURFACE OWNER Paul Able et al ACREAGE 128.5 Ac.
 OIL & GAS ROYALTY OWNER Robert B. Myers LEASE ACREAGE 125 Ac.
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

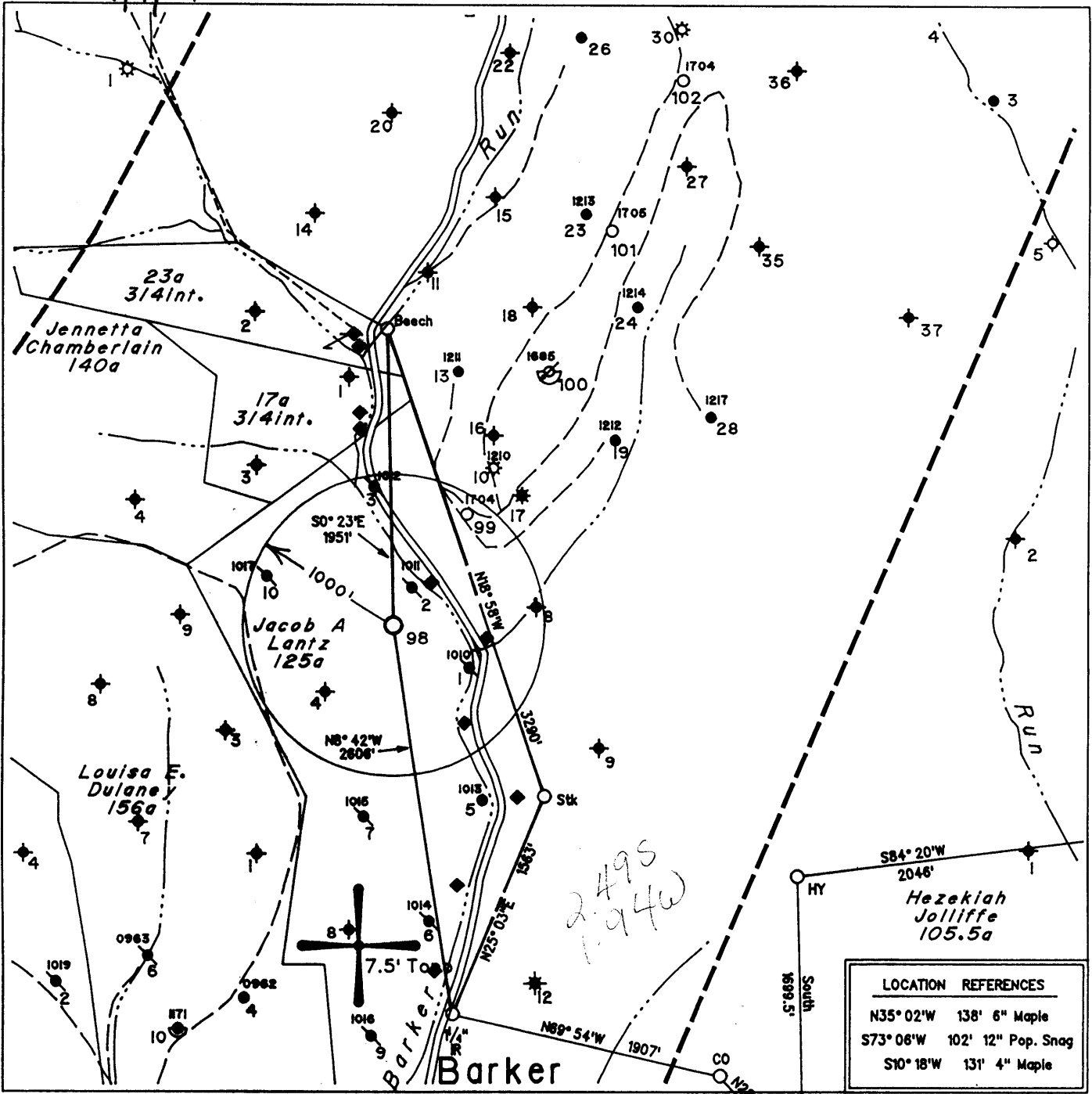
PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Gordon ESTIMATED DEPTH 3600' MD
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT Philip S. Ondrusek
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519
Vienna, W.Va. 26105 Vienna, W.Va. 26105

JUL 18 1997

8-0 40

FORM IV-6

GS 9/9/96



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

LOCATION REFERENCES	
N35° 02' W	138' 6" Maple
S73° 06' W	102' 12" Pop. Snag
S10° 18' W	131' 4" Maple

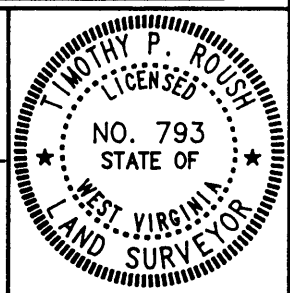
◆ - Denotes a Water Supply Source

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

FILE NO. 400
 MAP NO. N68 N 10 S E W 2
 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 August 30, 19 96
 FARM J.A. Lantz NO. 98
 API WELL NO. 47-103-01720-5

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1007' WATERSHED Barker Run
 DISTRICT Grant COUNTY Wetzel
 QUADRANGLE Pine Grove

SURFACE OWNER Nellie Willey ACREAGE 53.35 Ac.
 OIL & GAS ROYALTY OWNER Robert B. Myers LEASE ACREAGE 125 Ac.
 LEASE NO. 14600-50

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 2997'
 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

FORM IV-6

007 0 1 1096

WR-35

14-Jul-97
API # 47 -103- 1720

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

RECEIVED
Office of Oil and Gas
MAR 19 1997
WV Division of Environmental Protection

Farm name: Able, Paul Operator Well No.: J.A. Lantz #98-R

LOCATION: Elevation: 1,300.00 Quadrangle: Pine Grove
District: Grant County: Wetzel
Latitude: 14,000 Feet south of 39 Deg 37 Min 30 Sec.
Longitude: 10,825' Feet west of 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: 7/15/97

Well work Commenced: 9/3/97

Well work Completed: 10/10/97

Verbal plugging permission granted on:

Rotary X Cable _____ Rig _____

Total Depth (feet) 3441'

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"	1150'	1150'	500 Sacks
4 1/2"	3419.35'	3419.35'	180 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) 3,310

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: 9/16/98

14-30-98

WET 1720

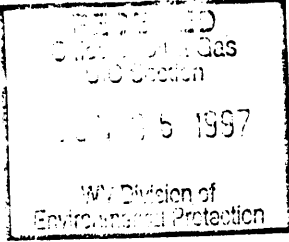
Treatment :

Perforated Gordon sand with 24 holes from 3354'-3360' K.B. Fractured with 300 gals 15% HCL and 204 bbls gelled water and 10,000 lbs. 20/40 sand

Well Log :

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

0	1108 Sand and Shale
1108	1152 sand
1152	1368 Shale
1368	1380 sand
1380	1570 Shale
1570	1598 sand
1598	1670 Shale
1670	1712 sand
1712	1880 Shale
1880	1923 sand
1923	1975 Shale
1975	2006 sand
2006	2240 Shale
2240	2283 Big Lime
2283	2690 Big Injun
2690	3310 Shale
3310	3336 Gordon Stray
3336	3348 Shale
3348	3370 Shale
3370	3441 Shale



1) Date June 4, 1997
2) Well No. J.A. Lantz No.98 Rev.
3) SIC Code _____
4) API Well No. 47 - 103 - 1726 - Rev
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 Agnes Morris
Address Box 21
Pine Grove, WV 26419
(iii) Name Herbert & Hester Slaughter
Address HC 62, Box 16
Pine Grove, WV 26419

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.

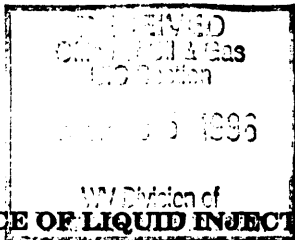
Take notice that under Chapter 22B of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Director of the Division of Oil and Gas, West Virginia Department of Energy, with respect to 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 [Signature]
Timothy P. Roush
Its Supervisor, Surveying/Mapping
Telephone (304) 422-6565

Obverse
10/91



1) Date August 29, 1996
 2) Well No. J.A. Lantz No.98
 3) SIC Code _____
 4) API Well No. 47 - 103 - 1720-LI
 State County Permit
 5) UIC Code _____

Issued 10/02/96
Expires 10/02/98

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

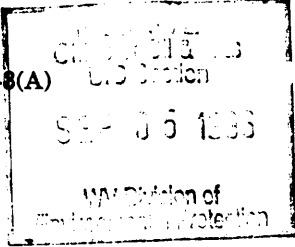
- WELL TYPE: Liquid Injection X Gas Injection _____ Waste Disposal _____
- LOCATION: Elevation 1007 Watershed Barker Run District Grant County Wetzel Quadrangle Pine Grove
- 8) WELL OPERATOR: Pennzoil Products Company 4670 9) DESIGNATED AGENT: Philip S. Ondrusek
P.O. Box 5519 P.O. Box 5519
Vienna, WV 26105 Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED: 11) DRILLING CONTRACTOR:
 Name Randal Mick Name _____
 Address 111 Blackshere Drive Address _____
Mannington, WV 26582
- 12) PROPOSED WELL WORK: Drill X Drill Deeper _____ Redrill _____ Stimulate X
 Plug Off Old Formation _____ Perforate New Formation _____ Convert _____
 Other Physical Change in Well (specify) _____
- 13) Geological target formation Gordon 419 Depth 2897 Ft. (Top) to 2912 Ft. (Bottom)
- 14) Estimated depth of completed well (or actual depth of existing well) 2997 Ft.
- 15) Approximate water strata depths: Fresh 187 Ft. Salt 1307 Ft.
- 16) Approximate coal seam depths: 807 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 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		857	857	Cement To	
Coal								Surface	Sizes
Intermediate									
Production	4 1/2"	J-55	10.5#	X		2997	2997	Cement Over	Depths Set
Tubing								Salt Sand	
Liners									Perforations
									Top Bottom

25) APPLICANTS OPERATING RIGHTS were acquired from J.A. & Zue Lantz
 by Deed _____ Lease X Other Contract _____ Dated Feb. 20, 1895 of record in the
Wetzel County Clerk's Office in Lease Book 44 at Page 354

22666



1) Date August 29, 1996
2) Well No. J.A. Lantz No.98
3) SIC Code _____
4) API Well No. 47 - 103 - 1721-21
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 Nellie Willey
Address Barker Route
Pine Grove, WV 26419
(ii) Name _____
Address _____
(iii) Name _____
Address _____

7 (ii) COAL OWNER

Name J. Michael Myers
Address 1895 Old Clinton Road
Macon, GA 31211

7 (ii) COAL OWNER

Name Robert Barry Myers, Sr.
Address 348 River Pointe Drive
Macon, GA 31211

7(iii) COAL LESSEE WITH DECLARATION ON RECORD:

Name N/A
Address Note: No Commercial Coal

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

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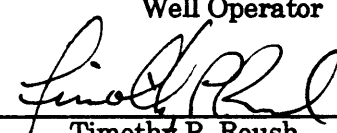
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"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, 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 Timothy P. Roush
Supervisor, Surveying/Mapping
Telephone (304) 422-6565