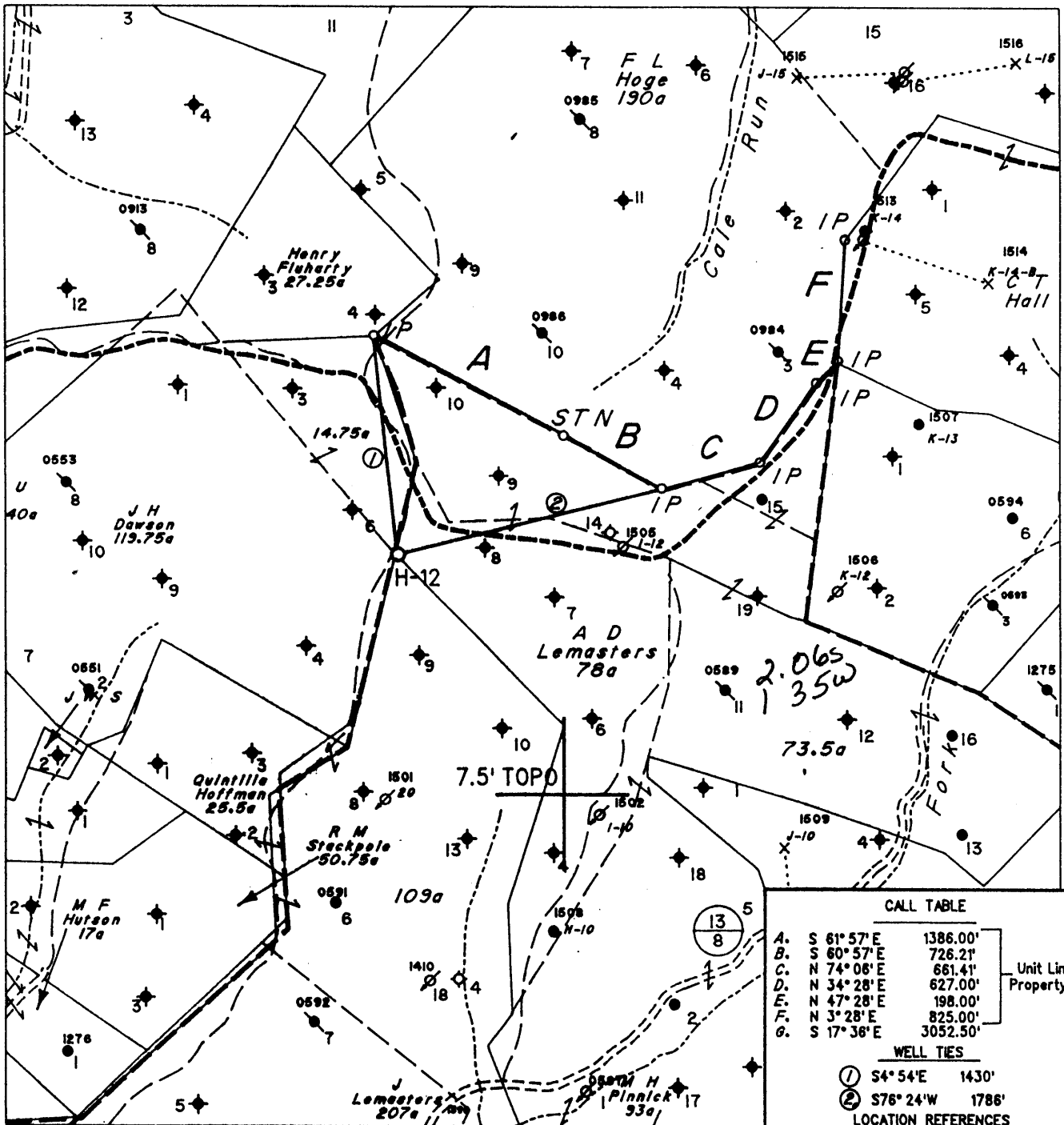


98-5-6-93

LATITUDE 39° 30' 00"

LONGITUDE 80° 40' 00"



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 81° 57' E	1386.00'
B.	S 80° 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 S4° 54' E 1430'
- ② S76° 24' W 1786'

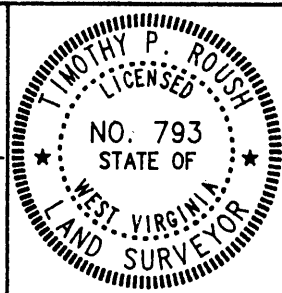
LOCATION REFERENCES

- S39° 12' W 200' 12" Chestnut Oak
- N8° 38' E 195' Fence Post
- N48° 29' E 194' 10" Maple

FILE NO. 431
 MAP NO. N47 N L S E W 5
 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 16, 19 93
 FARM A.D. Lemasters NO. H-12
 API WELL NO. 47-095-1535-L1

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1379' WATERSHED Left Hand Fork
 DISTRICT McElroy S COUNTY Tyler
 QUADRANGLE Centerpoint 15 NW

SURFACE OWNER Frances and C.J. Wadsworth ACREAGE 80.13 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 207 Ac.
 LEASE NO. 12958-50

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 3370'

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

JUN 4 1993

FORM IV-6

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

JAN 16 1996

Permitting
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: WADSWORTH, FRANCES & C.I. Operator Well No.: LEMASTERS H-12

LOCATION: Elevation: 1,379.00 Quadrangle: CENTER POINT

District: MCELROY County: TYLER
Latitude: 10800 Feet South of 39 Deg. 30Min.
Longitude 7200 Feet West of 80 Deg. 40 Min. Sec. Sec.

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

Agent: JAMES A. CREWS

Inspector: MIKE UNDERWOOD
Permit Issued: 05/25/93
Well work Commenced: 07/09/93
Well work Completed: 09/16/93
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3390'
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 Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	649'	649'	205 sks.
4-1/2"	3348.65'	3348.65'	300 sks.

OPEN FLOW DATA (Water Injection Well)

Producing formation Gordon Pay zone depth (ft) 3235-3302
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/
 Final open flow _____ MCF/d Final open flow _____ Bbl/
 Time of open flow between initial and final tests _____ Hour
 Static rock Pressure _____ psig (surface pressure) after _____ Hour

Second producing formation _____ Pay zone depth (ft) _____
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/
 Final open flow _____ MCF/d Final open flow _____ Bbl/
 Time of open flow between initial and final tests _____ Hour
 Static rock Pressure _____ psig (surface pressure) after _____ Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE 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 WELLS.


For: PENNZOIL PRODUCTS COMPANY

By: Timothy P. Roush, Supervisor, Surveying/Mapping
Date: September 15, 1993

Treatment

Perforated: Gordon from 3260' - 3276' (32 holes)

Treated: w/290 bbls. of gelled water, 1500# 80/100 sand
and 3500# 20/40 sand.

Well Log

Sand & Shale	0 - 660
Shale	660 - 834
Sand & Shale	834 - 985
Limestone & Shale	985 - 1040
Limestone	1040 - 1086
Shale	1086 - 1200
Limestone	1200 - 1220
Shale	1220 - 1250
Sand & Shale	1250 - 1475
Shale	1475 - 1610
Sand	1610 - 1680
Shale	1680 - 1835
Sand & Shale	1835 - 2005
Sand	2005 - 2030
Shale	2030 - 2180
Sand	2180 - 2220
Shale	2220 - 2385
Little Lime	2385 - 2398
Shale	2398 - 2412
Blue Monday	2412 - 2440
Big Lime	2440 - 2490
Big Injun	2490 - 2680
Shale	2680 - 3235
Gordon	3235 - 3302
Total Depth	3390'

10/91

17336

RECEIVED

WV Division of
Environmental Protection

APR 27 93

Permitting
Office of Oil & Gas



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

- 1) Date: April 26,
2) Operator's Well No. A.D. LEMASTERS H-12
3) SIC Code _____
4) API Well NO. 47 - 095 15355
State County
5) UIC Permit No. _____

Issued 05/25/93
Expires 05/25/95

FORM H-12 Rev

- 6) WELL TYPE: Liquid injection / Gas injection (not storage) _____ / Waste disposal _____
7) LOCATION: Elevation: 1379' Watershed: Lefthand Fork
District: McElroy County: Tyler Quadrangle: Centerpoint 28
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
Name Mike Underwood 11) DRILLING CONTRACTOR:
Address Rt. #2, Box 135 Name _____
Salem, WV 26426 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 419 Depth 3264 feet(top) to 3279 feet(bottom)
14) Estimated depth of completed well, (or actual depth of existing well) 3370 ft.
15) Approximate water strata depths; Fresh, 559 feet; salt, ~~559~~ feet.
16) Approximate coal seam depths: 1190
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		630	630	Cement to	
Coal								Surface	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		3370	3370	Cement over	Depths set
Tubing								Salt Sand	
Liners									Perforations:
									Top Bottom

- 25) APPLICANT'S OPERATING RIGHTS were acquired from Stringtown Unit #1 Royalty Owners
by deed _____ / lease _____ / other contract / dated _____, 19____, of record in the
Tyler County Clerk's office in Book 235 at page 306

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

RECEIVED
WV Div. of
Environmental Protection
APR 27 93

Permitting
Division of Oil & Gas

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

- 1) Date April 26, 1993 Operator's
- 2) Well No. A.D. LEMASTERS H-12
- 3) SIC Code _____
- 4) API Well No. 47 - 095 - 1535 State County Permi

- 6) SURFACE OWNER(S) OF RECORD TO BE SERVED
 - (i) Name Frances & C.I. Wadsworth
Address Alvy, WV 26322
 - (ii) Name _____
Address _____
 - (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