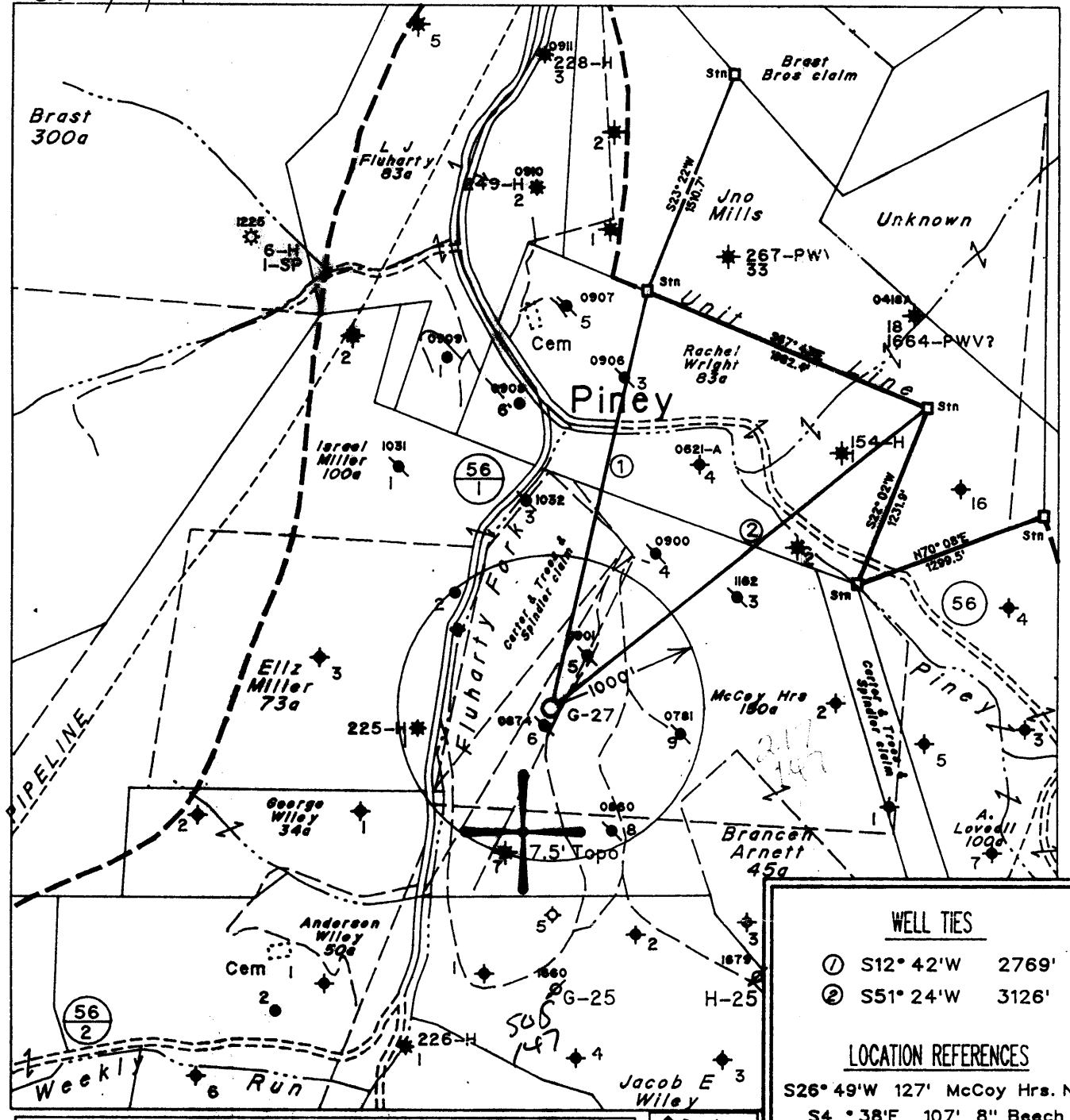


18 2/14/96



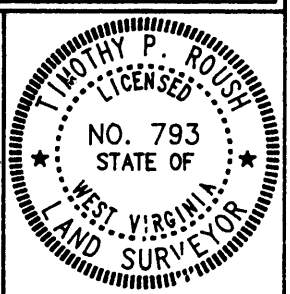
Note: All Known Water Supply Sources Located Within 1000' Of Proposed Well Are Shown  
 (H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 ♦ Denotes a Water Supply Source

WELL TIES	
①	S12° 42' W 2769'
②	S51° 24' W 3126'
LOCATION REFERENCES	
S26° 49' W 127'	McCoy Hrs. No. 6
S4° 38' E 107'	8" Beech
N55° 41' E 156'	10" Poplar

FILE NO. 1431  
 MAP NO. N57 N 5 S E W 4  
 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

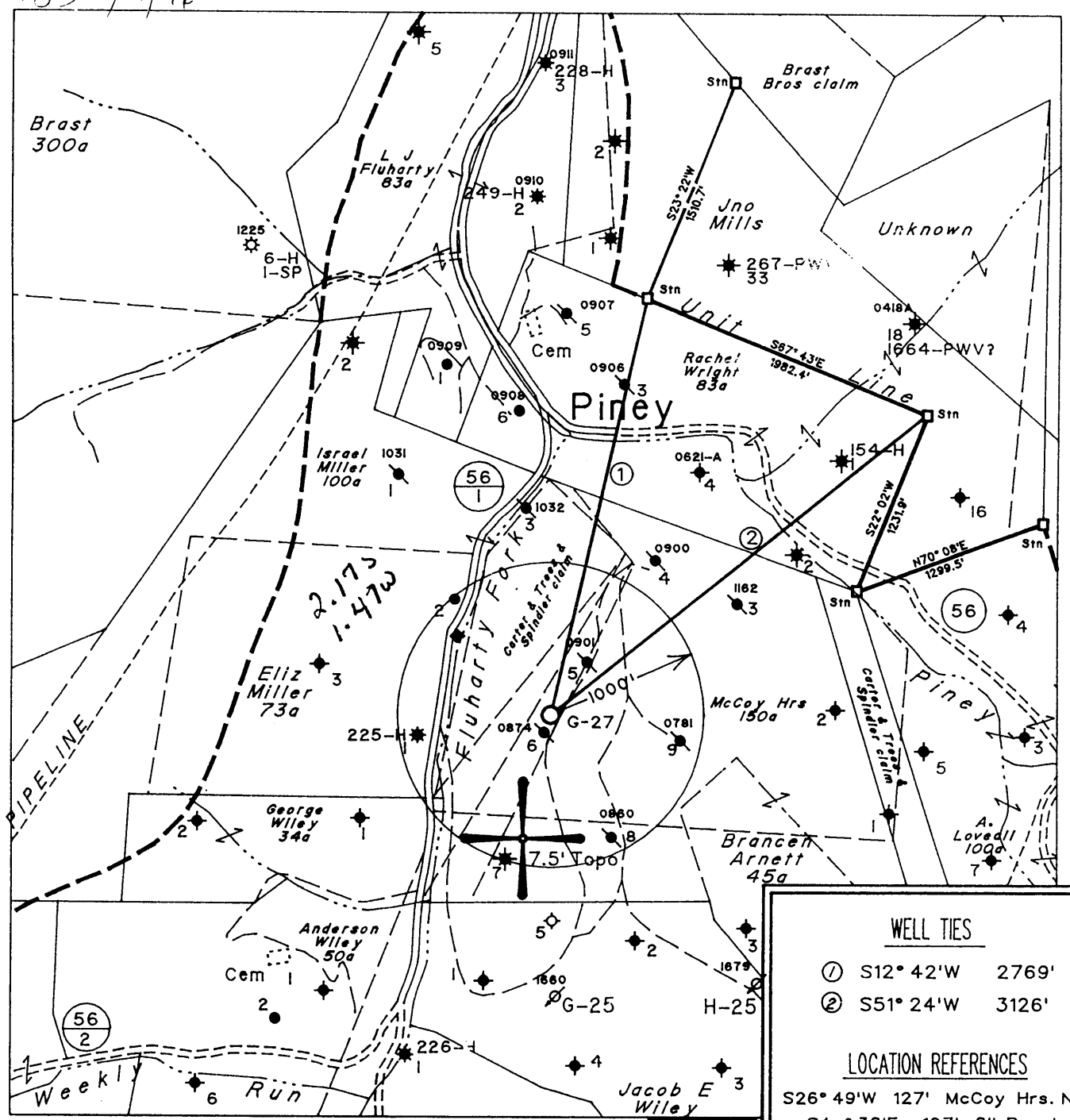


DATE February 1, 19 96  
 FARM McCoy Hrs. NO. G-27  
 API WELL NO. 47-103-01696-S

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1057' WATERSHF. Fluharty Fork  
 DISTRICT Green COUNTY Wetzel  
 QUADRANGLE Pine Grove *Littleton SW*  
 SURFACE OWNER Coastal Lumber Co. ACREAGE 154.51 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE 150 Ac.  
 LEASE NO. 25040-50  
 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 3057'  
 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

WEST-1696-S

18 2/14/96



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

Denotes a Water Supply Source

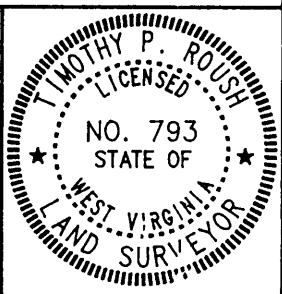
(H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

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S26° 49' W 127'	McCoy Hrs. No. 6
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FILE NO. 1431  
 MAP NO. N57 N 5 S E W 4  
 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 February 1, 19 96  
 FARM McCoy Hrs. No. G-27  
 API ELL NO. 47-103-01696-S

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1057' WATERSHED Fluharty Fork  
 DISTRICT Green COUNTY Wetzzel  
 QUADRANGLE Pine Grove  
 SURFACE OWNER Coastal Lumber Co. ACREAGE 154.51 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE 150 Ac.  
 LEASE NO. 25040-50  
 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 3057'  
 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

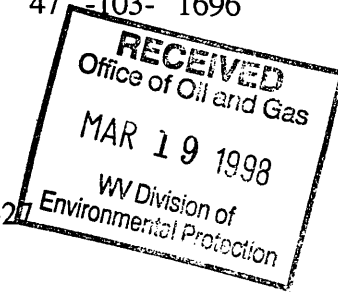
WEST-1696-S

11-15-96  
8-0 95

WR-35

API # 47-103-1696 3-Apr-96

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



Well Operator's Report of Well Work

Farm name: Coastal Lumber Company  
LOCATION: Elevation: 1057'  
District: Green  
Latitude: 7,750' Feet south of  
Longitude: 11,400' Feet west of  
Company: PENNZOIL PRODUCTS COMPANY  
P.O. BOX 5519  
VIENNA, WV 26105-5519

Operator Well No.: McCoy Hrs. #G-27  
Quadrangle: Pine Grove  
County: Wetzel  
39 Deg 32 Min 30 Sec.  
80 Deg 40 Min 0 Sec.

Agent: PHILIP S. ONDRUSEK  
Inspector: Mike Underwood  
Permit Issued: 3/4/96  
Well work Commenced: 6/19/96  
Well work Completed: 9/9/96  
Verbal plugging permission granted on:  
Rotary X Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) 3052'  
Fresh water depths (ft) NA  
Salt water depths (ft) NA  
Is coal being mined in area (Y/N) N  
Coal Depths (ft): 837

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	307'	307'	150 Sacks
4 1/2"	2995.85'	2995.85'	135 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) 2,897

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

WET 1696

WV 103-1696

**Treatment :**

Perforated Gordon sand with 48 holes from 2900'-2908' K.B. Fractured with 300 gals 15% HCL and 200 bbls gelled water and 12,300 lbs. 20/40 sand

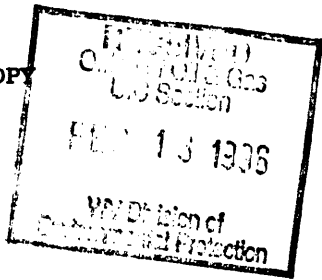
**Well Log :**

All depth are relative to K.B.

0	514 Sand and Shale
514	837 Shale
837	845 Coal
845	884 Shale
884	916 sand
916	1332 Shale
1332	1430 sand
1430	1620 Shale
1620	1668 sand
1668	1824 Shale
1824	1856 sand
1856	2062 Shale
2062	2133 Big Lime
2133	2317 Big Injun
2317	2869 Shale
2869	2886 Gordon Stray
2886	2897 Shale
2897	2917 Gordon
2917	3052 Shale

12

FILE COPY



- 1) Date February 6, 1996
- 2) Well No. McCoy Heirs No. G-27
- 3) SIC Code \_\_\_\_\_
- 4) API Well No. 47 - 103 - 1036 - LI  
State County Permit
- 5) UIC Code \_\_\_\_\_

*Issued 04/09/96*

21604

**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 04/09/98*

- WELL TYPE: Liquid Injection  Gas Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_
- LOCATION: Elevation 1057 Watershed Fluharty Fork 548  
District Green County \_\_\_\_\_ Wetzel \_\_\_\_\_ Quadrangle \_\_\_\_\_ Pine Grove \_\_\_\_\_
- 8) WELL OPERATOR: Pennzoil Products Company 4670  
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 419 Depth 2937 Ft. (Top) t 2952 Ft. (Bottom)
- 14) Estimated depth of completed well (or actual depth of existing well) 3057 Ft.
- 15) Approximate water strata depths: Fresh 237 Ft. Salt 1264 Ft.
- 16) Approximate coal seam depths: 869 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		307	307	Cement To	
Coal								Surface	Sizes
Intermediate									
Production	4 1/2"	J-55	10.5	X		3057	3057	Cement Over	Depths Set
Tubing								Salt Sand	
Liners									Perforations
									Top Bottom

25) APPLICANTS OPERATING RIGHTS were acquired from John R. McCoy et al  
by Deed \_\_\_\_\_ Lease  Other Contract \_\_\_\_\_ Dated February 14, 1896 of record in the  
Wetzel County Clerk's Office in Lease Book 48 at Page 445

*4*



**OFFICE USE ONLY  
DRILLING PERMIT**

47-103-1696-LI

4-9-96

Permit number ~~47-103-0874-LI~~

March 4th, 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 ~~3-4-98~~ 4-9-98 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: <i>MS</i>	Casing: <i>MS</i>	Fee: <i>CK 301260924</i>
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*Michael D. Jones*

NOTE: Keep one copy of this permit posted at the drilling location.

**CHIEF, OFFICE OF OIL AND GAS**

**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		" "	
<b>OTHER INSPECTIONS</b>			
Reason:	_____		
Reason:	_____		