

Longitude = 80° 28' 39.7"

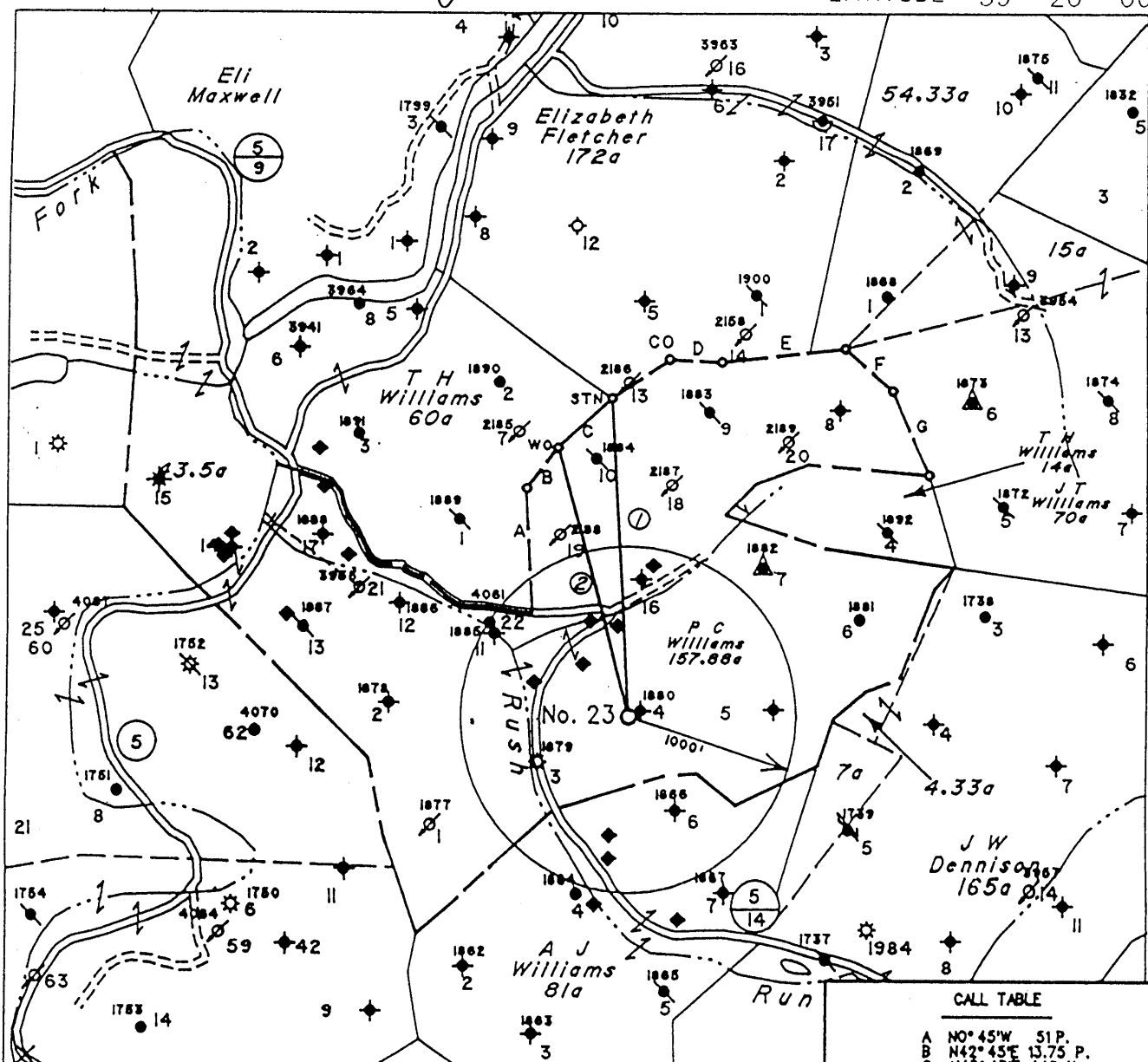
5,475'

LATITUDE 39° 20' 00"

LONGITUDE 80° 27' 30"

13,925'

Latitude 39° 17' 42.2"



NOTES ON PLAT

- 1 - The survey shown hereon is from the original drilling permit dated 5/17/95. It has been re-drafted to show current surface ownership and as-drilled location data.
- 2 - Surface owner information obtained from the Harrison County Assessor's tax records 7/14/03.
- 3 - Latitude and Longitude revised based on DGPS Survey 7/8/03.

CALL TABLE

A	N0° 45' W	51 P.
B	N42° 45' E	13.75 P.
C	N43° 43' E	448.4'
D	S83° E	19 P.
E	N87° E	51 P.
F	S32° E	21 P.
G	S19° 45' E	32 P.

WELL TIES

① S3° 21' E 1915' ② S14° 53' E 1642'

Location References

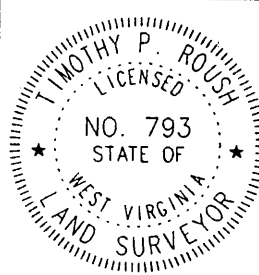
N65° 58' E 79' P.C. Williams No. 4  
 S32° 58' W 123' 10" Q. Aspen  
 S50° 45' E 87' 6" Maple

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

FILE NO. \_\_\_\_\_  
 MAP NO. N29 N S 11 E 8 W  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY \_\_\_\_\_  
 PROVEN SOURCE OF ELEVATION WVDEP Records (Original Survey)

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) [Signature]  
 TIMOTHY P. ROUSH PS 793



WEST VIRGINIA

Division of Environmental Protection  
 Office of Oil and Gas  
 1356 Hansford St.  
 Charleston, West Virginia 25301



DATE July 14, 2003  
 FARM P.C. Williams NO. 23

API WELL NO. 47-033-4096F

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION X WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1,217' WATERSHED Rush Run  
 DISTRICT Tenmile COUNTY Harrison  
 QUADRANGLE Wolf Summit 7.5'

SURFACE OWNER Wilbert O. Zirkle ACREAGE 92.53 Ac.  
 OIL & GAS ROYALTY OWNER East Resources Inc. et al. LEASE ACREAGE 200 Ac.  
 LEASE NO. 27336-50

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

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION Fifth Sand ESTIMATED DEPTH TD - 5007', Fifth Sand - 2801'

WELL OPERATOR East Resources, Inc. DESIGNATED AGENT Michael McCown  
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519  
Vienna, W. Va. 26105 Vienna, W. Va. 26105

AUG 08 2003

47-033-4096F

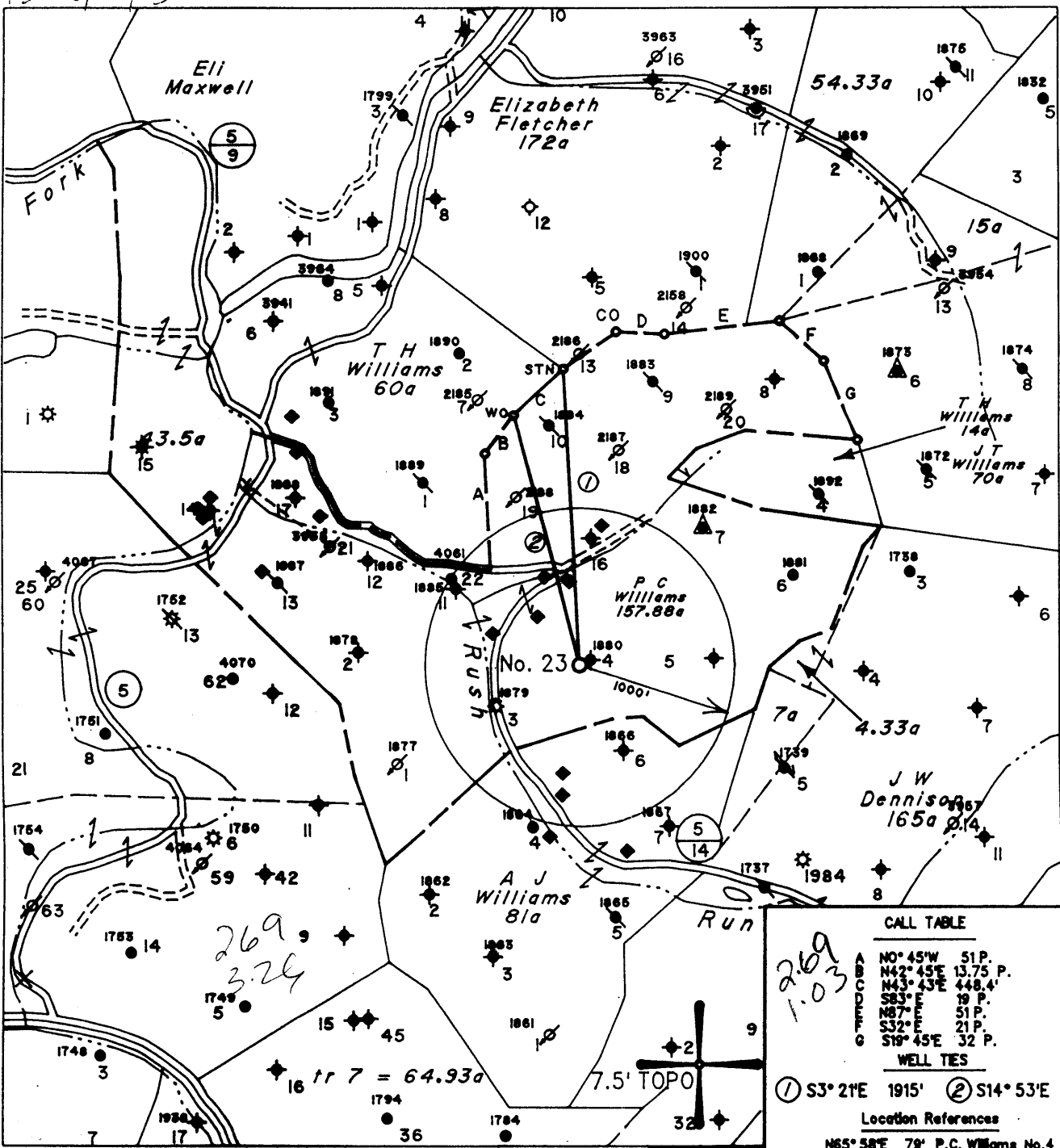
GS 6/20/95

5,450'

LATITUDE 39° 20' 00"

LONGITUDE 80° 27' 30"

13,975'



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

◆ DENOTES A WATER SUPPLY SOURCE.

CALL TABLE	
A	N0° 45' W 51 P.
B	N42° 45' E 13.75 P.
C	N43° 43' E 448.4'
D	S83° 19' P.
E	N87° 51 P.
F	S32° E 21 P.
G	S10° 45' E 32 P.

WELL TIES  
 ① S3° 21'E 1915'    ② S14° 53'E 1642'

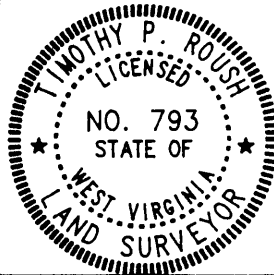
Location References  
 N65° 58'E 79' P.C. Williams No.4  
 S32° 58'W 123' 10" Q. Aspen  
 S50° 45'E 87' 6" Maple

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

FILE NO. 770  
 MAP NO. N29 N S11 E W8  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 2000  
 PROVEN SOURCE OF ELEVATION USGS BM-1081'

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 17, 19 95  
 FARM P.C. Williams NO. 23  
 API WELL NO. 47-033-04096-5

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1217' WATERSHED Rush Run  
 DISTRICT Tennile COUNTY Harrison  
 QUADRANGLE Wolf Summit  
 SURFACE OWNER Wilbert O. Zirkle ACREAGE 6.40 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 200  
 LEASE NO. 27336-50  
 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 Benson ESTIMATED DEPTH 4900'

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

JUL 5 1995

8-0 106

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

Well Operator's Report of Well Work

*mu B*

Farm name: Zirkle, Wilbert O.

Operator Well No.: P.C. Williams 23

LOCATION: Elevation: 1,217.00

Quadrangle: Wolf Summit

District: Ten Mile

County: Harrison

Latitude: 13,975 Feet south of 39 Deg 20 Min 0 Sec.

Longitude: 5,450 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.  
P.O. BOX 5519  
VIENNA, WV 26105-5519

Agent: MICHAEL MCCOWN

Inspector: Tim Bennett

Permit Issued: 08/04/03

Well work Commenced: 11/25/03

Well work Completed: 12/05/03

Verbal plugging permission granted on:

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

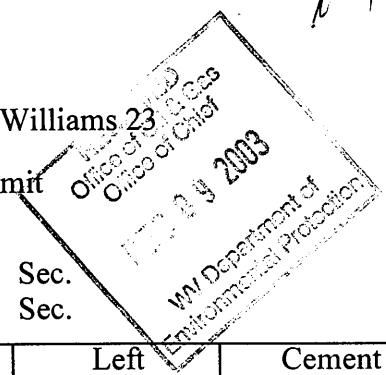
Total Depth (feet) 5,007

Fresh water depths (ft) 225

Salt water depths (ft) NA

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

Coal Depths (ft): 442-450



Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8 5/8"	542.00'	542.00'	170 sks
4 1/2"	4895.35'	4895.35'	450 sks

OPEN FLOW DATA \* water injection well

Producing formation Fifth Sand Pay zone depth (ft) 2785-2801

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 Benson Pay zone depth (ft) 4814-4824

Gas: Initial open flow NA MCF/d Oil: Initial open flow NA Bbl/d

Final open flow NA MCF/d Final open flow NA 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: EAST RESOURCES, INC.  
By: [Signature]  
Date: 12/8/03

HAR 4096

**Treatment :**

Treated Fifth Sand w/ 290 bbls cross linked gel and 19,800 # 20/40 sand

**Well Log :**

See original well record

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

Well Operator's Report of Well Work

Farm name: ZIRKLE, WILBERT O. Operator Well No.: P.C.WILLIAMS#23

LOCATION: Elevation: 1,217.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON  
Latitude: 13975 Feet South of 39 Deg. 20Min. 0 Sec.  
Longitude 5450 Feet West of 80 Deg. 27 Min. 30 Sec.

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

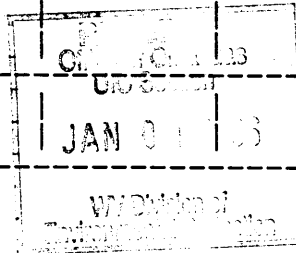
Agent: JAMES A. CREWS

Inspector: TIM BENNETT  
Permit Issued: 06/27/95  
Well work Commenced: 9/19/95  
Well work Completed: 11/8/95  
Verbal Plugging  
Permission granted on:  
Rotary  Cable Rig  
Total Depth (feet) 5007  
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 442-450

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	542'	542'	170 Sks.
4-1/2"	4895.35'	4895.35'	450 Sks.



OPEN FLOW DATA \*Water Injection Well

Producing formation Fifth Sand Pay zone depth (ft) 2785-2801  
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 Benson Pay zone depth (ft) 4814-4824  
Gas: Initial open flow NA MCF/d Oil: Initial open flow NA Bbl/d  
Final open flow NA MCF/d Final open flow NA Bbl/d  
Time of open flow between initial and final tests NA Hours  
Static rock Pressure NA psig (surface pressure) after NA 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: January 2, 1996

JAN 01 1996

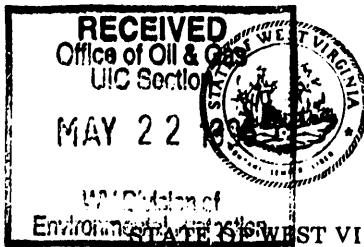
Treatment: Fifth Sand: Perforated 2791'-2794' w/12 holes  
Treated perms. via 4-1/2" casing with 500 gals. 15% Hcl,  
286 bbl. gelled water & 5,000# 20/40 sand  
Benson: Perforated 4818'-4822' w/16 holes  
Treated perms. via 4-1/2" casing with 300 gals. 15% Hcl  
566 bbl. gelled water & 50,000# 20/40 sand.

Well Logs:

0 - 442	Sand & Shale
442 - 450	Pittsburgh Coal
450 - 1145	Sand & Shale
1145 - 1270	Sand
1270 - 1725	Shale w/sand
1725 - 1745	Little Lime
1745 - 1805	Shale w/sand
1805 - 1875	Big Lime
1875 - 1942	Big Injun
1942 - 2355	Shale
2355 - 2382	Fifty-Foot
2382 - 2580	Shale
2580 - 2600	Gordon
2600 - 2610	Shale
2610 - 2622	Fourth Sand
2622 - 2785	Shale
2785 - 2801	Fifth Sand
2802 - 4660	Silt & Shale
4660 - 4706	Riley
4706 - 4814	Silt & Shale
4814 - 4824	Benson
5007	T. D.

10/91

20768



- 1) Date: May 18, 19 95  
 2) Operator's Well No. P. C. Williams No. 23  
 3) SIC Code \_\_\_\_\_  
 4) API Well NO. 47 State 033 County 4096-11 Permit  
 5) UIC Permit No. \_\_\_\_\_

*Issued 06/27/95*

*Expires 06/27/97*

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 (not storage) \_\_\_\_\_ / Waste disposal \_\_\_\_\_
- 7) LOCATION: Elevation: 1217' / Watershed: Rush Run  
 District: Ten Mile / County: Harrison / Quadrangle: Wolf Summit *692*
- 8) WELL OPERATOR Pennzoil Products Co. 37450 / 9) DESIGNATED AGENT James 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 Tim Bennett / 11) DRILLING CONTRACTOR:  
 Address 737 Karl Street / Name \_\_\_\_\_  
Weston, WV 26452 / Address \_\_\_\_\_
- \*NOTE: Well will be a Fifth Sand injection well & will produce gas from Benson formation
- 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, Fifth Sand / Depth 2975 feet (top) to 2995 feet (bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 4900 ft. (to Benson)
- 15) Approximate water strata depths; Fresh, 441 feet; salt, N/A feet. *435*
- 16) Approximate coal seam depths: 441'
- 17) Is coal being mined in the area? Yes \_\_\_\_\_ / No  /
- 18) Virgin reservoir pressure in target formation 1250 psig. Source Estimated
- 19) Estimated reservoir fracture pressure 2650 psig (BHFP)
- 20) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour: 21 bbls. / Bottom hole pressure 2400
- 21) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES: Fresh water, produced water, bactericides & 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		
Conductor								Kinds
Fresh water	8-5/8	L.S.	20	X		516	516	Cement to surface
Coal								Sizes
Intermediate								
Production	4-1/2	J-55	10.5	X		4900	4900	400 sks. / Depths set
Tubing								
Liners								Perforations: / Top Bottom

- 25) APPLICANT'S OPERATING RIGHTS were acquired from P. C. & Rosie B. Williams  
 by deed \_\_\_\_\_ / lease  / other contract \_\_\_\_\_ / dated November 16, 1987, of record in the  
Harrison County Clerk's office in Harrison County, West Virginia, Book 92 at page 110

**OFFICE USE ONLY  
DRILLING PERMIT**

Permit number 47-033-4096-LI

6-27 19 95  
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 6-27-97 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: ✓	Agent: ✓	Plat: AS	Casing: AS	Fee: CK 21324
------------	-------------	-------------	---------------	---------------------

*Michael W. Lewis*  
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**

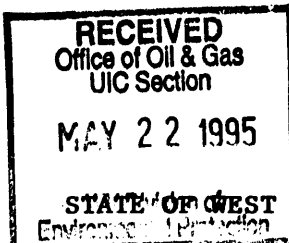
This part of Form IV-3(b) is to record the dates of certain occurrences and any follow-up inspections.

	Date	Follow-up inspection(s)	Date(s)
Application received			
Well work started		" "	
Total depth reached		" "	
Well Record received		" "	
Reclamation completed		" "	
OTHER INSPECTIONS			

Reason: \_\_\_\_\_

Reason: \_\_\_\_\_





- 1) Date May 18, 1995  
Operator's \_\_\_\_\_
- 2) Well No. P. C. Williams No. 23
- 3) SIC Code \_\_\_\_\_
- 4) API Well No. 47 - 033 - 4096  
State County Permit \_\_\_\_\_

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 Wilbert O. Zirkle  
Address Rt. 1, Box 47  
Bristol, WV 26332

(ii) Name \_\_\_\_\_  
Address \_\_\_\_\_

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

7 (i) COAL OPERATOR \_\_\_\_\_  
Address \_\_\_\_\_

7 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name The Endres Company  
Address 110 State Street  
Bridgeport, WV 26330

7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:  
Name Anker Energy Corporation  
Address 2708 Cranberry Square  
Morgantown, WV 26505

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 Timothy P. Roush  
Its Supervisor, Surveying/Mapping  
Telephone (304) 422-6565