

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

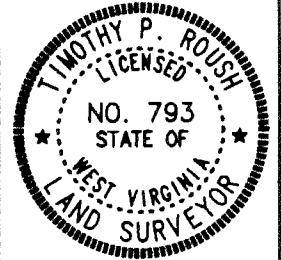
(H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

CALL TABLE		
A.	S 61° 57' E	1386.00'
B.	S 60° 57' E	726.21'
C.	N 74° 08' 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° 38' E	3052.50'
WELL TIES		
①	N4° 04' W	1204'
②	N38° 48' W	2829'
LOCATION REFERENCES		
S9° 58' E	199'	Power Pole
S67° 00' W	89'	Pipeline Marker
N2° 57' W	143'	3" Beech

FILE NO. 1774  
 MAP NO. N57 N 3 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 May 23, 19 97  
 FARM F.L. Hoge NO. H-15  
 API WELL NO. 47-103-01739

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1419' WATERSHED Cale Run  
 DISTRICT Green COUNTY Wetzel  
 QUADRANGLE Centerpoint

SURFACE OWNER State of West Virginia ACREAGE 190 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE 190 Ac.  
 LEASE NO. 15548-50

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 3400'  
 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

JUN 16 1997

6-6 95

WR-35

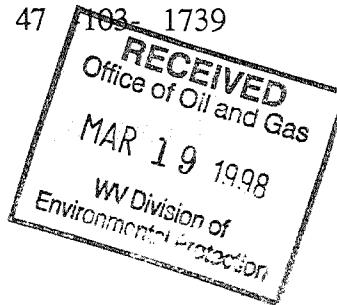
API #

47

18-Jun-97  
103-1739

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

Well Operator's Report of Well Work



Farm name: WVA Public Lands Operator Well No.: F.L. Hoge H-15

LOCATION: Elevation: 1,419.00 Quadrangle: Center Point

District: Green County: Wetzel  
Latitude: 8,150 Feet south of 39 Deg 30 Min 30 Sec.  
Longitude: 7,250 Feet west of 80 Deg 40 Min 30 Sec.

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

Agent: PHILIP S. ONDRUSEK

Inspector: Randal Mick

Permit Issued: 6/12/97

Well work Commenced: 7/1/97

Well work Completed: 9/16/97

Verbal plugging

permission granted on:

Rotary  Cable  Rig

Total Depth (feet) 3406'

Fresh water depths (ft) NA

Salt water depths (ft) NA

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

Coal Depths (ft): 943'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8"	663'	663'	300 Sacks
4 1/2"	3376'	3376'	140 Sacks

OPEN FLOW DATA

Producing formation Gordon Pay zone depth (ft) 3,326  
 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:

Date: 3/16/98

WET 1739

MAR 18 1998

**Treatment :**

Perforated Gordon sand with 32 holes from 3304'-3342' K.B. Fractured with 300 gals 15% HCL and 214 bbls gelled water and 11,500 lbs. 20/40 sand

**Well Log :**

All depths are relative to K.B.

0	943 Sand and Shale
943	948 Coal
948	1610 Sand and Shale
1610	1905 sand
1905	1995 Shale
1995	2405 sand
2405	2495 Shale
2495	2550 Big Lime
2550	2710 Big Injun
2710	3299 Shale
3299	3316 Gordon Stray
3316	3326 Shale
3326	3348 Gordon
3348	3400 Shale

702-3406

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

23708

- 1) Well Operator: Pennzoil Products Company 37452 37450 286 (5)
2) Operator's Well Number: F.L. Hoge H-15 3) Elevation 1419
4) Well Type: (a) Oil X or Gas
(b) If Gas: Production Underground Storage
5) Proposed Target Formation(s): Gordon
) Proposed Total Depth: 3400 feet
) Approximate fresh water strata depths: 600
8) Approximate salt water depths: 1626
9) Approximate coal seam depths: 1231
10) Does land contain coal seams tributary to active mine? Yes No X
11) Proposed Well Work: Drill and Stimulate New Well

Issued 06/12/97
Expires 06/12/99
RECEIVED
WV Division of Environmental Protection
MAY 27 1997
Permitting Office of Oil & Gas

CASING AND TUBING PROGRAM

Table with columns: TYPE, SPECIFICATIONS (Size, Grade, Weight Per Ft.), FOOTAGE INTERVALS (For Drilling, Left in Well), CEMENT (Fill-up (Cu. Ft.)). Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, Liners.

Packers: Kind, Sizes, Depths set

For Office of Oil and Gas Use Only

- Fee(s) Paid, Well Work Permit, Reclamation Fund, WPCP, Plat, WW-9, WW-2B, Bond, Agent

50165764

1) Date: May 23, 1997  
2) Operator's Well Number  
F.L. Hoge II-15  
3) API Well No: 47 - 103 - 1739  
State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS**

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:  
(a) Name W.Va. Public Lands Corp.  
Address Building No.3, Room 643  
1900 Kanawha Blvd. East  
(b) Name Charleston, WV 25305  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Mike Underwood  
Address Route 2, Box 135  
Salem, WV 26426  
Telephone (304) - 782-1043

5) (a) Coal Operator:  
Name NA  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name NA  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name NA  
Address \_\_\_\_\_

**TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:**

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas **OR**  
 Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 4 on the above-named parties, by:

Personal Service (Affidavit attached)  
 Certified Mail (Postmarked postal receipt attached)  
 Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form 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.

Well Operator Pennzoil Products Company  
By: [Signature] Timothy P. Roush  
Its: Supervisor, Surveying/Mapping  
Address P.O. Box 5519  
Vienna, WV 26105-5519  
Telephone (304) 422-6565

Subscribed and sworn before me this 23rd day of May, 1997

[Signature] Notary Public

My commision expires August 7, 2006