

NOTE: Well will be Drilled Directionally as Shown

CALL TABLE		
A.	S 61° 57' E	1386.00'
B.	S 60° 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	
h.	N 43° 40' W 3318.6'
i.	S 69° 35' W 1460.6'

LOCATION REFERENCES

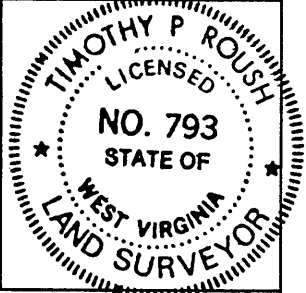
S 3° 59' W 164' 6" Hickory
 S 14° 42' W 148' 8" CO
 N 9° 01' E 51' Proposed Well K-14 (47-103-1513)

NOTE: No Known Water Supply Sources are Located Within 1000' of Proposed Well

FILE NO. 1773
 MAP NO. N47 N S E W
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION F.L. Hoge No.3
(47-095-0984) = 1307'

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 September 30, 19 92
C. T. Hall WELL K-14-B
 API WELL NO. 47-103-1514-L1

WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1405' WATERSHED Cale Run
 DISTRICT Green 5 QUANTY Wetzel
 QUADRANGLE Centerpoint d15 NW

Directional well

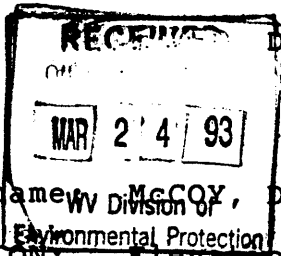
SURFACE OWNER Donald L. McCoy ACREAGE 80 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE 5675 Ac.
 LEASE NO. 67696-00

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

OCT 16 1992

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Gordon ESTIMATED DEPTH 3395' TVD
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT James A. Crews
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519
Vienna, W.Va. 26105 673 ADDRESS Vienna, W.Va. 26105

8-0 Jacksonburg - Stringtown (095)



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

Well Operator's Report of Well Work

Farm name: McCOY, DONALD L.

Operator Well No.: C.T. HALL K-14B

LOCATION: Elevation: 1405.00 Quadrangle: CENTER POINT

District: CHURCH County: WETZEL
Latitude: 8650 Feet South of 39 Deg. 30Min. 0 Sec.
Longitude: 3800 Feet West of 80 Deg. 40 Min. 0 Sec.

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

Agent: JAMES A. CREWS

Inspector: RANDAL MICK
Permit Issued: 10/05/92
Well work Commenced: 10/22/92
Well work Completed: 12/14/92
Verbal Plugging _____
Permission granted on: _____
Rotary X Cable _____ Rig _____
Total Depth (feet) 3600'
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	659.75	659.75	To Surface 170 Sks.
4 1/2	3561.1	3561.1	300 Sks.

OPEN FLOW DATA (Water Injection Well)

Producing formation Gordon Pay zone depth (ft) 3453' - 3503'
 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

Timothy P. Roush

By: Supervisor - Surveying/Mapping

Date: 3-3-93

Reviewed TMB
Recorded _____

TREATMENT

PERFORATED: Gordon w/ 16 Holes 3466' - 3474'
Treated w/300 Gal. Reg. H.F. Acid, 282 Bbls. Gelled Water,
1500# 80/100 & 3500# 20/40 Sand.

WELL LOG

(Measured Depths Directionally Drilled)

(Unable to Log Open Hole. Gamma Ray Caliper Only)

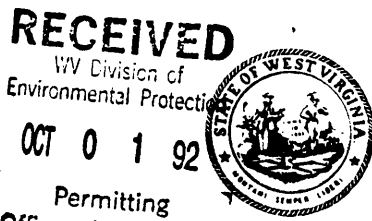
Shale	3100 - 3230
Sand	3230 - 3238
Shale	3238 - 3244
Sand	3244 - 3248
Shale	3248 - 3442
Gordon	3442 - 3503
T.D.	3600'

DP - 911
OFT - 919

RECEIVED
MAY 19 1968

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MAY 19 1968

Office of Oil & Gas



1) Date: September 30, 1992
 2) Operator's Well No. C.T. HALL K-14-B
 3) SIC Code _____
 4) API Well NO. 47 - 103 - 1514-L1
 State County Permit

Permitting
Office of Oil & Gas

Issued 10/5/92
Expires 10/5/94

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
for the

DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

- 6) WELL TYPE: Liquid injection / Gas injection (not storage) _____ / Waste disposal _____
 7) LOCATION: Elevation: 1405' / Watershed: Cale Run
 District: Green / County: Wetzel / Quadrange: Centerpoint 286
 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 Randall Mick / 11) DRILLING CONTRACTOR:
 Address 111 Blackshere Drive / Name _____
Mannington, WV 26582 / Address _____
 12) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate _____
 Plug off old formation _____ / Perforate new formation _____ / Convert _____
 Other physical change in well (specify) directionally drilled?
 13) GEOLOGICAL TARGET FORMATION, Gordon / Depth 3295 feet(top) to 3310 feet(bottom)
 14) Estimated depth of completed well, (or actual depth of existing well) 3395 (TVD) / TVD TVD
 15) Approximate water strata depths: Fresh, 580 feet; salt, >580 feet.
 16) Approximate coal seam depths: 1209
 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 2470
 21) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES: Fresh water, produced water, bactericides, and other chemicals as necessary 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 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		660	660	To Surface	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		3500 M.D.	3500 M.D.	Cement	Depths set
Tubing								over Salt	
Liners								Sand	Perforations:
									Top Bottom

25) APPLICANT'S OPERATING RIGHTS were acquired from Stringtown Unit Royalty Owners
 by deed _____ / lease _____ / other contract / dated _____, 19____, of record in the
Wetzel County Clerk's office in Book 69A at page 123

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

**OFFICE USE ONLY
DRILLING PERMIT**

Permit number 47-103-1514-LI

October 5th. 92
Date 19

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 10-5-94 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: ✓	Agent: ✓	Plat: <i>AS</i>	Casing: <i>AS</i>	Fee: CK# 15000
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Michael P. H. Lewis
uc Director, Oil and Gas Division

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 September 30, 1992
Operator's
2) Well No. C.T. HALL K-14-B
3) SIC Code _____
4) API Well No. 47 - 103 - 1514
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 | 7 (i) COAL OPERATOR <u>N/A</u>
Address _____ |
| (i) Name <u>Donald L. McCoy</u>
Address <u>Alvy, WV 26322</u> | 7 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name _____
Address _____ |
| (ii) Name _____
Address _____ | 7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____ |
| (iii) 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.

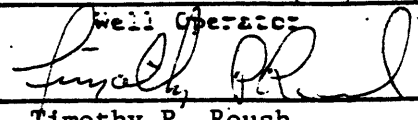
The date proposed for the first injection or waste disposal is _____, 19____.

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 
Timothy P. Roush
1st Supervisor - Surveying/Mapping
Telephone (304) 422-6565