



LONGITUDE 82°10'00"  
6225

FILE NO. BK 82 P 13  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200'  
 PROVEN SOURCE OF ELEVATION USGS BM E-118 E1558

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) C. S. Valley Jr.  
 R.P.E. \_\_\_\_\_ O.L.S. 92

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE FEB 11, 1984  
 OPERATOR'S WELL NO. 2020-3  
 API WELL NO. \_\_\_\_\_  
47-053-0343  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 825.29 WATER SHED FLATFOOT CREEK  
 DISTRICT CLENDENIN 2 COUNTY MASON 051  
 QUADRANGLE APPLE GROVE 7.5 Glenwood 15 NW  
 SURFACE OWNER W.H. WOODS ACREAGE 91.53  
 OIL & GAS ROYALTY OWNER W.H. WOODS LEASE ACREAGE 504  
 LEASE NO. C-2-585  
 PROPOSED WORK: DRILL X 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 DEVONIAN SHALE ESTIMATED DEPTH 3500  
 WELL OPERATOR UNION DRILLING INC. DESIGNATED AGENT JOSEPH VANZANT  
 ADDRESS P.O. DRAWER 40 893 ADDRESS P.O. DRAWER 40  
BUCKHANNON WV 26201 BUCKHANNON WV 26201



IV-35  
(Rev 8-81)

**RECEIVED**  
NOV 13 1984

State of West Virginia  
Department of Mines  
Oil and Gas Division  
**DEPT. OF MINES**

Date November 12, 1984  
Operator's  
Well No. 3 - 2020  
Farm William Woods, Jr. #3  
API No. 47 - 053 - 0343

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil    / Gas X / Liquid Injection    / Waste Disposal    /  
(If "Gas," Production    / Underground Storage    / Deep    / Shallow X /)

LOCATION: Elevation: 825' Watershed Flatfoot Creek  
District: Clendenin County Mason Quadrangle Apple Grove

COMPANY UNION DRILLING, INC.  
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201  
DESIGNATED AGENT Joseph C. Vanzant, Jr.  
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201  
SURFACE OWNER William Woods, Jr.  
ADDRESS Gallipolis Ferry, WV 25515  
MINERAL RIGHTS OWNER same  
ADDRESS     
OIL AND GAS INSPECTOR FOR THIS WORK     
Jerry Tephabock ADDRESS Rt1, Box 101A, Ripley, WV 25271  
PERMIT ISSUED 3/26/84  
DRILLING COMMENCED 10/22/84  
DRILLING COMPLETED 10/27/84  
IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON   

Casing & Tubing	Used in Drilling	Left in Well	Corent fill up Cu. ft.
Size 20-16 Cord.			
13-10"			
9 5/8	694.50	694.50	271 cf
8 5/8			
7	2148.80'	733.30'	58 cf
5 1/2			
4 1/2		3368.25'	160 cf
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3500' feet  
Depth of completed well 3412' feet Rotary XX / Cable Tools     
Water strata depth: Fresh    feet; Salt 845'1350' feet  
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Upper & Lower Huron, Angola Shale pay zone depth 3276' feet  
Gas: Initial open flow show Mcf/d Oil: Initial open flow    Bbl/d  
Final open flow (273) Mcf/d Final open flow    Bbl/d  
Time of open flow between initial and final tests 3 days ~~hours~~  
Static rock pressure 550# psig (surface measurement) after 3 days ~~hours~~ shut in  
(If applicable due to multiple completion--)  
Second producing formation    Pay zone depth    feet  
Gas: Initial open flow    Mcf/d Oil: Initial open flow    Bbl/d  
Final open flow    Mcf/d Oil: Final open flow    Bbl/d  
Time of open flow between initial and final tests    hours  
Static rock pressure    psig (surface measurement) after    hours shut in

DEC 03 1984

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Newsco - 1 stage Foam Frac - 10/31/84  
Huron 2940

2918/3276 - [Upper Huron - 60,000# sand, 360 Bbls water and 870,000 scf nitrogen  
Lower Huron  
Angola Shale

2018 - 2940 - 1  
2918 - 3276 - 1

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	2064	1 1/2" stream salt water @845'
Berea			2064	2092	1/2" stream salt water @1350'
Top of Devonian			2092		
Upper Huron			2912	2929	
Lower Huron			2967	3240	
Angola Shale			3241	3294	
				<u>3412'</u>	T.D. gas show

~~From GR log - 2918 to 3276~~  
L 2918 - 3276  
- 3276 - 3412  
A - 3412 - 3412  
815

2907  
2092  
815

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

By:

*Joseph C. Petty*

Date:

Joseph C. Petty, Vice President of Production

11/12/84

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ..., encountered in the drilling of a well."



1) Date: February 24, 1984, 19\_\_\_\_  
 2) Operator's Well No. 2020 - 3  
 3) API Well No. 47 - 053 - 0343  
 State \_\_\_\_\_ County \_\_\_\_\_ Permit \_\_\_\_\_

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES, OIL AND GAS DIVISION  
APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas X /  
 B (If "Gas", Production X / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X)
- 5) LOCATION: Elevation: 825.29 Watershed: Flatfoot Creek  
 District: Clendenin County: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc. 7) DESIGNATED AGENT Joseph C. Vanzant, Jr.  
 Address Post Office Drawer 40 Address Post Office Drawer 40  
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Jerry Tephabock Name Union Drilling, Inc.  
 Address Route 1, Box 101-A Address Post Office Drawer 40  
Ripley, WV 25271 Buckhannon, WV 26201
- 10) PROPOSED WELL WORK: Drill X / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate X  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Devonian Shale
- 12) Estimated depth of completed well, 3500 feet
- 13) Approximate trata depths: Fresh, ? feet; salt, ? feet.
- 14) Approximate coal seam depths: ? Is coal being mined in the area? Yes \_\_\_\_\_

**RECEIVED**  
 FEB 27 1984  
 OIL & GAS DIVISION  
 DEPT. OF MINES

15) 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	11-3/4		32	X		30'	30'		Kinds
Fresh water									
Coal									Sizes
Intermediate	8-5/8		23	X		1000'	1000'	to surface	NEAT
Production	4-1/2	J	10 1/2	X		3500'	3500'	as required	Depths set
Tubing								by rule 15.05	
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-053-0343 Date March 26, 1984

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 reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
 Permit expires March 26, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <u>✓</u>	Plat:	Casing	Fee
<u>30000</u>	<u>LS</u>	<u>MH</u>	<u>MH</u>	<u>014 - 527</u>

T. H. ...  
 Administrator, Office of Oil and Gas

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