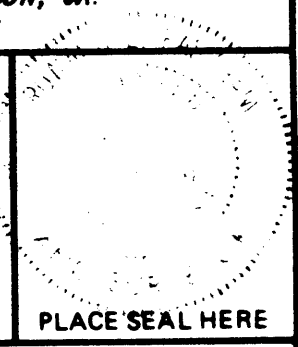


FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION Intersection of Sec. Rts. 54 & 72. Elev. = 590

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) Ronald D. Coyle
 R.P.E. _____ L.L.S. 150



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



DATE July 5, 19 83
 OPERATOR'S WELL NO. 1920
 API WELL NO. 47-053-0301
 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 ___ STORAGE X DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 580.21 WATER SHED Sixteenmile Creek
 DISTRICT Hannan COUNTY Mason
 QUADRANGLE Apple Grove Glenwood 15' C
 SURFACE OWNER I. Kelson Cooper, et al ACREAGE 178
 OIL & GAS ROYALTY OWNER I. Kelson Cooper, et al LEASE ACREAGE 178
 LEASE NO. C-2-183
 PROPOSED WORK: DRILL X 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 Devonian Shale ESTIMATED DEPTH 3,200'
 WELL OPERATOR Union Drilling, Inc. DESIGNATED AGENT Joseph C. Petty
 ADDRESS Drawer 40 ADDRESS Drawer 40
Buckhannon, WV 26201 Buckhannon, WV 26201

AUG 22 1983

MASON 0301

RECEIVED

NOV 29 1983

OIL & GAS DIVISION
DEPT. OF MINES



State of West Virginia
Department of Mines
Oil and Gas Division

Date November 14, 1983

Operator's Well No. 1 - 1920

Farm I. Kelson Cooper

API No. 47 - 053 - 0301

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

CORRECTED

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

LOCATION: Elevation: 580.21 Watershed Sixteenmile Creek
District: Hannan County Mason Quadrangle Apple Grove

COMPANY UNION DRILLING, INC.
ADDRESS P. O. Drawer 40, Buckhannon, WV 26201
DESIGNATED AGENT Joseph C. Pettey
ADDRESS P. O. Drawer 40, Buckhannon, WV 26201
SURFACE OWNER E. W. & Naomi Cooper
ADDRESS Rt. 3, Box 6A, Milton, WV 25541
and I. K. & Myrtle Cooper
ADDRESS Rt. 3, Box 90, Milton, WV 25541
MINERAL RIGHTS OWNER
ADDRESS Same as Surface Owners

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cord.			
13-10"	40'	40'	
9 5/8	744.60'	744.60'	266 cf
8 5/8			
7	625.65' 1978.55'	695.65'	94 cf
5 1/2			
4 1/2	3117.70'	3117.70'	125 cf
3			
2			
Liners used			

OIL AND GAS INSPECTOR FOR THIS WORK Jerry Tapbaloh
ADDRESS Rt. #1, Box 101-A Ripley, WV 25271
PERMIT ISSUED August 16, 1983
DRILLING COMMENCED 10/18/83
DRILLING COMPLETED 10/21/83

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3170 feet
Depth of completed well 3170 feet Rotary / Cable Tools _____
Water strata depth: Fresh 65 feet; Salt 1155 feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 3170 feet
Gas: Initial open flow show Mcf/d Oil: Initial open flow _____ Ebl/d
Final open flow 60 Mcf/d Final open flow _____ Ebl/d
Time of open flow between initial and final tests ? hours
Static rock pressure 575 psig (surface measurement) after 24 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 _____ Ebl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Ebl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

DEC 12 1983

(Continue on reverse side)

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

On 10/27/83 Halliburton Foam Fractured the Devonian Shale (2748/3076) with 184 BBL Water, 60,000# sand, 906,000 SCF Nitrogen. *lower Huron*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Fill			0	10	
Sand and Shale			10	1218	Water at 65' 2" stream
Big Lime			1218	1342	Water at 1155' 3" stream
Big Injun			1342	1636	
Sand and Shale			1636	1856	
Berea			1856	1830 1886	Java
Top of the Devonian Shale to			1830	3170	TD

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator
By: *Joseph C. Pettey*
Date: November 14, 1983

Joseph C. Pettey
Vice President of Prod.

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: July 18, 1983
 2) Operator's Well No. 1 - 1920
 3) API Well No. 47 - 053 - 0301
 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
 B (If "Gas", Production / Underground storage / Deep / Shallow)
- 5) LOCATION: Elevation: 580.21 Watershed: Sixteenmile Creek
 District: Hannan County: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc. 7) DESIGNATED AGENT Joseph C. Vanzant, Jr.
 Address P. O. Drawer 40 Address P. O. Drawer 40
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Kenneth Butcher 736-4885 Name Union Drilling, Inc.
 Address RED #1 Address P. O. Drawer 40
Barboursville, WV 25504 Buckhannon, WV 26201
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 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, 3200 feet
- 13) Approximate trata depths: Fresh, ? feet; salt, ? feet.
- 14) Approximate coal seam depths: ? Is coal being mined in the area? Yes / No

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	9 5/8		36#	x		300	300	to surface	Kinds
Fresh water									
Coal									Sizes
Intermediate	7		20#	x		2250	2250	400 sks.	
Production	4 1/2		10.5#	x			3200	300 sks. or	Depths set
Tubing								as required	
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-053-0301 Date August 16 1983

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 August 16, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BB</u>	Agent: <u>OK</u>	Plat: <u>BB</u>	Casing: <u>BB</u>	Fee: <u>7188</u>
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Michael Lewis
 Administrator, Office of Oil and Gas

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

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

File