



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1:200'
 PROVEN SOURCE OF ELEVATION $\frac{1}{2}$ intersection of Sec. Rtes. 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 L. Smith
 R.P.E. _____ L.L.S. 150

PLACE SEAL HERE

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



DATE July 27, 19 83
 OPERATOR'S WELL NO. 1919
 API WELL NO. 47-053-0308
 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 ___
 LOCATION: ELEVATION 602.83 WATER SHED Sixteenmile Creek
 DISTRICT Clendenin COUNTY Mason
 QUADRANGLE Apple Grove Glenwood 15, NC
 SURFACE OWNER Edward E. Kinnard, et ux ACREAGE 418
 OIL & GAS ROYALTY OWNER Edward E. Kinnard, et ux LEASE ACREAGE 418
 LEASE NO. _____
 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 3,500'
 WELL OPERATOR Union Drilling, Inc. DESIGNATED AGENT Joseph C. Vanzant, Jr
 ADDRESS Drawer 40 Buckhannon, WV 26201 ADDRESS Drawer 40 Buckhannon, WV 26201

OCT 3 1983

5-5 unnamed (o) Apple Grove (379)
 near to Mason 302

IV-35
(Rev 8-81)

RECEIVED
DEC 27 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 - 1919
Farm Edward E. Kinnard
API No. 47 - 053 - 0308

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 x / Underground Storage ___ / Deep ___ / Shallow x /)
LOCATION: Elevation: 602.83' Watershed Sixteenmile 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 Edward & Hazel Kinnard
ADDRESS Apple Grove, WV 25502
MINERAL RIGHTS OWNER Same as Surface
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Jerry Tapbaloh
Route #1, Box 101-A
ADDRESS Ripley, WV 25271
PERMIT ISSUED September 26, 1983
DRILLING COMMENCED 10/22/83
DRILLING COMPLETED 10/29/83
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	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"	35'	35'	
9 5/8	756.05'	756.05'	295 cf
8 5/8			
7	1965.70'	682.15'	59 cf
5 1/2			
4 1/2	3164.30'	3164.30'	152 cf
3			128 cf squeeze job on 4 1/2"
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3231 feet
Depth of completed well 3231 feet Rotary x / Cable Tools _____
Water strata depth: Fresh 40, 602 feet; Salt 1204 feet
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 3231 feet
Gas: Initial open flow show Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 70 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests ? hours
Static rock pressure 550 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 _____ 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

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

Huron

On 11/09/83 Dowell foam fractured the Devonian Shale (2768/3078) with 180 BBL water, 60,000# sand, 9,380 SCF Nitrogen.

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	1212	Damp at 40'
Big Lime			1212	1334	Water at 602 1/2" stream
Big Injun			1334	1634	Water at 1204' 3" stream
Sand and Shale			1634	1864	
Coffee Shale			1864	1876	
Berea			1876	1900	
Top of Devonian Shale to TD			1900	3231 TD	show of gas JOVA @ TD from GR log. el. 2768-3078 H - 2545.2 + 3102 up 200 245 etc

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

By: *Joseph C. Pettey*

Joseph C. Pettey
Vice President of Prod.

Date: November 14, 1983

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: August 26, 19 83
 2) Operator's Well No. 1 - 1919
 3) API Well No. 47 - 053 - 0308
 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: 602.83 Watershed: Sixteenmile Creek
 District: Clendenin Country: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc. 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 Name Kenneth Butcher 736-4885
 Address RFD #1
Barboursville, WV 25504
- 9) DRILLING CONTRACTOR: Name Union Drilling, Inc.
 Address P. O. Drawer 40
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 strata depths: Fresh, ? feet; salt, ? feet.
 14) Approximate coal seam depths: ? Is coal being mined in the area? Yes _____ / No X /

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 <u>3</u>
Fresh water									
Coal									Sizes
Intermediate	7		20#	X		2250	2250	400 sks.	
Production	4 1/2		10.5#	X			3500	350 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-053-0308 Date September 26, 19 83

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 September 26, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>B</u>	Agent: <u>[Signature]</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>[Signature]</u>
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[Signature]
 Administrator, Office of Oil and Gas

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