



FILE NO. BK 79 P 93  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION UNION DRILLING  
WELL 1738 PERMIT 269  
EL 564.70'

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. \_\_\_\_\_ U.S. 92

PLACE SEAL HERE

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



DATE OCT 31, 1983  
 OPERATOR'S WELL NO. 1-1964  
 API WELL NO. \_\_\_\_\_  
47-053-0318  
 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 572.63 WATERSHED FLATFOOT CREEK  
 DISTRICT CLENDENIN COUNTY MASON  
 QUADRANGLE APPLE GROVE 75' Glenwood 15' NC  
 SURFACE OWNER RICHARD KINNAIRD ACREAGE 30  
 OIL & GAS ROYALTY OWNER RICHARD KINNAIRD LEASE ACREAGE 30  
 LEASE NO. C-2-190  
 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 3500  
 WELL OPERATOR UNION DRILLING INC. DESIGNATED AGENT JOSEPH VANZANT  
 ADDRESS P.O. DRAWER 40 ADDRESS P.O. DRAWER 40  
BUCKHANNON WVA 26201 BUCKHANNON WVA 26201

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FEB 15 1984

IV-35  
(Rev 8-81)

OIL AND GAS DIVISION  
DEPT. OF MINES



State of West Virginia

Department of Mines  
Oil and Gas Division

Date February 7, 1984  
Operator's  
Well No. 1 - 1964  
Farm Richard Kinnard #1  
API No. 47 - 053 - 0318

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: 572' 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 Richard Kinnard

ADDRESS Box 180, Gallipolis Ferry, WV 25515

MINERAL RIGHTS OWNER Same

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK \_\_\_\_\_

Jerry Tephapoc ADDRESS Rt. 1, Box 101-A, Ripley, WV

PERMIT ISSUED 11/28/83 25271

DRILLING COMMENCED 1/31/84

DRILLING COMPLETED 2/5/84

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	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"	35'		
9 5/8	752.45'		
8 5/8			
7	1845.26'	682.6'	59 cf
5 1/2			
4 1/2	3089.55'		131 cf
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3500' feet

Depth of completed well 3252' feet Rotary x / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 35', 97' feet; Salt \_\_\_\_\_ feet

Coal seam depths: none 368' Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Lower Huron Pay zone depth 2986' feet

Gas: Initial open flow show Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 179 Mcf/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests 2 hours

Static rock pressure not taken psig (surface measurement) after \_\_\_\_\_ 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.

Dowell - Foam Frac - 2/9/84

2352/2992 - Lower Huron - 60,000# 20/40 sand, 210 Bbls water and 1,018,000 scf nitrogen

2352-2644 UD

2644 2992-9

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
River Gravel			0	30	
Sand & Shale			30	422	1" stream water @ 35', 97, & 368'
Big Lime			1145	1801	
Berea sand			1801	1832	1807-1832 GR log
Sand & Shale			1832	2000	
Lower Huron			2720	2998	
Angola			3050	3142	
				3252 T.D	Gas show at T.D.

Phinest 30-10

H

3252  
1832

420

from GR log - 583 KB  
H-2644-2998 351  
E 3095-3099 (104) -  
A 3099-3218 (119) -  
Ph 3218

570' 30" 200'

(Attach separate sheets as necessary)

Union Drilling, Inc.  
Well Operator

By: Joseph C. Pettev  
Date: Joseph C. Pettev, Vice President of Production

2/14/84

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: November 9, 1983  
 2) Operator's Well No. 1-1964  
 3) API Well No. 47 - 053 - 0318  
 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: 572.63 / Watershed: Flatfoot Creek  
 District: Clendenin / County: Mason / Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc.  
 Address Post Office Drawer 40  
Buckhannon, WV 26201
- 7) DESIGNATED AGENT Joseph Vanzant  
 Address Post Office Drawer 40  
Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name Jerry Tephabock  
 Address Route 1, Box 101-A  
Ripley, WV 25271
- 9) DRILLING CONTRACTOR:  
 Name Union Drilling, Inc.  
 Address Post Office Drawer 40  
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, 3500' feet
- 13) Approximate trata depths: Fresh, ? feet; salt, ? feet.
- 14) Approximate coal seam depths: ? Is coal being mined in the area? Yes  / No

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 NOV 10 1983

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		
Conductor	11-3/4		32		X	30'	30'	Kinds <u>cement to surface by rule 15-2</u>
Fresh water						100'	100'	
Coal								Sizes
Intermediate	8-5/8		23		X	1000'	1000'	286 sacks
Production	4-1/2	J-55	10.5	X		3500'	3500'	1013 sacks <u>as req. by rule 15.01</u>
Tubing								Perforations: Top Bottom
Liners								

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-053-0318

Date November 28, 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 November 28, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
	<u>[Signature]</u>	<u>MU</u>	<u>MU</u>	<u>10574</u>

Administrator, Office of Oil and Gas

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