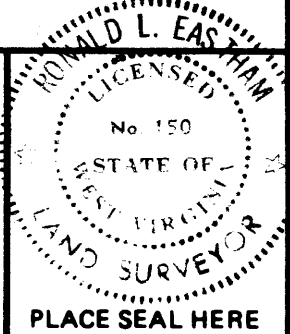


FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION NGS B.M. "G-118"  
 Elev. = 579.851

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. Eastham  
 R.P.E. \_\_\_\_\_ L.L.S. 150



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



DATE July 15, 19 83  
 OPERATOR'S WELL NO. 1914  
 API WELL NO. 47-053-0305  
 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 \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 568.21 WATER SHED Flatfoot Creek  
 DISTRICT Clendenin COUNTY Mason  
 QUADRANGLE Apple Grove Glenwood 15, NW

SURFACE OWNER Junior F. Powell ACREAGE 51  
 OIL & GAS ROYALTY OWNER Junior F. Powell LEASE ACREAGE 51  
 LEASE NO. C-2-198

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 3,500'  
 WELL OPERATOR Union Drilling, Inc. DESIGNATED AGENT Joseph C. Vanzant, Jr.  
 ADDRESS Drawer 40 ADDRESS Drawer 40  
Buckhannon, WV 26201 Buckhannon, WV 26201

AUG 2

Apple Grove (279)

IV-35  
(Rev 8-81)

# RECEIVED

NOV 20 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 - 1914

Farm Junior F. Powell #1

API No. 47 - 053 - 0305

WELL OPERATOR'S REPORT  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

CORRECTED

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

LOCATION: Elevation: 568.21' 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 Junior Powell, Apple Grove, WV 25502

Lawrence W. & Delores Powell,

ADDRESS Apple Grove, WV 25502

MINERAL RIGHTS OWNER Same as Surface Owners

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK Jerry

Tapbaloh, ADDRESS RT. #1, Box 101-A, Ripley,

PERMIT ISSUED August 23, 1983 WV 25271

DRILLING COMMENCED 09/29/83

DRILLING COMPLETED 10/05/83

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"			
9 5/8	707.95	707.95	266 cf
8 5/8			
7	1922.90 <del>693.80</del>	693.80	59 cf
5 1/2			
4 1/2		3051.80	152 cf
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3189 feet

Depth of completed well 3189 feet Rotary x / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 761 feet; Salt 1418 feet

Coal seam depths: 742/744 Is coal being mined in the area? N

OPEN FLOW DATA

Producing formation Devenian Shale Pay zone depth 3189 feet

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

Final open flow 119 Mcf/d Final open flow \_\_\_\_\_ Bbl/

Time of open flow between initial and final tests ? hours

Static rock pressure 425 psig (surface measurement) after 24 hours shut i

(If applicable due to multiple completion--)

Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet

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

Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut i

(Continue on reverse side)

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

On 10/12/83 Halliburton Foam Fractured the Devonian Shale (2646/2958) with 196 BBL water, 60,000# sand and 893,000 SCF Nitrogen.

*lower Huron*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fr and salt water, coal, oil and
Sand			0	130	
Sand and Shale			130	230	Water at 761' damp.
Sand			230	742	Water at 1110' 2"
Coal			742	744	Water at 1418' 1"
Sand and Shale			744	1152	
Big Lime			1152	1268	
Big Injun			1268	1589	
Sand and Shale			1589	1798	
Coffee Shale			1798	1810	
Berea			1810	1830	
Top of Devonian Shale		TO TD	1830	3189	

*1807 2000*  
*from GR log of 10/12/83*  
*H-2615-962 (349)*  
*J-2912-3075 (102)*  
*A-3005*  
*Up Den- 791' 4k"*

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

By: *Joseph C. Petty*

Joseph C. Petty  
Vice President of Pro

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



1) Date: August 1, 19 83  
 2) Operator's Well No. 1 - 1914  
 3) API Well No. 47 - 053 - 0305  
 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: 568.21 Watershed: Flatfoot Creek  
 District: Clendenin 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 RD #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, 3500 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			3500	350 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-053-0305 Date August 23, 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 23, 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>PL</u>	Casing: <u>CS</u>	Fee: <u>7551</u>
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Michael J. Jones  
 Administrator, Office of Oil and Gas

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