



FILE NO. Bk 87 P 98
 DRAWING NO. _____
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1-200'
 PROVEN SOURCE OF ELEVATION Fork of Road
N14°50'W - 514.5' from Loc
E1 578.0'

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. C.S. 92

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FORM IV-6 (8-78)



DATE SEPT 15, 1984
 OPERATOR'S WELL NO. 2109-2
 API WELL NO. _____
47 - 053 - 0361
 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 576.90 WATER SHED EIGHTEENMILE CREEK OF OHIO RIVER
 DISTRICT HANNAN 6 COUNTY MASON
 QUADRANGLE GLENWOOD 373 GLENWOOD 051 C5
 SURFACE OWNER STANLEY BROTHERS INC ACREAGE 250
 OIL & GAS ROYALTY OWNER STANLEY BROTHERS INC LEASE ACREAGE 250
 LEASE NO. C-2-203
 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
893 BUCKHANNON WV 26201 BUCKHANNON WV 26201

OCT 22 1984

IV-35
(Rev 8-81)

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OIL & GAS DIVISION State of West Virginia
DEPT. OF MINES Department of Mines
Oil and Gas Division

Date December 19, 1984
Operator's
Well No. 2 - 2109
Farm Stanley Brothers, Inc. #2
API No. 47 - 053 - 0361

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: 576' Watershed Eighteen Mile Creek of Ohio River
District: Hannan County Mason Quadrangle Glenwood

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 Stanley Brothers, Inc.
ADDRESS Box 1546, Huntington, WV 25701
MINERAL RIGHTS OWNER same
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK _____
Jerry Tephabock ADDRESS Rt1, Box 101A, Ripley, WV
PERMIT ISSUED 10/10/84 25271
DRILLING COMMENCED 11/8/84
DRILLING COMPLETED 11/13/84
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"			
9 5/8	511.30'	511.30'	190 cf
8 5/8			
7	2035.10'	707.30'	59 cf
5 1/2			
4 1/2		3145.80'	159 cf
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3500' feet
Depth of completed well 3280' feet Rotary XX / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt 563', 800' feet
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA
Producing formation Lower Huron Pay zone depth 3076' feet
Gas: Initial open flow show Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 215 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 days hours
Static rock pressure 710# 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

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

Newsco - 1 stage Foam Frac - 12/11/84

2812/3076 - ~~Lower~~ Huron - 60,000# sand, 2,000,000 scf nitrogen and 325 Bbls water

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	772	1/2" stream salt water @563'
Red Rock			772	1166	3/4" stream salt water @800'
Big Lime			1358	1438	
Injun			1438	1510	
Berea			1894 ✓	1941	
Top of Devonian			1941		
Upper Huron Shale			2755	2766	
Lower Huron Shale			2807	3084	
Angola Shale			3084	<u>3280'</u>	T.D. gas show

Handwritten notes:
 813' top of ...
 (103)

Handwritten numbers:
 2720
 1417

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

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

12/19/84

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."

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1) Date: September 20, 19 84
 2) Operator's Well No. 2109
 3) API Well No. 47 - 053 - 0361
 State County Permit

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

- 4) WELL TYPE: A Oil / Gas XX /
 B (If "Gas", Production XX / Underground storage / Deep / Shallow XX /)
- 5) LOCATION: Elevation: 576.90 Watershed: Eighteen Mile Creek of Ohio River 010
 District: Hannan County: Mason Quadrangle: Glenwood
- 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 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	13-3/8	H-40	48	X		30'	30'	to surface	Kinds	
Fresh water	9-5/8	K-55	30	X		600'	600'	as required	Sizes	
Coal										
Intermediate	7	K-55	23	X		1800'	800'	as required		
Production	4-1/2	J	10 1/2	X		3500'	3500'	as required		
Tubing										
Liners									Perforations:	
									Top Bottom	

**OFFICE USE ONLY
 DRILLING PERMIT**

Permit number 47-053-0361 Date October 10, 19 84

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 October 10, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>162</u>	<u>MW</u>	<u>MW</u>	<u>MW</u>	<u>023</u> <u>602</u>

Margaret J. Hase
 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