

1.455
4.339
0.42W

145
783
4.33

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200'
 PROVEN SOURCE OF ELEVATION NGS B.M. "F-118"
 Elev. = 582.233'

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 August 16, 19 83
 OPERATOR'S WELL NO. 1913
 API WELL NO. _____
47-053-0309
 STATE COUNTY PERMIT

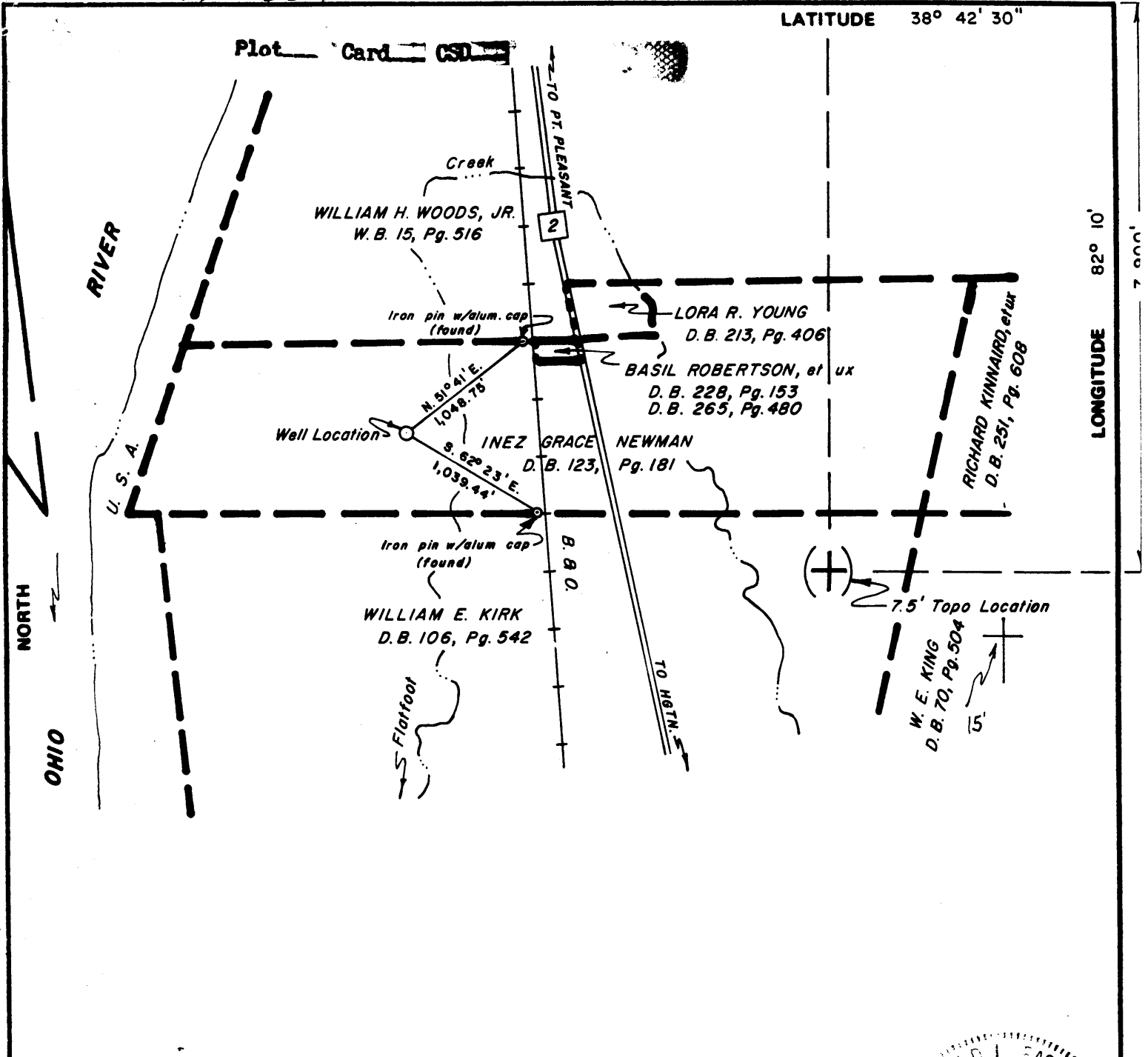
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

Formerly: Mas-306

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 588.66 WATER SHED Flatfoot Creek
 DISTRICT Clendenin COUNTY Mason
 QUADRANGLE Apple Grove Glennwood 15' NW
 SURFACE OWNER Inez Grace Newman ACREAGE 149.75
 OIL & GAS ROYALTY OWNER Inez Grace Newman LEASE ACREAGE 149.75
 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 ADDRESS Drawer 40
 Buckhannon, WV 26201 Buckhannon, WV 26201

OCT 3 1983

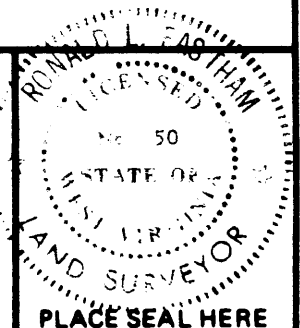
Plot Card CSD



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1 : 200'
 PROVEN SOURCE OF ELEVATION NGS B. M. "F-118"
 Elev. = 582.233

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)



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE July 26, 19 83
 OPERATOR'S WELL NO. 1913
 API WELL NO. **47-053-0306**
 STATE COUNTY PERMIT

Cancelled
See: mas-309

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 555.63 WATER SHED Flatfoot Creek
 DISTRICT Clendenin COUNTY Mason
 QUADRANGLE Apple Grove

SURFACE OWNER Inez Grace Newman ACREAGE 149.75
 OIL & GAS ROYALTY OWNER Inez Grace Newman LEASE ACREAGE 149.75
 LEASE NO. C-2-196

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 Buckhannon, WV 26201 ADDRESS Drawer 40 Buckhannon, WV 26201

OCT 3 1983

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

On 10/20/83 Halliburton Foam Fractured the Devonian Shale (2653/2972) with 60,000# sand, 184 BBL Water, 920,000 SCF Nitrogen.

lower than

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and gas
Clay			0	10	Water at 755' 1/2"
River Gravel			10	80	Water at 1050' 2" stream
Sand and Shale			80	530	Water at 1190' 2" stream
Sand and Shale			530	546	
Coal			546	548	
Sand and Shale			548	1102	
Big Lime			1102	1266	
Big Injun			1266	1592	
Sand and Shale			1592	1803	
Coffee Shale			1803	1814	
Berea			1814	1840	
Top of Devonian Shale to TD			1840	3122	

Angels @ TD.

*from GR log - el. 509' 1/2"
H 2625 (105)
J. 2975 (105)
A 3080*

(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."

FILE COPY



1) Date: August 1, 1983
 2) Operator's Well No. 1 - 1913
 3) API Well No. 47 - 053 - 0306
 State County Permit

Now 309

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: 555.63 Watershed: Flatfood 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 RFD #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 strata 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 47-053-0306 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>ak</u>	Plat: <u>SP</u>	Casing: <u>SP</u>	Fee: <u>7550</u>
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Michael Jones
 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

FILE COPY
RECEIVED
AUG 29 1983



1) Date: August 26, 19 83
 2) Operator's Well No. 1 - 1913 REVISED LOCATION
 3) API Well No. 47 - 053 - 0309
 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 /
 B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 588.66 Watershed: Flatfoot Creek
 District: Clendenin County: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc.
 Address P. O. Drawer 40
Buckhannon, WV 26201
- 7) DESIGNATED AGENT Joseph C. Vanzant, Jr.
 Address P. O. Drawer 40
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 / Drill deeper / Redrill / Stimulate /
 Plug off old formation / Perforate new formation /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Devonian Shale
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- 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#				3500	350 sks.	Depths set
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-053-0309 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>✓</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>108579</u>
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[Signature]
 Administrator, Office of Oil and Gas

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