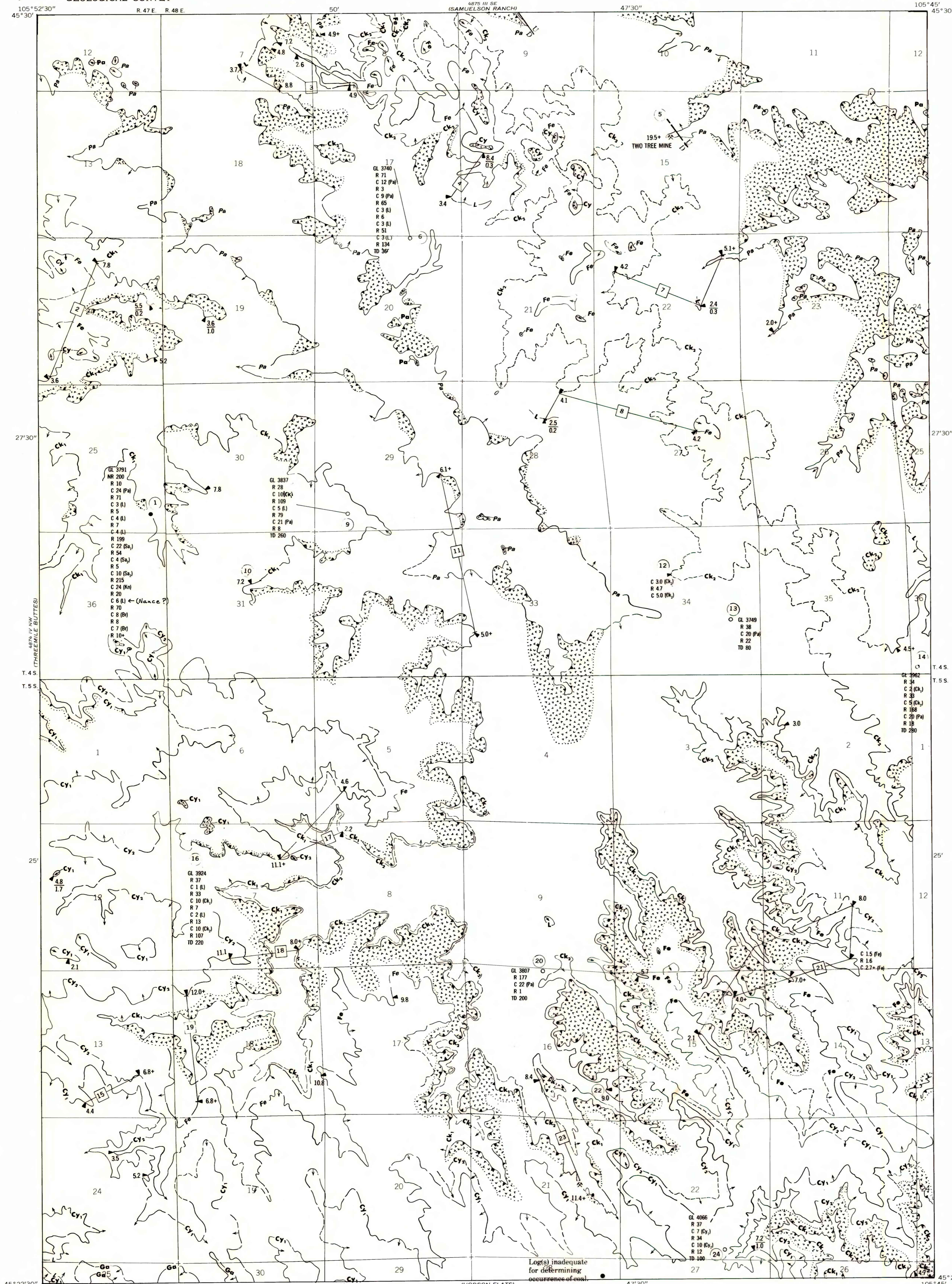


OPEN-FILE REPORT  
This report has not been edited for conformity with  
U.S. Geological Survey editorial standards or  
stratigraphic nomenclature.



EXPLANATION

INDEX NUMBER OF MEASURED SECTION SHOWN  
ON PLATE 3 OF CRO MAP—Coal section measured at  
point of triangle.

LINE OF COMPOSITE SECTION—Showing index  
number of section shown on plate 3 of CRO map.  
Composite section is based on nearby coal bed thickness  
measurements.

OIL AND GAS TEST HOLE—Showing index number of  
hole shown on plate 3 of CRO map and drill-hole data,  
in feet.

Log(s) inadequate  
for determining  
occurrence of coal.

OIL AND GAS TEST HOLE

COAL TEST HOLE—Showing index number of holes shown  
on plate 3 of CRO map, and drill-hole data, in feet.

GL— Ground elevation  
R— Rock interval  
C— Coal interval  
TD— Total depth

DRILL-HOLE DATA SYMBOLS

COAL BED SYMBOLS AND NAMES

- Ga—Garfield
- Cy—Canyon
- Cy<sub>1</sub>—Upper Canyon
- Cy<sub>2</sub>—Lower Canyon
- Fe—Ferry
- Ck<sub>1</sub>—Upper Cook
- Ck<sub>2</sub>—Lower Cook
- L—Local
- Pa—Pawnee
- Sa<sub>1</sub>—Upper Sawyer
- Sa<sub>2</sub>—Lower Sawyer
- Kn—Knobloch
- Br—Broadus

TRACE OF COAL BED OUTCROP—Dashed where  
approximately located; short dashed where inferred.  
Showing thickness of coal, or coal-rock intervals, in feet,  
measured at triangle. Where a thickness fraction is  
shown, it indicates the net coal thickness (upper  
number) and net partings thickness (lower number).  
Letters designate the name of the coal bed as listed  
above. Arrows point toward coal-bearing area. Trace of  
coal outcrop has been modified from Matson and  
Blumer (1973, pl. 24, 25A, 25B) and Warren (1959,  
pl.19) to fit modern topographic map.

BURNED AND CLINKERED COAL BED—Showing  
area of baked and fused rock (v symbol). Dotted line  
indicates the inferred limit of burning.

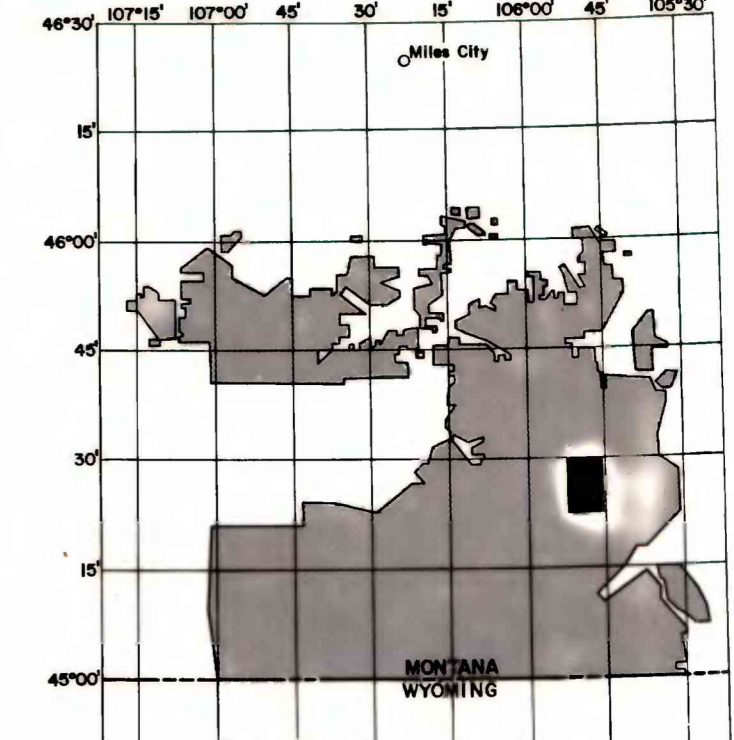
FAULT—Dashed where approximately located. U,  
up-thrown side; D, downthrown side.

195+ TWO TREE MINE  
COAL MINE—Showing mine name and thickness of coal  
bed, in feet.

To convert feet to meters, multiply feet by 0.3048.

REFERENCE FOR NONINDEXED DATA POINTS

WARREN, W.C., 1959. Reconnaissance geology of the  
Birney-Broadus coal field, Rosebud and Powder River  
Counties, Montana: U.S. Geol. Survey Bull. 1072-J,  
p. 561-585.



INDEX MAP—Showing location of the Sonnette  
quadrangle and the Northern Powder River Basin  
Known Recoverable Coal Resource Area (stippled),  
Montana.

Base map from U.S. Geological Survey, 1966

Log(s) inadequate  
for determining  
occurrence of coal.

SCALE 1:24,000

Compiled in 1977

**COAL RESOURCE OCCURRENCE MAP OF THE SONNETTE QUADRANGLE,  
POWDER RIVER COUNTY, MONTANA**  
BY  
**COLORADO SCHOOL OF MINES RESEARCH INSTITUTE**  
1979