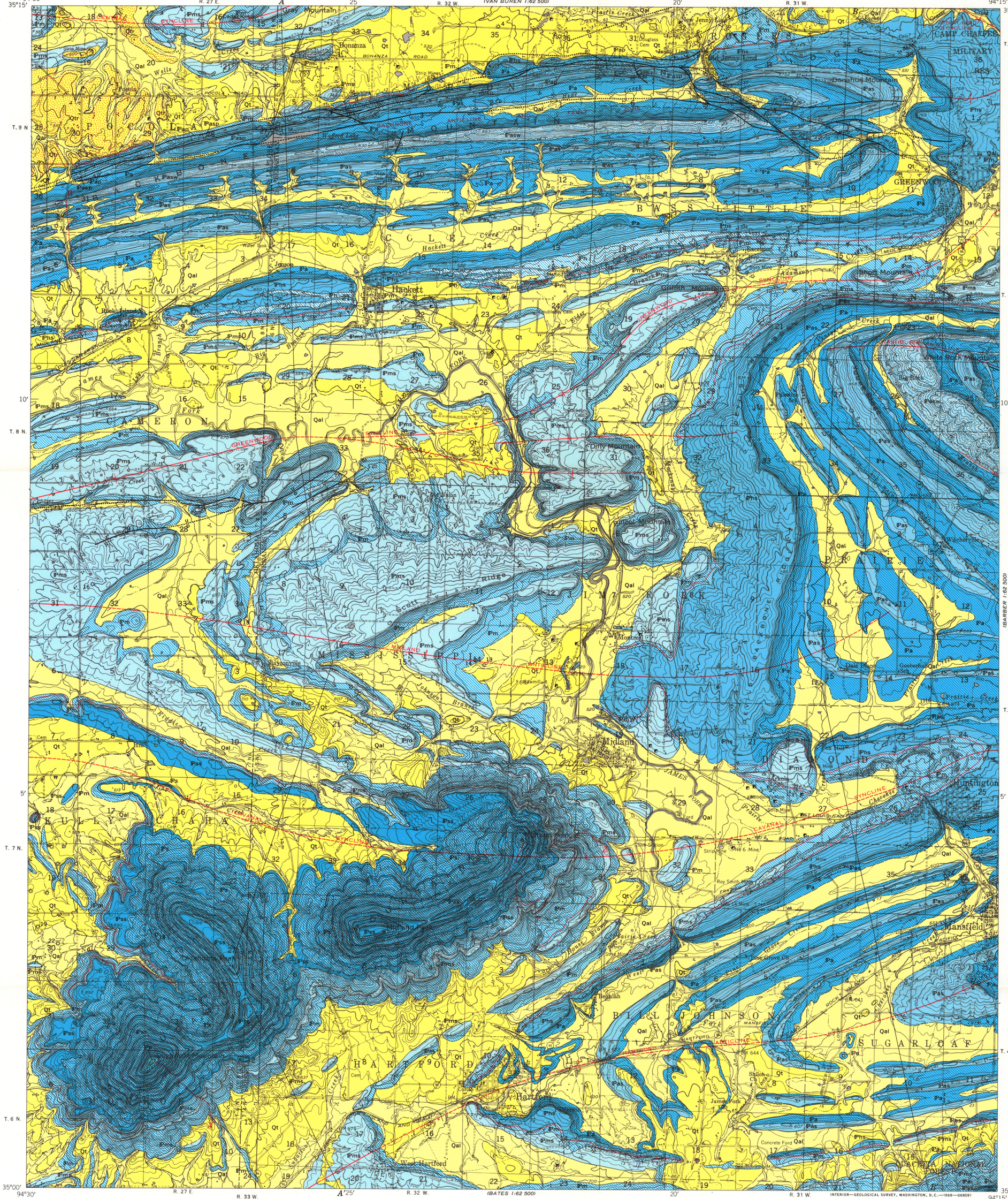
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
ARKANSAS GEOLOGICAL COMMISSION

PROFESSIONAL PAPER 536-A
PLATE 1



Base from U.S. Geological Survey, 1:62,500, 1947

Geology by Boyd R. Haley and Thomas A. Hendricks, 1934 and 1960

GEOLOGIC MAP OF GREENWOOD QUADRANGLE, SEBASTIAN COUNTY, ARKANSAS AND LE FLORE COUNTY, OKLAHOMA

SCALE 1:48 000

1 ½ 0 1 2 3 MILES

1 .5 0 1 2 3 KILOMETERS

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

APPROXIMATE MEAN DECLINATION, 1968
TRUE NORTH
MAGNETIC NORTH

EXPLANATION

Qal — Alluvium
Deposits along stream channels. In some places includes parts of the lowermost terrace

Qt, Qtr — Terrace deposits
Alluvial deposits on two terrace levels
Qt, stream terrace deposits
Qtr, river terrace deposits

Recent; Pleistocene — QUATERNARY

UNCONFORMITY

Pb — Boggy Formation
Only the basal sandstone is present in the mapped area

Ps, Pss — Savanna Formation
Alternating units of predominant shale or predominant sandstone
Ps, shale, siltstone, and thin beds of silty sandstone
Pss, sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale

Pm, Pms — McAlester Formation
Alternating units of predominant shale or predominant sandstone
Pm, shale, siltstone, and thin beds of sandstone or silty sandstone
Pms, sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale

Ph, Phs — Hartshorne Sandstone
Alternating units of predominant shale or predominant sandstone
Ph, shale, siltstone, and thin beds of sandstone or silty sandstone
Phs, sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale

Krebs Group; Des Moines — PENNSYLVANIAN

Pa, Pas, Pasw, Pap, Pasp — Atoka Formation
Alternating units of predominant shale or predominant sandstone
Pa, shale, siltstone, and thin beds of sandstone or silty sandstone
Pas, sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale
Pasw, sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale; zone W
Pap, shale, siltstone, and thin beds of sandstone or silty sandstone; zone P
Pasp, sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale; zone P

Atoka — PENNSYLVANIAN; CARBONIFEROUS

Contact
Dashed where approximately located

Fault, showing dip
Dotted where concealed. U, upthrown side; D, downthrown side

Reverse fault, showing dip
Dotted where concealed. T, designates upper plate

Anticline Syncline
Folds
Showing trace of axial plane. Dashed where inferred

Inclined Overturned Vertical Horizontal
Strike and dip of beds
Symbols in areas of alluvial deposits were measured on bedrock exposures too small to be shown on this map

Coal bed
Dashed where approximately located

Exposure of coal bed

Surface opening to coal bed

Mine shaft

Quarry

B — B′
Structural section shown on plate 4

X
Stratigraphic section shown on plate 2

27
Gas producing

12
Show of gas

13
No show of gas

3
Being drilled as of January 1, 1964
Wells
Number designates well listed in table in text

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