

GEOLOGIC MAP OF THE BARBER QUADRANGLE, SEBASTIAN, LOGAN, AND FRANKLIN COUNTIES, ARKANSAS

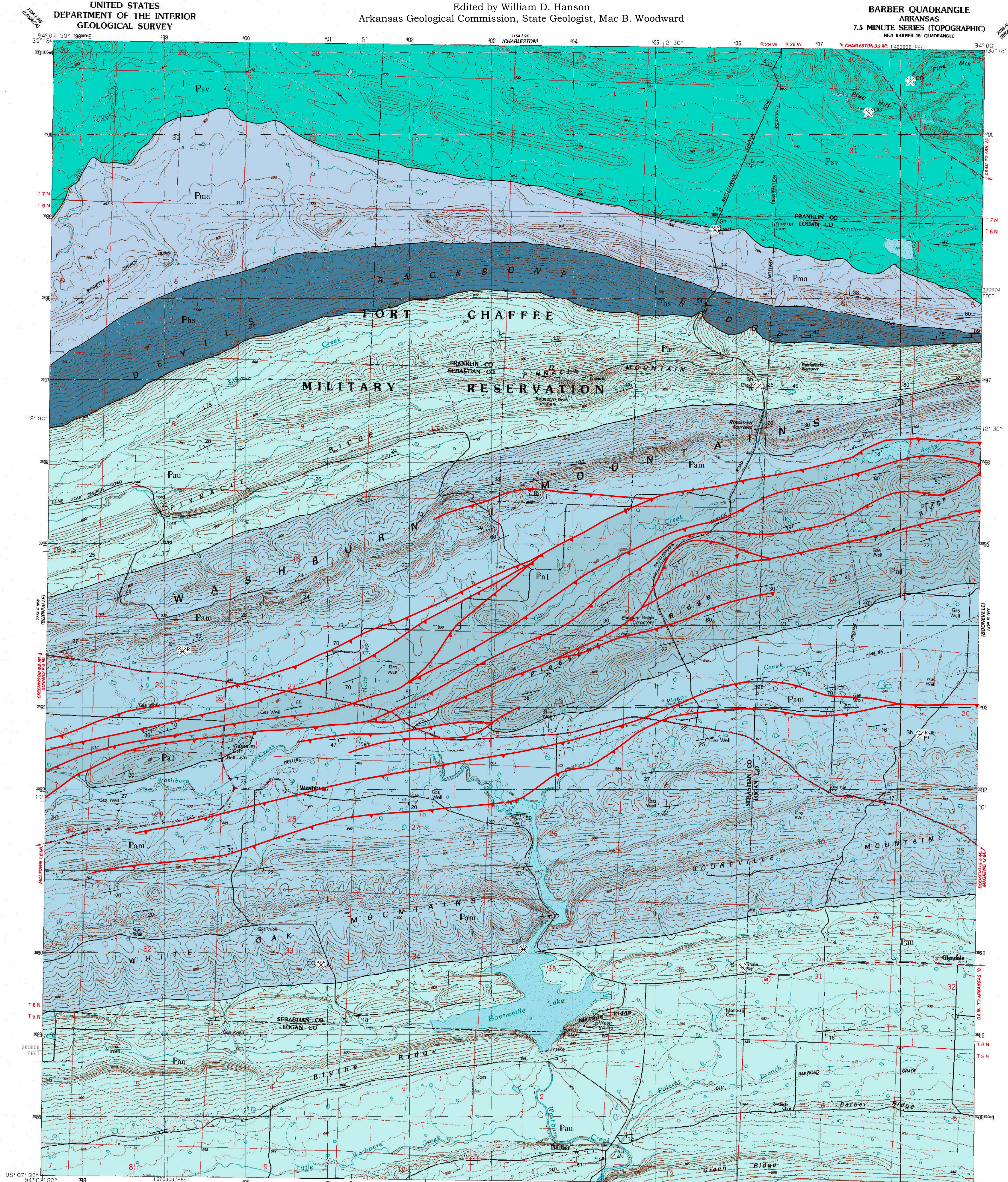
Geology by Boyd R. Haley and Charles G. Stone
Digital compilation by Walter K. Mayfield
2003

Edited by William D. Hanson
Arkansas Geological Commission, State Geologist, Mac B. Woodward

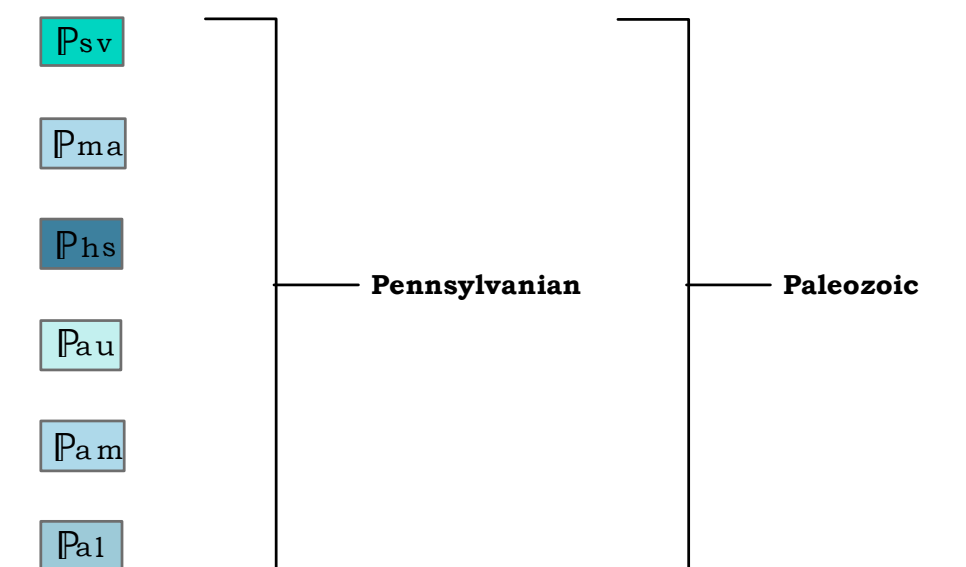
BARBER QUADRANGLE
ARKANSAS
7.5 MINUTE SERIES (TOPOGRAPHIC)
N.E. 4 BARBER 15 QUADRANGLE

DIGITAL GEOLOGIC QUADRANGLE MAP
BARBER, ARKANSAS
DGM-AR-00050

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Psv** **Savanna Formation (Pennsylvanian)** - The Formation consists of dark gray shale and silty shale, with minor amounts of light-gray siltstone and gray very fine to fine sandstone. In this unit a few plant and invertebrate fossils may be found. This unit is about 1600 feet thick and was deposited in a fluvial environment.
- Pma** **McAllister Formation (Pennsylvanian)** - The Formation consists of gray to black shale, tan to gray, thin-bedded sandstone, with a few coal beds. Plant and invertebrate fossils may be found from several horizons in the unit, which is 500 to 2300 feet thick. The unit was deposited in a fluvial environment.
- Pns** **Hartshorne Formation (Pennsylvanian)** - The Formation consists of brown to gray, massive, cross-bedded, medium grained sandstone, and some coal beds in the lower part of the unit. Plant fossils occur in the unit but are not abundant. This formation was deposited in a fluvial environment and ranges in thickness from 10 to 300 feet.
- Pau** **Upper Atoka Formation (Pennsylvanian)** - The Formation consists of marine tan to gray silty sandstone and grayish-black shale. Only in the Arkansas Valley and Frontal Ouachita Mountain provinces is this formation split into the upper, middle, and lower members. The Atoka Formation has a thickness of about 25,000 feet.
- Pam** **Middle Atoka Formation (Pennsylvanian)** - The Formation consists of marine tan to gray silty sandstone and grayish-black shale. Only in the Arkansas Valley and Frontal Ouachita Mountain provinces is this formation split into the upper, middle, and lower members. The Atoka Formation has a thickness of about 25,000 feet.
- Pal** **Lower Atoka Formation (Pennsylvanian)** - The lower Atoka is a sequence of marine, mostly tan to gray silty sandstones and grayish-black shales. Some rare calcareous beds and siliceous shales are known. This unit has the largest areal extent of any of the Paleozoic formations in the state.

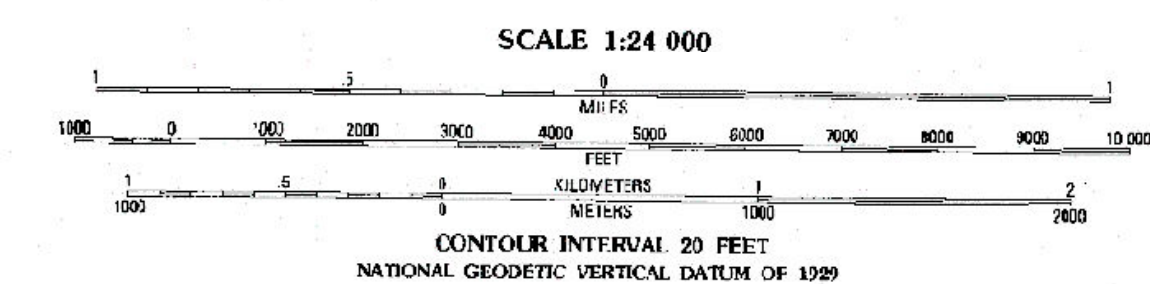
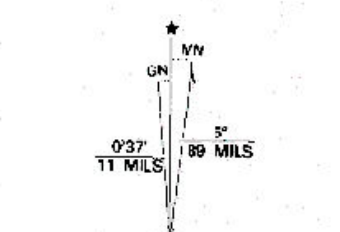
SYMBOLS

- Contact
— Thrust Fault
— Strike and Dip
— Abandoned mine or quarry
— Reclaimed mine or quarry
— Coal
— Shale

REFERENCES

- Haley, B. R., 1966, Geology of the Barber quadrangle, Sebastian County and vicinity, Arkansas: Arkansas Geological Commission Information Circular 20C, 76 p.
- McFarland, J. D., 1998, Stratigraphic Summary of Arkansas: Arkansas Geological Commission Information Circular 36, 39p

Produced by the United States Geological Survey
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs taken 1953. Field checked 1985. Map edited 1987
Supersedes Army Map Service map dated 1947
Projection and 10,000-foot grid ticks: Arkansas coordinate system, south zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 15
1927 North American Datum
To place on the predicted North American Datum 1983, move the projection lines 6 meters south and 18 meters east as shown by dashed corner ticks
There may be private inholdings within the boundaries of the National or State Reservations shown on this map
Five red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
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AND ARKANSAS GEOLOGICAL COMMISSION, LITTLE ROCK, ARKANSAS 72204
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION
Funded by United States Geological Survey in cooperation with the Arkansas Geological Commission, under the CoGeo Map Project

BARBER, ARK.
NE4 BARBER 15 QUADRANGLE
35/94-B1-TT-024
1987
DMA 7154 B NE-SHIPS 1984

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