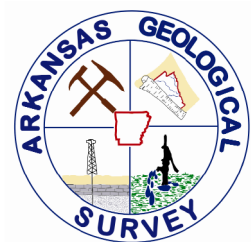
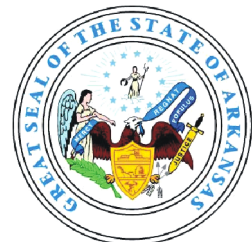


GEOLOGIC MAP OF THE CAUTHRON QUADRANGLE, SCOTT AND SEBASTIAN COUNTIES, ARKANSAS



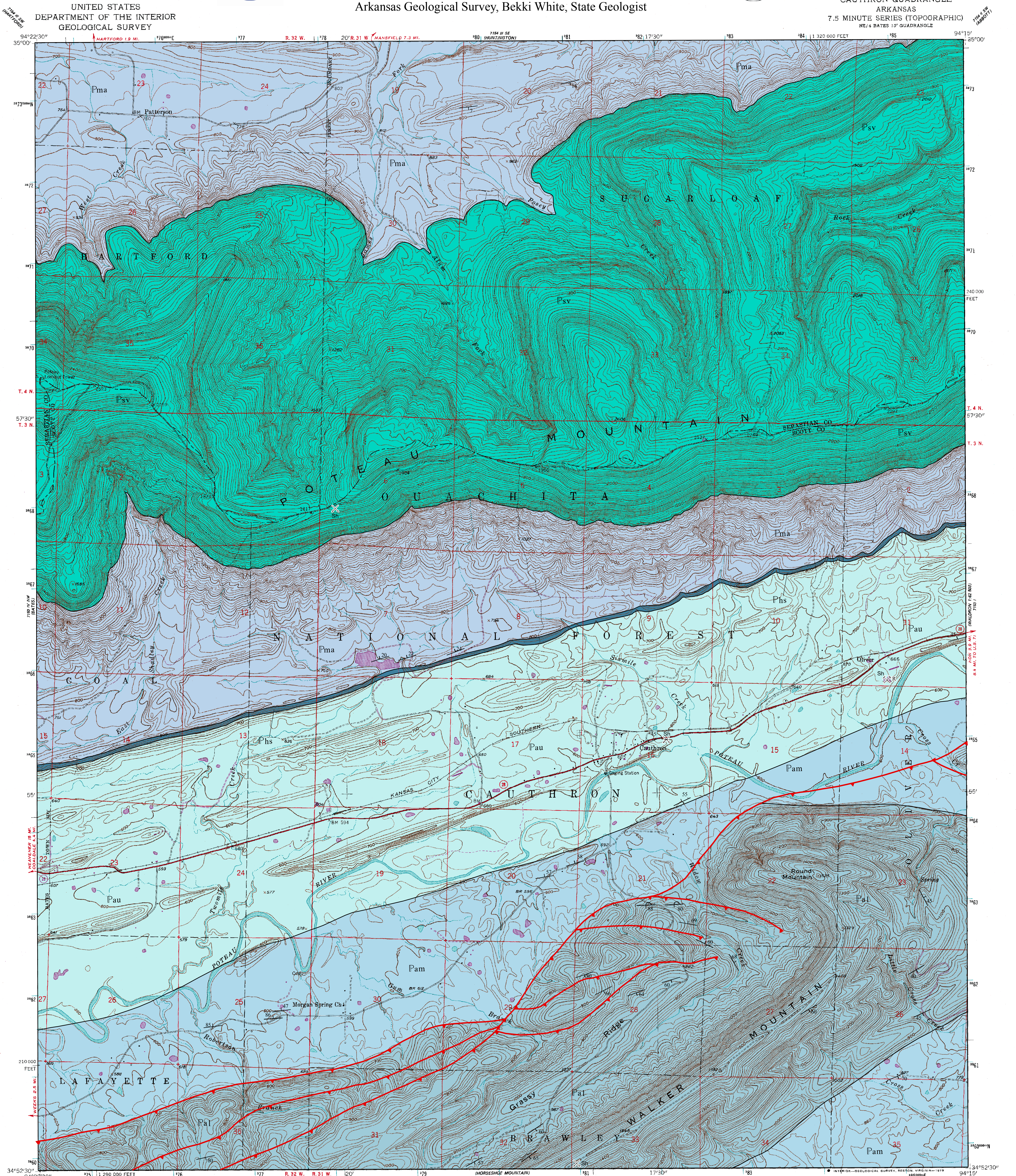
Geology by Boyd R. Haley and Charles G. Stone
1994

Edited by William D. Hanson
Digital Compilation by Brandy R. Rakes
2007

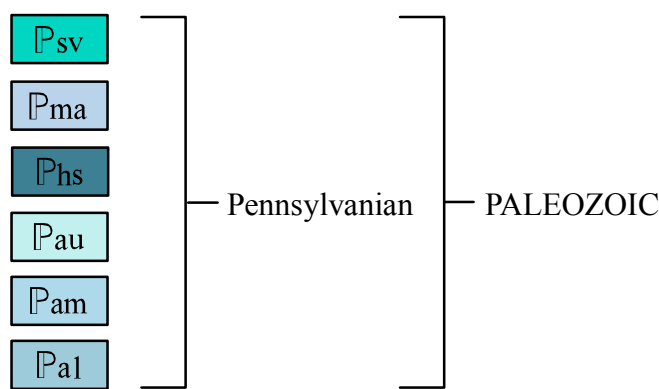


Arkansas Geological Survey, Bekki White, State Geologist

CAUTHRON QUADRANGLE
ARKANSAS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE 1/4 BATES 15' QUADRANGLE



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, and coal beds. 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** **McAlister 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.
- Phs** **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 about 10 to 300 feet.
- Pau** **Atoka Formation upper (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** **Atoka Formation middle (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** **Atoka Formation lower (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
- Overturned Strike and Dip
- × Pit
- × Abandoned Pit
- ×^R Reclaimed Quarry

Mineral Commodities

Sh Shale

References

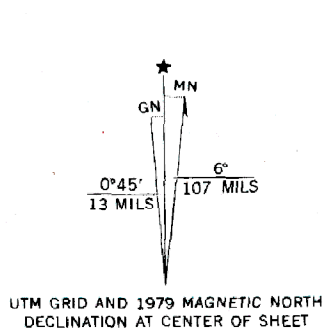
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Control by USGS and USC&GS
Topography from aerial photographs by multiplex methods
Aerial photographs taken 1955. Field check 1958
Polyconic projection. 1927 North American datum
10,000-foot grid based on Arkansas coordinate system, north zone
To place on the predicted North American Datum 1983
move the projection lines 6 meters south and
19 meters east as shown by dashed corner ticks
1000-meter Universal Transverse Mercator grid ticks,
zone 15, shown in blue
There may be private inholdings within the boundaries of
the National or State reservations shown on this map
Revisions shown in purple compiled from aerial photographs taken
1977. Map edited 1979. This information not field checked



SCALE 1:24,000
1 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 0 1 2 3 4 5 6 7 8 9 10 KILOMETER
CONTOUR INTERVAL 20 FEET
NATIONAL GEODEIC VERTICAL DATUM OF 1929
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR RESTON, VIRGINIA 22092
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

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ROAD CLASSIFICATION
Heavy-duty ——— Light-duty ———
Unimproved dirt ———
State Route —○—
CAUTHRON, ARK.
NE 1/4 BATES 15' QUADRANGLE
N3452.5-W9415/7.5
1968
PHOTOREVISED 1979
DMA 7155 IV NE-SERIES Y884