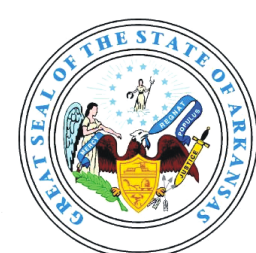
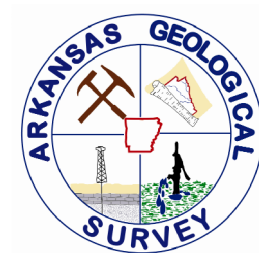


GEOLOGIC MAP OF THE BUCK KNOB QUADRANGLE, MONTGOMERY, POLK, AND SCOTT COUNTIES, ARKANSAS



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

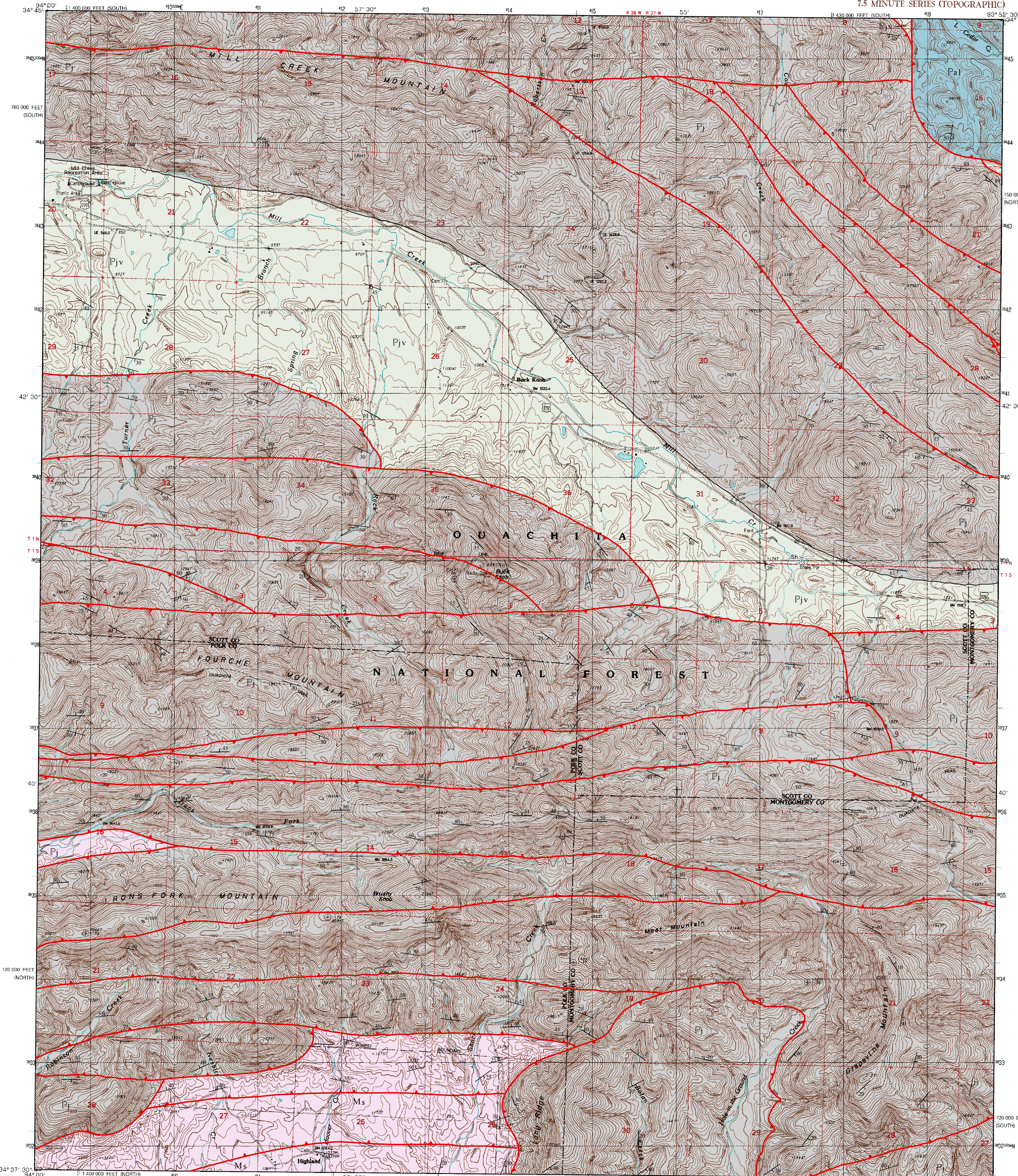
Edited by William D. Hanson
Digital Compilation by Brandy R. Rakes
2007



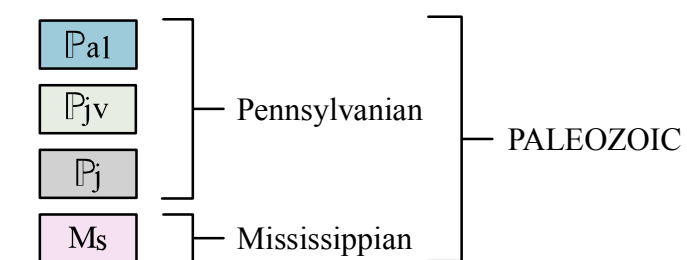
Arkansas Geological Survey, Bekki White, State Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BUCK KNOB QUADRANGLE
ARKANSAS
7.5 MINUTE SERIES (TOPOGRAPHIC)



Correlation of Map Units



Description of Map Units

- Paal** **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. The Atoka has the largest areal extent of any of the Paleozoic formations in the state.
- Pjv** **Johns Valley Formation (Pennsylvanian)** - The Johns Valley Formation consists of black shale with numerous intervals of brownish sandstone. Also, small amounts of gray-black siliceous shale and chert have been noted. In the frontal Ouachita Mountains large quantities of erratic masses are common. The erratic masses consist of limestone, dolostone, cherts, and others. This unit was deposited in a deep marine environment and is about 500 to 1500 feet thick.
- Pj** **Jackfork Formation (Pennsylvanian)** - The Jackfork is thin to massive-bedded, fine to coarse-grained, brown, tan, or bluish-gray quartzitic sandstone with subordinate brown silty sandstones and gray-black shale. Minor conglomerates composed of quartz, chert, and metaquartzite occur notably in the southern exposures of the formation. The Jackfork rests conformably on the Stanley and was deposited in a deep marine environment.
- Ms** **Stanley Formation (Mississippian)** - The Stanley is composed predominantly of grayish-black to brownish-gray shale, with lesser amounts of thin to massive-bedded, fine-grained, gray to brownish-gray feldspathic sandstone and black chert. Weathered shale is olive-gray, and the sandstone is generally more porous and brown. Most of the Stanley is Late Mississippian (Chesterian) as indicated by conodonts and plant fossils. The formation was deposited in a deep marine environment.

Symbols

- Contact
- Thrust Fault
- Strike and Dip
- Overtured Strike and Dip
- Pit

Mineral Commodities

Sh Shale

References

- Haley, B. R., and Stone, C. G., 1976, Geologic Worksheet of the Oden Quadrangle Arkansas: Arkansas Geological Commission, Open-file report, scale 1:62,500.
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- McFarland, J. D., 2004, Stratigraphic Summary of Arkansas: Arkansas Geological Commission Information Circular 36, 39p.
- Miser, H. D., and Purdue, A. H., 1929, Geology of the DeQueen and Caddo Gap Quadrangles, Arkansas: U.S. Geological Survey, Bulletin 808, 195p., scale 1:125,000.

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CONTROL BY: USGS AND NOW/NSA
COMPILED FROM AERIAL PHOTOGRAPHS TAKEN: 1986
FIELD CHECKED: 1985 MAP EDITED: 1986
PROJECTION: LAMBERT CONFORMAL CONIC
GRID: 100-METER UNIVERSAL TRANSVERSE MERCATOR
DATUM: ARKANSAS NORTH ZONE
ELEVATION: STATE GRID TICS
MAGNETIC NORTH DECLINATION: 650 SOUTH ZONE
1984 MAGNETIC NORTH DECLINATION: 9° 32' WEST
VERTICAL DATUM: NATIONAL GEODESIC VERTICAL DATUM OF 1983
HORIZONTAL DATUM: 1983 NORTH AMERICAN DATUM
To place on the predicted North American Datum of 1983,
move the projection lines as shown by dashed corner ticks
(7 meters south and 18 meters east)
There may be private inholdings within the boundaries of any
Federal and State Reservations shown on this map
No distinction made between houses, barns, and other buildings

PROVISIONAL MAP
Produced from original
manuscript drawings. Information
shown as of date of
photography.

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
CONTour ELEVATIONS SHOWN TO THE NEAREST FOOT
OTHER ELEVATIONS SHOWN TO THE NEAREST FOOT
To convert feet to meters multiply by 0.3048
To convert meters to feet multiply by 3.2808

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
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1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

QUADRANGLE LOCATION

ADJOINING 7.5 QUADRANGLE NAMES

1. Dale
2. Park
3. Harvey
4. Y. City
5. Bushy Creek Min
6. Board Camp
7. Vine Ridge
8. Odum

ROAD LEGEND

Improved Road
Unimproved Road
Trail

Intestate Route U.S. Route State Route

BUCK KNOB, ARKANSAS
PROVISIONAL EDITION 1985
34991-F8-TT-024

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