

GEOLOGIC MAP OF THE BAKER SPRINGS QUADRANGLE, HOWARD AND POLK COUNTIES, ARKANSAS

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Correlation of Map Units

Ms — Mississippian — PALEOZOIC

Description of Map Unit

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. Weathered shale is olive-gray and the sandstone is generally more porous and brown. Interbedded layers of thin black siliceous shale and chert are present and are used to subdivide the formation in other areas. Locally, volcanic tuffs (primarily the Hatton Tuff Member) and a quartzose sandstone-chert conglomerate unit (Hot Spring Sandstone Member) are present in the lower Stanley. Cone-in-cone and calcareous silty concretions are present in the shale. Most of the Stanley is Late Mississippian (Chesterian) as indicated by the presence of conodonts and plant fossils. The formation is a deep-water marine turbidite sequence, derived primarily from a landmass (Llanoria) that existed along the southern margins of the Ouachita trough.

Symbols

- ▲— Thrust Fault
- |— Strike and Dip
- × Sand/Gravel Pit
sh - Shale
- × Abandoned Sand/Gravel Pit
sh - Shale
- ×^R Reclaimed Sand/Gravel Pit
sh - Shale

References

- Haley, B. R., and Stone, C. G., 1976, Geologic Map of Baker Springs Quadrangle, Arkansas: Arkansas Geological Commission, scale 1:62,500.
- Howard, J. M., 2006, Arkansas Mineral Commodity Database, In-house Data: Arkansas Geological Commission.
- 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.

DISCLAIMER

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PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
CONTROL BY AERIAL PHOTOGRAPHS TAKEN 1982
FIELD CHECKED 1986 MAP EDITED 1986
PROJECTION LAMBERT CONFORMAL CONIC
GRID SPACING UNIVERSAL TRANSVERSE MERCATOR
ZONE 18
SKEWED STATE GRID TICKS ARKANSAS, SOUTH ZONE
1983 MAGNETIC NORTH DECLINATION 9°07' WEST
VERTICAL DATUM NATIONAL GEODETIC VERTICAL DATUM OF 1929
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
CONTROL AND FIELD ESTABLISHED ELEVATIONS SHOWN TO THE NEAREST 0.1 FOOT
OTHER ELEVATIONS SHOWN TO THE NEAREST FOOT
To convert feet to meters multiply by 3.048

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND ARKANSAS GEOLOGICAL COMMISSION, LITTLE ROCK, ARKANSAS 72204

ROAD LEGEND

Improved Road
Unimproved Road
Trail

Interstate Route U.S. Route State Route

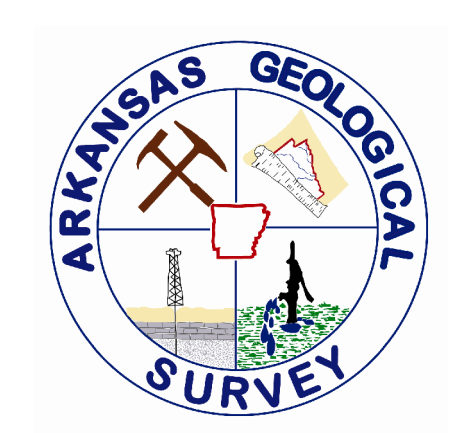
QUADRANGLE LOCATION

1	2	3	1 Vandervoort
2	3	4	2 Eagle Mountain
3	4	5	3 Nichols Mountain
4	5	6	4 Wickes
5	6	7	5 Unisore
6	7	8	6 Gilman
7	8		7 Gilman Dam
8			8 Dierks Dam

ADJOINING 7.5 QUADRANGLE NAMES

BAKER SPRINGS, ARKANSAS
PROVISIONAL EDITION 1986

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