GEOLOGIC MAP AND SECTIONS OF THE EASTERN PART OF THE LYNN MOUNTAIN SYNCLINE AND ADJACENT AREAS

LE FLORE AND MC CURTAIN COUNTIES, OKLAHOMA

By

Garrett Briggs and Donald L. Smith

1973

SCALE 1:42,240

0 ½ 1 2 3 4

MILES

EXPLANATION

Note: This stratigraphic section embodies major changes in age assignments and is thus a departure from previous usage of the Oklahoma Geological Survey (see accompanying correlation chart).

QUATERNARY

Qal — Alluvium

Clay, silt, sand, and gravel.

PENNSYLVANIAN — *Morrowan and Atokan(?)*

Pg — Game Refuge Formation

May include younger Morrowan and Atokan(?) rocks

Interbedded layers of white to brown sandstones and gray shales. Some sandstones contain a mold fauna. Estimated thickness, 3,000 feet.

Pwmp — Wesley Formation
Markham Mill Formation
Prairie Mountain Formation

Interbedded yellow- to brown-weathering sandstones and light-blue-gray shales. Thickness, 2,360 feet. A 2-foot sequence of thin-bedded, dark-gray to black chert marks the top of the Wesley.

Pwu / Pwp / Pwl — Wildhorse Mountain Formation

Pwu *Upper member*, white to light-brown sandstones and gray shales. Thickness, 1,694 feet.

Pwp *Prairie Hollow Shale Member*, maroon, green, and gray shales interbedded with yellow-weathering massive sandstones. Thickness, 130 feet.

Pwl *Lower member*, interbedded white to light-brown sandstone and gray shale. Thickness, 1,716 feet.

Jackfork Group

Pc — Chickasaw Creek Formation

Olive- to brown-weathering dark-gray shale interbedded with lesser amounts of thin-bedded argillaceous sandstones and some black siliceous shales and cherts. Thickness, 333 feet (as measured by Cline and Moretti, 1956).

?

MISSISSIPPIAN — *Meramecian(?) and Chesterian*

Mmnt / Mtu / Mtb / Mtl / Mtt — Moyers Formation
Tenmile Creek Formation

Olive- to brown-weathering, dark-gray shale interbedded with poorly sorted light-gray to brown argillaceous siltstones and fine- to medium-grained sandstones.

Mmnt *Moyers* and *Tenmile Creek* undifferentiated.

Mtu *Upper member* of Tenmile Creek.

Mtb *Battiest ("Smithville") Chert Member* of Tenmile Creek.

Mtl *Lower member* of Tenmile Creek.

Mtt *Tuff* in lower member of Tenmile Creek.

Ms — Stanley Group undifferentiated

Includes Chickasaw Creek Formation north of Octavia fault

Strike and dip of beds known to be right-side up

Strike and dip of beds, top and bottom undetermined

Strike and dip of overturned beds

Strike of vertical beds; number on top side

Axis of anticline; arrow shows direction of plunge

Axis of syncline; arrow shows direction of plunge

Contact; dashed where inferred

Fault showing direction of relative movement; dashed where inferred; dotted where concealed; u, upthrown side; d, downthrown side

Thrust fault; dashed where inferred; dotted where concealed; sawteeth on upper plate

U.S. highway

State highway

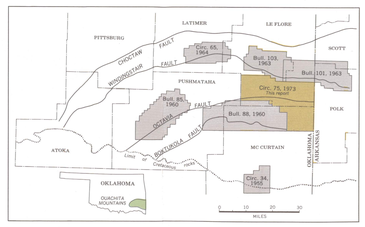
Improved road

Unimproved road

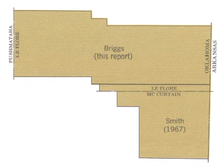
Correlation Chart

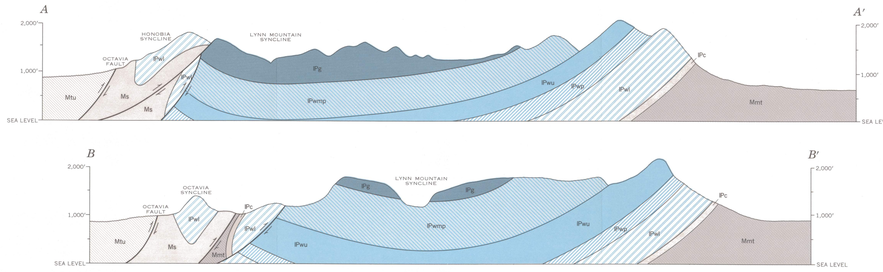
This report				Previous usage	
PENNSYLVANIAN	Morrowan and Atokan(?)	Jackfork Group	Younger Morrowan and Atokan(?) rocks	PENNSYLVANIAN	Atoka
			Game Refuge	Morrowan and Atokan(?)	Johns Valley
			Wesley	Jackfork Group	Game Refuge
			Markham Mill		Wesley
			Prairie Mountain		Markham Mill
			Wildhorse Mountain		Prairie Mountain
MISSISSIPPIAN	Meramecian(?) and Chesterian	Stanley Group	Chickasaw Creek	MISSISSIPPIAN	Wildhorse Mountain
			Moyers	Meramecian and Chesterian	Chickasaw Creek
			Tenmile Creek		Moyers
					Tenmile Creek

Index Structural Map of the Ouachita Mountains in Oklahoma Showing Coverage by Published Reports of the Oklahoma Geological Survey, 1955–1973



Index to Geologic Mapping





Cartographers: Roy D. Davis and Sondra Underwood