Geologic Map of Chickasaw National Recreation Area

Oklahoma

National Park Service
U.S. Department of the Interior

Geologic Resources Inventory
Natural Resource Stewardship and Science

Park Administration
Travertine Island
Vendome Well
Sulphur
Travertine Creek
Antelope Springs
Buffalo Springs
Black Sulphur Springs
Hillside Spring
Pavilion Springs
Travertine Nature Center
PLATT HISTORIC DISTRICT
Bromide Hill
VETERANS LAKE
Wilson Creek
Sulphur Fault
Sulphur Syncline
South Sulphur Fault
Broadway Avenue
Rock Creek
Guy Sandy Creek
BLUESTEM PRAIRIE
Eagle Bay Boat Launch
Breezy Point
GUY SANDY
THE POINT
Thedford Pond
LAKE OF THE ARBUCKLES
BUCKHORN
Arbuckle Dam
Buckhorn Creek
Reagan Fault
Dougherty Anticline
Tishomingo Anticline
Mill Creek Fault Zone
A-A'
B-B'
Ps
PNvs
PNvc
PNd
PNaw
PNMs
Mc
MDsw
DSoh
Dsoh
Os
Ov
Obm
Ooj
Owk
Ow
Osv
Qac
Qaf
(breccia zone)
177
7
110
70
44
40
35
30
20

North
0 0.5 1 Kilometers
0 0.5 1 Miles

NPS Boundary

Infrastructure
- cities
- buildings
- highways

Springs
- freshwater spring
- mineral water spring

Folds
- anticline, known or certain. Large arrowhead shows direction of plunge
- syncline, known or certain, dotted where concealed

Faults
- thrust fault, known or certain, dash where inferred. Sawteeth on upper plate
- normal fault, known or certain, dash where inferred, dotted where concealed. Bar and ball on downthrown block
- unknown offset/displacement, known or certain, dash where inferred
- oblique, right-lateral, reverse slip fault, known or certain, dash where inferred

Geologic Contacts
- known or certain, dashed where inferred
- water or shoreline

Geologic Cross Section Line
- cross section line (see Plate 2)

Collapsed and Mega-Brecciated Boundaries
- known or certain

Collapsed and Mega-Brecciated Strata
- breccia zone

Geologic Units

water	
Qaf	Artificial fill (Quaternary)
Qac	Alluvium and colluvium, undifferentiated (Quaternary)
Ps	Stratford Formation (lower Permian)
PNvs	Vanoss Formation, upper shale facies (Upper Pennsylvanian, Virgilian)
PNvc	Vanoss Formation, lower limestone conglomerate facies (Upper Pennsylvanian, Virgilian)
PNd	Deese Group, undifferentiated (Middle Pennsylvanian, middle Desmoinesian)
PNaw	Atoka and Wapanucka Formations, undifferentiated (Lower to Middle Pennsylvanian, Morrowan to Atokan)
PNMs	Springer Formation (Upper Mississippian to Lower Pennsylvanian, Chesterian to Morrowan)
Mc	Caney Shale (Middle to Upper Mississippian, Meramecian to Chesterian)
MDsw	Sycamore Limestone, Welden Limestone and Woodford Shale, undifferentiated (Devonian to Mississippian)
DSOh	Hunton Group, undifferentiated (Upper Ordovician [Cincinnatian] to Lower Devonian)
Dhu	Upper part of Hunton Group, undifferentiated (Lower Devonian)
SOhl	Lower part of Hunton Group, undifferentiated (Upper Ordovician to Silurian)
Osv	Sylvan Shale and Viola Group, undifferentiated (Upper Ordovician, Cincinnatian)
Os	Sylvan Shale (Upper Ordovician, Cincinnatian)
Ov	Viola Group (Upper Ordovician, Cincinnatian)
Obm	Bromide, Tulip Creek and McLish Formations, undifferentiated (Middle Ordovician)
Ooj	Oil Creek and Joins Formations, undifferentiated (Middle Ordovician)
Ow	West Spring Creek Formation (Lower Ordovician)
Owk	West Spring Creek and Kindblade Formations (Lower Ordovician)

Location Map



This map was produced by Kari Lanphier and Georgia Hybels (Colorado State University) in July 2015. It is an overview of compiled geologic data prepared as part of the NPS Geologic Resources Inventory. This map is not a substitute for site-specific investigations.

The source map used in creation of the digital geologic data was:

Blome, C.D., D.J. Lidke, R.R. Wahl, and J.A. Golab. 2013. Geologic Map of Chickasaw National Recreation Area, Murray County, Oklahoma (scale 1:24,000). Scientific Investigations Map SIM-3258. U.S. Geological Survey.

As per source map scale and U.S. National Map Accuracy Standards, geologic features represented here are within 12 m (40 ft) of their true location.

All digital geologic data and publications prepared as part of the Geologic Resources Inventory are available at the NPS Integrated Resource Management Applications Portal (IRMA): https://irma.nps.gov/App/Reference/Search. Enter "GRI" as the search text and select a park from the unit list.