



EXPLANATION

Recent

- Qal Alluvium
- Flood-plain deposits of present streams

Lower Pennsylvanian

- Ppv Potville Formation
- Sandstone, shale, conglomerate, and coal beds
- Ppc Central Sandstone Member
- Ppd Pine Sandstone Member
- Pps Shades Sandstone Member
- Ppv intertonguing shale beds

Lower Mississippian

- Mp Parkwood Formation
- Sandstone and shale; absent west of Shades Valley

Upper Mississippian

- Mf Floyd Shale
- Black and gray shale, shaly limestone, and sandstone
- Mls Bangor Limestone
- Bluish gray thick-bedded crystalline fossiliferous limestone containing thin shale layers and partings
- Mh Hartelle Sandstone
- Thick to thin bedded medium-grained sandstone, locally friable
- Mg Gritts Formation
- Dark shale; interbedded thin sandstone layers in upper parts

Lower Mississippian

- Mw Limestone unit of Warsaw age
- Bluish gray to gray thick-bedded coarse-grained fossiliferous limestone; absent east of area
- Mfp Fort Payne chert
- Massive chert and limestone

Lower Devonian

- Mm Maury Formation
- Green and red thin-bedded planocrystic, parting shaly limestone; contains phosphatic nodules
- Mm Frog Mountain Sandstone
- Yellowish and grayish quartzitic sandstone

Upper Devonian

- Mm Red Mountain Formation
- Shale, sandstone, and limestone; contains hematitic ore beds

Upper Ordovician

- Chickamauga Limestone
- Oc, light to dark gray thick- and thin-bedded limestone
- Och, Attala Chert Conglomerate Member at base in places

Upper Cambrian

- Ccr Copper Ridge Dolomite
- Massive tough angular chert, and dolomite
- Ck Ketona Dolomite
- Nearly pure crystalline massive dolomite

Upper Cambrian

- Cc Consauga Formation
- Dark gray thick-bedded fine-grained limestone interbedded with dark green to black shale beds

Geological Symbols:

- Contact: Dashed where approximately located; dotted where concealed
- Fault, showing dip: Dashed where approximately located; dotted where concealed; U, upthrown side; D, downthrown side; approximate displacement, in feet. Red faults indicate position at depth
- Anticline: Dashed where approximately located
- Syncline: Dashed where approximately located
- Structure contours: Drawn on base of Fort Payne Chert. Dashed where control is less accurate. Contour interval 50 feet
- Strike and dip of beds
- Strike of vertical beds
- Horizontal beds
- Strike of vertical joint
- Strikes and dips of multiple joint systems
- Mine slope (adit or portal)
- Vertical shaft
- Inclined shaft
- Chert pit
- Abandoned chert pit
- Drill hole
- Letter indicates company; hole numbered according to company records. Altitude of base of Fort Payne Chert indicated in feet above or below mean sea level

Geological Periods: QUATERNARY, PENNSYLVANIAN, MISSISSIPPIAN, DEVONIAN, SILURIAN, ORDOVICIAN, CAMBRIAN

Geographic Labels: JONES VALLEY, BIRMINGHAM VALLEY, SHADES VALLEY, LITTLE VALLEY, SHADES MOUNTAIN, PINE MOUNTAIN, CHESTNUT MOUNTAIN, DOLLY RIDGE

Scale: SCALE 1:24 000. 1 MILE, 1 KILOMETER

Index Map of Alabama: A small map of Alabama with a star indicating the location of the Birmingham Red-Iron-Ore District.

GEOLOGIC MAP SHOWING CONFIGURATION OF THE BASE OF THE FORT PAYNE CHERT, BIRMINGHAM RED-IRON-ORE DISTRICT, ALABAMA

Base modified from AAA aerial photographs and U.S.G.S. topographic quadrangle, Bessemer Iron District, 1905.

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