



EXPLANATION

Dr	Romey Shale (Middle Devonian)
DSu	Undivided units (Lower Devonian and Upper Silurian)
Su	Keeler Sandstone and Rose Hill Formation, undivided (Middle Silurian)
---	Contact—Approximately located
↘	Strike and dip of beds
↙	Inclined
↕	Overturned
— —	Fault—U, upthrown side; D, downthrown side
⊙	Iron mine
⊙	Abandoned open cut or group of cuts
⊙	Caved adit
⊙	Caving ground
•	Charcoal-making site

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Dr	Romey Shale (Middle Devonian)
DSu	Undivided units (Lower Devonian and Upper Silurian)
Sk	Keeler Sandstone (Middle Silurian)
Sr	Rose Hill Formation (Middle Silurian)
---	Contact—Approximately located, dashed where covered by Quaternary deposits
↘	Strike and dip of beds
↙	Inclined
↕	Overturned
⊙	Iron mine
⊙	Abandoned open cut, trench, or group of cuts
Mn x	Manganese occurrence
Fe x	Iron occurrence

CORRELATION OF MAP UNITS

Qa	Qlc	Holocene	Quaternary	Cenozoic
Dr	DSu	Middle Devonian	Lower Devonian	Upper Silurian
Sk	Sr	Middle Silurian	Lower Silurian	Upper Ordovician
Om		Middle Ordovician		Ordovician

DESCRIPTION OF MAP UNITS

Qa	Alluvium (Holocene)—Sand and gravel containing abundant boulders and cobbles of sandstone.
Qlc	Landslide and colluvium (Holocene)—Large chaotic masses of boulders, cobbles, and pebbles of quartzite and hematitic sandstone, mostly from the Keeler Sandstone and Rose Hill Formation. Mapped where most obvious and in areas where contacts of underlying formations are obscured.
Dr	Romey Shale (Middle Devonian)—Shale, black, fissile, pyritic, sparsely fossiliferous. Grades into shale, medium- to light-olive-gray, calcareous, fossiliferous in lower 100 ft. Black shale correlates with lower part of Millboro Shale, and lower gray shale correlates with Needmore Shale. Poorly exposed.
DSu	Lower Devonian and Upper Silurian rocks, undivided—Contains the following formations which are poorly exposed and cannot be mapped separately in the area: Ridgely Sandstone (Lower Devonian)—Sandstone, medium- to coarse-grained, calcareous. Where cemented by secondary iron oxides, forms hanging wall of Oriskany iron deposits. Licking Creek Limestone (Lower Devonian)—Limestone, upper part light gray, sandy, where replaced by secondary iron oxides, forms Oriskany iron deposits. Lower part, dark to medium-gray, cherty, forms foothill of Oriskany iron deposits. Healing Springs Sandstone (Lower Devonian)—Sandstone, light-gray to grayish-orange, medium- to coarse-grained, cross-bedded, calcareous. Deeply weathered. No exposures identified. New Creek Limestone (Lower Devonian)—Limestone, light- to medium-gray, coarse-grained, crinoidal, sandy. Deeply weathered. No exposures identified. Kepler Limestone (Lower Devonian and Upper Silurian)—Limestone, medium- to dark-gray, nodular, fossiliferous, cherty, some argillaceous layers contain thin nodules and lenses of black chert. Deeply weathered. No exposures identified. Clifton Forge Sandstone Member (Lower Devonian)—Sandstone, white to light gray, fine- to coarse-grained, cross-bedded, calcareous, fossiliferous. Some float and a few exposures seen near the Victoria and Fancy Hill mines. Towalony Limestone (Upper Silurian)—Limestone, light- to medium-gray, thin-bedded, laminated, impure and argillaceous. Mudcracks, intraformational breccias, and thin coarse-grained beds, locally. Weathers readily to grayish-yellow shaly chips. Deeply weathered. No exposures seen near the Victoria mine. Williamsport Sandstone(?) and (or) Wills Creek Shale(?) (Upper Silurian)—Sandstone, porous, calcareous, cross-bedded; interbedded light-gray shale and minor amounts of pale yellow-orange, friable, silty sandstone in lower part. Deeply weathered and poorly exposed. Called "Wills Creek" Formation by Leane (1957, p. 39). Exposures are too poor to correlate this unit with better exposed sections outside the area. Some of the sandstone beds where more thoroughly cemented may be included with Keeler Sandstone.
Sk	Keeler Sandstone (Middle Silurian)—Sandstone, white to light-gray, very fine- to fine-grained, nearly pure quartz. Thin- to thick-bedded and locally cross-bedded. Weathered surfaces commonly stained red, pink, or brown. Generally unfossiliferous except for <i>Scolobolus</i> tubes.
Sr	Rose Hill Formation (Middle Silurian)—Sandstone, dusky-red or blackish-red; hematitic, thin- to thick-bedded, cross-bedded, interbedded with medium-gray sandstone and greenish-gray to moderate-red shale. Sandstone forms abundant slabby blocks of float that conceal softer and more easily eroded shale beds. Hematitic beds are low-grade iron resource. Some thin beds, 0.5-2 ft thick, of fossiliferous, oolitic, hematitic sandstone were mined for iron locally 7 mi southwest of the area.
St	Tuscarora Quartzite (Lower Silurian)—Quartzite, white to light-gray, fine- to coarse-grained, conglomeratic near base. Generally medium- to thick-bedded and locally cross-bedded. Resistant to erosion.
Oj	Junata Formation (Upper Ordovician)—Sandstone, mostly yellowish-brown to olive gray, but some grayish-pink, very fine-grained, thin-bedded, cross-bedded, micaceous, interbedded grayish-red and olive-gray silty shale.
Om	Martinsburg Shale (Upper and Middle Ordovician)—Shale, medium- to light-gray, medium-grained, calcareous; interbedded argillaceous limestone. Weathers to grayish-yellow and yellowish-orange shaly chips.

MAPS SHOWING GEOLOGY AND MINE WORKINGS IN THE RICH HOLE ROADLESS AREA, ALLEGHANY AND ROCKBRIDGE COUNTIES, VIRGINIA