

## Summary of Map Units

### UNCONSOLIDATED SEDIMENTARY ROCKS

Quaternary	Qal	Alluvium - white to light-gray, unconsolidated clay, silt, sand, and locally, gravel associated with floodplains.
	Qt	Alluvium - stream terrace - unconsolidated silt, sand, and gravel occurring above the present floodplain.
Cenozoic to Quaternary	cpu	Coastal Plain Sediment - Unconsolidated to poorly consolidated, fine- to coarse-grained sands and clayey sands, with local gravel and clay beds. These sediments cover crystalline rocks, except in drainages. Gravels near the base of the sedimentary cover consist of cobbles of white to red, subrounded to subangular quartz, and rarely, rock fragments, up to 10cm in maximum dimension in a matrix of reddish-orange and reddish-brown sand and clay. Iron-oxide-cemented sediments occur locally near the base of the sedimentary cover. *sl. ls. - Rounded cobbles of silica-cemented limestone (Eocene ?) occur locally.

### INTRUSIVE ROCKS

Jurassic	Jd	Diabase - fine-grained, dense, black to greenish-black dike rock.
	Rg pv	Rolesville granitoid - medium to coarse-grained, monzonitic. Archers Lodge megacrystic granitoid - coarse-grained biotite monzonite with K-feldspar megacrysts up to 3cm long.
Late Paleozoic	Rgl	Rolesville main granitoid - medium- to coarse-grained, foliated to massive biotite-muscovite monzonite.
	gru grp	Granite (Clayton granitoids) - medium to coarse-grained, light-gray to pale-pink, massive to slightly foliated granitoid composed of quartz, plagioclase, muscovite, biotite, and garnet. Locally, contains clusters of biotite and muscovite. grp - Glen Laurel granitoid. grp - Pythian granitoid.

### METAMORPHIC ROCKS

#### Metavolcanic Rocks of the Eastern Slate Belt

Late Paleozoic to Early Paleozoic	ph	Sericite phyllite - fine-grained, white to light-gray phyllite or schist; typically with strongly developed crenulation cleavage. Locally includes felsic metavolcanic rock and quartz-epidote rock.
	qfg	Heterogeneous gneiss and schist - fine- to medium-grained, white to medium gray quartz-plagioclase-biotite-muscovite gneiss and quartz-muscovite schist. Interlayered with muscovite schist, biotite schist, fine-grained biotite gneiss, and amphibolite. Local layers contain abundant plagioclase crystals and sparse white lithic fragments elongate parallel to foliation.
	bmfq	Biotite-muscovite-quartz-plagioclase gneiss - medium-grained, gray schistose rock containing abundant plagioclase crystals and quartz. Crystals are particularly prominent on weathered surfaces. Gneiss (bmfq) from the Mill Creek area in the Flowers has been given a Pb/Pb age of 620 +/- 9 Ma (Goldberg, 1994).
	am	Amphibolite - black to greenish-black, slightly foliated to lineated and locally schistose hornblende amphibolite. Contains minor interlayered felsic gneiss, biotite gneiss, muscovite schist, and biotite schist. Locally contains chlorite and biotite.
	gmba	Garnet-muscovite-biotite schist - medium-grained, gray to black muscovite-biotite schist containing small scattered pink garnets and, locally, staurolite. Contains minor interbedded felsic gneiss, biotite gneiss, and amphibolite.

### Symbols

---	Contact - well located	---	Contact - concealed
---	Contact - approximately located		
75	Strike and dip of bedding	75	Strike and dip of foliation
75	Strike and dip of bedding (primary schistosity)	75	Strike and dip of foliation (secondary schistosity)
75	Strike of vertical bedding	75	Strike of vertical foliation
75	Strike of vertical bedding (primary schistosity)	75	Strike of vertical foliation (secondary schistosity)
△	Observation site in crystalline rocks	△	Outcrop locality
○	Location of water well - crystalline rock identified in outcrop		
×	Quarry prospect		



Digital cartography by P. A. Carpenter III.  
GSMCAD ver. 1.3.

Geology mapped 1991-1993.  
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# BEDROCK GEOLOGIC MAP OF THE CLAYTON 7.5-MINUTE QUADRANGLE, JOHNSTON AND WAKE COUNTIES, NORTH CAROLINA

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1998

SCALE 1:24000  
1 1/2 0 1 MILE

