



GENERALIZED THICKNESS OF THE CONFINING BED OVERLYING THE FLORIDAN AQUIFER, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

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This map shows the approximate thickness of the confining bed overlying the Floridan aquifer in the Southwest Florida Water Management District. The confining bed separates the surficial aquifer from the underlying Floridan aquifer and ranges in thickness from less than 25 feet in the northern part of the District to several hundred feet in the southern part.

Although the confining bed is shown as a single unit, it is composed of various lithologic deposits—mostly clay, sandy clay and marl, and clayey sand, limestone and dolomite. Principal stratigraphic components include: Miocene to Holocene beds of clay, sandy clay, and marl, undifferentiated with respect to age, that directly underlie the sand of the surficial aquifer; the Miocene Hawthorn Formation, comprised mainly of phosphatic clays and poorly indurated limestone and dolomite lenses; and the unconsolidated sections of the underlying Miocene Tampa Limestone which occurs in much of Polk, Hardee, DeSoto, and Charlotte Counties and consists of clay and clayey sand.

The confining bed includes permeable beds of limestone and dolomite that serve as minor artesian aquifers. Yields to wells cased into these beds are substantially less than yields to wells cased into the Floridan aquifer.

This map was prepared from geologists' and drillers' logs, and from descriptions of sections exposed in quarries. Sources of logs include published reports and files of the Florida Bureau of Geology, Southwest Florida Water Management District, and U.S. Geological Survey. Data for the southern part of the District were modified and expanded from a confining-bed thickness map prepared by Wilson (1977b, fig. 6). That map was constructed from geologic logs and from contour maps of the top of the confining bed and the top of the Floridan aquifer.

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EXPLANATION

- 25 — LINE OF EQUAL THICKNESS OF CONFINING BED — Dashed where approximately located. Interval 25 and 50 feet.
- WELL—Shows location of well data point.
- ✂ QUARRY—Shows location of quarry data point.
- BOUNDARY LINE—Shows boundary of the Southwest Florida Water Management District.

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