

INTRODUCTION

The approximate thickness of the Floridan aquifer in the Southwest Florida Water Management District is shown on the accompanying map. The Floridan aquifer is composed chiefly of limestone and dolomite beds that range in age from early Miocene to middle Eocene. The thickness of the Floridan aquifer ranges from 600 feet in the northern part of the District to 2,400 feet in the southern part.

In this report, the top of the Floridan aquifer is defined as the first consistent limestone of early Miocene age or older, below which no laterally extensive clay confining beds occur. Although the Hawthorn Formation of middle Miocene age is considered part of the Floridan aquifer where it is in direct hydrologic contact with lower lying rock units, it is not included as part of the Floridan aquifer in the southern part of the area because of a lack of detailed delineation of areas where direct contact exists. The bottom of the aquifer is defined as the beginning of vertically consistent intergranular evaporites (gypsum or anhydrite) occurring in either the Avon Park, Lake City, or Oldsmar Limestones of Eocene age.

The Floridan aquifer is the principal confined (artesian) aquifer in Florida and southern Georgia. It includes all or parts of the Lake City and Avon Park Limestones of middle Eocene age, Ocala Limestone of late Eocene age, Suwannee Limestone of Oligocene age, and permeable parts of the Tampa Limestone and Hawthorn Formation of Miocene age that are in hydrologic contact with the rest of the aquifer. In the northern part of the District, the top of the aquifer is near land surface, whereas in the southern part, the top is more than 700 feet below land surface.

The thickness of the Floridan aquifer was determined from the computed difference between depths of the top and the bottom of the Floridan aquifer given in previously published contour maps (Buono, 1978; Wolansky, 1979). Logs used include those in the files of the Florida Bureau of Geology, U.S. Geological Survey, Southwest Florida Water Management District, and those in published and unpublished reports.

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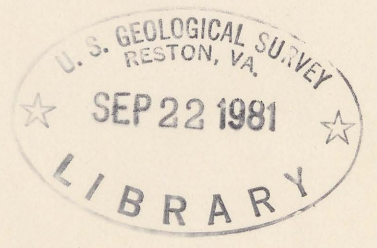
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EXPLANATION

- WELL—Shows location of well data points.
- 1800 — LINE OF EQUAL THICKNESS—Shows thickness of the Floridan aquifer. Contour interval 200 feet. Datum is NGVD of 1929. National Geodetic Vertical Datum of 1929 is a geodetic datum derived from a general adjustment of the first order nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level."
- BOUNDARY LINE—Indicates the boundaries of the Southwest Florida Water Management District.

**GENERALIZED THICKNESS OF THE FLORIDAN AQUIFER,
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT**

By
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