POTENTIOMETRIC SURFACE of the PRINCIPAL ARTESIAN AQUIFER in GEORGIA—NOVEMBER, 1979

by

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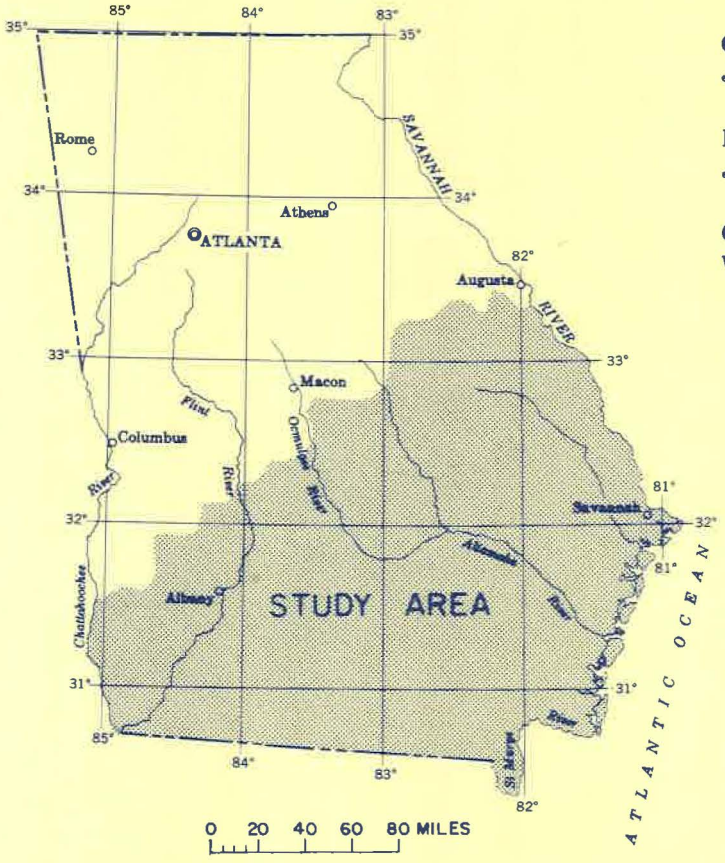
Prepared as
part of the
Accelerated Ground-Water Program
in cooperation
with the
Department of the Interior
United States Geological Survey



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GEOLOGICAL SURVEY

POTENTIOMETRIC SURFACE OF THE PRINCIPAL ARTESIAN AQUIFER IN GEORGIA

An artesian aquifer, which is composed chiefly of limestone of Eocene to Oligocene age, underlies most of the southern half of Georgia. This aquifer extends into Florida and parts of South Carolina and Alabama. In Georgia, it is referred to as the principal artesian aquifer and is the primary water supply for municipalities, industries, and agriculture in southern Georgia.

The principal artesian aquifer is at or near land surface from its northwest limit to as much as 20 to 60 miles southward of this line. It dips gently southeastward to a depth of more than 600 feet below land surface in Glynn County. It ranges in thickness from 50 to 200 feet where it occurs near the surface to more than 500 feet thick along the coast.

The limestone is very cavernous and is confined above by clays and sandy clays. Large quantities of water move through these caverns and smaller solution openings. Wells open to the aquifer commonly yield 1,000 to 5,000 gallons per minute.

REFERENCES

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EXPLANATION

—40—POTENTIOMETRIC CONTOUR—Shows altitude at which water level would have stood in tightly cased wells. Dashed where approximately located. Contour interval is 10 feet. Datum is National Geodetic Vertical Datum of 1929.

• DATA POINT

To estimate the water level above or below land surface in a well, subtract the altitude of the potentiometric surface from the altitude of the land surface.

Where the altitude of the potentiometric surface is higher than the altitude of the land surface, wells penetrating the aquifer will flow.

from U.S. Geological Survey
base maps, 1963

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Cartography by Paul Grocoff