

Department of the Interior
United States Geological Survey

**Potentiometric Map of the Memphis Sand in the Memphis Area,
Tennessee, August 1978**

by
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U.S. Geological Survey
Water-Resources Investigations 79-80
Memphis, Tennessee

Open File Report

Prepared in cooperation with the
City of Memphis,
Light, Gas and Water Division

EXPLANATION

-210-
POTENTIOMETRIC CONTOUR --
Shows altitude at which
water level would have
stood in tightly cased
wells, August 1978;
dashed where approximately
located. Contour inter-
val 10 feet, 3.048 meters.
National geodetic vertical
datum.

OBSERVATION WELL
DAVIS
MEMPHIS LIGHT, GAS AND WATER
MUNICIPAL WELL FIELD

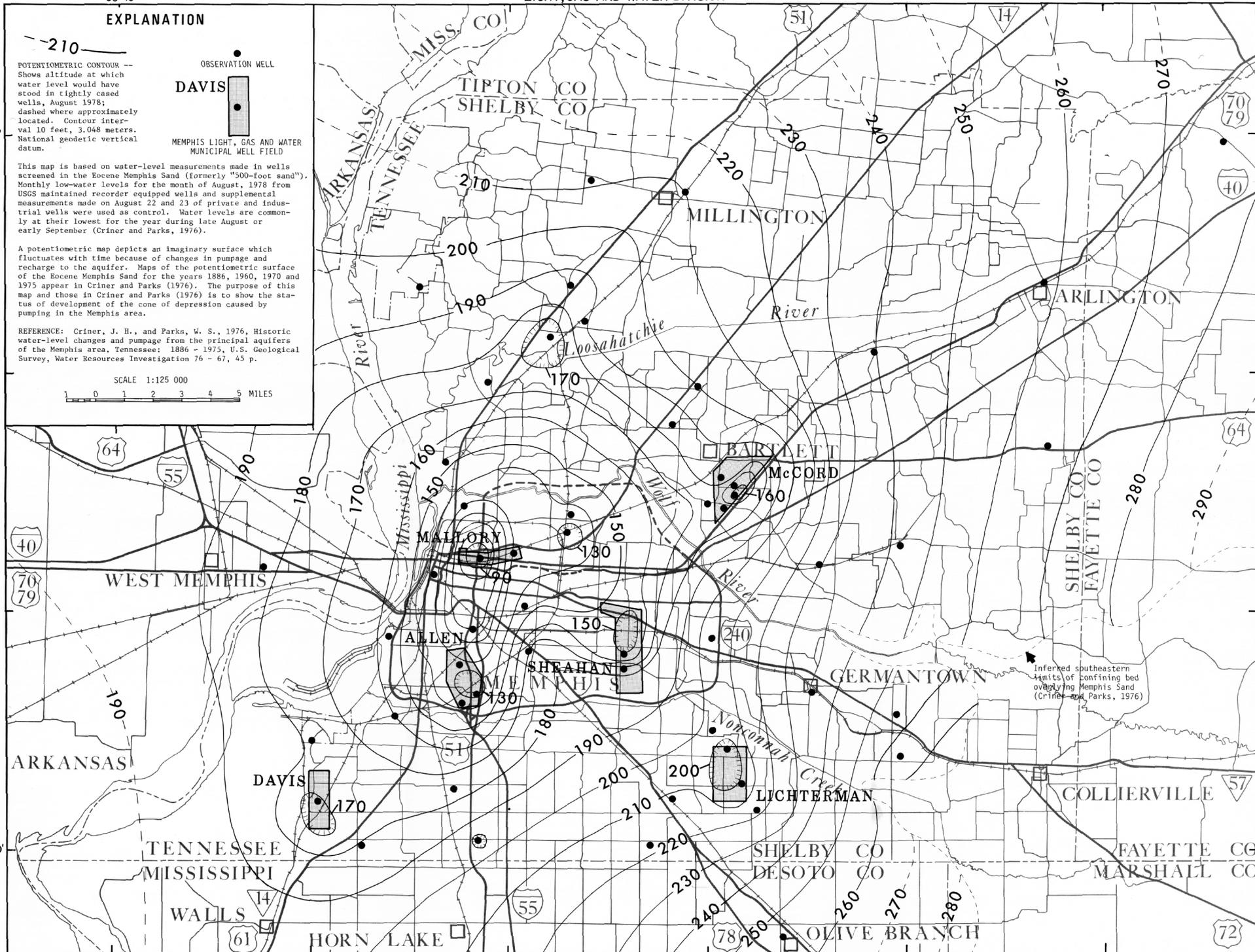
This map is based on water-level measurements made in wells
screened in the Eocene Memphis Sand (formerly "500-foot sand").
Monthly low-water levels for the month of August, 1978 from
USGS maintained recorder equipped wells and supplemental
measurements made on August 22 and 23 of private and indus-
trial wells were used as control. Water levels are common-
ly at their lowest for the year during late August or
early September (Criner and Parks, 1976).

A potentiometric map depicts an imaginary surface which
fluctuates with time because of changes in pumpage and
recharge to the aquifer. Maps of the potentiometric surface
of the Eocene Memphis Sand for the years 1886, 1960, 1970 and
1975 appear in Criner and Parks (1976). The purpose of this
map and those in Criner and Parks (1976) is to show the sta-
tus of development of the cone of depression caused by
pumping in the Memphis area.

REFERENCE: Criner, J. H., and Parks, W. S., 1976, Historic
water-level changes and pumpage from the principal aquifers
of the Memphis area, Tennessee, 1886 - 1975, U.S. Geological
Survey, Water Resources Investigation 76 - 67, 45 p.

SCALE 1:125 000

0 1 2 3 4 5 MILES



Base from U.S. Geological Survey 1:24,000 and
Mississippi River Commission 1:62,500 quadrangles

POTENTIOMETRIC MAP OF THE MEMPHIS SAND IN THE MEMPHIS AREA, TENNESSEE

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MEMPHIS, TENNESSEE