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## UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

PROFILES SHOWING POTENTIOMETRIC SURFACES AND CHANGES

IN EFFECTIVE STRESS IN AQUIFERS IN HARRIS AND

GALVESTON COUNTIES, TEXAS, 1977-78



Open-File Report

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Prepared in cooperation with the Texas Department of Water Resources and the Harris-Galveston Counties Coastal Subsidence District UNITED STATES (DEPARTMENT OF THE INTERIOR)

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Prepared in cooperation with the Texas Department of Water Resources and the Harris-Galveston Counties Coastal Subsidence District Reproduced by the Texas Department of Water Resources as a part of the continuing program of cooperation in water-resources investigations between the Department and the U.S. Geological Survey.

Copies of this report may be obtained from the U.S. Geological Survey
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Austin, TX 78701

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## PROFILES SHOWING POTENTIOMETRIC SURFACES AND CHANGES IN EFFECTIVE STRESS IN AQUIFERS IN HARRIS AND GALVESTON COUNTIES, TEXAS, 1977-78

By

## R. K. Gabrysch

These profiles were prepared by the U.S. Geological Survey in cooperation with the Harris-Galveston Counties Coastal Subsidence District and the Texas Department of Water Resources to show the changes in the altitudes of the potentiometric surfaces and, consequently, the changes in effective stress on the framework of the aquifers as a result of changes in the distribution and amount of ground-water pumping.

In general, and in most areas, the profiles show for the dates indicated that water levels have increased and that the effective stress has decreased.

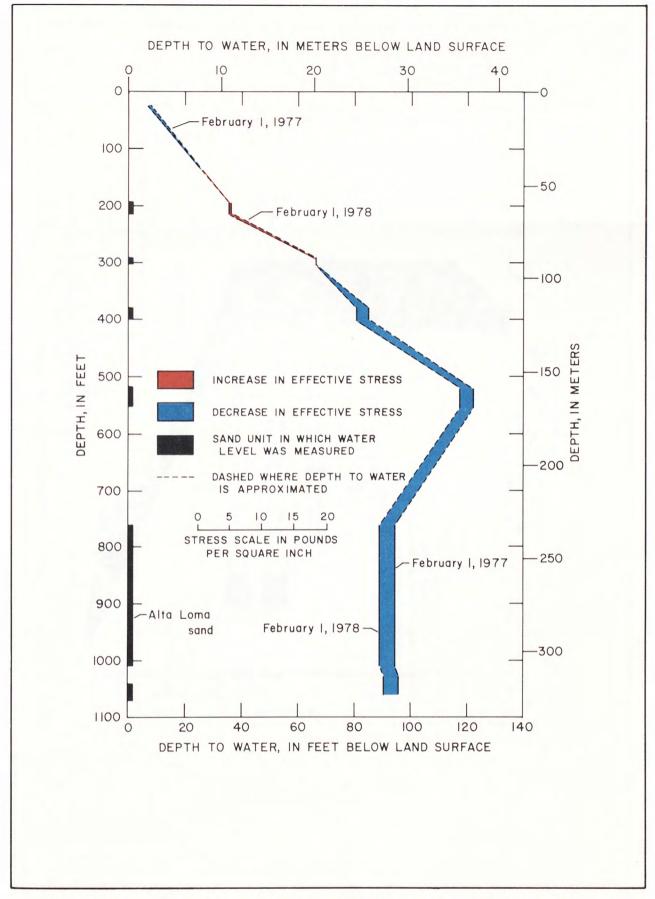


FIGURE 1.-Potentiometric profiles and change in effective stress at Moses Lake near Texas City, Texas, February 1977-February 1978

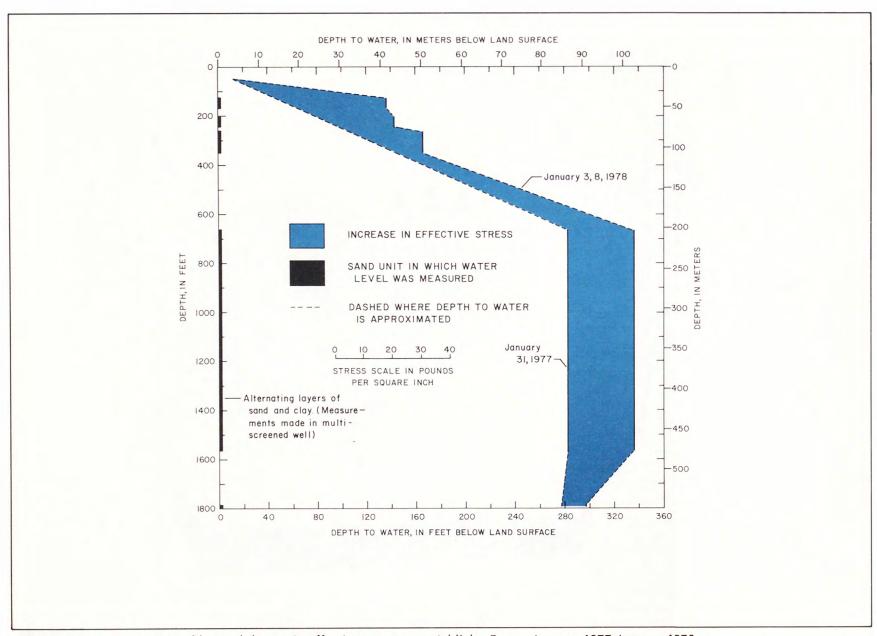


FIGURE 2.-Potentiometric profiles and change in effective stress near Addicks, Texas, January 1977-January 1978

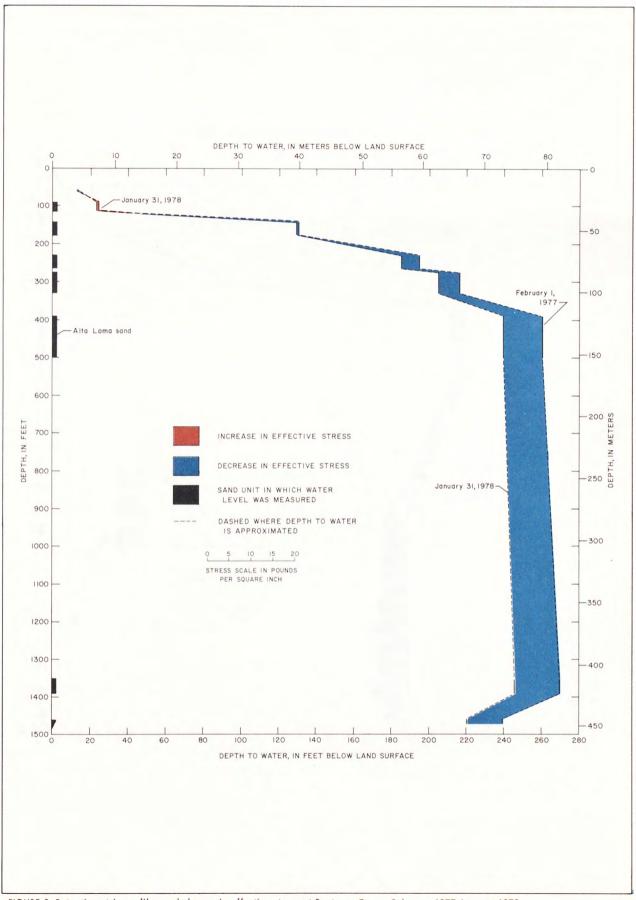


FIGURE 3.-Potentiometric profiles and change in effective stress at Baytown, Texas, February 1977-January 1978

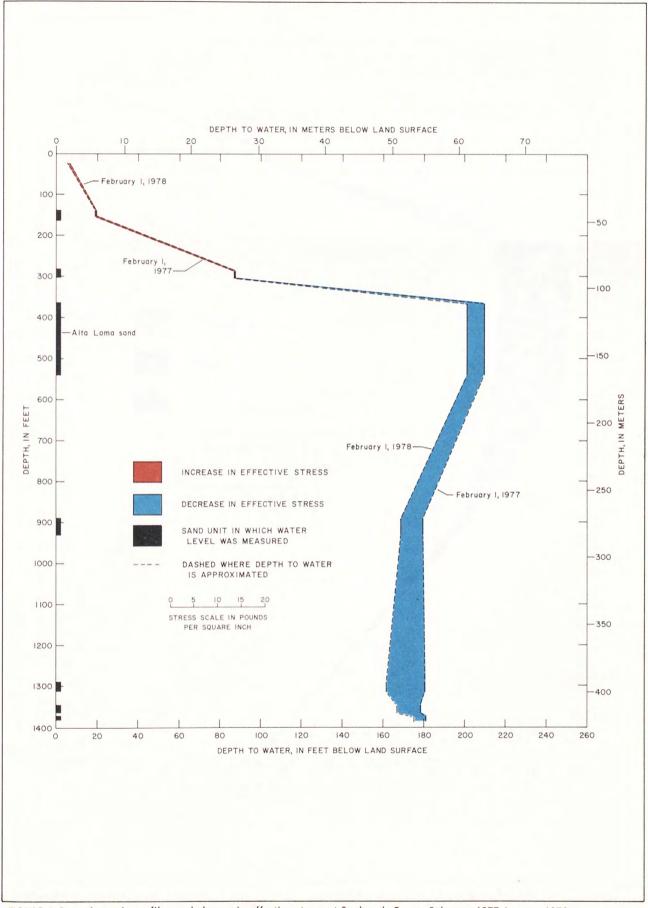


FIGURE 4.-Potentiometric profiles and change in effective stress at Seabrook, Texas, February 1977-January 1978

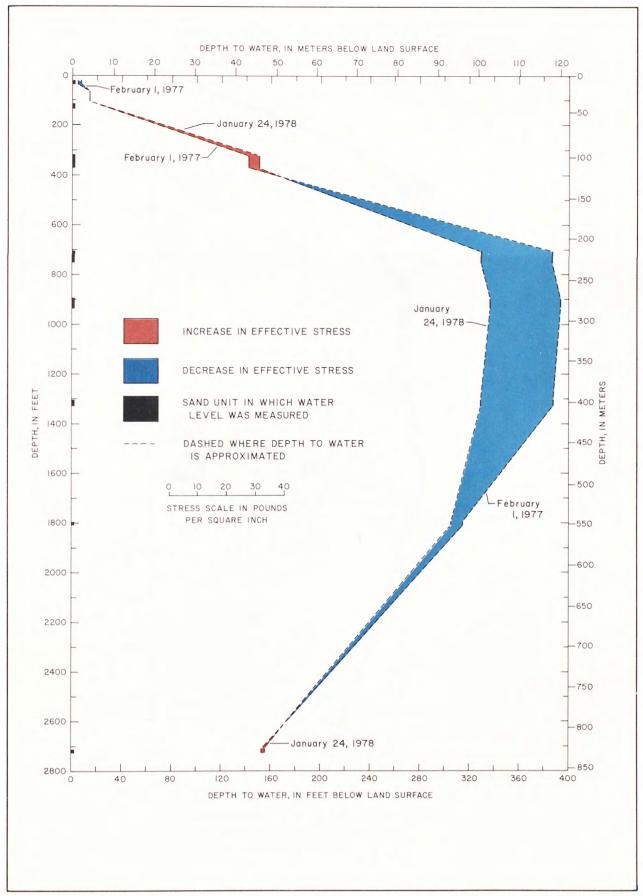


FIGURE 5.-Potentiometric profiles and change in effective stress at Pasadena, Texas, February 1977-January 1978

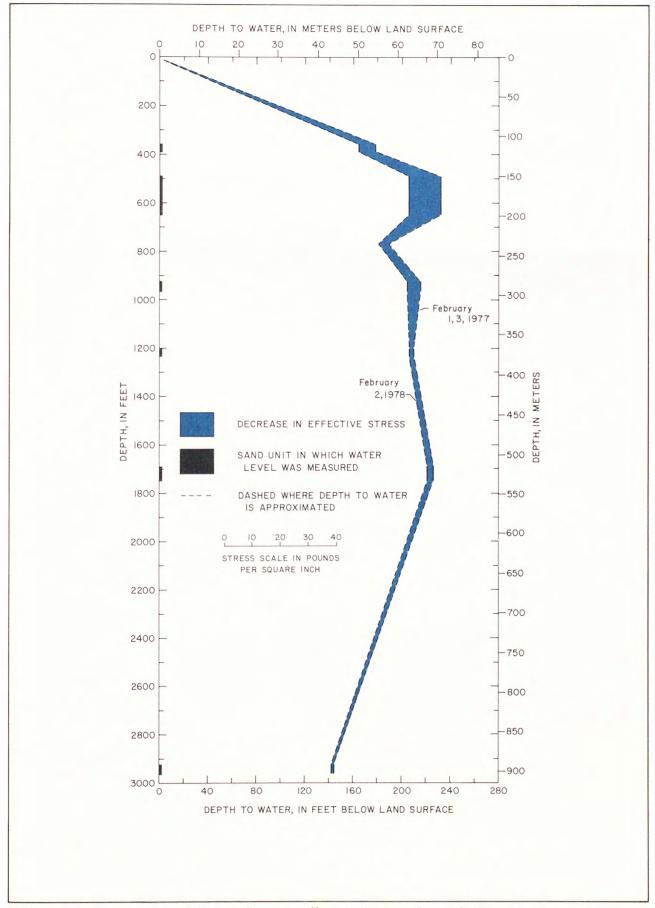


FIGURE 6.-Potentiometric profiles and change in effective stress at Clear Lake City, Texas, February 1977- February 1978



