



SATURATED THICKNESS OF UNCONSOLIDATED AQUIFER

The principal aquifer in the 13-county area of southwestern Kansas occurs in the heterogeneous, unconsolidated alluvial deposits of Tertiary and Quaternary age. The main body of this groundwater reservoir is designated as the unconsolidated aquifer.

The map showing the saturated thickness of deposits in the unconsolidated aquifer was prepared by comparing maps showing the altitude and configuration of the underlying bedrock surface and of the potentiometric (water-level) surface in the unconsolidated aquifer in January 1978.

About 75 percent of the area (1,460 square miles), as shown within the aquifer boundaries, is underlain by sufficient saturated material to supply ground water for irrigation. Saturated thicknesses range from less than 50 feet to about 630 feet. In the remainder of the area, except for isolated channels, the saturated material generally is thin and yields little or no water to wells.

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INDEX MAP

EXPLANATION

— 100 ——— Line of equal saturated thickness in unconsolidated aquifer. Dashed where inferred. Interval 50 feet

--- Boundary of unconsolidated aquifer

U Concealed fault
U, upthrown side; D, downthrown side

● 100 Observation well

Number indicates saturated thickness, in feet

0 15 30 MILES

MAP SHOWING SATURATED THICKNESS OF THE UNCONSOLIDATED AQUIFER, SOUTHWESTERN KANSAS, JANUARY 1978

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