ALTITUDE OF THE WATER TABLE IN THE ALLUVIAL AND WILCOX AQUIFERS
IN THE VICINITY OF RICHLAND AND TEHUACANA CREEKS
AND THE TRINITY RIVER, TEXAS, DECEMBER 1979

By Sergio Garza

The water-table contours on this map were constructed from the following:

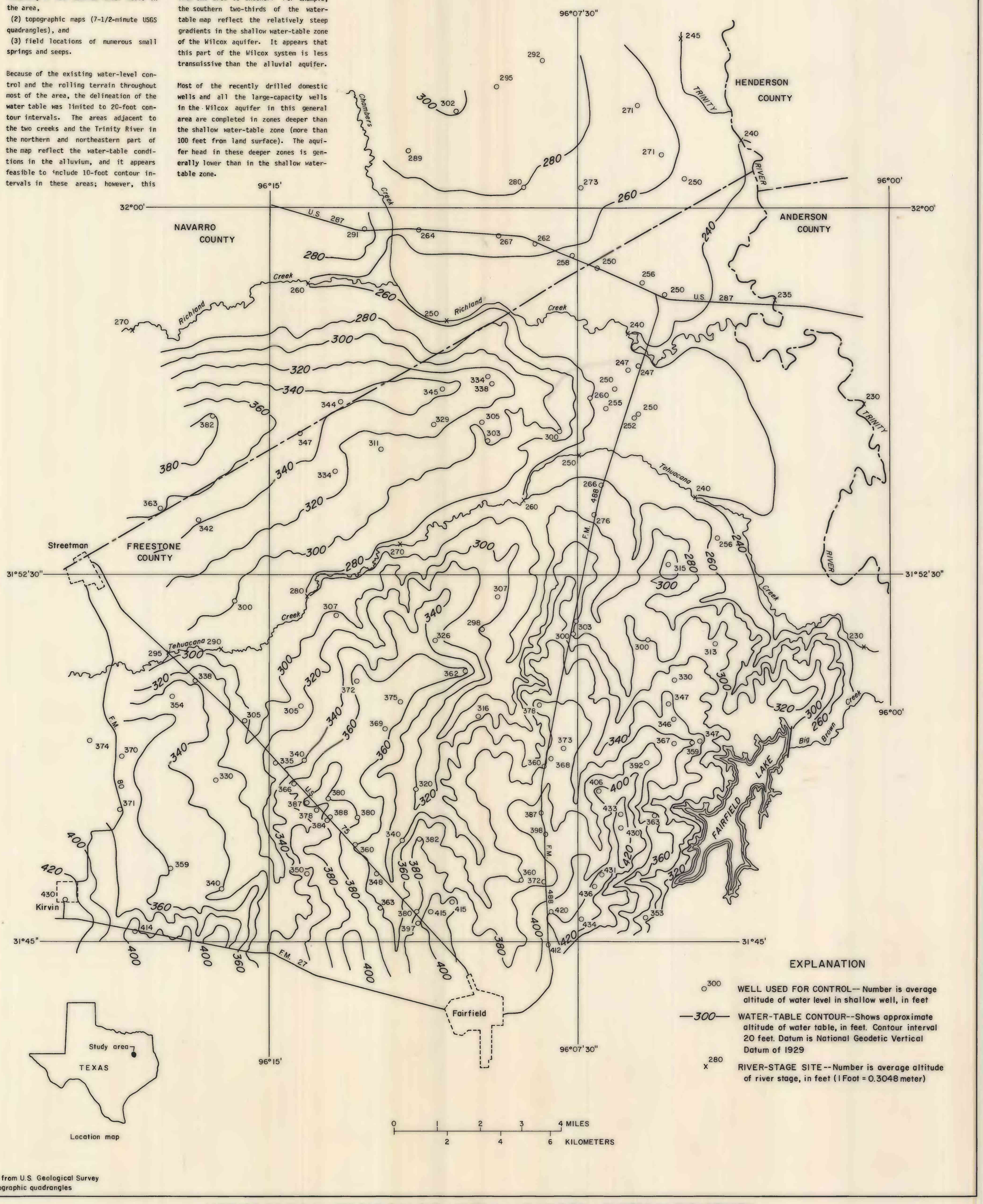
(1) Water-level control derived from an inventory of the shallow water wells in the area,

(2) topographic maps (7-1/2-minute USGS quadrangles), and

(3) field locations of numerous small springs and seeps.

Because of the existing water-level control and the rolling terrain throughout most of the area, the delineation of the water table was limited to 20-foot contour intervals. The areas adjacent to the two creeks and the Trinity River in the northern and northeastern part of the map reflect the water-table conditions in the alluvium, and it appears feasible to include 10-foot contour intervals in these areas; however, this additional delineation was excluded to illustrate the relative differences in the pattern of the water-table gradient from one area to another. For example, the southern two-thirds of the water-table map reflect the relatively steep gradients in the shallow water-table zone of the Wilcox aquifer. It appears that this part of the Wilcox system is less transmissive than the alluvial aquifer.

Most of the recently drilled domestic wells and all the large-capacity wells in the Wilcox aquifer in this general area are completed in zones deeper than the shallow water-table zone (more than 100 feet from land surface). The aquifer head in these deeper zones is generally lower than in the shallow water-table zone.



Base from U.S. Geological Survey topographic quadrangles

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