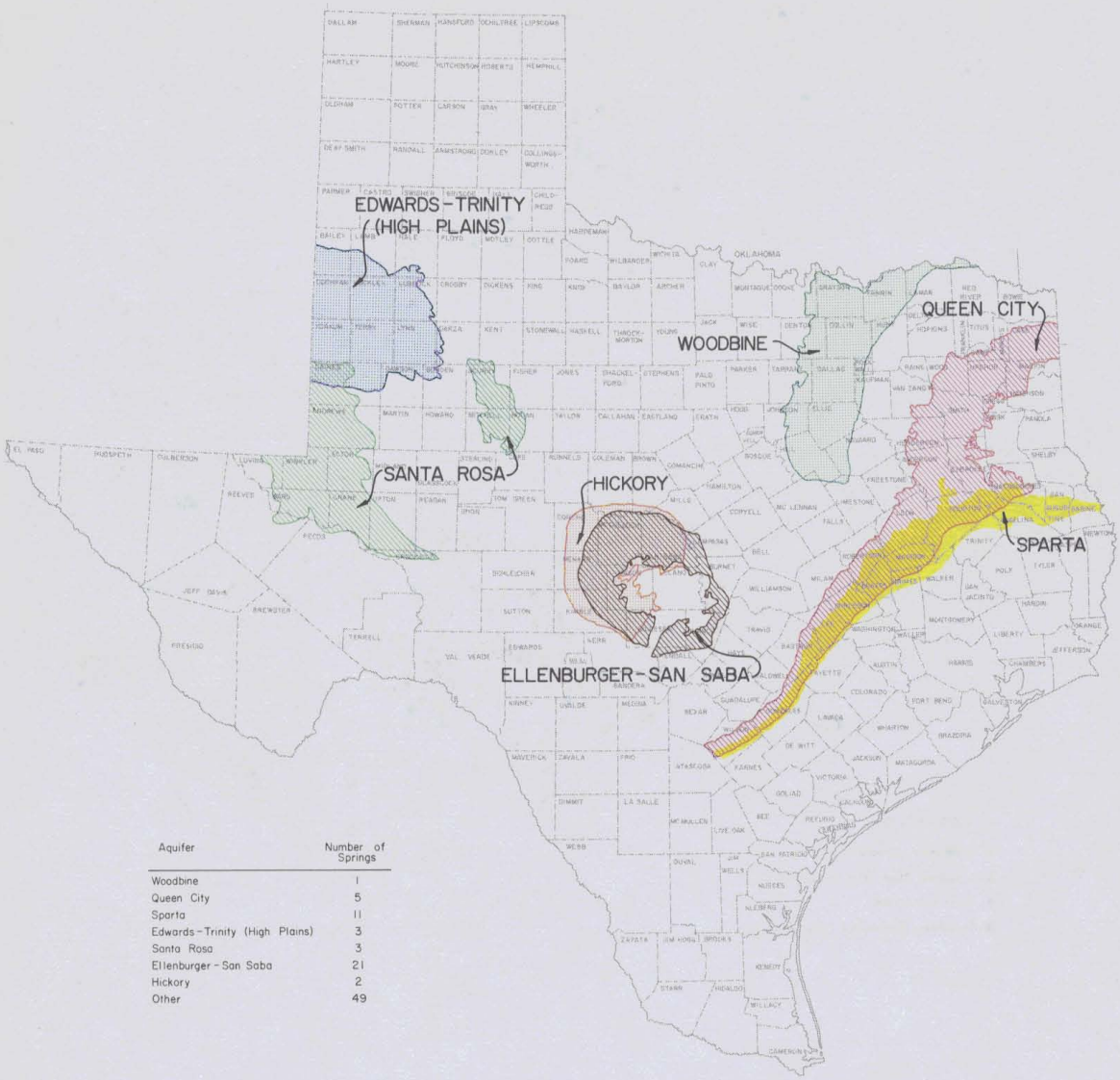

Aquifer	Number of Springs
Woodbine	1
Queen City	5
Sparta	11
Edwards-Trinity (High Plains)	3
Santa Rosa	3
Ellenburger-San Saba	21
Hickory	2
Other	49

Figure 8.—Minor Aquifers

Figure 14b illustrates the gravity springs which are characteristic of the Edwards-Trinity (Plateau) aquifer. In a typical case the recharge water percolates downward through the Edwards and associated limestones until it reaches the impervious clays of the Walnut Formation. Then it moves laterally, emerging as springs on the hillsides or in stream beds. Sometimes it surfaces through joints in the limestone as shown in Figure 16.

Figure 14c shows how springs can occur in the Paluxy Sand or similar formations carrying water under artesian pressure. The recharge water moves downdip through the sand, being confined by the overlying Goodland Limestone or other impervious formations. If it reaches a place such as that shown where the overlying confining bed is absent, the water emerges as an artesian spring.

In Figure 14d is shown a spring situation in the High Plains, where the Ogallala Formation is underlain by the Santa Rosa Sandstone. This illustration is not typical of much of the High Plains region, however, as the Ogallala and Santa Rosa are separated by shale beds in many areas. Recharge water enters both the Ogallala and Santa Rosa where they are at the surface, and in the illustration shown the water from the Ogallala moves downward into the Santa Rosa. Further downward flow is prevented by the impervious Tecovas Shale so that the water in the Santa Rosa moves laterally until it emerges as springs.

In Figure 15a is shown a typical spring in the Blaine Gypsum of the Childress area. The recharge water enters the gypsum underground caverns through sinkholes and rock fractures, and migrates downdip to