ly where they occur in the hanging-wall anticline east of the road. At one locality in Blue Creek itself, a pebble conglomerate with clasts of variable composition and roundness is developed. The rock texture is mictitic and presumably records a mudflow.

o. At the northern end of Blue Creek Canyon, the Reagan Sandstone lies unconformably on the Carlton Rhyolite. The basal Reagan is a 9-in. bed of medium-grained, well-rounded, quartz-rich sandstone with a richly hematitic matrix. Overlying this is a pebble conglomerate, about 1–2 ft thick, consisting of small (1 in. diameter) pebbles of rhyolite set in a matrix of quartz/glauconite sand. The conglomerate is overlain by richly glauconitic, fine-grained sandstones with small- and medium-scale cross-bedding. In a deep prospect pit, the gradational transition from the Reagan Sandstone to the Honey Creek Formation is marked by the appearance of lenticular bodies of coarse sparite.

p. Farther to the northeast, across a fault (downthrown to the west) that has eroded to form a gully, a second section of Reagan is exposed as a thin layer of sediment resting unconformably on poorly seen Carlton Rhyolite. The basal Reagan is a very poorly sorted breccia containing numerous clasts of rhyolite, which is overlain by coarse-grained, well-sorted, rounded-quartz sandstone characterized by medium- to large-scale (sets 2 ft thick) cross-bedding.

q. At a bearing of N. 40° W. from *p* is an enigmatic exposure of Post Oak Conglomerate. From a distance, this exposure appears to consist of lower Paleozoic limestone; on close examination, it is a boulder breccia composed of huge (to 20 ft in diameter), angular blocks of diverse limestone types. Most clasts appear to have been derived from the Fort Sill Formation. The deposit, which rests on the Carlton Rhyolite, is interpreted as a remnant of a fault-scarp talus.

r, s, t. The Post Oak Conglomerate can be conveniently examined at several localities on State Highway 58. The unconformity between the conglomerate and the underlying lower Paleozoic limestones is highly irregular. At locality *s*, the basal Post Oak is a coarse breccio-conglomerate (clasts as much as 18 in. diameter) situated within Blue Creek Canyon, indicating that, at least at the northern end, this valley is an exhumed Permian feature. At higher levels (locality *r*), the Post Oak is a finer grained, open-framework breccio-conglomerate exhibiting spectacular cements. Most of the cement is drusy sparite (to ½ in.); coarse, euhedral pyrite and barite are later.

At locality *t*, a caliche (calcrete) zone is intercalated within breccio-conglomerates (fig. 162). This caliche can be traced in surrounding areas, and records a period of nondeposition on a Post Oak alluvial fan. The caliche is a micritic deposit that firmly binds lower Paleozoic limestone pebbles. Overlying and underlying breccias are cemented by drusy sparite; the overlying breccia contains a few fragments of reworked caliche.

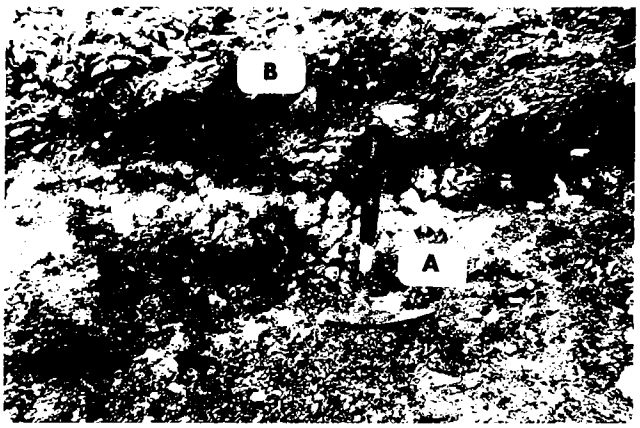

Figure 162. Calcrete zone (*A*) developed at a disconformity in Post Oak Conglomerate. Sparite-cemented breccio-conglomerate (*B*) occurs above disconformity.