

# **Geologic Wonders of Texas**

### **Central Texas Activities**

#### Where can I see the effects of faulting?

The Balcones fault is not a single fault but a zone of faults that extend from the escarpment out to the east for approximately 2 to 5 miles (map on page 2). Within the zone of faulting, large sections of rocks are not only offset from each other, but they are also fractured (broken) and folded and can be seen in several areas in Austin.

At the intersection of Loop 360 and MoPac an outcrop of Edwards and younger Georgetown limestones (A, B, C) that shows folding caused by movement along the fault. An anticline (beds curve upward) is to the left of the fault, and a syncline (beds curve downward) is to the right of the fault.



**A.** Edwards and younger Georgetown limestones folded by movement along the fault. Beds of rock on the east side of the fault have moved downward by 10 feet relative to beds on the west side of the fault.



**C.** An example of a syncline in the Georgetown Member at Loop 360 and MoPac.



**B.** An example of an anticline in the Edwards Group at Loop 360 and MoPac.



**D.** A large road cut at the intersection of Loop 360 and Bee Caves Road (2244) has exposed a magnificent outcrop of Lower Cretaceous rock of the west Austin Hill Country.



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#### Look at the rocks

Take a look at the rocks at Loop 360 and Bee Caves Road (RR 2244) (D), where a large road cut has exposed a magnificent outcrop of Lower Cretaceous rock. These rocks are flat-lying because they were not in the major zone of faulting. The darker colored rocks at the bottom of the outcrop are the Glen Rose Formation, and the lighter color rocks above are the Edwards Formation.

These rocks are evidence that Austin was periodically submerged under a shallow sea during the Early Cretaceous Period 135 to 102 million years ago. During this time, hundreds of feet of sediment that eventually formed into limestone was deposited in this area. This outcrop exposes approximately 170 feet of rock and represents 1.75 to 3 million years of time. According to these calculations, 1 foot of limestone would have taken between 10,000 and 20,000 years to form.



Modified from Rock Type Map of the Austin Area, Texas, by L. E. Garner and K. P. Young, 1976