Lava from the vent has been dated as old as 10.2 million years. Round Top’s basaltic dikes (feeders of the vents), tuff-brecias (ash containing a jumble of blocks and chunks of lava), lava flows, red-baked cinder piles, air-fall sufs, and the major vent itself can all be seen in an easy hike. The numbered descriptions below correspond to stops along the trail.

1. Walk up the paved road to the EBMDU water tank to see a dark basalt dike, a feeder of lava to the crater, that cuts through a sequence of tuff-breccias (grayish brown) and pebbly mudstones (light gray), inside and near the crater bottom.

2. This pit was made by quarry operations in which massive basalt lava was removed. The pit exposes the interior of the Round Top volcano. You are standing on bedded tuff-breccias, which filled much of the crater, settling at times into a small lake. The steep wall across the pit consists of lava that capped the crater after it was filled. Eventually the Round Top vent buried itself in basalt flows.

3. This roadcut exposes Orinda Formation river gravels, sands, and mudstones. The red (when moist) streaks and layers in these river beds were caused by oxidation of iron in the sediments. Such varicolored “redbeds” sometimes contain fossils of plants and animals. Elsewhere in the Preserve, bands of more intense red are found at the tops and bottoms of lava flows, where iron was oxidized and reddened by baking and steam action; these bands are called “bake zones.”

4. Before you is a wall with basalt on the left and Orinda mudstones on the right. The bedding in the mudstones gives the appearance of drag-folding resulting from relative uplifts of the lava occurring during the past 10 million years. Alternatively, the disruption of the mudstones may have occurred earlier, at the time of volcanic activity. This site was close to, or was in, the wall of the volcano, and would have been subject to slumping, sliding, and flowing.

Continued on reverse.