

evidence along the Silver Falls road. To the north of Pinnacles three costeans were excavated early in the project, and exposed a sequence of marine sediments and tuffs across the Que Syncline. Black pyritic siltstones/shales are exposed on the track to these costeans, about 150m north of EAA line 400S, 1500W. These sediments strike 210° magnetic and dip 70° to the west, and obviously are on the east limb of the north plunging Que Syncline. At the top of this access track, on the Silver Falls road, there is a flow banded rhyolite/tuff, striking 350° magnetic, dipping 70° east. A similar rock, with bedding/flow banding, is present on line 600S, from 1050W to 1080W, with a strike of 340° to 360° magnetic and easterly dips of 50° to 65° . There would thus appear to be a very tight anticlinal structure separating the Que Syncline to the west and the Burns Peak Syncline to the east.

The axis of this anticline passes through the Pinnacles peaks, striking about 10° east of north from 2800S:1340W, through 2500S:1320W, 2300S:1340W, 2000S:1360W, 1900S:1340W, and then veers off to the east and strikes about 30° east of true north to the East Chester road, before changing back to a northerly strike. This would correlate closely with the zone of extrusive vents noted by Krummei (2, Fig 43). It appears as though this anticlinal structure was a primary feature during the period of deposition, probably a line of vents. The Tabberabberan Orogeny would then have affected these primary structures, causing accentuation of the anticline and the flanking synclinal basins. This is evidenced by the strong schistosity developed in the sericitic volcanics and argillites in the southern part of the Pinnacles grid.

The sequence to the west of the Pinnacles Anticline is interpreted as the east limb of the north plunging Que Syncline. As the Owen Shear is approached there is evidence of overturning, particularly of the Pinnacles and Thomas' Tunnel line of lode, and the siltstone/argillite horizon west of the Pinnacles south trench. This overturning is probably related to the development of the Owen Shear. The Rosebery Group sediments west of the thrust are strongly