

(iii) Sandy Cape (Nelson Bay) 1:100,000 sheet
29 sample sets taken.

The area is underlain by a basement of comparatively unmetamorphosed mudstones, sandstones, orthoquartzites, greywackes, conglomerates and some basalt lavas. These rocks outcrop on the western and southern portions of the sheet and are generally unsampled. The exception is the Balfour mining district (Cu, Sn, W) in the Frankland River (A119627).

Within a basin in the PreCambrian basement have been deposited PreCambrian dolomites overlain by a Cambrian sequence of interbedded siltstones, mudstones, greywacke, tuff, basic volcanic breccia, mixtite and amygdaloidal spilite. Parts of the area are covered by Quaternary sands and/or Tertiary basalts.

This is the southern end of the Smithton Trough.

Most areas of Cambrian rocks and the (Eo) Precambrian dolomites have been sampled.

One obviously anomalous sample site was the Arthur River at A119617 where the bulk gold sample gave 8.85ppb Au, 495ppb Cu and 45ppb Ag, the panned concentrate sample gave 6150ppm Sn, 1150ppm As, 90ppb Sb, 350ppm Cu, 220ppm Pb, 430ppm Zn and 110ppm Bi and the stream sediment sample gave 5300ppm Sn, 1200ppm As, 185ppm Cu, 130ppm Pb, 780ppm Zn and 28ppm Bi. This anomaly was traced up the Arthur River (see Arthur River 1:100,000 sheet) with a vast majority of the anomaly being derived from the Waratah/Mt Bischoff/Magnet area.