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4. Proposed drilling programme, North Cambria mine.

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An investigation of the North Cambria greisen vein tin deposit was made to define possible diamond drilling targets. Tin has been produced both from surface sluicing and mining of the greisen veins. A 10-head stamper battery was erected on the site. During intermittent production between 1930 and 1952, 18.5 t of tin were won from the North Cambria and Cambria mines.

LOCATION AND ACCESS

The North Cambria mine is situated approximately one kilometre south-east of the junction of the Tasman Highway and the Lottah road at Weldborough Pass. The mine can be reached by a vehicle track joining the Lottah road approximately 1.6 km from Weldborough Pass.

PREVIOUS LITERATURE

The only previous Department of Mines report is a brief note by Thomas (1943) who also prepared a plan of the workings on a scale of 1:1440.

GEOLOGY

The workings are on a series of quartz muscovite greisen lodes within porphyritic biotite adamellite (fig. 6), which is slightly kaolinised at the surface. To the north of the workings the adamellite is overlain by a thin veneer of greybilly and more extensive flows of Tertiary basalt.

The porphyritic adamellite consists of euhedral oligoclase phenocrysts up to 6 cm long in a medium-grained quartz-potash feldspar-oligoclase biotite groundmass. The phenocrysts show a crude preferred orientation in outcrop. Rare tourmaline-bearing pegmatic patches and pods are present. Rounded biotite-rich xenoliths usually some 5 cm in diameter are abundant. The porphyritic adamellite is cut by an east-trending aplite dyke, 70 cm wide, to the east of the old battery (fig. 6).

Two major sets of greisen veins are present; one striking 014° and dipping 80° west and another vertical set striking 328°. The major veins have a quartz-muscovite mineralogy, although one cassiterite-bearing vein, 7.5 cm in width, also contains pink feldspar. Thomas (1943) mapped an additional vein striking 070° and intersecting the 014° vein set near the collapsed adit, but no mineralisation was discovered here during the present investigation. An excavation on this trend appears to be an old drainage channel.

The veins range in width from a fraction of a centimetre to 1.2 m. Most veins greater than 13 cm wide have a central quartz core 2-4 cm in width with coarse cassiterite crystals up to 2 cm in diameter frequently present at the quartz-greisen boundaries particularly at points where the quartz veins narrow. Finer cassiterite is distributed throughout all the greisen veins. Minor wolframite is present sporadically in the lodes, but is unlikely to be of any economic importance.

PROPOSED DRILLING

A zone of strong greisenisation and probable enrichment in tin values occurs at the intersection of the two vein systems. It is proposed that drill holes be sited immediately north and south of this 'piping' zone to test the grade of the mineralisation and continuation of the veins at depth. The

holes are designed to sample the lodes below the zone of surface weathering. Additional holes and sampling of the lodes at the surface might then be employed depending on the success of the initial two holes.

REFERENCE

THOMAS, D.E. 1943. Tin Deposits of the Blue Tier District. *Unpubl.Rep.Dep. Mines Tasm.* 1943:35-73.

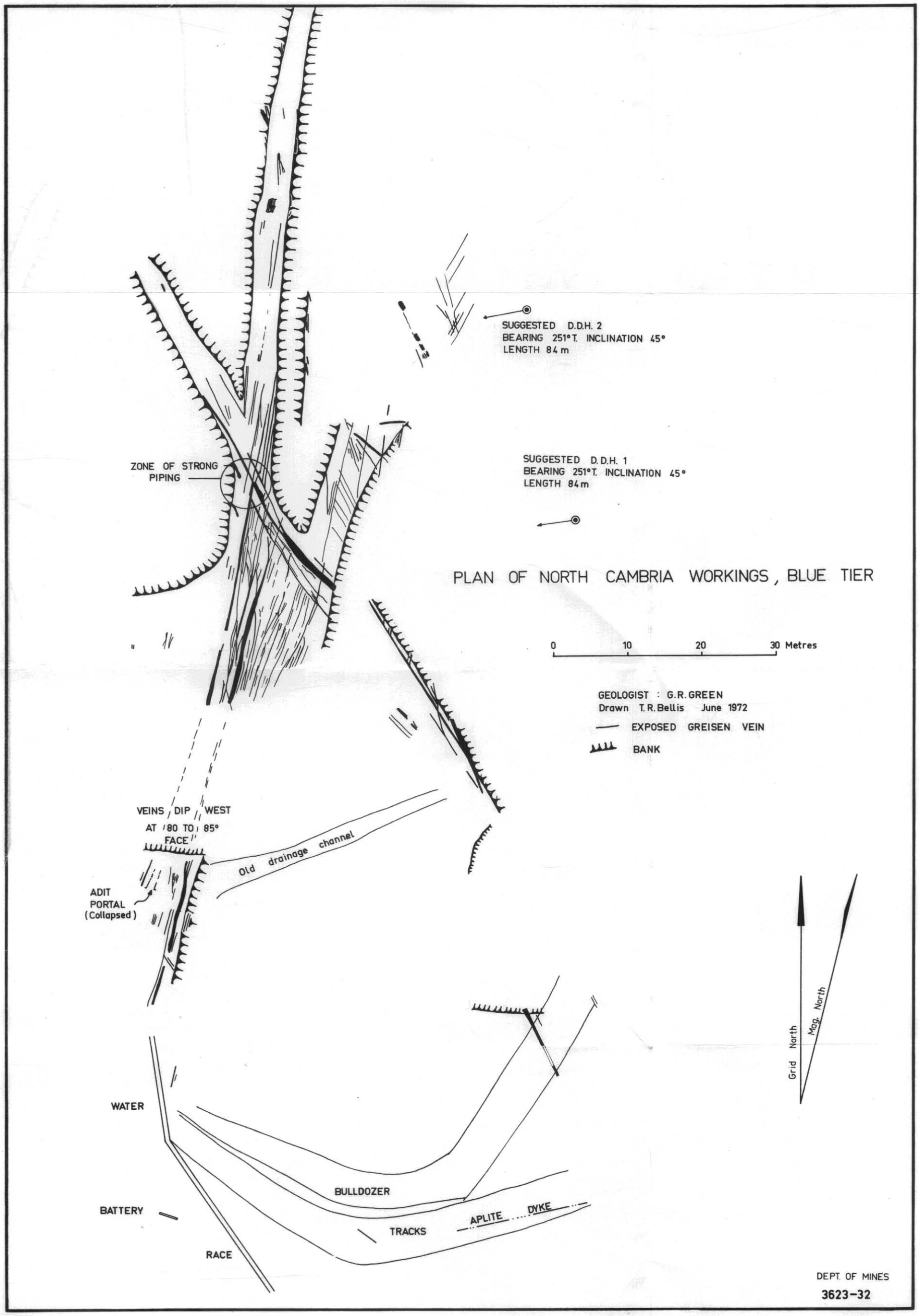

Figure 6.

5 cm

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