

## Mt Dromedary gold

### Mineral Resources

**The presence of gold in the Mount Dromedary area was first noted in 1852 by the Rev. W.B. Clarke (1860), who found alluvial gold along Dignams Creek.**

Subsequently, alluvial gold was located in many of the streams that drain the northern and southern slopes of Mount Dromedary.

Alluvial mining appears to have commenced about 1860, and as a result a significant, but unknown, quantity of gold was recovered. In 1877, as a result of testing of alluvial ground high up the slopes of Mount Dromedary itself, a number of narrow but rich gold-bearing vein deposits were found. These were worked largely over the period 1878-1920 for a yield of at least 603kg of gold. Further attempts to work the reefs were made in the late 1950s, but these proved unsuccessful. Total production from the field, both alluvial and reef, is not known, but is clearly well in excess of the recorded total of 603.05kg.

The history of gold mining at Mount Dromedary, subsequent to 1875, is recorded in Annual Reports of the NSW Department of Mines.

However, very little information on the alluvial deposits is available. Hall (1961) summarised the main features of the primary gold mineralisation. The geology of the Mount Dromedary area has been described in detail by Brown (1930) and Boesen (1964). The regional geology of the area is dealt with in notes accompanying the Narooma 1:100 000 geological sheet, (Chalker and Bembrick, 1977). The area forms part of the metallogenic study of the Bega 1:250 000 sheet (Herzberger and Barnes, 1978).

### Geology

The geology of the Mount Dromedary area is dominated by the Mount Dromedary igneous complex. This complex of mid Cretaceous age intrudes Ordovician metasediments and covers an area of about 40km<sup>2</sup>. It is composed of a variety of

extrusive and intrusive rocks belonging to the shoshonite association.



*Washing pieces of ore by hand, Pampula, c1890*

The main or central part of the intrusive complex includes Mount Dromedary itself, a prominent topographic feature with a maximum elevation of 797m above sea level. Mount Dromedary is composed dominantly of banatite (a rock of intermediate composition between quartz diorite and quartz monzonite), with an outer rim of monzonite. A number of satellite intrusions to the east and south east of Mount Dromedary include a wide range of igneous rock types including pryoxenite, nepheline-bearing intrusives and a series of intermediate and basic lavas.

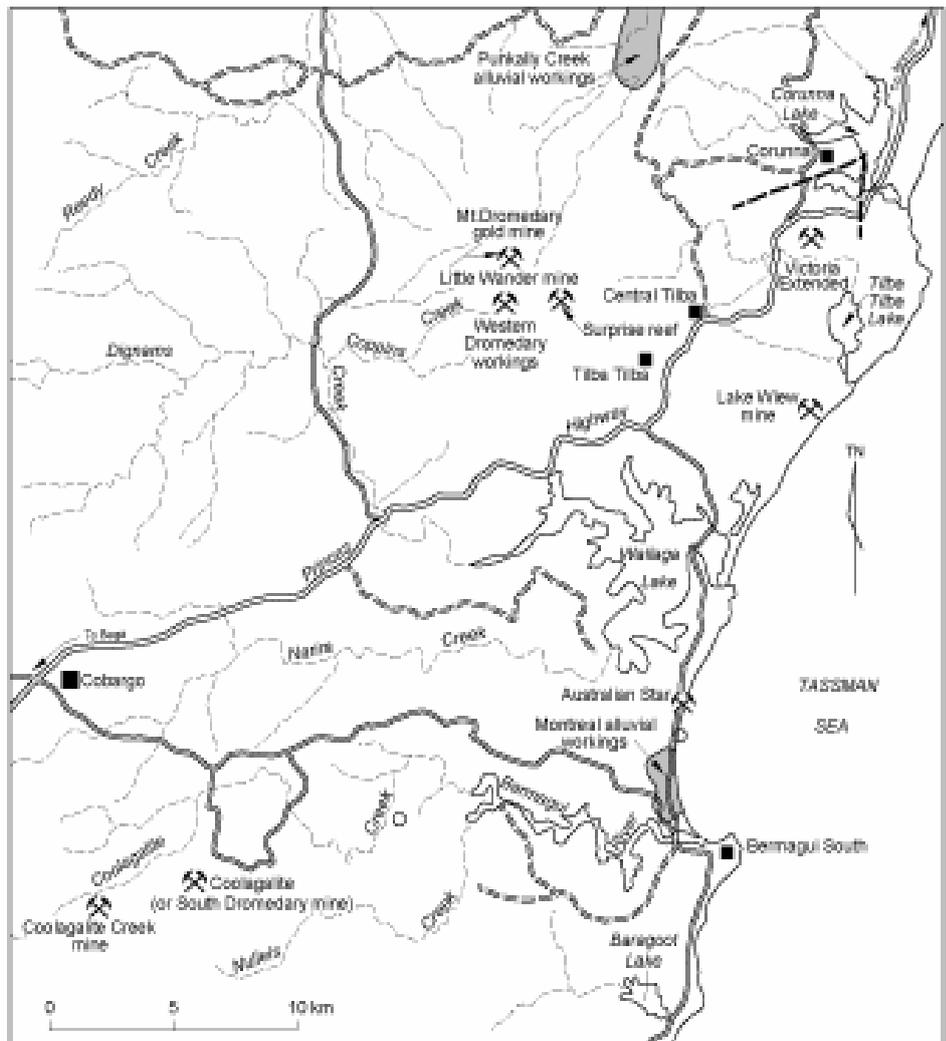
Detailed descriptions of the petrology and petrochemistry of the rocks making up the complex have been given by Boesen (1964). Age determinations range from 89-94 million years, giving a mid-Cretaceous age.

The surrounding Ordovician metasediments comprise pelitic rocks as well as greywackes. Cainozoic sediments of both Tertiary and Quaternary age outcrop in the vicinity of the coast.

### Mineralisation

Primary gold mineralisation is represented by a series of vein deposits, the more important of which occur near the crest of Mount Dromedary. These





**REFERENCE**

-  Alluvials
-  Roads
-  Tracks
-  Minor Faults
-  Rivers
-  Creeks
-  Reef gold mines
-  Other gold mines



**SIMPLIFIED MAP OF THE MT. DROMEDARY GOLDFIELD**

reefs were discovered in 1877 and comprise three main Lines of Lode; Mount Dromedary, North Dromedary and West Dromedary workings. Mineralisation occurs in the form of narrow, parallel pyrite-rich veins which trend in an east-west direction. Individual veins range in thickness to 45cm but average 15cm. Gold values were generally in excess of 30g/t.

The Mount Dromedary Line of mineralisation was worked mainly by the Mount Dromedary Gold Mining Company during the period 1878-1910. It was developed by several tunnels into the mountain side, and stoped over a vertical interval of 231m. The lodes strike east-west and dip vertically. In the upper levels the ore was partly oxidised, but at depth pyrite was an abundant constituent of the veins. It is estimated that total production from this line of mineralisation was 381.5kg gold. Production records indicate gold grades of the order of 30g/t.

The No. 5 tunnel of this mine was reopened in the late 1950s by Pacific Enterprises Limited, but no significant additional mineralisation was found. In addition to pyrite and gold, the veins are reported to also contain small amounts of arsenopyrite, chalcopyrite, as well as silver and bismuth. No mineralogical study of the ore has been carried out.

The North Dromedary mineralisation comprises veins parallel to, and situated to the north of, the Mount Dromedary Line. They are described as being non-continuous, locally attaining widths of 70-80cm, but breaking up into narrow seams of sulphides. Gold values are described as variable.

The West Dromedary workings were developed by J. Saunders on two parallel veins. The northernmost vein is pyritic and of variable width up to 20cm. The southern vein occurs 10-12m to the south, and is from 2.5-5cm in width. Production from these workings is estimated by Herzberger and Barnes (1978) to have been 136kg over the periods 1878-1882 and 1890-1915.

It is clear from available descriptions of the Mount Dromedary field that the primary gold mineralisation, although rich, is of limited tonnage potential.

Other primary gold deposits occurring to the east of Mount Dromedary include the Victoria Extended which lies between Corunna Lake and Tilba Lake. It has a recorded production of 0.72kg of gold. The gold arsenopyrite mineralisation at this deposit, which occurs within a monzonite dyke, is probably related to the Mount Dromedary igneous complex. The Lake View mine, by contrast, is localised within Ordovician metasediments. It is a deposit of the quartz vein type, with similarities to that of Nerrigundah and Coolagolite. Recorded production from this deposit is 11.05kg gold.

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