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1987/25. Industrial minerals in Tasmania - Talc

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Abstract

Talc has been mined at only one locality in Tasmania. A large number of minor occurrences are known, but no commercial interest is currently being shown in the commodity. In Tasmania talc occurs in association with serpentinised ultrabasic rocks, and as an alteration product of dolomite.

DEFINITION

Talc is an extremely soft, whitish, greenish or greyish monoclinic mineral, with a characteristic greasy or soapy feel, and a hardness of 1 on Mohs' scale. Talc is a common secondary mineral derived by the hydration of non-aluminous magnesium silicates. Uses include: dusting agent, filler, coating pigment, constituent of rubber, plastics, can be used as a lubricant, and in talcum powder. It is sometimes used for carving. Talc has a chemical composition of $Mg_3Si_4O_{10}(OH)_2$ (Gary et al., 1977).

DESCRIPTION OF THE DEPOSITS

Gawler

Two lenses of talc, one 27 m long and 1.8 m wide and the other 18 m long and 1.5 m wide, occur one kilometre south of Gawler in the Ulverstone district. Talc was mined from this locality on an intermittent basis from 1928 to 1948, with a total production of 338 tonnes. The deposit is described by Hughes (1951). The talc is hosted in quartz-mica schist of Precambrian age. Colours of talc produced were blue, white and an iron-stained (inferior) product.

Marshall's Creek, Port Sorell

A deposit estimated to contain three million tonnes of talc is known to exist near Marshall's Creek. The talc body is estimated as being 500 m long, 50 m wide, and 40 m deep. The talc forms part of a Cambrian sequence of greywacke and siltstone with interbedded chert and dolomite (Gee and Legge, 1971). The deposit was drilled using a Proline auger and the cuttings analysed. The results of this survey are given in Threader (1973). The area was inspected by Summons in 1981 (DOM correspondence files) who postulated that the talc in the area, while occurring in a sequence of dolomite, chert and 'spongy silica', had actually formed at the expense of dolomite. The quartz and 'spongy silica beds' would then be altered (desilicified) chert or excess silica remaining after the dolomite-talc reaction. A temperature of 400°C would be needed for this reaction, probably resulting from nearby intrusive dolerite.

Minor Occurrences

Mt Bischoff: talc replacement of dolomite in association with cassiterite.

Beaconsfield: in the Andersons Creek area a greenish yellow talc occurs as an alteration product of serpentine.

Claytons Rivulet: a vein of talc 600 mm wide has been found in Orchard Creek, a tributary of Claytons Rivulet.

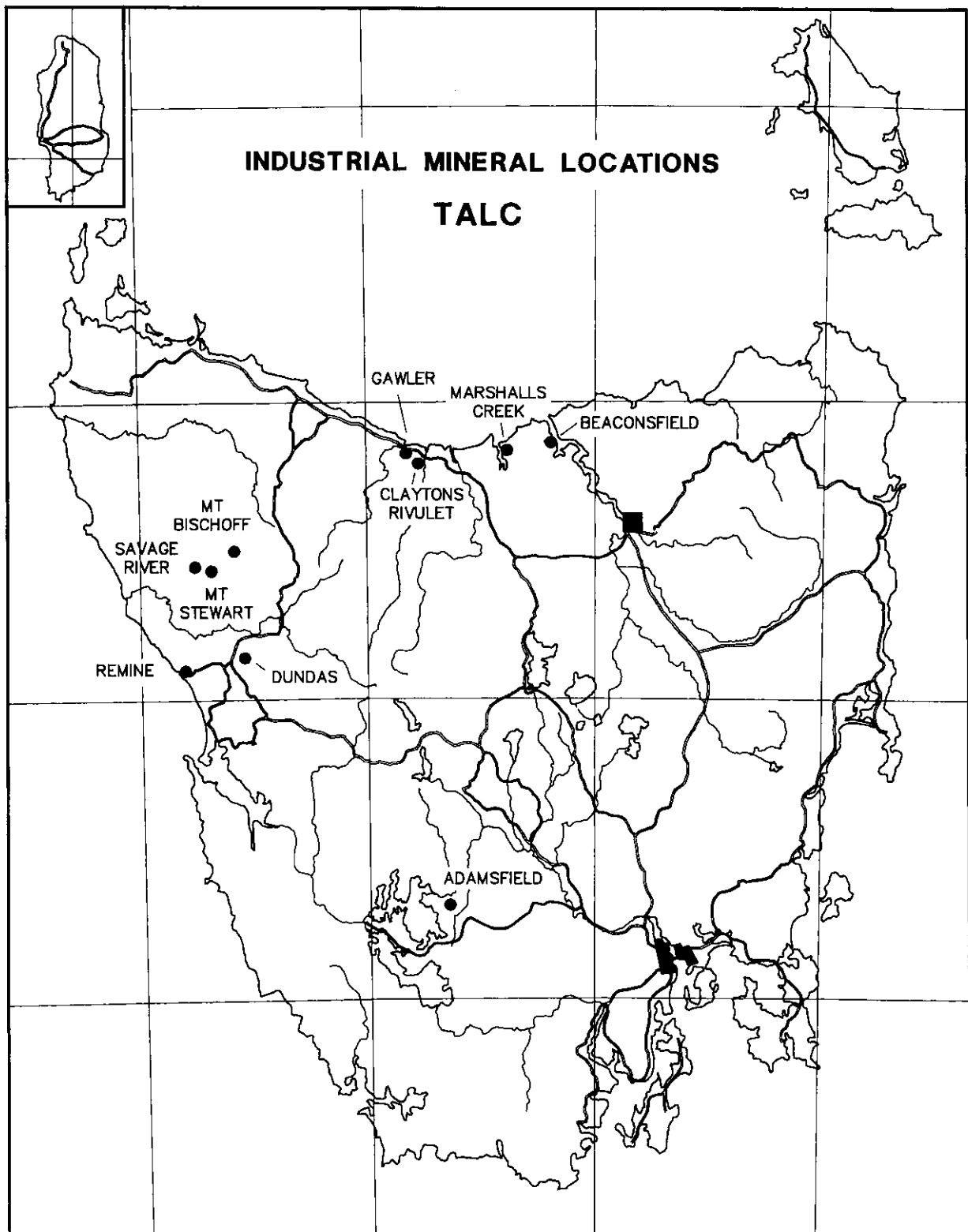


Figure 1.

5 cm

Dundas: large bodies of massive talc (up to 45 m wide) are known from the Razorback Mine. Colours include white and pink, the latter being coloured by rhodonite. Talc at this locality is associated with ultrabasic rocks.

Remine: an outcrop of talc occurs 1.6 km north of Remine, near serpentine.

Savage River: talc is a common gangue mineral in the wall rocks in this locality, but does not occur in a massive form. In the area around Savage River talc forms a minor component in a metamorphosed belt of magnesite-dolomite and talc-chlorite schist.

Mt Stewart: a pale green talc occurs in association with Cambrian ultrabasic rocks.

Adamsfield: a hard, red talc is recorded from this locality. Lenses up to 10 m long of very impure, poor-quality talc occur in association with serpentinitised ultrabasic rocks.

ANALYSES

	1	2
SiO ₂	61.6	66.2
MgO	30.76	28.3
Al ₂ O ₃	1.91	0.64
Fe ₂ O ₃	0.57	0.24
CaO	-	0.03
Loss on ignition	5.22	4.9

1. Gawler talc (Hughes, 1951)
2. Marshall Creek talc (DOM correspondence files 1987)

REFERENCES

- HUGHES, T. D. 1951. Commercial talc in Tasmania. *Unpubl. Rep. Dep. Mines Tasm.* 1951:22-25.
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