

THE OCCURRENCE OF RHENIUM IN SOME TASMANIAN MOLYBDENITES

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The element rhenium is known to form only one extremely rare mineral dzhezkazganite. Much of the rhenium in nature occurs in small quantities, usually in the parts per million range, substituting for molybdenum which is a chemically similar element. An investigation was carried out to determine the amount of rhenium in some molybdenites of Tasmanian origin. Samples were supplied by the Tasmanian Mines Department, Tasmanian Museum and the Queen Victoria Museum. Analyses were originally attempted using a colorimetric technique, however this appeared unreliable with the equipment in use and most of the samples were eventually analysed through the co-operation of Dr. J. F. Lovering and Mr. J. W. Morgan of the Australian National University using neutron activation as the analytical technique.

The following results were obtained (values are given in parts per million):—

Blue Tier—0.76.
St. Helens—2.00

Mt Stronach—2.00 (R.J.F.)
Flinders Island—0.47

Moina—

Shephard and Murphy Mine—0.93
Premier Mine, Dalcoath—0.35

Middlesex Plains—1.6
Mt Heemskirk—0.0091
Mt Lyell—7.17
Mt Bischoff—8.00
King Island—40.00

Thus from the specimens analysed it may be concluded that in spite of the relatively high concentration of rhenium in the King Island sample, Tasmania is a rhenium poor geochemical province.

REFERENCES

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