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AGE OF MINERALIZATION AND POST-ORE HYDROTHERMAL ALTERATION,
COPPER MOUNTAIN, BRITISH COLUMBIA

by

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ABSTRACT

Unaltered biotites from Copper Mountain stock and a pegmatitic biotite-chalcopyrite vein cutting Triassic Wolf Creek Formation have similar potassium-argon ages of 193 ± 7 m.y. (mean and standard error of the mean). These data indicate a close time relationship between mineral deposition and consolidation of the stock; and support a suggestion based on geological evidence that Copper Mountain ore deposits are related genetically to Copper Mountain Stock.

A cogenetic mineral pair (biotite and clinopyroxene) from sericitized and chloritized monzonite in Copper Mountain Stock have identical potassium-argon ages of 150 m.y. that probably represents a time of widespread, post-ore, hydrothermal alteration. This alteration is genetically related to a group of post-ore intrusions known as "mine dykes". Thus, mine dykes also have an age of 150 m.y.

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Handwritten notes:
Toppley En. Lake - 1/2 dome Endokopite - Hydrothermal Biotite 140, 142, 143
141, 140 143 ± 6 m.y.
Alaskite 139
Stelleke of monzonite 136
Fraser L. Dior 115
Luchon 200 mg ± 5

Handwritten note: Burns L. (Toppley?) 95