

## Conquest Mining Metals Fact Sheet: Collinsville Copper-Gold Project Glossary of Terms, Geological Concepts & Valuable Links

Much of North Queensland was the site of intrusion of granitic batholiths and eruption of extensive of co-magmatic volcanism during the development of the Palaeozoic to early Mesozoic Tasman Orogenic Zone. Intrusions range in size from small plutons and ring complexes to large batholiths, and are dominantly granite, adamellite, granodiorite and diorite. Intrusions are commonly associated with porphyry-style mineralisation and four major periods of post-orogenic porphyry-style metallogenesis are recognised: Silurian-Devonian, Permo-Carboniferous, Permo-Triassic, and Early Cretaceous.

Intrusions are widely distributed within or immediately west of the Tasman Orogenic Zone and occur within each of the three main fold belts, the Hodgkinson- Broken River Orogen, the Thompson Orogen, and the New England Orogen. Porphyry style mineralisation also occurs within Carboniferous intrusions in the Anakie Inlier. Each epoch consists of at least two phases of porphyry type emplacement.

Porphyry deposits also commonly occur in linear belts that can coincide with major lineaments. Lacy (1980) proposed that the distribution of gold in eastern Queensland is orientated along northwest trending zones boundaries at the intersection of longitudinal porphyry type copper belts and transverse tectonic belts. Longitudinal belts, containing the majority of deposits, trend NW-SE to NNW-SSE with their strike directions roughly reflecting changes in general strike of the coastline. The belts are up to 400 km long and up to 25 km wide. In the Permo-Carboniferous, and Permo-Triassic systems, sub parallel belts are evident with the belts closest to the coast being younger by 15 to 30 million years. Transverse tectonic belts trend ENE-WSW in southern and central Queensland and E-W in central and northern Queensland.