

**Interaction between volcanic activity, coeval shear failure
and epithermal ore deposit formation in the Paleocene-
Eocene Belt, northern Chile (23-26°Lat.S)**

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This research seeks to contribute in the understanding of the volcanotectonic setting which generated the Paleocene Eocene epithermal metallogenic belt, in the northern Chile. This were developed in a long-lived volcanism with ~30 Ma of duration, characterized by a bimodal and calcoalkaline magmatism with large amounts of ignimbrites, lavas, domes and volcanic calderas. which hosts porphyry and epithermal deposits with a narrow age of formation <1Ma. The different chilean metallogenic belts are result of an empirical observation where mineralization ages coincide with host-rocks ages and major morphostructural units. In this context, we discuss the role of coeval and reactivated faulting in the develop of the paleogene volcanic centers, it migration to the east, and the subsequent formation of lithocaps and epithermal deposits. Preliminary observations show that in the early Paleogene, the volcanic centers where modulated mainly by inherited structures meanwhile in the next steps, coeval intra-arc faults control the distribution of volcanic centers and barren lithocaps in the shoulders of such systems, with an evolutive trend to the south prior the east migration of the volcanic arc.