

## **MESOZOIC ALKALINE PLUTONISM IN THE CENTRAL ANDES OF NORTHWESTERN ARGENTINA**

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The Cretaceous basin constitutes an important depocentre in the Eastern Cordillera and Eastern Puna Northwestern Argentina (Jujuy and Salta provinces). A profile from base to top in the sedimentary column allows us to see synrift and sag facies, which are overlapped by Cenozoic foreland and piggyback basin deposits. Small Mesozoic alkaline complexes are recognized in Hornillos (Santa Victoria Range), Fundición (Humahuaca valley) and Rangel (Cobres Range). They are distributed around the Cretaceous Tres Cruces basin and they intrude the Precambrian to Early Paleozoic basement. Other related intrusions are known to the west in Tanque and Taca Taca Ranges. On the other hand, some lava flows are interbedded in the Cretaceous sedimentary deposits. They are recognized in San Marcos (Santa Victoria Range), Tacanaite (Escaya Range), Cerro Ramadas and also in Tabladitas bore hole (near Abra Pampa). Both, plutonic and volcanic rocks belong to a petrographic alkaline province, that extends along the Eastern Cordillera of Central Andes from Peru and Bolivia to northwestern Argentina. Th-REE mineralizations are related to carbonatites, which are regionally associated with the alkaline magmatism. The spacial distribution of Mesozoic magmatic rocks seems to be related to thermal anomalies produced during extensional tectonic processes. Cenozoic andean compressive tectonic inverted partially the Cretaceous extensional structures.