

## Current state of uranium exploration in central Colombia: Regional perspective and selected case studies

Wednesday 25 June 2014 17:00 (1 minute)

The Colombian Geological Survey has been working in a regional exploration program focus on the ancient massifs of the Eastern Cordillera. The general geology distribution in these massifs (Santander and Quetame) includes a core of meta sedimentary to medium grade metamorphic rocks of pelitic origin presumed to be of Cambro –Ordovician age, intruded by Ordovician age plutons that grade from granodiorite to quartz diorite. This igneous –metamorphic core is unconformably overlain by a Devonian age sedimentary cover that includes conglomerates of continental origin, black mudstone of marine origin and red sandstones of deltaic environments with some calcareous intervals. In the Santander Massif a sequence of continental red beds of Jurassic age is present and in the Zapatoca (Santander) area contains uranium. In the Santander Massif, mineral exploration in an area on 1300km<sup>2</sup> with 1235 samples locations, gives average uranium values of 5.44ppm, and a maximum of 20ppm, located in Ordovician plutonic rocks. In the Quetame Massif, mineral exploration in an area on 1000km<sup>2</sup> with 1274 samples locations, gives average uranium values of 6.13ppm, and a maximum of 2763ppm, located in Devonian to Carboniferous sedimentary rocks.

In the Paipa area, 140 kilometers from Bogota, the Colombian Geological Survey has undertaken exploratory drilling. As a result there is an anomalous area of 500 square meters with values of 2000 ppm uranium and rare earth associations has been identified. The volcanic system has been studied by several authors and is important for its location and extension.

In recent years, exploration by private companies was reactivated. In early 2000 several junior companies such as KPS / Energentia Resources Inc, Mega Uranium, u308corp, Energentia Resources Inc, blueskyuranium, spottresource and UrAmericaLtd and began exploratory work in Colombia. The Berlin project, located in the central mountain range, is perhaps the most developed in the exploratory stage. The Berlin project was reported by the company MINATOME (now Areva) in the 1980s and is found in sedimentary rocks with an area of 10.5 km<sup>2</sup> in a synclinal structure and of Cretaceous age. The Canadian company GaiaEnergy U3O<sub>8</sub> Corp subsidiary project develops Berlin today. To the south of the project (3 km) an 1.5 indicated Mlb, 20 Mlb Inferred has been reported. The rocks have a 12% recovery of uranium and 97 % of the mineral. Over 22,000 metres have been drilled and a part of the project is under a prefeasibility study.

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**Session Classification:** Poster Session

**Track Classification:** Advances in exploration and uranium mineral potential modelling