

ON THE RADAR

News for Southern Mapping clients

Hyperspectral solution for Bauxite mining



The aluminium ore Bauxite, mainly found in open pit mines, is the main provider of aluminium ore. It is a type of rock consisting of a combination of minerals namely gibbsite, boehmite, diaspore, goethite, hematite, kaolinite and anatase, formed in weathered volcanic rocks.

Bauxite has a variety of uses and is found as an ingredient in cement, soda cans, dishwashers, and even face makeup. The major producers of Bauxite are China, Brazil and Guyana.

Hyperspectral technology can assist with the process of detecting Bauxite through the production of highly complex and detailed hyperspectral imagery.

Hyperspectral surveys are an increasingly dominant means for guiding exploration for precious resources such as Bauxite.

The exploration for these targets is indirect: either secondary minerals are mapped, which are known to associate with these metals or the overall spatial distribution of certain target minerals can be used to highlight probable exploration areas.

Mineral exploration is the dominant application for hyperspectral imagery. Globally, by the first quarter of 2009 over 60 mines spanning 12 European countries had utilised airborne hyperspectral technology. The addition of hyperspectral imaging to the Southern Mapping portfolio of products, which include multispectral satellite imagery and airborne LIDAR, allows the company to provide end to end solutions to the mining, infrastructure and environmental sectors. By fusing hyperspectral image reflectance values into the intensity signal of their LIDAR points, Southern Mapping will be able to continue pushing the limits of technology and provide robust and innovative products.

Southern Mapping recertified

Following its original ISO certification in 2008, Southern Mapping was recently recertified and acquired the status of ISO 9001-2008.

Says Wayne Sherriff, ISO consultant at ISO Quest: "The TUV rules in terms of the Quality Management System (QMS) are globally acknowledged and only companies who comply with best practice qualify for this grading. Through this recertification it is clear that, as a hi-tech aerial surveying company, Southern Mapping is sustaining their performance in word and deed."

Southern Mapping Chief Executive Peter Moir says that the granting of the recertification will support the company to continue with its efforts to deliver assignments and leading edge best practices that meet the most stringent customer requirements. "However, this worldwide certification still does not give us control of the adverse climatic weather conditions that we have been, and still are experiencing throughout the African continent. As a consequence, this has an adverse effect on the delivery of our final product to the customer," concludes Moir.



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