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CVRD will start the development of the Vermelho Nickel Mine

Companhia Vale do Rio Doce (CVRD) announces that its Board of Directors has approved the investment for the development of the Vermelho nickel project (Vermelho).

Vermelho is located in the Carajás region in the state of Pará, Brazil, 70 km south of the Carajás iron ore mines and 15 km east of the Sossego copper mine. Its estimated production capacity is 46,000 tons/year (tpy) of metallic nickel, and 2,800 tpy of metallic cobalt - with an expected commercial life of 40 years.

The estimated investment is up to US\$1.2 billion, with startup scheduled for the fourth quarter of 2008. The project involves construction of a high pressure acid leaching (HPAL) plant to process nickel laterite. After almost five years of development of the process and project, CVRD believes that by choosing the process based on precipitation and re-leaching of nickel hydroxide it has selected the most proven process, and the one with least risks in terms of operational stability, environment, and work health and safety.

The program of metallurgical test work was carried out to the highest standards available in the world. Demonstration campaigns on a pilot plant were carried out at a technology center of excellence in Australia. Average leaching extraction exceeded 96%, and LME-grade nickel cathode was produced.

CVRD employed an international team with extensive operational experience in HPAL and nickel producing plants, including members of CVRD's own staff and also of specialized companies with specific knowledge in nickel laterite and pressure leaching. The result was effective transfer of knowledge to the Vermelho, minimizing the risks of problems similar to those that have been seen in second-generation HPAL plants.

The engineering study was enhanced with detailed equipment specification and precise estimation of material take-offs, providing best quality of cost estimating.

The extensive infrastructure of Carajás and the processing-friendly features of Vermelho- in terms of rheology and the availability of good quality water at the site location - place the investment cost of the project at a more favorable level than those of other laterite-nickel-based projects.

We believe that the nickel market has a very good potential. According to Brook Hunt estimates, only considering the projected growth in stainless steel demand, driven mainly by China, nickel consumption will increase at an annual rate of 3.4% from 2004 to 2015, corresponding to one Vermelho per year.

In order to increase our presence in this market, CVRD is developing the pre-feasibility study of the São João do Piauí nickel deposit, and conceptual studies for other deposits in the states of Goiás, São Paulo and Paraná, aiming to turn Brazil into one of the largest nickel producers of the world.

The investment in Vermelho marks the entry of CVRD into a new segment of the mining and metals industry, nickel, and is in line with its strategy of achieving profitable growth, to generate value to shareholders. Besides that, it enhances

CVRD position as supplier of raw materials - iron ore, pellets, ferro alloys, coal and nickel - to the global steel industry. At the same time, through investments in bauxite (Paragominas), copper (Sossego, and the other projects in Carajás), coal (Moatize, at feasibility study stage) - and in the Vermelho - CVRD will have a much more diversified portfolio of mining assets, consolidating its position as a global player.

More information



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