ALTA 2022 26
20-27 May | Perth, Australia | Online

BRAZILIAN NICKEL'S PIAUI NICKEL PROJECT – SUSTAINABLE NICKEL AND COBALT FOR A LOW CARBON FUTURE

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ABSTRACT

With demand for battery raw materials set to soar over the next decade to enable the reduction of emissions and to improve the environment in which we live, not only do we need to find the raw materials to supply this unprecedented growth but the mining industry must endeavour to produce these raw materials responsibly in the most environmentally friendly, socially acceptable and sustainable way possible.

Notoriously capital intensive, with problematic and slow ramp-ups, complicated HPAL is not the answer. Nickel laterite heap leaching is simple, flexible, low cost and lower carbon and is now ready to unlock the many known, but to date, uncommercial nickel laterite projects around the globe. BRN's Piauí Nickel Project (PNP) is set to be the first.

Brazilian Nickel's Piaui Nickel Project will produce nickel and cobalt intermediate products as feeds for battery cathodes using its optimized heap leaching process. The products can also supply all the more traditional markets.

Heap leaching is already an inherently low carbon footprint process, but BRN is also looking at innovative ways to further reduce the project's CO_2 emissions, both within the process and in general; with the ultimate vision of being carbon neutral or even carbon negative.

This paper outlines the Piaui Nickel Project's current status for the full scale 25,000 tpa nickel production plant and the small scale PNP1000 project and some of the carbon capture innovation work currently in development.

Keywords: Nickel Laterite, Heap Leaching, Low Carbon, Carbon Capture, Nickel, Cobalt