

The Piauí Nickel Heap Leach Commercial Plant

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Abstract

Located in north-eastern Brazil, the Piauí nickel project will be the first full-scale commercial nickel and cobalt heap leach facility in the world. The first stage of the commercial plant was commissioned in the spring of 2022 and the first metal production will occur in June of 2022. Piauí will produce intermediate nickel and cobalt products specifically designed for the electric vehicle battery market. Some advantages of heap leaching for EV metals include lower capital intensity, lower operating costs, smaller environmental foot print, and reduced CO₂ emissions. Regarding CO₂ emissions, Piauí will produce one of the lowest carbon-intensity products in the nickel industry, and research is currently underway to make the product carbon neutral, or possibly carbon negative. In parallel with commissioning this facility, Brazilian Nickel is completing a feasibility study for the ultimate plant.

This presentation will present the results from the commissioning and first few months of operations of the Piauí facility, along with projections for full ramp-up and the implications for the larger facility.