

# Strategies for Nickel Reserves Replacement: The Costs of Finding and Acquiring Nickel

*What are the true costs of finding nickel and how do they compare with current costs of acquisitions?  
How does your company's reserves replacement and growth strategy compare with those of your competitors?*

An authoritative analysis of nickel reserves replacement and growth strategies from both exploration and acquisition perspectives.

## INFORMATION TO GUIDE STRATEGY

Strategies for Nickel Reserves Replacement addresses key growth-strategy issues facing nickel miners. The study compares the relative costs per pound of discovering or acquiring nickel in the ground, including separate views of sulfide vs laterite deposits (where possible).

The study, published in May 2010, provides the tools to help you

- Develop growth strategies based on emerging trends and the wisdom of past knowledge.
- Measure the effectiveness of your reserves replacement and growth strategy, and your success as an explorer/acquirer compared with your competitors.
- Accurately present your exploration and acquisition strategy in the context of historical parameters.
- Identify potential joint venture partners.

You will receive access to our online version of the complete study, as well as a print copy. Online access includes most of the study's supporting data in a series of spreadsheets, allowing subscribers to tailor the data for further analysis, and easily transfer information into presentations and inhouse reports.

## SECTIONS OF THE STUDY

### Executive Summary

How are nickel producers positioned to address current conditions?

Gives an overview of the metrics used to compare the relative success of replacing nickel reserves by exploration and acquisition, and examines how the profiled nickel producers are positioned relative to global nickel production, acquisition activity, exploration spending, and discoveries. Recent strategic activities related to nickel production and reserves replacement are also discussed.

### Analysis: A Ten-Year Perspective

How does performance stack up over time and inform current strategy?

Includes metrics tables and graphs comparing the performance of the profiled companies with the global industry's performance in exploration, discovery, and acquisition, and discusses their reserves positions.

Gives an authoritative view on

- Level and cost of annual nickel reserves replacement by major nickel producers
- Relative cost effectiveness of acquisition versus exploration
- Replacement rate of current nickel resources in new discoveries relative to production
- Cost of finding nickel in new

### Nickel Production Pipeline, 2000-2014

What are the trends in nickel production and costs, and the most promising sources for future production?

Details the major new mines and expansions of existing mines brought onstream over the past ten years, and looks at the industry's most advanced and promising projects for future production. It traces the production changes year by year for each of the profiled companies, and analyzes trends in mined nickel supply and overall cash operating costs. In addition, this section examines the location of nickel resources in the development pipeline and the relative risk associated with each location.

### Nickel Acquisitions, 2000-2009

What is the context for evaluating successful acquisitions, relative to price paid, location, and stage of development?

Lists the major purchases and divestitures by the profiled companies, and by the industry as a whole, including the relative costs per unit of nickel acquired in reserves.

Experience has shown that reported acquisition costs are often misleading—acquirers are often able to add significant reserves shortly after an acquisition. Therefore, to the extent possible, the study compares the reserves acquired at the time of purchase with reserves reported three years later, to help analyze the return on the acquisition cost.

### Nickel Exploration Spending, 2000-2009

What trends have emerged in nickel exploration spending?

Provides companies' exploration allocations for nickel from 2000 to 2009, and includes a database of budgets, as well as total spending by the biggest spenders. The study examines in more detail the companies with the top budgets for nickel over the period. In

addition, it compares year-by-year allocations by these companies and shows allocation trends during the period. It also compares brownfields vs grassroots and majors vs juniors spending.

### Discoveries, 1998-2009

Are enough new large nickel discoveries being made to maintain production?

A comprehensive review of the major nickel deposits discovered between 1998 and 2009. It also provides a list of discoveries considered but not included, so that subscribers can tailor the analysis to meet their own criteria. The analysis of the major discoveries includes an examination of the size distribution and location of discoveries made since 1998, and a comparison of nickel discoveries with the nickel production of major producers.

### Company Profiles

What are your competitors doing?

A detailed look at how the biggest nickel producers are replacing or augmenting their reserves. Profiled companies, accounting for roughly 80% of world nickel production, cover available activity from 2000 to 2009.

The profiles detail each company's

- Reserves replacement
- Production
- Acquisitions and divestitures
- Exploration budgets
- Discoveries
- Nickel production pipeline

### Reserves Replacement Metrics Table, 2000-2009

Metrics include

- Average costs of reserves replacement
- Production changes
- Total costs of reserves acquisitions and nickel equivalent in acquired reserves and resources
- Reserves developed through exploration, with costs of nickel in exploration-derived reserves
- Major discoveries during the period, including average grassroots exploration costs of nickel per discovery

### Major Nickel Producers Profiled

- Aneka Tambang
- Anglo American
- BHP Billiton
- Cubaniquel
- Cunico Resources
- Eramet
- Jinchuan Group
- Minara Resources
- Mincor Resources
- Norilsk Nickel
- Panoramic Resources
- Sherritt International
- Southern Urals Nickel/Mechel Steel
- Vale Inco
- Votorantim Metais
- Xstrata

### **CONTACT**

For information on how to subscribe to Strategies for Nickel Reserves Replacement, email [sales@metalseconomics.com](mailto:sales@metalseconomics.com) or call +1 902-429-2880.

Visit our web site at [www.metalseconomics.com](http://www.metalseconomics.com).