



## **ORE RESERVES & MINERAL RESOURCES**

January 2009

The majority of Xstrata Nickel's mineral reserve and resource estimates are prepared in accordance with the "CIM Definition Standards On Mineral Resources and Mineral Reserves", adopted by CIM Council on December 11, 2005, and the "CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines", adopted by CIM Council on November 23, 2003, using geostatistical and/or classical methods, plus economic and mining parameters appropriate to each project. The ore reserve and mineral resource estimates at the Australasia division are prepared in compliance with "The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia" (JORC) code effective December 2004.

"National Instrument 43-101 Standards of Disclosure for Mineral Projects" are used for public reports of mineral resources, mineral reserves and exploration results.

The reserve and mineral resource statement at 30<sup>th</sup> of June 2008 is consistent with the CIMM standards. The Measured and Indicated Resources are inclusive of those Mineral Resources later modified to produce Ore Reserves to facilitate internal consistency in reporting within Xstrata. CIMM recommends that Mineral Resources be reported exclusive of Mineral Reserves but recognizes "there are legitimate reasons, in some situations, for reporting Mineral Resources inclusive of Mineral Reserves (the Australian approach)".

Ore Reserve and Mineral Resource information in the tables below is based on information compiled and signed off by Qualified Person(s) (as defined by the CIMM Code). Each of the Qualified Persons has the appropriate professional membership and the relevant experience in relation to the Mineral Resources and/or Mineral Reserves being reported by them to qualify as a Qualified Person as defined in the CIMM Definition Standards.

The Ore Reserves and Mineral Resources figures in the following tables are as at 30 June 2007.

Metric units are used throughout. All data is presented on a 100% basis. All tonnes and grade information has been rounded to reflect the relative uncertainty in the estimates; there may therefore be small differences in the totals. Mineral Resources are reported inclusive of those Mineral Resources modified to produce Ore Reserves.

Commodity prices and exchange rates used to estimate the economic viability of Ore Reserves are based on long term forecasts applied at the time the estimate was calculated.

This summary was reviewed and prepared by Ted Barnett (PGeo Ontario).

The attached Mineral Reserves and Resource Template was reviewed and compiled by Chester Moore (PEng Ontario; PGeo Ontario), consultant with Scott Wilson Mining Group and external auditor for Xstrata Nickel.

## **Definitions**

The following definitions (as per the CIMM Standards 2005), have been applied in estimating the Mineral Reserves and Mineral Resources position of Xstrata Nickel as disclosed within this document.

### **Mineral Resource**

#### Inferred Mineral Resource

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

#### Indicated Mineral Resource

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.

#### Measured Mineral Resource

A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

## **Mineral Reserve**

### Probable Mineral Reserve

A 'Probable Mineral Reserve' is the economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

### Proven Mineral Reserve

A 'Proven Mineral Reserve' is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

Application of the Proven Mineral Reserve category implies that the Qualified Person has the highest degree of confidence in the estimate with the consequent expectation in the minds of the readers of the report. The term should be restricted to that part of the deposit where production planning is taking place and for which any variation in the estimate would not significantly affect potential economic viability.

# Xstrata Plc - Nickel Reserves and Resources Template

## Total Mine Basis - Resources Inclusive of Reserves

| Operation                 | Ownership (%) | Mining Method | Commodity       | Ore Reserves |               |            | Mineral Resources |                |                           |               |            | Competent Person* |  |
|---------------------------|---------------|---------------|-----------------|--------------|---------------|------------|-------------------|----------------|---------------------------|---------------|------------|-------------------|--|
|                           |               |               |                 | Proved (Mt)  | Probable (Mt) | Total (Mt) | Measured (Mt)     | Indicated (Mt) | Measured & Indicated (Mt) | Inferred (Mt) | Total (Mt) |                   |  |
| <b>Nickel - June 2008</b> |               |               |                 |              |               |            |                   |                |                           |               |            |                   |  |
| Australasia               | 100.0         | OC/UG         | Ore             | 0            | 1.8           | 1.8        | 14.0              | 28.6           | 42.6                      | 13.7          | 56.3       | PL/WS             |  |
|                           |               |               | Nickel (%)      | 0            | 3.80          | 3.80       | 0.95              | 0.74           | 0.81                      | 0.9           | 0.8        |                   |  |
| Falcondo <sup>4</sup>     | 85.3          | OC            | Ore             | 34.1         | 33.8          | 67.9       | 29.5              | 37.8           | 67.3                      | 5.0           | 72.3       | MAA               |  |
|                           |               |               | Nickel (%)      | 1.22         | 1.24          | 1.24       | 1.56              | 1.53           | 1.54                      | 1.4           | 1.5        |                   |  |
| Koniambo                  | 49.0          | OC            | Ore             | 17.2         | 45.3          | 62.5       | 21.2              | 54.4           | 75.6                      | 82.7          | 158.3      | MAA/MM            |  |
|                           |               |               | Nickel (%)      | 2.50         | 2.36          | 2.40       | 2.54              | 2.45           | 2.47                      | 2.5           | 2.5        |                   |  |
| Montcalm                  | 100.0         | UG            | Ore             | 2.8          | 0.0           | 2.8        | 3.0               | 0              | 3.0                       | 0             | 3.0        | KS/JM             |  |
|                           |               |               | Nickel (%)      | 1.26         | 0.00          | 1.26       | 1.26              | 0.00           | 1.26                      | 0.0           | 1.3        |                   |  |
|                           |               |               | Copper (%)      | 0.59         | 0.00          | 0.59       | 0.59              | 0.00           | 0.59                      | 0.0           | 0.6        |                   |  |
|                           |               |               | Cobalt (%)      | 0.05         | 0.00          | 0.05       | 0.05              | 0.00           | 0.05                      | 0.0           | 0.1        |                   |  |
| Raglan                    | 100.0         | UG            | Ore             | 6.3          | 9.3           | 15.6       | 5.6               | 12.0           | 17.6                      | 15.0          | 32.5       | TM/BL             |  |
|                           |               |               | Nickel (%)      | 2.16         | 2.81          | 2.55       | 2.50              | 2.83           | 2.73                      | 3.0           | 2.9        |                   |  |
|                           |               |               | Copper (%)      | 0.61         | 0.79          | 0.72       | 0.70              | 0.88           | 0.82                      | 0.8           | 0.8        |                   |  |
|                           |               |               | Cobalt (%)      | 0.05         | 0.05          | 0.05       | 0.05              | 0.06           | 0.06                      | 0.1           | 0.1        |                   |  |
| Sudbury <sup>1,2,3</sup>  | 100.0         | UG            | Ore             | 1.2          | 6.5           | 7.7        | 6.8               | 5.5            | 12.3                      | 13.6          | 25.9       | GP/PB             |  |
|                           |               |               | Nickel (%)      | 0.94         | 1.49          | 1.40       | 1.80              | 1.60           | 1.71                      | 1.6           | 1.7        |                   |  |
|                           |               |               | Copper (%)      | 2.90         | 0.76          | 1.10       | 1.24              | 1.11           | 1.18                      | 2.0           | 1.6        |                   |  |
|                           |               |               | Cobalt (%)      | 0.02         | 0.05          | 0.04       | 0.06              | 0.06           | 0.06                      | 0.0           | 0.1        |                   |  |
| Araguaia                  | 100.0         | OC            | Ore             | -            | -             | -          | 16.1              | 89             | 104.7                     | 37.6          | 142.3      | MAA               |  |
|                           |               |               | Nickel (%)      | -            | -             | -          | 1.44              | 1.31           | 1.33                      | 1.3           | 1.3        |                   |  |
| Kabanga                   | 50.0          | UG            | Ore             | -            | -             | -          | 0                 | 23.2           | 23.2                      | 28.5          | 51.7       | TB                |  |
|                           |               |               | Nickel (%)      | -            | -             | -          | 0.00              | 2.64           | 2.64                      | 2.7           | 2.7        |                   |  |
|                           |               |               | Copper (%)      | -            | -             | -          | 0.00              | 0.36           | 0.36                      | 0.4           | 0.4        |                   |  |
|                           |               |               | Cobalt (%)      | -            | -             | -          | 0.00              | 0.20           | 0.20                      | 0.2           | 0.2        |                   |  |
|                           |               |               | Platinum (g/t)  | -            | -             | -          | 0.0               | 0.19           | 0.19                      | 0.3           | 0.3        |                   |  |
|                           |               |               | Palladium (g/t) | -            | -             | -          | 0.0               | 0.20           | 0.20                      | 0.2           | 0.2        |                   |  |
| Nickel Rim South          | 100.0         | UG            | Ore             | -            | -             | -          | 2.76              | 2.46           | 5.2                       | 13.0          | 18.2       | GP                |  |
|                           |               |               | Nickel (%)      | -            | -             | -          | 1.65              | 1.48           | 1.57                      | 1.4           | 1.4        |                   |  |
|                           |               |               | Copper (%)      | -            | -             | -          | 1.10              | 2.42           | 1.72                      | 3.1           | 2.7        |                   |  |
|                           |               |               | Cobalt (%)      | -            | -             | -          | 0.04              | 0.03           | 0.03                      | 0.0           | 0.0        |                   |  |
|                           |               |               | Platinum (g/t)  | -            | -             | -          | 0.59              | 0.91           | 0.74                      | 2.1           | 1.7        |                   |  |
|                           |               |               | Palladium (g/t) | -            | -             | -          | 0.52              | 0.92           | 0.71                      | 2.2           | 1.8        |                   |  |
| Onaping Depth             | 100.0         | UG            | Ore             | -            | -             | -          | 0                 | 14.6           | 14.6                      | 1.2           | 15.8       | GP                |  |
|                           |               |               | Nickel (%)      | -            | -             | -          | 0.00              | 2.52           | 2.52                      | 3.6           | 2.6        |                   |  |
|                           |               |               | Copper (%)      | -            | -             | -          | 0.00              | 1.15           | 1.15                      | 1.2           | 1.2        |                   |  |
|                           |               |               | Cobalt (%)      | -            | -             | -          | 0.00              | 0.06           | 0.06                      | 0.1           | 0.1        |                   |  |
|                           |               |               | Platinum (g/t)  | -            | -             | -          | 0.00              | 0.43           | 0.43                      | 0.5           | 0.4        |                   |  |
|                           |               |               | Palladium (g/t) | -            | -             | -          | 0.00              | 0.48           | 0.48                      | 0.5           | 0.5        |                   |  |
|                           |               |               |                 | 158          |               |            | 366               |                | 210                       |               | 576        |                   |  |

### Notes

<sup>1</sup> The Sudbury total does not contain Nickel Rim South, and Onaping Depth projects.

<sup>2</sup> June 30th 2008 Mineral Reserve statement updated to reflect the November, 2008 decision to put Craig Mine (Sudbury) on care and maintenance and cease production in June 2009. No Craig reserves are now included in the Sudbury reserve figure. Craig Mine Mineral Resource as of June 30, 2008 stood at 1.7 million tonnes of Measured + Indicated Resources at 1.67% Ni, 0.40% Cu, 0.05% Co and 2.0M tonnes of Inferred Resources at 1.7% Ni, 0.4% Cu, 0.0% Co.

<sup>3</sup> June 30th 2008 Mineral Reserve statement updated to reflect the November, 2008 decision to place Thayer Lindsley Mine (Sudbury) on care and maintenance and cease production at the end of January 2009. No Thayer Lindsley reserves are now included in the Sudbury reserve figure. Thayer Lindsley Mineral Resources at June 30, 2008 stood at 1.9 million tonnes of Measured and Indicated Resources at 1.13% Ni, 1.06% Cu, 0.05% Co and 0.4M tonnes of Inferred Resources at 1.0% Ni, 1.1% Cu, 0.1% Co.

<sup>4</sup> Falcondo on care and maintenance since August 2008.

The majority of the Mineral Reserve and Resource estimates are prepared in accordance with the "CIM Definition Standards On Mineral Resources and Mineral Reserves", adopted by CIM Council on December 11, 2005, and the "CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines", adopted by CIM Council on November 23, 2003, using geostat and/or classical methods, plus economic and mining parameters appropriate to each project. The ore reserve and mineral resource estimates at the Australasia division have been prepared in compliance with the JORC Code 2004.

For the purposes of this statement, the term 'Ore Reserves' as defined by the JORC Code 2004 has the same meaning as 'Mineral Reserves' as defined in the CIM Standards 2005. The resource totals have been restated in compliance with the JORC Code.

The Measured and Indicated Resources are inclusive of those Mineral Resources later modified to produce Ore Reserves to facilitate internal consistency in reporting within Xstrata Plc. All Mineral Reserve and Resource data are shown on 100% basis as of June 30, 2008.

The Mineral Reserve and Resource estimates are compiled and verified by Chester Moore, P. Eng., P. Geo., consultant with Scott Wilson Mining, and external auditor for Xstrata Nickel. There are no known environmental, permitting, legal, taxation, political or other relevant issues that would materially affect the estimates of the mineral reserves.

Depending on when production is scheduled, Mineral Reserves and Resources are calculated using a blend of short, medium, or long term metal price assumptions and exchange rates.

Totals may not add correctly due to rounding of input numbers.

\* Competent Person for Mineral Resource/Competent Person for Mineral Reserve. If only one set of initials are listed then that person is responsible for both reserves and resources.

### Competent Persons:

PL= Peter Langworthy, Xstrata Nickel, AusIMM  
 MAA = Marc-Antoine Audet, Xstrata Nickel, APGO  
 KS = Kristan Straub, Xstrata Nickel, APGO  
 TM = Tery Mallinson, Xstrata Nickel, OGQ  
 GP = Gary Potts, Xstrata Nickel, APGO  
 TB = Trevor Blair, Xstrata Nickel, OGQ

WS= Wade Stephenson, Xstrata Nickel, AusIMM  
 MM = Monique Moranville, Xstrata Nickel, OIQ  
 JM = John McDonald, Xstrata Nickel, P. Eng  
 BL = Bruno Lemelin, Xstrata Nickel, OIQ  
 PB = Philip Bridson, Xstrata Nickel, P. Eng