

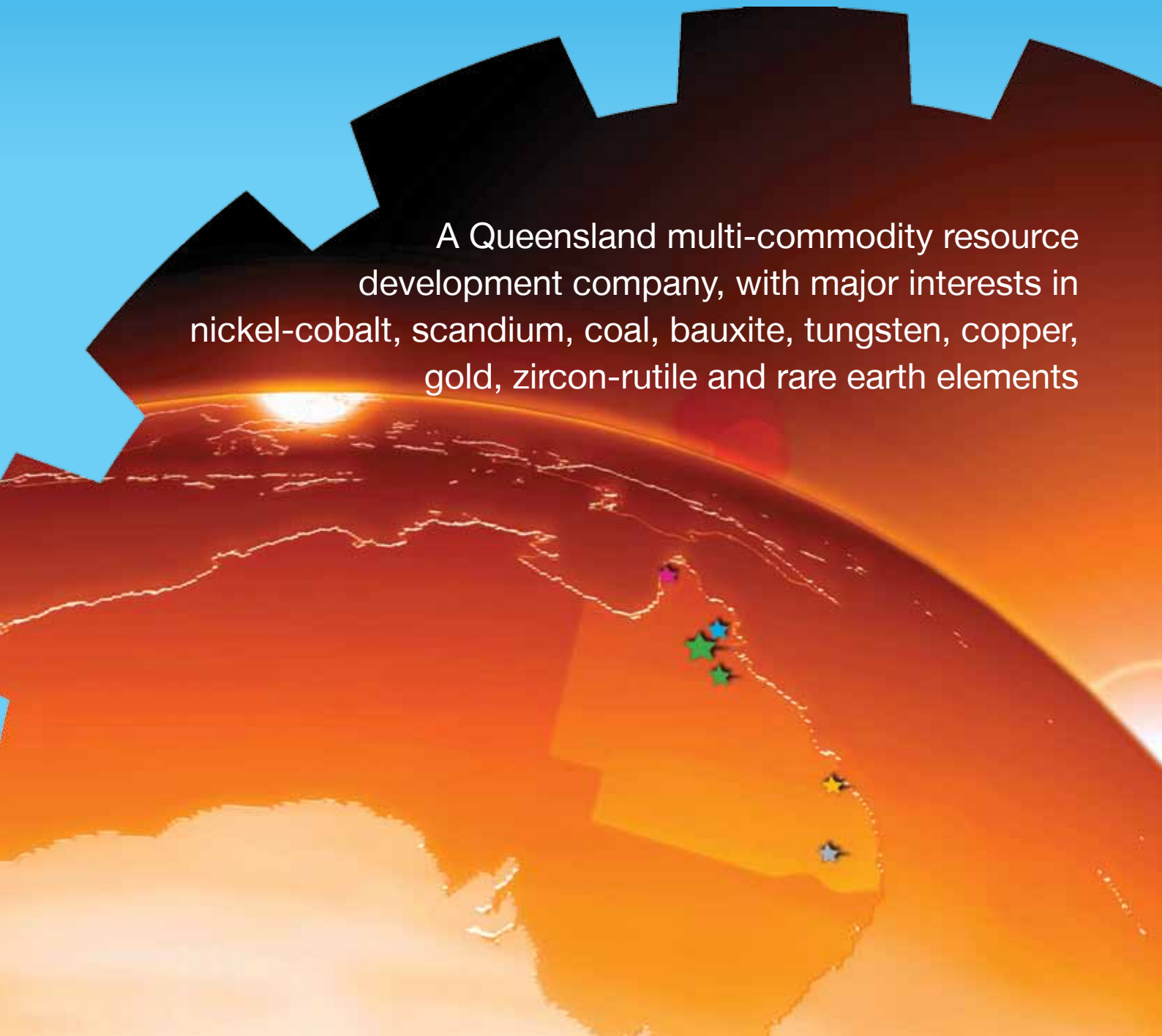
# METALLICA MINERALS LTD

ABN 45 076 696 092



Annual Report  
2010

A Queensland multi-commodity resource development company, with major interests in nickel-cobalt, scandium, coal, bauxite, tungsten, copper, gold, zircon-rutile and rare earth elements



**Metallica and its group of associated companies have established a resource development house with a range of commodities.**



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## Corporate Directory

### BOARD OF DIRECTORS

**David K Barwick** – Non-Executive Chairman

**Andrew L Gillies** – Managing Director/CEO

**John K Haley** – Executive Director/CFO

**Peter B Nicholson** – Non-Executive Director

**Wu Shu** – Non-Executive Director

**Li Tao** – Alternate Director to Wu Shu

### COMPANY SECRETARY

John K Haley

### PRINCIPAL AND REGISTERED OFFICE

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GPO Box 122 Brisbane QLD 4001

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Email [admin@metallcaminerals.com.au](mailto:admin@metallcaminerals.com.au)

Website [www.metallcaminerals.com.au](http://www.metallcaminerals.com.au)

### SHARE REGISTER

Link Market Services Limited

Level 19, 324 Queen Street, Brisbane QLD 4001

### AUDITOR

BDO Kendalls (QLD)

Level 18, 300 Queen Street, Brisbane QLD 4001

### SOLICITOR

Hopgood Ganim

Level 8, Waterfront Place, 1 Eagle Street, Brisbane QLD 4001

### STOCK EXCHANGE LISTING

Metallica Minerals Ltd is listed on the Australian Stock Exchange (ASX). Home Stock Exchange is Brisbane. Riverside Centre, 123 Eagle Street, Brisbane QLD 4001

### ASX CODE

**MLM** (ordinary shares)

# Company History

The primary objective and strategy of Metallica Minerals Limited (ASX: "MLM") ("Metallica" or "the Company") is to advance its flagship 100% owned NORNICO project towards achieving long-life profitable nickel-cobalt and scandium production in the most efficient way. Metallica is also enhancing its major interests in coal, bauxite, scandium, zircon-rutile, limestone and recently added interests in tungsten-molybdenum and copper-gold assets, to provide attractive returns for shareholders.

Metallica was named after the classic medieval mining and metallurgy textbook *De Re Metallica*, first published in 1556 by Georgius Agricola, a German physician and scientist. Agricola, known as the father of mineralogy, was a pioneer in physical geology and the first to classify minerals scientifically.

*De Re Metallica*, his most celebrated work, was a standard in metallurgy and mining for over a century and was translated into English (1912) by Herbert C Hoover. Hoover was a mining engineer who worked in Western Australia and became President of the United States of America in 1929.

Metallica was incorporated in 1997 and secured various Queensland mineral properties early that year with the acquisition of NORNICO Pty Ltd and Oresome Australia Pty Ltd. The principal asset acquired was the NORNICO Nickel-Cobalt Project northwest of Townsville, which contained tenements over known nickel laterite deposits north of the historic Greenvale Nickel Mine. As an unlisted entity at the time, Metallica was able to progress its mineral portfolio by securing timely seed capital raisings and attracting quality joint venture partners.

An Initial Public Offer (IPO) and ASX listing was achieved in November 2004 through which Metallica raised A\$3.15 million in funding. Injections of capital since listing from Kagara Limited, Anegada Metals and Resource Capital Funds (RCF), combined with some insightful corporate transactions, have supported the financial position of the Company to progress the NORNICO Nickel-Cobalt and Scandium Project to the pre feasibility stage.

In January 2009, Metallica's then 40% owned bauxite exploration company, Cape Alumina Limited ("Cape Alumina") successfully listed on the ASX raising \$15 million and in December 2009 Metallica also achieved the listing of its SE Queensland coal projects via MetroCoal Limited ("MetroCoal") which listed raising \$10 million. Metallica remains the largest shareholder in Cape Alumina (ASX: CBX) with 29.9% and MetroCoal Limited (ASX: MTE) with 56% of the shares on issue.

In mid 2009, Metallica acquired a 76% holding in Planet Metals Limited (ASX: PMQ) (previously named Queensland Ores Limited) which owns 85% of the Wolfram Camp tungsten-molybdenite project, 90 km inland from Cairns, and 100% of the Mount Cannindah copper-gold project, 40 km from Monto in south-east Queensland.

Metallica also has a strategic 25% shareholding in Orion Metals Limited (ASX: ORM), a gold and rare earth metals explorer. Orion has had recent success with the discovery of significant rare earths and gold mineralisation at its Killi Hills project.

## CAPITAL STRUCTURE

As at 30 June 2010, Metallica's issued capital comprised 117,331,202 fully paid ordinary shares and 7,000,000 unlisted employee and Director options.

The Company has approximately 2,440 shareholders with the Top 20 shareholders holding 57% of the total shares on issue.

## CASH POSITION

The Company was effectively debt-free with cash reserves of approximately A\$7.1 million as at 30 June 2010.

As at 30 June 2010, Metallica had cash and ASX listed investments of around \$55 million. The cash position has subsequently decreased to approximately \$5.6 million as at the date of this report, being 11<sup>th</sup> October 2010.

# Vision

**Metallica's vision is to be a highly profitable long-term diversified resource development company and minerals producer.**

Part of this vision is to be at the forefront of a new generation of Australian-based resource developers and mineral producers by discovering or acquiring mineral deposits and then employing leading edge technologies and strategies to generate high value products in a competitive international marketplace, and delivering shareholder value through company profit and growth.

The Company's short-term production aim is to complete feasibility studies into the development of the NORNICO Ni-Co and Sc project to simultaneously treat Ni-Co and Sc bearing laterite ore and produce high value products.

The Company's medium-term aim is to become a highly profitable and long-term nickel-cobalt and scandium producer and add substantial value to its coal, tungsten-molybdenum, copper-gold, bauxite, scandium, zircon and rutile, rare earth elements and limestone interests while maintaining the highest social, environmental and safety standards.

# Strategy

**Metallica has a clear, five-tier business strategy in pursuit of wealth generation for its shareholders.**

1. To generate profitable, long life nickel-cobalt and scandium production with minimal shareholder dilution.
2. To maintain a selective and quality acquisition philosophy that is opportunistic, realistic and forward-looking with respect to choosing only those mineral properties that are considered to have a high probability of becoming a profitable mine.
3. To continue to consolidate tenements containing existing mineral deposits and prospective areas over Metallica's key projects, as seen in its substantial nickel-cobalt, zircon-rutile, limestone-lime, bauxite and coal interests.
4. To realise intrinsic value from the Company by progressing exploration and evaluation success through feasibility studies to bring projects into production, and if beneficial, enter into agreements with leading international resource or industrial companies.
5. To maintain a policy of divesting non-core assets for the purpose of securing funds and investments without shareholder dilution and applying those sale proceeds to advance its core mineral assets and business opportunities.

# Chairman's letter



Dear Shareholder,

It is with great pleasure that on behalf of the Board of Directors and management of Metallica Minerals Limited I present to you our annual report in a year that has been a difficult one for the resource industry.

Despite the economic downturn which consumed the world in 2009, I am pleased to report we were able to successfully achieve a second IPO in December 2009 by listing MetroCoal Limited (ASX: MTE) to raise \$10 million fully-subscribed, which I believe is a great testament to the calibre of the Corporate Team and our coal projects in Queensland's Surat Basin. This of course followed the Cape Alumina Limited (ASX: CBX) bauxite IPO which listed in January 2009.

We also achieved two further milestones during the financial year. In December 2009 we purchased 100% of the Greenvale Nickel Mine site and the Lucknow tenements for \$1.65 million comprising of \$650,000 cash and the issue of 3.33 million Metallica shares. We also sold 3.87 million shares of our 42.3 million shares in Cape Alumina Limited, however this transaction was cash neutral as we exchanged this holding for 7.74 million Metallica shares which were subsequently cancelled. This transaction effectively increased all shareholders' percentage holding in Metallica and we now have approximately 117.3 million shares on issue.

While still actively progressing our various projects and corporate activities we also maintained a healthy cash reserve with in excess of \$7 million as at 30 June 2010 to advance our projects well into 2010/11. We also have strategic investments in four ASX listed companies (MetroCoal, Cape Alumina, Planet Metals and Orion Metals).

Our 100% NORNICO nickel (Ni), cobalt (Co) and scandium (Sc) project remains our priority and while work was delayed during the economic downturn, the NORNICO Stage 1 Ni-Co and Sc scoping study was recently completed with positive results.

However, more work is required before Feasibility Study commencement. The NORNICO project has been assisted by the highly successful drill programs on the Lucknow project which discovered a large high grade scandium ore deposit.

The Metallica team, led by Managing Director Mr. Andrew Gillies, remains enthusiastic regarding the development of our Queensland based resource and exploration projects and I would like to acknowledge their efforts and support as well as that of my fellow Directors during the past 12 months.

I would encourage you to read Andrew's Managing Director's review which details more fully our project developments and plans for the future.

A handwritten signature in black ink, appearing to be 'D K Barwick', written over a light blue background.

**D K Barwick**  
**CHAIRMAN**

# Managing Director's review



Metallica has been able to continue to mature our pipeline of Queensland based multi-commodity resource projects under our steadfast vision to deliver long-term shareholder value as a profitable mining and resources group.

As at 30 June 2010, Metallica had cash and ASX listed investments of around \$55 million.

## INTRODUCTION

The past 12 months has been a year of further successful project building and growth for Metallica Minerals Limited (Metallica).

Metallica has been able to continue to mature our pipeline of Queensland based multi-commodity resource projects under our steadfast vision to deliver long-term shareholder value as a profitable mining and resources group.

Significantly, this quest has seen Metallica commence the new 2010–2011 financial year with a larger and more balanced spread of direct and indirect minerals resource and energy project ownership.

The Company resisted during the year the trend evident among some resources players in the post GFC period to change focus or geographics, whether in Australia or the populist areas such as Africa and South America. Our preference and vision is to maintain progress towards development of our multi-commodity portfolio within Australia, diversified across at least a dozen commodities within the Metallica Group.

Metallica's core project focus is to further evaluate, enhance and undertake feasibility into the development of our flagship NORNICO nickel-cobalt (Ni-Co) and scandium (Sc) project. Sufficient project foundation work has now been completed to enable this core asset to be progressed from exploration and discovery to resource definition and evaluation stages, and now into pre-feasibility for the development of a Ni-Co and Sc operation targeting maiden production by mid-2013.

In addition to NORNICO, Metallica holds other resource development projects in zircon-rutile and limestone-lime as

well as considerable strategic investments in coal/energy, bauxite, tungsten-molybdenum, copper, gold and rare earth element (REE) companies (see Figure 1 & 2). This high quality diversified portfolio reflects the strength and management expertise of your Company.

The bulk of our projects can be readily matured in harmony with public expectations for best practice social, environmental and safety standards.

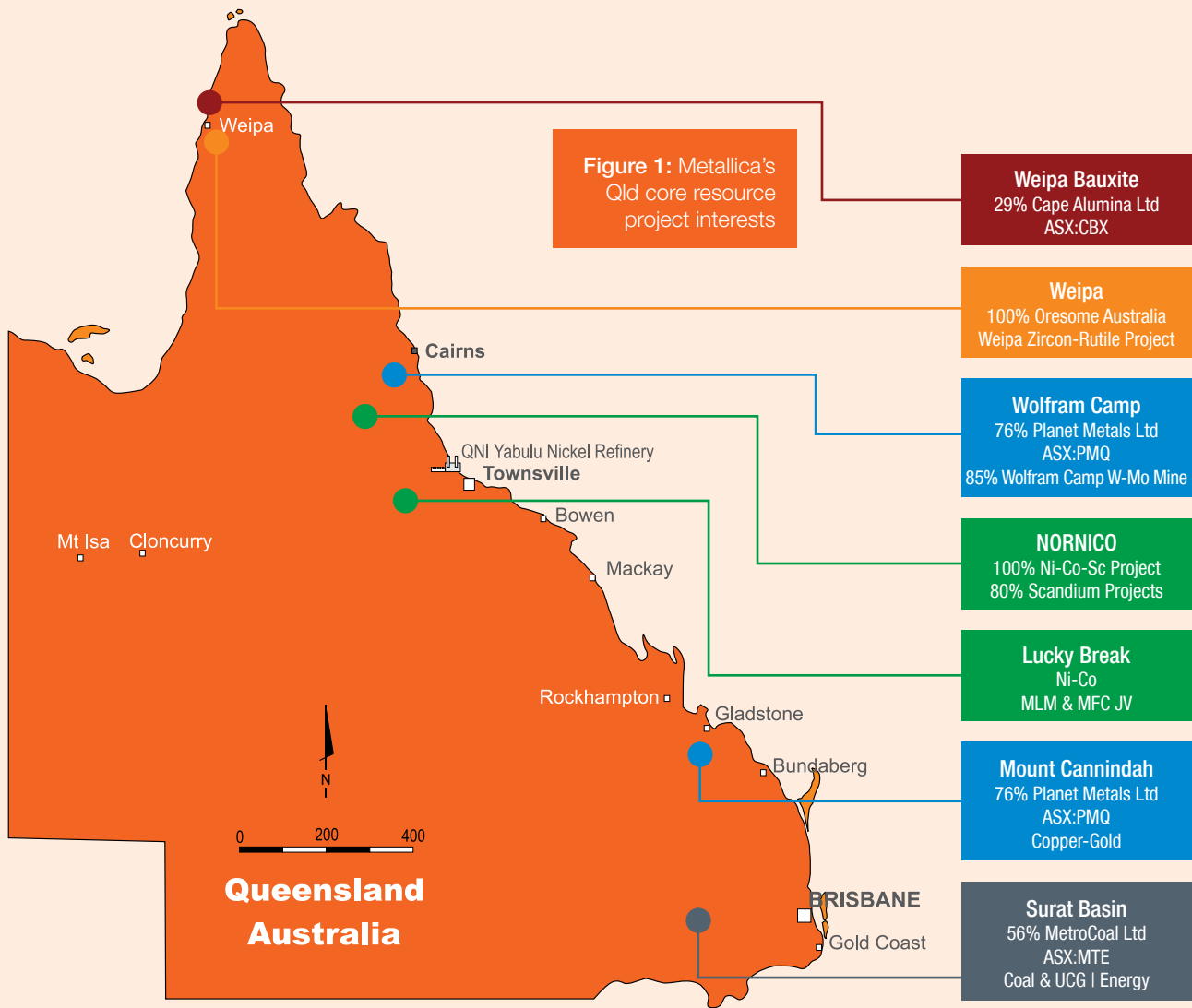
Strategically, our portfolio growth, covering major interests now in four ASX listed companies as well as our wholly-owned operations, has favoured those near coastal areas along the Queensland seaboard that offer genuine lower cost access to domestic customer and export infrastructure. These factors will be critical in determining how rapidly our projects can move to profitable mining.

It was pleasing to end the year in a strong cash position (\$7 million in the bank) in Metallica itself, with no debt and enhanced by our considerable ASX listed investments. This, and our near term project horizons will, we believe, gradually attract increasing recognition of the hidden and strategic value in Metallica as each project and investment matures.

## OVERVIEW

Metallica continued during 2009–2010 to crystallise its multi-commodity investments in Queensland's resources sector to a point that the Company is now under a three year horizon to commence maiden production from our flagship 100% owned NORNICO nickel, cobalt and scandium project northwest of Townsville (see Figure 3). The inclusion of the scandium content in this project makes NORNICO unique as a potential producer

## Managing Director's Review



of not only high value nickel and cobalt products but with scandium (a Rare Earth Element) as a valuable co-product.

We have also consolidated our direct equity investment footprint across several commodities-based projects at various stages of development toward mining operations. As at June 2010, Metallica held major or strategic ASX listed investments in MetroCoal Limited (56%), Cape Alumina Limited (29.9%), Planet Metals Limited (76%), and Orion Metals Limited (29.3%) see Figure 2.

The global market for nickel continued to show strength and gains through calendar 2010 and most projections now are for longer term sustainability in both price and demand from major users, particularly across China, India and Asia.

The acquisition of the Greenvale and Lucknow Nickel-Cobalt tenements and the discovery of the Lucknow Scandium (Sc) deposit have considerably enhanced NORNICO. Our 100% owned NORNICO projects' combined resource totals 45.5 million tonnes (Mt) at 0.81% Ni and 0.09% Co, containing approximately 366,000t of Ni and 39,000t of Co – see Table 12 & 13.

The tri-metal (Ni-Co-Sc) processing opportunity that NORNICO presents is unique in Australia's minerals sector, and is further

Within NORNICO the two scandium resources at Lucknow and Kokomo contain a combined 15.1 Mt at 133 g/t Sc (using a 70g/t Sc COG) containing approximately 2,000 tonnes Sc metal or approximately 3,000 tonnes of Sc oxide.

Our scandium project is receiving considerable interest from end users in aluminium alloys, fuel cell developers and strategic metal and rare earth element companies.





Left to right: Tao Li (Alternate for Shu Wu), Peter Nicholson, John Haley, David Barwick, Andrew Gillies.

enhanced by Metallica's access to high grade Ni-Co-Sc ores, an excellent processing site and infrastructural setting (see Figure 3). We are well advanced in developing an innovative and highly efficient flow sheet for simultaneous metal recovery of Ni-Co and Sc, thereby effectively reducing unit operating and capital costs. Metallica also has the potential for boosting revenues by incorporating very high Sc ore in to the feed, as we expect the global scandium demand and market to grow substantially.

Factors that favour our planned tri-metal (Ni+Co+Sc) Stage 1 production at the Greenvale-Lucknow deposits in the southern portion of our NORNICO project area are:

- remnant high grade Ni-Co ores
- high grade scandium ores
- the Greenvale Mine Site is an excellent processing site
- good infrastructural setting - close to acid supply
- no known environmental issues
- close to Greenvale township
- simultaneously recover three metals using the same process.

Metallica continues to assess attractive corporate and project opportunities that are compatible with the Company's current primary interests in nickel, cobalt, scandium, zircon-rutile, gold-base metals, rare earth elements and limestone-lime.

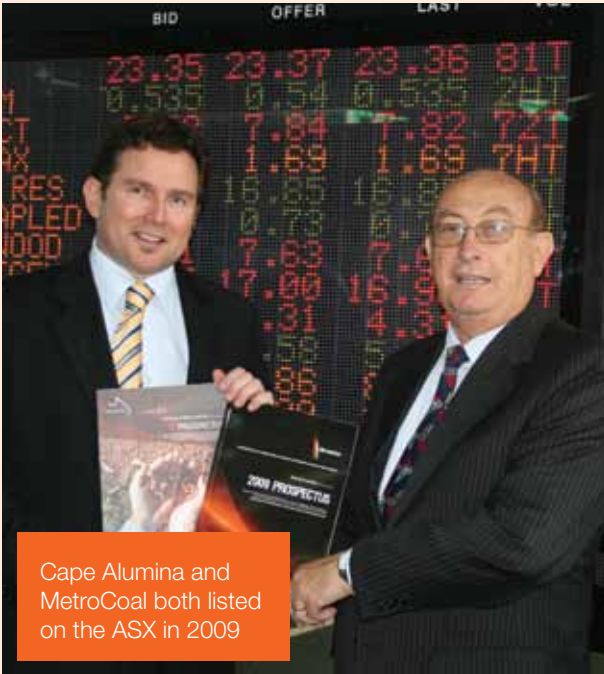
For the year ended 30 June 2010, Metallica expended \$6.9 million on mineral exploration and evaluation (\$6.1 million previous year) and held a cash position of \$7.1 million (\$16.3 million previously) at balance date.

Issued capital eased slightly to 117.3 million ordinary shares from 121.7 million the year prior via the RCF share buy-back and cancellation transaction (refer below).

### CORPORATE

- Listed Metallica's coal interests on the ASX via MetroCoal Limited (ASX: MTE), raising \$10 million and Metallica retains a 56% shareholding (80 million shares)
- 3.33 million MLM shares were issued to Straits Resources as part of the settlement for the acquisition of the Greenvale and Lucknow tenements
- A non cash selective share buy-back and transfer agreement was completed with our second largest shareholder, Resource Capital Funds (an effective exchange by RCF of 7.74 million of its shares in Metallica for approximately 3.87 million shares held by Metallica in Cape Alumina Limited)
- Planet Metals raised approximately \$2 million from a successful Rights Issue in November 2009, of which Metallica contributed approximately \$1.5 million and maintained its 76% shareholding
- Gold and rare earths explorer, Orion Metals (MLM now 25.4%) raised \$1.55 million via a fully underwritten pro-rata rights issue to shareholders and Directors
- Continued investments in like-minded ASX listed explorers and minerals developers and direct equity in minerals projects
- In early 2010, Metallica relocated its office to 71 Lytton Road, East Brisbane, Qld 4169

## Managing Director's Review



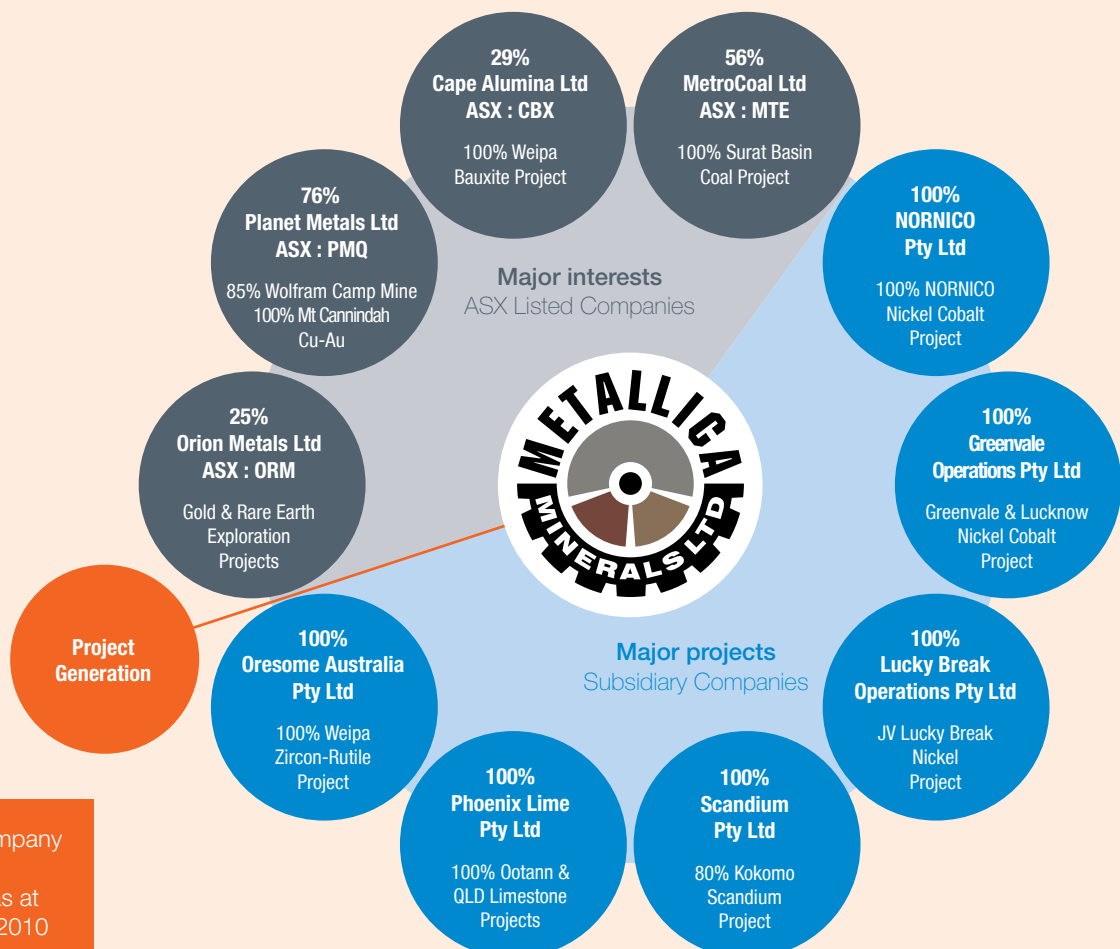
Cape Alumina and MetroCoal both listed on the ASX in 2009

Andrew Gillies and David Barwick

- Completion of the Metallica Corporate Video, providing information and graphics on the Company, its projects and ASX listed investments – see Metallica Website [www.metallicaminerals.com.au](http://www.metallicaminerals.com.au)

## FINANCIAL

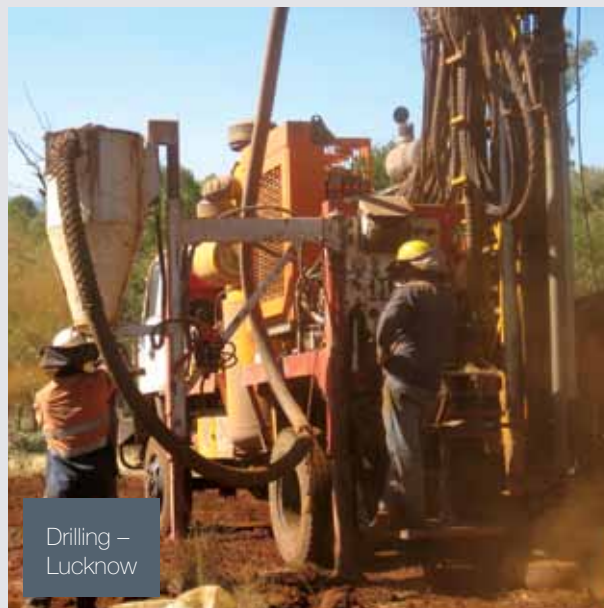
- Strong cash at bank at balance date of \$7.1 million, with effectively no debt
- 7 million unlisted options on issue, comprising:
  - 2.4 million conditional employee options exercisable at 35 cents on or before 12 February 2012
  - 1.1 million options exercisable at 65 cents on or before 28 September 2012
  - 3 million conditional Director options exercisable at 35 cents on or before 31 May 2012
  - 500,000 options exercisable at 80 cents on or before 31 December 2010.



**Figure 2:** Company structure and investments as at 11<sup>th</sup> October 2010



## Nickel-Cobalt and Scandium projects (Qld)



### NORNICO Ni-Co-Sc

#### 100% METALLICA

- By year end, NORNICO had substantially grown in stature with the focus now on selectively extracting high grade Ni-Co laterite ores sourced from within the Greenvale Mine Site. This project is supported by high Co-Sc bearing Ni ores trucked from nearby Lucknow (8 km) and in later years, from Kokomo (55 km) to the north. The proposed NORNICO Stage 1 plant is being designed to simultaneously produce three metals (Ni-Co-Sc) using the same process to maximise revenues, project life and returns.
- A 574 hole drilling program (see Table 1) at Greenvale and Lucknow deposits confirmed substantial high grade cobalt-scandium rich nickel ores at Lucknow with results being incorporated into a revised resource estimate.
- The Scoping Study into NORNICO's proposed Stage 1 (180,000 tonnes per annum) plant located at the old Greenvale mine site was being finalised at balance date (see NORNICO development studies and strategy, page 25).
- Resource definition and exploration drilling is continuing on the Greenvale and Lucknow projects to increase the size and status of their Ni-Co-Sc resource, with particular focus on the deposits' high grade zones with ongoing metallurgical testing of NORNICO ores.
- Work continued on flow sheet design based around a heated agitated Atmospheric Acid Leaching (AAL) process, with acid supply trucked from Townsville, solvent extraction (SX) and recovery of nickel, cobalt and scandium to produce nickel sulphate, plus cobalt sulphide and scandium oxide products.

- Forecast metal recovery rates are 90% Ni, 90% Co and 85% Sc.
- Resource, beneficiation and other metallurgical studies during the year have positioned NORNICO Stage 1 to produce approximately 2,700t Ni, 200t Co and more than 7,500 kg scandium per annum.

### NORNICO EXPLORATION AND EVALUATION FOR THE 2009/2010 FINANCIAL YEAR

Exploration work on the NORNICO tenements in the 2009/10 year predominantly comprised Reverse Circulation (RC) and diamond core drilling at the Kokomo, Greenvale and Lucknow nickel-cobalt and scandium deposits to better define the resources. Metallica drilled 1,027 holes for 26,947 m at these three deposits during the year. In addition to this, Metallica also drilled 19 holes for 1,097 m at four exploration prospects, Trigg, Towers, Black Dingo and Rudd Creek, exploring for base metals and gold mineralisation (see Table 1).

Resource drilling completed on the Kokomo Ni-Co and Sc project led to a significant increase in the resource base. Resource drilling at the recently acquired Greenvale and Lucknow tenements was also undertaken by Metallica with initial resources for each of these deposits defined. In addition to this a significant high grade scandium resource was identified on the Lucknow tenement.



Nickel laterite exposure on the Greenvale mine site

**TABLE 1: 2009/2010 NORNICO DRILLING SUMMARY**

| Project               | Drill type | No. holes drilled  | Metres drilled |
|-----------------------|------------|--------------------|----------------|
| Kokomo                | RC         | 449                | 10,757         |
| Kokomo                | Diamond    | 4                  | 112            |
| Greenvale             | RC         | 276                | 9,042          |
| Lucknow               | RC         | 298                | 7,036          |
| Six Mile Exploration* | RC         | 16                 | 707            |
| Rudd Creek            | RC         | 3                  | 390            |
| <b>Total</b>          |            | <b>1,046 holes</b> | <b>28,044m</b> |

\*Drilling at Towers, Trigg and Black Dingo Prospects

### GREENVALE NI-CO DEPOSIT

In April 2010, Metallica finalised the purchase of the tenement which covered the Greenvale Mine Site (EPM 11223) from Straits Resources Ltd and Resource Mining Corporation (RMI). The Greenvale Mine operated for 18 years from 1974 to 1992, mining ore from a 3 km<sup>2</sup> area, that produced 40 million tonnes (Mt) of nickel laterite ore grading 1.56% Ni and 0.12% Co, making it the largest high grade nickel laterite mine in Australia (see Figure 4). Straits Resources and their JV partner RMI undertook RC drilling on the Greenvale mine site to define the extent of the remnant nickel resource. Between May 2007 and July 2008, Straits drilled 141 RC holes for 5,935m, with approximately 25% of the holes drilled intersecting Ni grades greater than 1% over a 5m interval. Remnant high grades confirmed by their drilling, included 17 m @ 1.81% Ni and 24 m @ 1.65% Ni in holes GVM 090 and GVM 111 respectively (drilled by Straits Exploration in 2008).

Metallica acquired the Greenvale tenement to provide a potential processing site for scandium and cobalt rich nickel laterite ores from Kokomo and to quantify the extent of remnant high grade Ni-Co laterite mineralisation which could also be treated on-site through the same proposed processing plant.

Between March and June 2010, Metallica completed a total of 276 holes (GVM 142 to GVM 417) at Greenvale comprising 9,042m of RC drilling. Two main areas of remnant Ni-Co laterite mineralisation were identified in areas referred to as The Edge and The Power Line (see Figure 4 & 5). The bulk of the remnant resources identified by Metallica at Greenvale are from these two areas. Better results from the The Edge and The Power Line include:

#### THE POWER LINE

|   |
|---|
| GVM-270, 14 m @ 1.32% Ni and 0.10% Co (1.52% NiEq*) |
| GVM-271, 9 m @ 1.65% Ni and 0.08% Co (1.81% NiEq*)  |
| GVM-301, 19 m @ 1.63% Ni and 0.06% Co (1.75% NiEq*) |
| GVM-307, 11 m @ 1.61% Ni and 0.09% Co (1.79% NiEq*) |
| GVM-312, 8 m @ 1.83% Ni and 0.22% Co (2.27% NiEq*)  |
| GVM-322, 16 m @ 1.82% Ni and 0.08% Co (1.98% NiEq*) |

#### THE EDGE

|   |
|---|
| GVM-181, 22 m @ 1.29% Ni and 0.07% Co (1.43% NiEq*) |
| GVM-199, 10 m @ 1.38% Ni and 0.07% Co (1.53% NiEq*) |
| GVM-204, 18 m @ 1.41% Ni and 0.14% Co (1.69% NiEq*) |
| GVM-205, 15 m @ 1.43% Ni and 0.15% Co (1.73% NiEq*) |
| GVM-208, 16 m @ 1.65% Ni and 0.08% Co (1.81% NiEq*) |

\* The NiEq value at Greenvale equates to Ni+2Co. This is based on a Nickel price of US\$9/lb and a Co price of US\$18/lb when the resource was estimated in August. Scandium (Sc) has not been used in the equivalency equation.

## Nickel-Cobalt and Scandium projects (Qld)



On completion of the drilling, a block model based on Ordinary Kriging was completed for Greenvale by Golder Associates and an initial resource estimate for Greenvale, based solely on the Straits and Metallica drilling was completed.

The Indicated and Inferred Greenvale Resource stands at **4.5Mt @ 1.12% Ni, 0.08% Co (1.28% NiEq)**, and contains a higher grade zone of **1.43Mt @ 1.39%Ni, 0.11% Co (1.61% NiEq)**, details of which are presented in Tables 2 and 3 below, Figure 4 depicts the locations of the holes drilled by Straits and Metallica.

**TABLE 2: GREENVALE Ni-Co RESOURCE (USING A 0.70% NiEq COG)**

| Classification | Mt  | Ni % | Co % | NiEq* % | Fe % | Sc g/t |
|----------------|-----|------|------|---------|------|--------|
| Indicated      | 3.2 | 1.16 | 0.08 | 1.31    | 22   | 35     |
| Inferred       | 1.3 | 1.03 | 0.09 | 1.21    | 23   | 39     |
| Total          | 4.5 | 1.12 | 0.08 | 1.28    | 23   | 36     |

The above resource conforms to JORC guidelines for the

\* The NiEq value at Greenvale equates to Ni+2Co. This is based on a Nickel price of US\$9/lb and a Co price of US\$18/lb when the resource was estimated in August 2010. Scandium (Sc) has not been used in the equivalency equation.

reporting of mineral resources. The resources have been classed as either Indicated or Inferred based on geological continuity, sample intervals and drill hole spacing. Parts of the resource may be classed as Measured once additional bulk density data has been obtained. The Indicated resource is sufficient for preliminary pit design and scheduling. The Mineral resource estimate is appropriate for a selective open pit mining scenario, but does not account for mining dilution or mining losses.

**TABLE 3: GREENVALE Ni-Co RESOURCE (USING A 1.40% NiEq COG)**

| Classification | Mt   | Ni % | Co % | NiEq* % | Fe % | Sc g/t |
|----------------|------|------|------|---------|------|--------|
| Indicated      | 1.10 | 1.42 | 0.11 | 1.63    | 22   | 33     |
| Inferred       | 0.33 | 1.23 | 0.15 | 1.52    | 24   | 40     |
| Total          | 1.43 | 1.39 | 0.11 | 1.61    | 22   | 34     |

Not all of the areas tested by the drilling to date are included in the resource estimate. Additional drilling commenced in late 2010 to further define these areas to include them in a future resource upgrade.

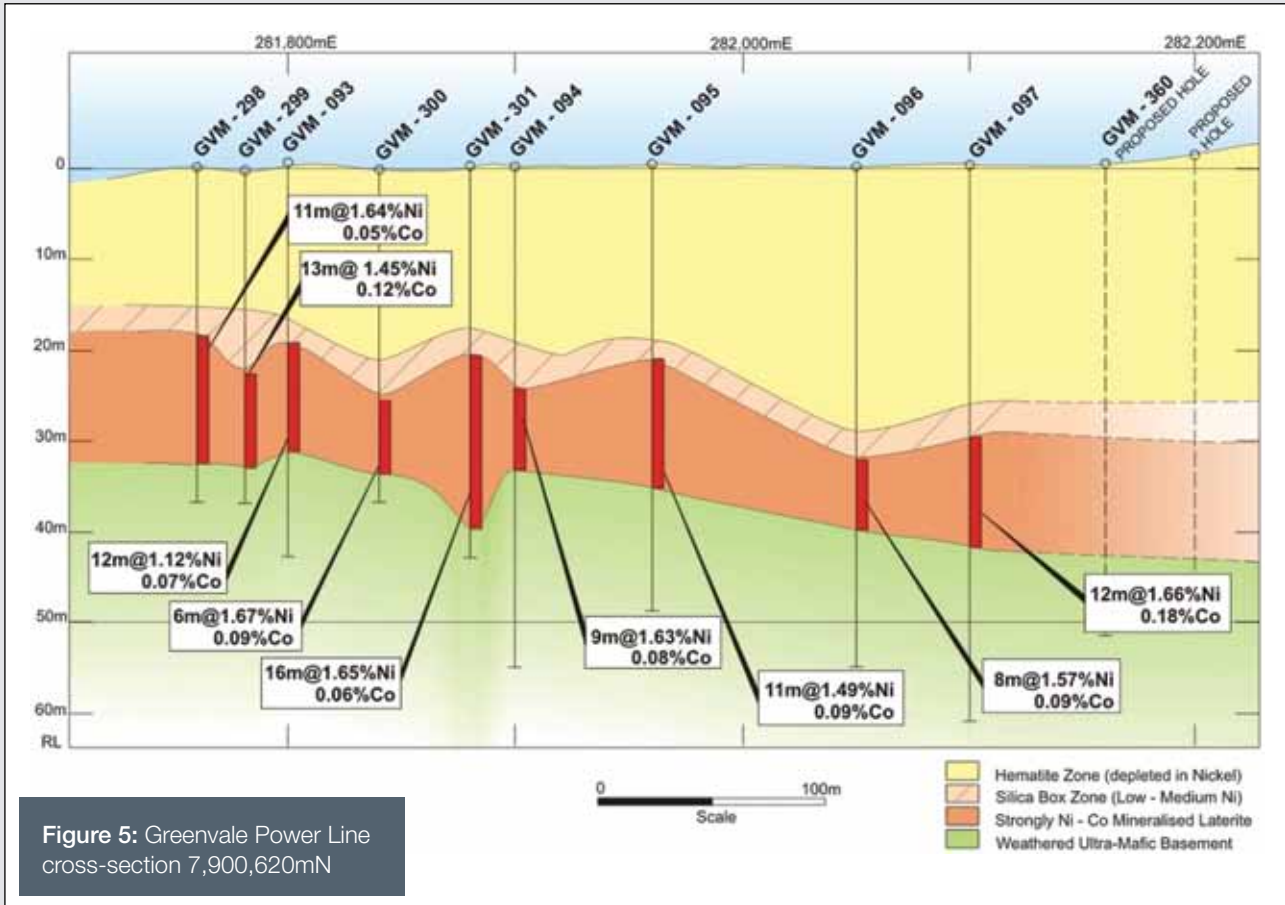


Figure 5: Greenvale Power Line cross-section 7,900,620mN

The Greenvale Resource was estimated using data from 417 Reverse Circulation (RC) holes. Holes GVM 142 to GVM 417 were drilled by Metallica between March 2010 to June 2010 (comprising approximately 9,000 m) and holes GVM 001 to GVM 142 were drilled by Straits Resources Ltd between May 2007 and August 2008 (comprising approximately 6,000 m of drilling).

### LUCKNOW NI-CO AND SC PROJECT

The Lucknow Ni-Co and Sc laterite deposit is located approximately 2 km southwest of the Greenvale township and approximately 8 km southeast of the Greenvale Nickel Mine Site in North Queensland (see Figure 6). The Lucknow Ni-Co-Sc deposit is covered by two EPMS (EPM 10680 and EPM 10866) which are held by Greenvale Operations Pty Ltd, a wholly-owned subsidiary of Metallica. The Company completed the purchase of these tenements from Straits Resources Ltd and Resource Mining Company in April 2010.

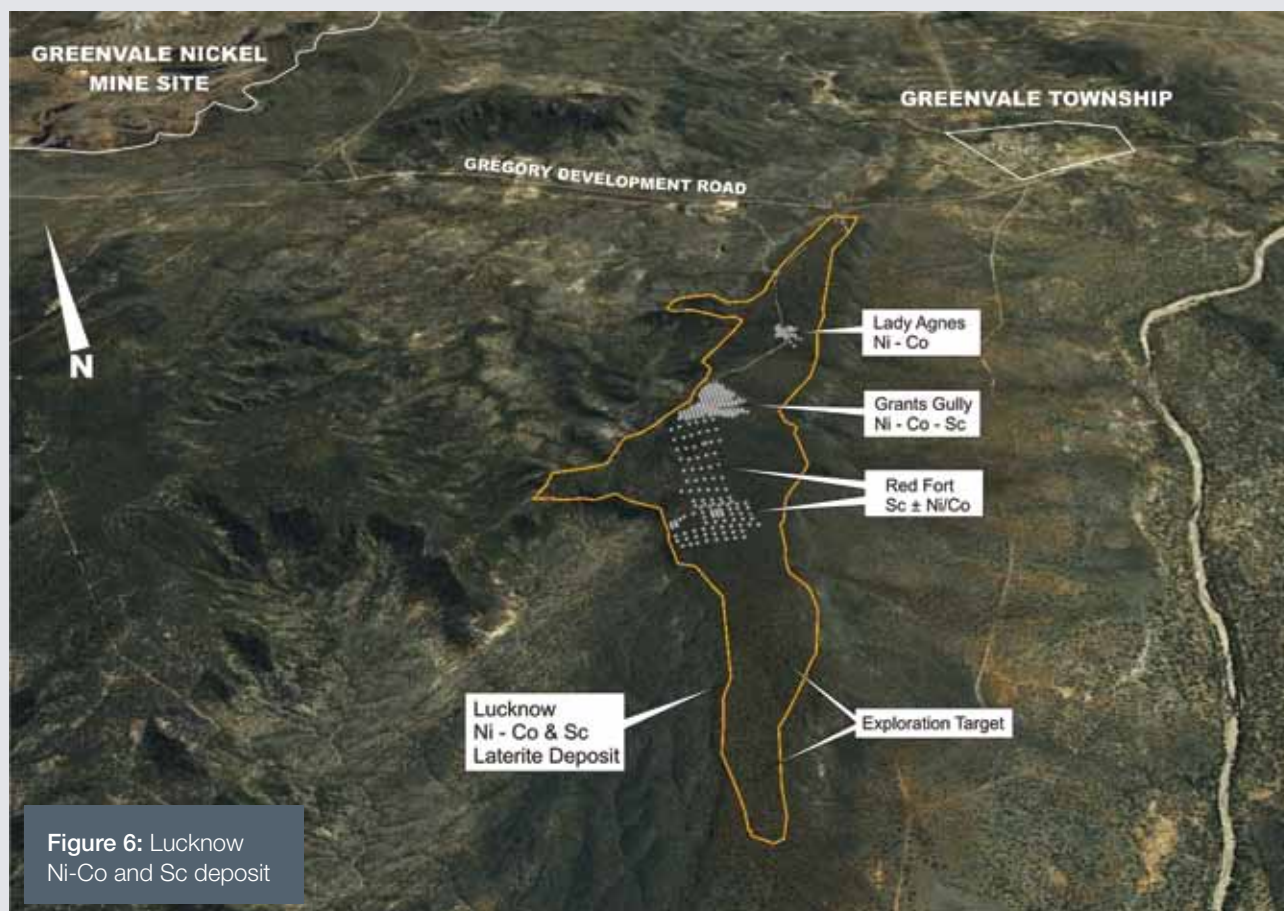
In April 2010, Metallica completed an initial drilling campaign at Lucknow (Phase 1) to define and better delineate high

grade zones of Ni-Co mineralisation intersected by previous explorers. The Phase 1 drilling at Lucknow comprised 156 holes (LKRC-013 to LKRC-168) for a total of 3,520 m (see Figure 6).

In addition to intersecting and defining significant and high grade Ni-Co mineralisation at two areas on Lucknow (Grants Gully and Lady Agnes), the Phase 1 drilling program discovered high grade scandium (Sc) mineralisation on the Lucknow plateau. Bonanza hole LKRC-099, recorded 27 m at 882 g/t Sc from surface. Scandium is generally associated with Ni-Co mineralisation at Grants Gully (see Figure 7), with broad zones of strong scandium mineralisation also found at an area of low Ni-Co mineralisation, referred to as Red Fort.

A second phase of drilling (Phase 2) which was designed to follow up the high grade nickel-cobalt and scandium mineralisation identified at Grants Gully, Lady Agnes and Red Fort was completed in July 2010. The Phase 2 program comprised 142 holes (LKRC-169 to LKRC-310) for a total of 3,516m. Figure 6 shows the drill hole locations for the phase 1 and 2 drilling, and Figures 7 shows a cross section through the Grants Gully Ni-Co deposits and Figure 8 & 9 shows cross sections at Red Fort.

## Nickel-Cobalt and Scandium projects (Qld)



**Figure 6:** Lucknow Ni-Co and Sc deposit

Better intercepts from the Phase 1 and 2 drilling include:

### LADY AGNES

|  |
|--|
| LKRC-156, 24m @ 0.94% Ni and 0.43% Co (1.80% Ni Eq*) |
| LKRC-157, 17m @ 0.82% Ni and 0.28% Co (1.38% Ni Eq*) |
| LKRC-171, 4m @ 1.03% Ni and 0.41% Co (1.85% Ni Eq*)  |
| LKRC-173, 9m @ 0.73% Ni and 0.30% Co (1.33% Ni Eq*)  |
| LKRC-178, 10m @ 1.04% Ni and 0.32% Co (1.68% Ni Eq*) |

### GRANTS GULLY

|  |
|--|
| LKRC-093, 25m @ 1.06% Ni, 0.18% Co (1.42% Ni Eq) & 120g/t Sc   |
| LKRC-101, 5m @ 1.43% Ni, 0.54% Co (2.51% Ni Eq) & 291g/t Sc    |
| LKRC-102, 5m @ 0.84% Ni, 0.52% Co (1.88% Ni Eq) & 38 g/t Sc    |
| LKRC-192, 6m @ 1.25% Ni, 0.24% Co and 69 g/t Sc (1.73% Ni Eq)  |
| LKRC-200, 9m @ 0.86% Ni, 0.75% Co and 344 g/t Sc (2.36% Ni Eq) |

LKRC-209, 5m @ 0.85% Ni, 0.71% Co and 66 g/t Sc (2.27% Ni Eq)

LKRC-221, 8m @ 1.14% Ni, 0.53% Co and 99 g/t Sc (2.20% Ni Eq)

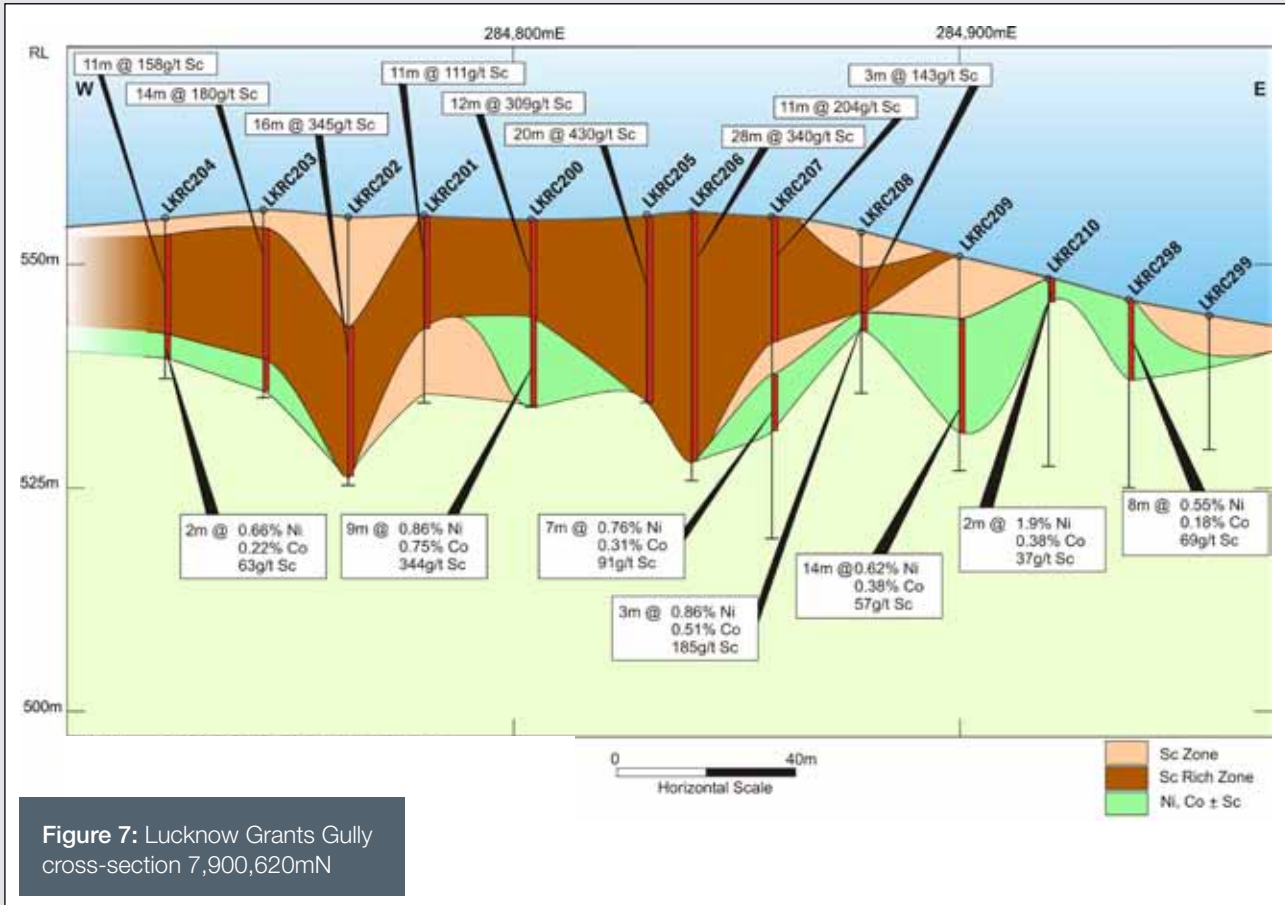
LKRC-227, 6m @ 0.69% Ni, 0.49% Co and 138 g/t Sc (1.67% Ni Eq)

### LUCKNOW SCANDIUM (SC) DRILLING RESULTS

Lucknow Phase 1 and 2 drilling programs confirmed the presence of a wide thick zone of continuous scandium mineralisation between Red Fort and Grants Gully (see Figure 7, 8, 9). High grade scandium mineralisation was intersected in a number of holes at Grants Gully, typically associated with high grade nickel-cobalt mineralisation, usually occurring at the base of the scandium mineralisation in the laterite profile. High grade scandium mineralisation was also identified in many holes drilled around the Red Fort area, which has dimensions of approximately 800 m by 200 m with an average drill intercept (thickness) of between 15–20 m, see Figure 9 & 10. The scandium mineralisation at Red Fort is still open to the south.

\* The NiEq value at Greenvale equates to Ni+2Co. This is based on a Nickel price of US\$9/lb and a Co price of US\$18/lb when the resource was estimated in August 2010. Scandium (Sc) has not been used in the equivalency equation.





Better Sc drill hole intercepts include:

**GRANTS GULLY**

- LKRC-099, 27 m @ 882 g/t Sc from 0 m
- LKRC-296, 21 m @ 242 g/t Sc from 0 m
- LKRC-200, 12 m @ 304 g/t Sc from 0 m
- LKRC-202, 16 m @ 345 g/t Sc from 14 m
- LKRC-205, 21 m @ 430 g/t Sc from 0 m
- LKRC-206, 28 m @ 340 g/t Sc from 0 m

**BETWEEN GRANTS GULLY AND RED FORT**

- LKRC-216, 17 m @ 324g/t Sc from 0 m
- LKRC-217, 23 m @ 401g/t Sc from 0 m
- LKRC-247, 16 m @ 226g/t Sc from 2 m

**RED FORT**

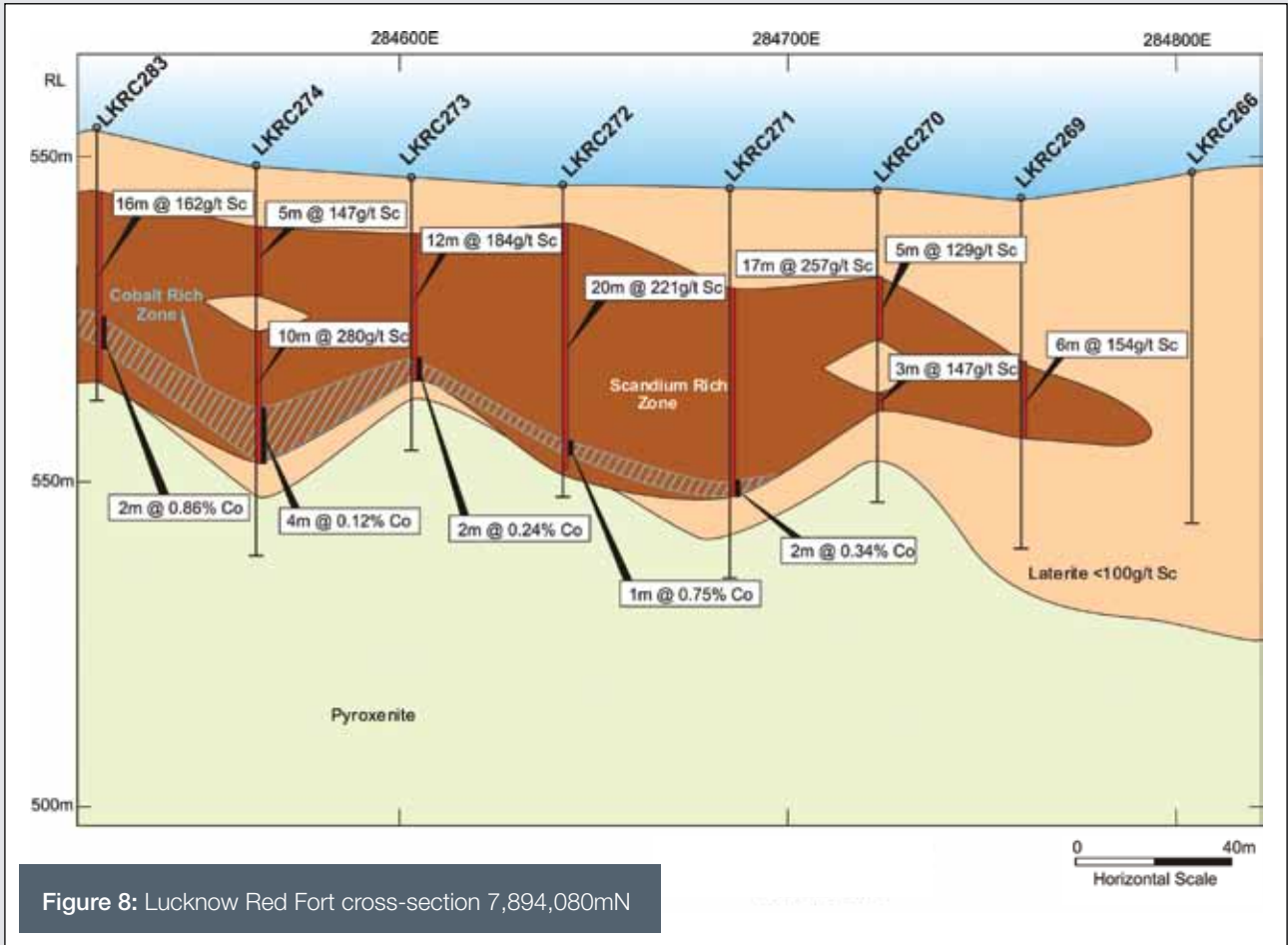
- LKRC-014, 27 m @ 309g/t Sc from 0 m
- LKRC-151, 23 m @ 310g/t Sc from 0 m

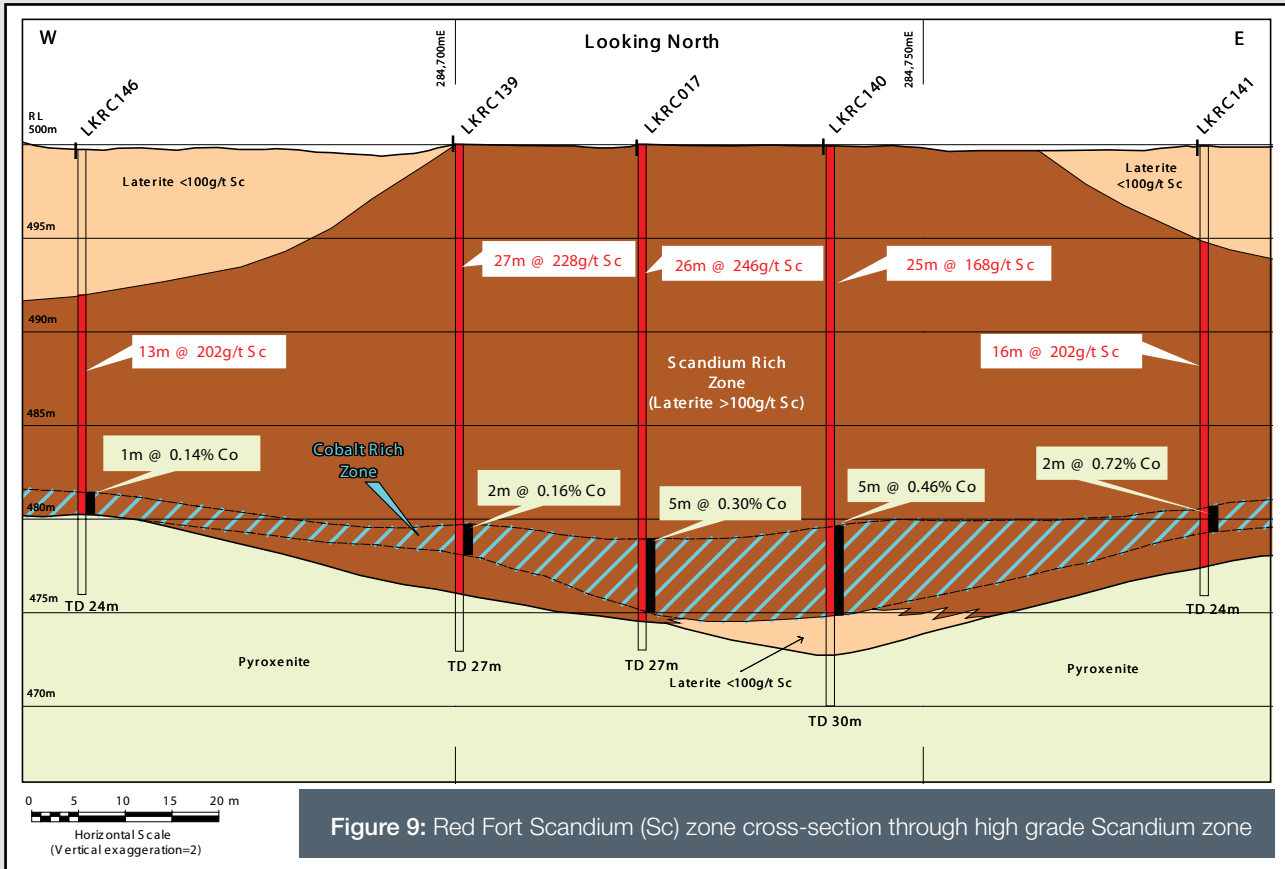
- LKRC-154, 14 m @ 326g/t Sc from 4 m
- LKRC-254, 8 m @ 432g/t Sc from 7 m
- LKRC-260, 10 m @ 223g/t Sc from 4 m

Separate resources for the Ni-Co mineralisation and the scandium mineralisation at Lucknow have been estimated as the scandium is subject to a Joint Venture (JV) between Metallica (80%) and Straits Resources (20%). Under the terms of the JV all the scandium ore is to be mined or stockpiled separately and kept for later processing by the JV. Laterite resources are classified as either Ni-Co ore or Sc ore under formulae defined by the terms of the JV agreement. As a result of the JV agreement, the total Lucknow resource is separated into two parts; a nickel-cobalt resource and a scandium resource. However, metallurgically it is likely that both Sc ore and Ni-Co-Sc ore could be treated by the same process to simultaneously recover all three metals.

The Lucknow Ni-Co and Sc resources were estimated by using data from 298 RC drill holes comprising 7,036 m of drilling. The resources have been drilled out on either a 20 m (N-S) by 20 m (E-W) grid or a nominal 40 m (North-South) by 40 m (East-West) grid which is sufficient to classify the resource

# Nickel-Cobalt and Scandium projects (Qld)





as indicated. Where the drilling has been completed on a 80 m (North-South) by a 40 m (East-West) grid the resource has been classed as Inferred. It is likely that once Metallica has additional bulk density data, the majority of the Indicated Resource will be upgraded to the Measured category.

**THE LUCKNOW SCANDIUM RESOURCE**

The combined Indicated and Inferred resource for the Lucknow Sc laterite deposits stands at 6.10Mt @ 169g/t Sc, at a 70g/t cut-off grade (COG), including a high grade zone of 4.1Mt @ 205g/t Sc, using a 120g/t Sc COG. A breakdown of the scandium resource categories for Lucknow is included in Table 4 and a cross section through Red Fort depicting the ore blocks is presented as Figure 8 & 9.

**TABLE 4: LUCKNOW Sc RESOURCE (70 g/t SC COG)**

| Classification | Mt  | Sc (g/t) | Ni (%) | Co (%) | Fe (%) | Mg (%) |
|----------------|-----|----------|--------|--------|--------|--------|
| Indicated      | 3.3 | 176      | 0.20   | 0.05   | 34.0   | 1.1    |
| Inferred       | 2.8 | 161      | 0.20   | 0.04   | 35.0   | 0.8    |
| Total          | 6.1 | 169      | 0.20   | 0.04   | 35     | 1.0    |

**TABLE 5: LUCKNOW HIGH GRADE Sc RESOURCE (120 g/t SC COG)**

| Project           | Mt   | Sc g/t | Ni (%) | Co (%) | NiEq (%) | Fe (%) |
|-------------------|------|--------|--------|--------|----------|--------|
| Lucknow Scandium  | 4.1  | 205    | 0.22   | 0.05   | 0.32     | 35     |
| Inc: (Low Fe)     | 0.98 | 204    | 0.35   | 0.13   | 0.61     | 18     |
| Sc Resource Total | 4.1  | 205    | 0.22   | 0.05   | 0.32     | 35     |

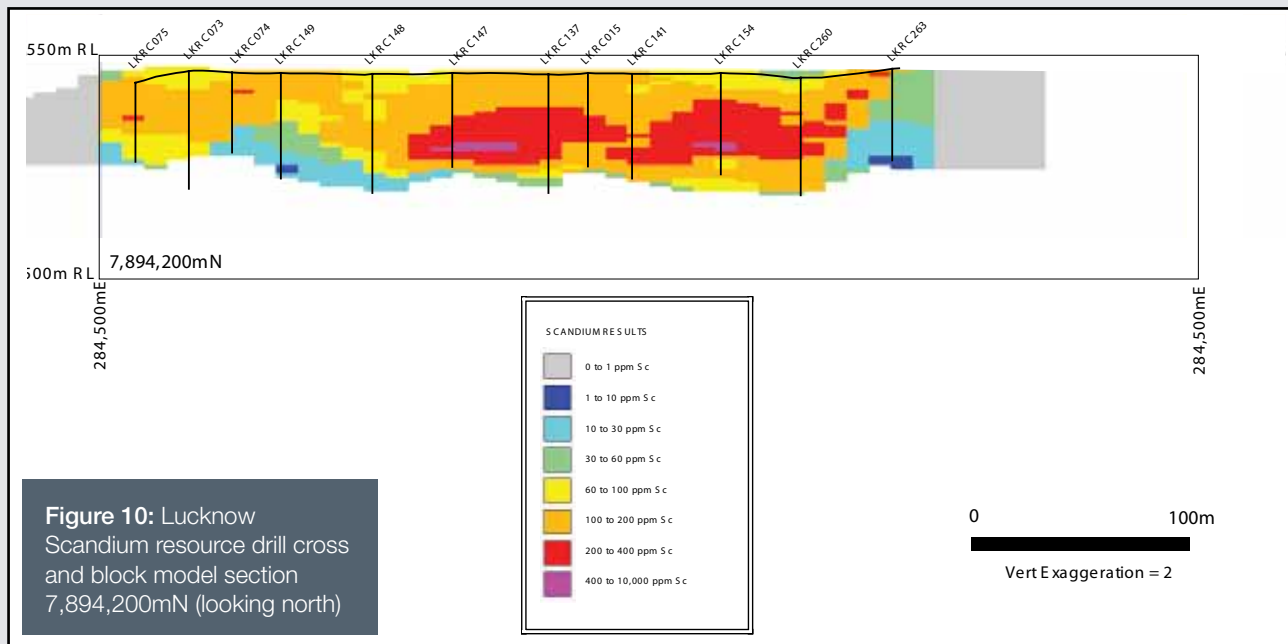
(120g/t Sc COG)

Indicated Resource 2.3Mt @ 210 g/t Sc

Inferred Resource 1.8Mt @ 190 g/t Sc

The discovery earlier this year at NORNICCO of the Lucknow Scandium deposit, containing an Indicated and Inferred resource of 4.1 Mt at 205 g/t Sc (80% MLM/20% SRL) close to Greenvale, significantly underpinned NORNICCO's development options. The Lucknow mineralisation has emerged as larger and higher grade than the existing Kokomo scandium resource to its north, and it is not unreasonable to expect that the NORNICCO Stage 1 plant could ultimately, within the decade, convert from a Ni-Co-Sc ore facility to a predominantly Sc ore operation and be a major long term world supplier of scandium oxide.

## Nickel-Cobalt and Scandium projects (Qld)



### ABOUT SCANDIUM (Sc)

Scandium (element 21 – next to zirconium, yttrium and titanium) is a Rare Earth Element (REE) which has the potential to significantly enhance and possibly revolutionise the “Green Economy”. It is currently used in fuel cells, high strength low weight aluminium alloys (AlSc), high intensity lamps and structural ceramics (PSZ). The lack of readily available and reliable long term scandium supply in the market has limited its commercial applications to date.



Scandium is generally marketed as scandium oxide (e.g. 99.9% purity) which sells for more than US\$1,400 per kilogram (kg) in recent times.

Scandium bearing aluminium alloys (ScAl) are increasingly being used in a number of industries including aerospace, automotive, sporting equipment and mobile consumer electronics. When 0.3% by weight scandium is alloyed with aluminium, it produces one of the lightest, strongest alloys in the world – one with significantly improved durability, plasticity, weldability and corrosion resistance. Scandium stabilised zirconia (ScSZ) is a critical component of high efficiency Solid Oxide Fuel Cells (SOFCs). Partially stabilized ScSZ has the potential to replace high strength alloys in mechanical and aerospace applications.

Scandium has similar properties to other important and commonly used elements, such as titanium, zircon and the rare earth, yttrium. All three are currently used in a broad range of commercial applications and Scandium has similar characteristics that, in combination, make it an extremely desirable element. However, with limited reliable supplies available, it has been difficult to establish a strong market base beyond its current uses – hence an opportunity for Metallica.

*For more detailed information on Scandium, see Metallica ASX Release dated 10 May 2010.*

## THE LUCKNOW NI-CO AND SC RESOURCE

The combined Indicated and Inferred resource for the Lucknow Ni-Co laterite deposit based on the drilling to date is 2.4Mt @ 0.57% Ni, 0.20% Co (0.97% NiEq) and 96 g/t Sc, at a 0.7% NiEq cut-off grade (COG), including a higher grade indicated resource of 0.57Mt @ 0.70% Ni, 0.30% Co (1.30% NiEq) and 107 g/t Sc, using a 1.1% NiEq COG. A breakdown of the resource categories for Lucknow is included in Table 6.

**TABLE 6: LUCKNOW Ni-Co RESOURCE (USING A 0.70% NiEq\* COG)**

| Classification | Mt  | Ni % | Co % | NiEq* % | Fe % | Sc g/t |
|----------------|-----|------|------|---------|------|--------|
| Indicated      | 1.7 | 0.59 | 0.20 | 0.99    | 24   | 85     |
| Inferred       | 0.7 | 0.54 | 0.20 | 0.93    | 23   | 116    |
| Total          | 2.4 | 0.57 | 0.20 | 0.97    | 24   | 96     |

The above resource conforms to JORC guidelines for the reporting of mineral resources. The resources have been classed as either Indicated or Inferred based on geological continuity, sample intervals and drill hole spacing. Parts of the resource could be classed as Measured once additional bulk density data has been obtained. The Indicated resource is sufficient for initial pit design and scheduling.

## KOKOMO NICKEL-COBALT AND SCANDIUM LATERITE DEPOSIT

The Kokomo Ni-Co and Sc laterite deposit, formed on a NE-SW trending ultramafic unit which crops out for a strike length of 16 km, can be up to 800 m wide. The ultramafic unit is bounded by two faults, referred to as the Eastern and Western Boundary Faults.

Metallica has drill tested approximately 7 km of the central portion of the ultra-mafics strike length, with the drilling more concentrated in the central part of the Kokomo ultramafic (The Central Plateau Area) where the laterite development is most pronounced and where it is at its widest (see Figure 11).

### DRILLING

In the 2009/2010 Financial Year, Metallica completed 449 RC holes (KK-607 to KK-1054), totaling 10,757 m of drilling at Kokomo (see Table 1). In addition to this 4 PQ diamond holes (KKDDH-009 – KKDDH-012) totaling 112 m were drilled to provide samples for metallurgical testwork, more detailed geological information and bulk density data.

Infill drilling to 20 m by 20 m centres was completed over two areas of high Ni-Co mineralisation (referred to as Blueberry and Mona) and one zone of high scandium mineralisation (referred to as Wild Honey) (see Figure 11).

## KOKOMO NICKEL-COBALT RESOURCE ESTIMATE

This drilling resulted in a 36% increase in the overall resource from 12.2Mt @ 0.67% Ni and 0.12% Co (using a 0.70% Ni Eq\*\* cutoff grade) to 16.3Mt @ 0.67% Ni and 0.12% Co. In addition to this the Indicated and Measured proportion of the resource increased by 7.8Mt to 13Mt (see Table 7).

Golder Associates completed an updated resource estimate on the Kokomo nickel-cobalt laterite project in January 2010. The Kokomo Mineral Resource estimate identified a Measured, Indicated and Inferred Resource of 16.3 Mt @ 0.67% Ni and 0.12% Co, (using a 0.70% Ni Eq cutoff grade). Of this total 1.3Mt @ 0.81% Ni and 0.17% Co was classified as Measured with 11.7 Mt @ 0.66% Ni and 0.12% Co classed as Indicated, Table 7. The drill hole and prospect locations for the Kokomo Ni-Co & Sc project are presented pictorially on Figure 11.

**TABLE 7: KOKOMO Ni-Co RESOURCE AT A 0.70% NiEq\*\* CUT-OFF (DEC 09)**

| Resource Classification | Mt   | Ni % | Co % | Fe % | Mg % | Sc ppm |
|-------------------------|------|------|------|------|------|--------|
| Measured                | 1.3  | 0.81 | 0.17 | 20.4 | 4.6  | 59     |
| Indicated               | 11.7 | 0.66 | 0.12 | 21.9 | 3.2  | 34     |
| Inferred                | 3.2  | 0.63 | 0.10 | 19.1 | 3.0  | 30     |
| Total                   | 16.3 | 0.67 | 0.12 | 21.2 | 3.3  | 36     |

An area of higher grade Ni-Co mineralisation and the area of high scandium mineralisation which were identified and are referred to as Mona (see Table 8 & Figure 12) and Wild Honey respectively have been drilled out to predominately Measured status. The resources for these two areas are included as Tables 8 and 10 and cross sections through these deposits are presented as Figures 12 and 13.

**TABLE 8: KOKOMO MONA DEPOSIT M+IND+INF Ni-Co RESOURCE USING A 0.70% NiEq COG**

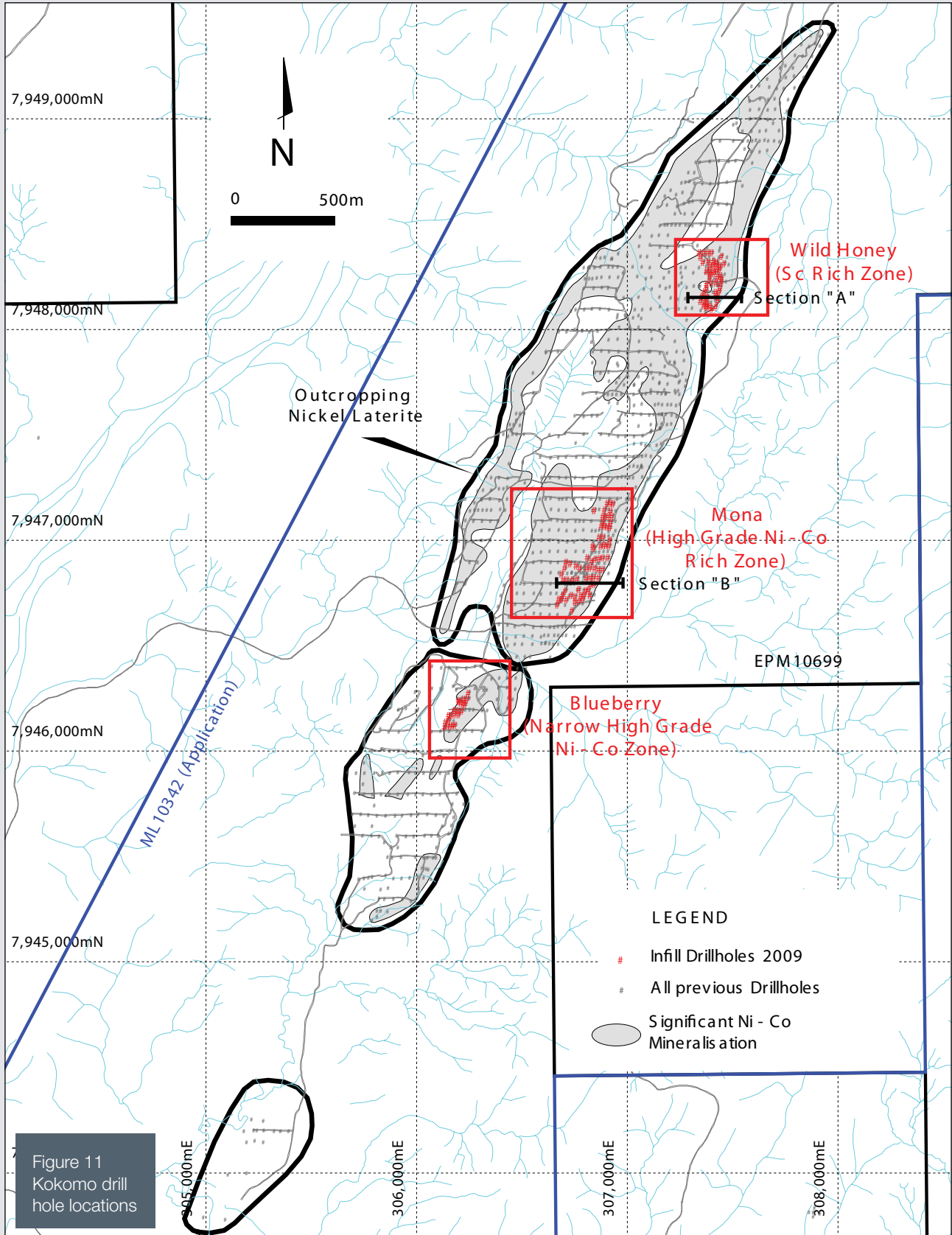
| Class     | Kt    | Ni (%) | Co (%) | NiEq (%) | Sc (g/t) |
|-----------|-------|--------|--------|----------|----------|
| Measured  | 905   | 0.88   | 0.183  | 1.43     | 50       |
| Indicated | 101   | 0.73   | 0.112  | 1.07     | 34       |
| Inferred  | 21    | 0.78   | 0.141  | 1.20     | 15       |
| Total     | 1,027 | 0.86   | 0.175  | 1.39     | 48       |

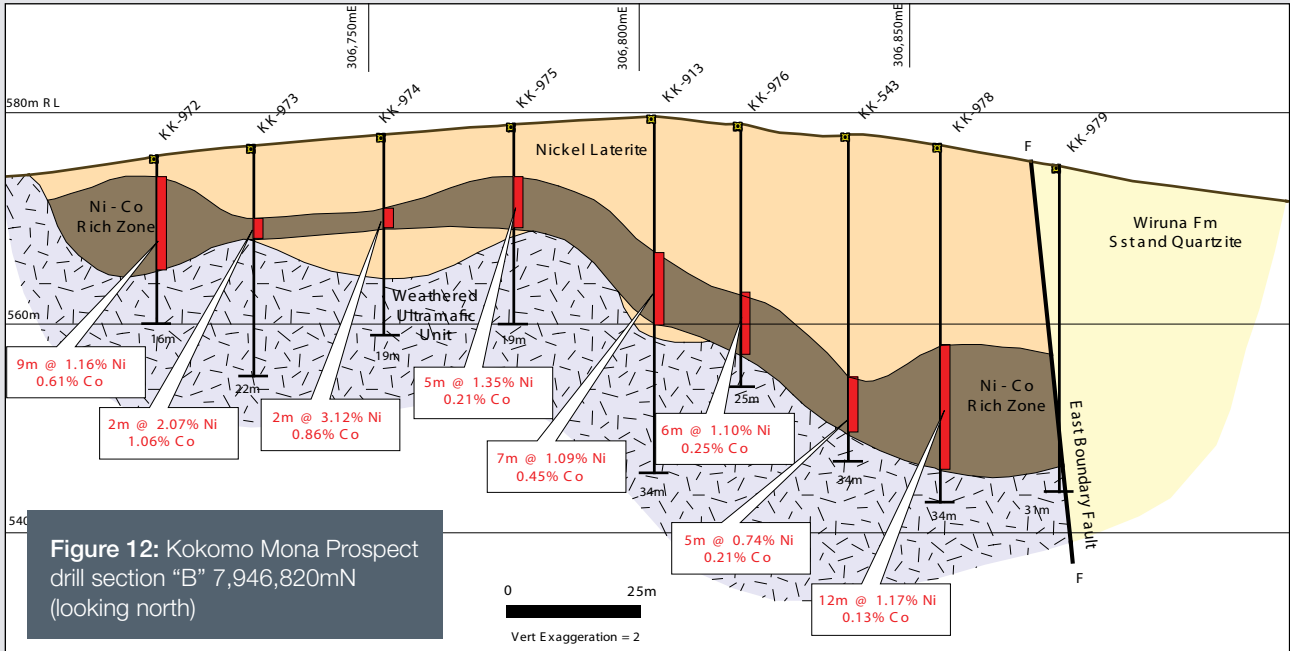
## KOKOMO SCANDIUM RESOURCE

The Kokomo scandium resource amounts to 9.0 Mt at 109 g/t Sc containing approximately 980 tonnes of Sc metal or 1,500 tonnes of scandium oxide (see Table 9). Within this resource there is a discrete higher grade portion at Wild Honey containing 475,000 tonnes at 192 g/t Sc, see drill cross section in Figure 13 & Table 10.

\*\* For the Kokomo resource a Ni equivalent (NiEq) value was obtained by using 1Ni+3Co and is based on a nickel price of around US\$7/lb and a cobalt price of US\$21/lb when an initial resource for Kokomo was estimated in January 2009. Scandium is not included in the equivalency equation.

# Nickel-Cobalt and Scandium projects (Qld)





The Scandium resource presented in Table 9 has been estimated using a 70g/t Sc cut off grade.

**TABLE 9: KOKOMO SCANDIUM RESOURCE (USING A 70g/t Sc COG)**

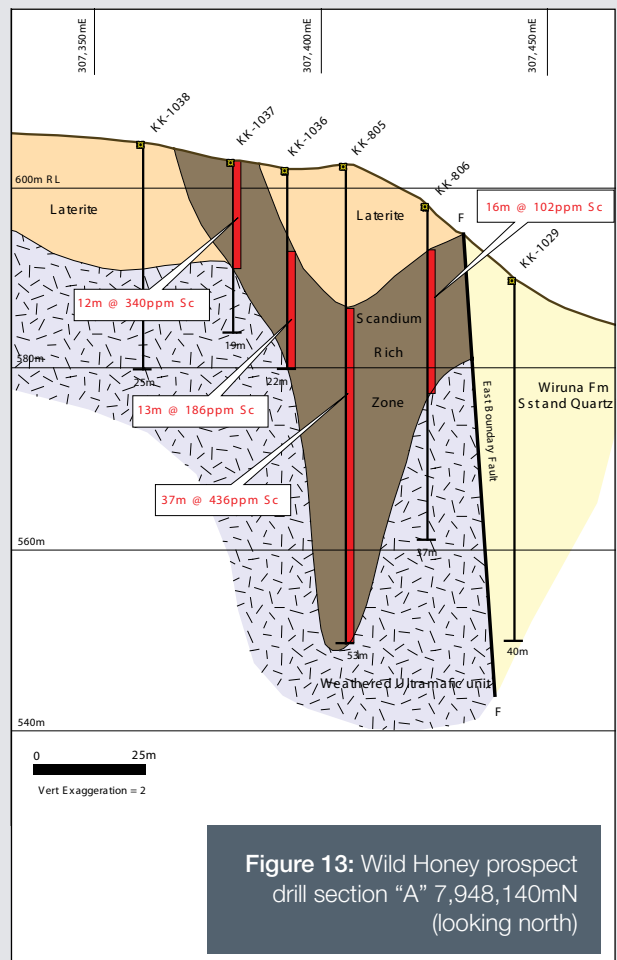
| Classification | Mt         | Sc g/t     | Ni %        | Co %        | Fe %        | Mg %       |
|----------------|------------|------------|-------------|-------------|-------------|------------|
| Measured       | 0.7        | 154        | 0.22        | 0.03        | 36.0        | 0.6        |
| Indicated      | 3.8        | 121        | 0.32        | 0.05        | 29.0        | 2.1        |
| Inferred       | 4.4        | 91         | 0.18        | 0.02        | 13.0        | 6.0        |
| <b>Total</b>   | <b>9.0</b> | <b>109</b> | <b>0.24</b> | <b>0.03</b> | <b>22.0</b> | <b>4.0</b> |

**TABLE 10: KOKOMO WILD HONEY SCANDIUM RESOURCE (USING A 70g/t Sc COG)**

| Class        | Kt         | Sc (g/t)     | Ni (%)      | Co (%)       | NiEq (%)    |
|--------------|------------|--------------|-------------|--------------|-------------|
| Measured     | 372        | 200.9        | 0.24        | 0.041        | 0.37        |
| Indicated    | 20         | 239.4        | 0.33        | 0.062        | 0.52        |
| Inferred     | 83         | 140.0        | 0.18        | 0.035        | 0.29        |
| <b>Total</b> | <b>475</b> | <b>191.9</b> | <b>0.24</b> | <b>0.033</b> | <b>0.35</b> |

A Mining Lease application, (MLA 10342) has been lodged over the Kokomo Ni-Co and Sc deposit. Both a dry and wet season environmental study over the Kokomo laterite has been completed and metallurgical testwork on material from the Kokomo deposit is ongoing at HRL Testing in Brisbane.

Metallica Minerals Ltd's Lucknow and Kokomo tenements contain a combined Sc block modeled (and kriged) resource



## Nickel-Cobalt and Scandium projects (Qld)

total of 15.1 million tonnes at 133 g/t Sc, using a 70 g/t Sc Cut Off Grade (COG); this includes a high grade zone, Red Fort, at Lucknow that measures 4 million tonnes at 205 g/t Sc, using a 120 g/t COG. This amounts to approximately 2,000 tonnes of contained scandium Sc metal, or potentially in the vicinity of 3,000 tonnes of scandium oxide (Sc<sub>2</sub>O<sub>3</sub>) product (see Table 11).

### THE NORNICO NI-CO RESOURCE

In the 2009/2010 financial year, the NORNICO Ni-Co resources increased, however the quoted tonnage for the NORNICO Resource has decreased from 50.8Mt @ 0.72% Ni and 0.06% Co, containing approximately 363,000t of nickel and 29,000t of cobalt metal, (2008 – 2009) to 45.5Mt @ 0.81% Ni and 0.09% Co, containing approximately 366,000t of nickel and 39,000t of cobalt (see Table 12 & 13).

The primary reason for this is that due to lower nickel and cobalt prices and potential increases in operating costs, the Cut off Grade (COG) for the resources has been increased from 0.45% Ni to a 0.70% NIEQ COG. This has had the effect of reducing the overall tonnages of the NORNICO deposits while increasing the overall average grade. Actual tonnes of contained nickel and cobalt metals increased slightly with the new COG. Tables showing the break down of the resources for each deposit and the resource categories are presented in Tables 12 and 13.

### NORNICO REGIONAL EXPLORATION

Regional exploration work on Metallica's NORNICO tenements included shallow RC drilling at the Black Dingo gold prospect, the Towers and Trigg gold and base metal projects within the Six Mile tenement. Induced Polarisation surveys, with follow up RC drilling at the Rudd Creek copper-gold skarn prospect and the Trigg base metal prospect were also completed.

**TABLE 11: COMBINED KOKOMO AND LUCKNOW SCANDIUM RESOURCE (USING A 70g/t SC COG)**

| Classification | Mt          | Sc g/t     | Sc(t)        | Ni %        | Co %        |
|----------------|-------------|------------|--------------|-------------|-------------|
| Lucknow        |             |            |              |             |             |
| Indicated      | 3.3         | 176        | 581          | 0.20        | 0.05        |
| Inferred       | 2.8         | 161        | 451          | 0.20        | 0.04        |
| Kokomo         |             |            |              |             |             |
| Measured       | 0.7         | 154.0      | 108          | 0.22        | 0.035       |
| Indicated      | 3.8         | 120.8      | 459          | 0.32        | 0.046       |
| Inferred       | 4.4         | 91.0       | 400          | 0.18        | 0.022       |
| <b>TOTALS</b>  | <b>15.1</b> | <b>133</b> | <b>1,999</b> | <b>0.22</b> | <b>0.04</b> |

### NORNICO PROJECT DEVELOPMENT STUDIES

The NORNICO nickel-cobalt project is located between the townships of Mt Garnet and Greenvale in North Queensland.

The project comprises the Bell Creek nickel-cobalt laterite resource located 32 km south of Mt Garnet, the Minnamoolka nickel resource located 30 km south of Bell Creek, the cobalt-rich Kokomo nickel resource located 55 km north of Greenvale, the Greenvale nickel mine site and the Lucknow nickel-cobalt deposits near Greenvale (see Figure 3).

In May 2009, it was decided to investigate further possible project enhancements internally with Metallica's in-house process management team assisted by consultants. It was concluded that the preferred option going forward would be for a 1.0 mtpa project based on heated agitated Atmospheric Acid Leach (AAL) and solvent extraction/electrowinning (SX/EW) to produce LME Nickel Metal (~10,000 tpa) and Cobalt (~1,000 tpa) as cobalt sulphide with its own acid and power plant. An internal Scoping Study was initiated to confirm the process suitability and hopefully to enhance the financial position of the project.

**TABLE 12: NORNICO NI-CO RESOURCES BY PROJECT (COG 0.70% NIEQ)**

| Nickel Deposit      | Million Tonnes (Mt) | Ni (%)      | Co (%)      | Fe (%)       | Mg (%)      | Insitu Contained Ni metal | Insitu Contained Co metal |
|---------------------|---------------------|-------------|-------------|--------------|-------------|---------------------------|---------------------------|
| Bell Creek South    | 9.12                | 0.97        | 0.07        | 11.61        | 7.55        | 88,086                    | 6,040                     |
| Bell Creek North    | 2.30                | 0.83        | 0.03        | 8.60         | 7.70        | 19,090                    | 621                       |
| Bell Creek NW       | 3.07                | 0.77        | 0.05        | 15.70        | 5.20        | 23,639                    | 1,443                     |
| The Neck            | 0.84                | 0.84        | 0.03        | 8.80         | 6.50        | 7,056                     | 218                       |
| Minnamoolka         | 7.08                | 0.80        | 0.04        | 10.91        | 10.53       | 56,408                    | 2,872                     |
| Kokomo              | 16.20               | 0.67        | 0.12        | 21.23        | 3.27        | 107,910                   | 19,450                    |
| Greenvale Mine Site | 4.50                | 1.12        | 0.08        | 22.29        | 4.33        | 50,510                    | 3,730                     |
| Lucknow             | 2.40                | 0.58        | 0.20        | 23.71        | 2.09        | 13,810                    | 4,800                     |
| <b>TOTAL</b>        | <b>45.51</b>        | <b>0.81</b> | <b>0.09</b> | <b>16.69</b> | <b>5.71</b> | <b>366,509</b>            | <b>39,174</b>             |



## Nickel-Cobalt and Scandium projects (Qld)

**TABLE 13: NORNICCO NI-CO RESOURCE INVENTORY – MEASURED, INDICATED AND INFERRED**

| Nickel Deposit                    | Million tonnes (Mt) | Ni (%)      | Co (%)      | Fe (%)       | Mg (%)       | In situ contained Ni metal | In situ contained Co metal |
|-----------------------------------|---------------------|-------------|-------------|--------------|--------------|----------------------------|----------------------------|
| <b>Bell Creek South</b>           |                     |             |             |              |              |                            |                            |
| Measured                          | 8.85                | 0.97        | 0.07        | 11.70        | 7.50         | 85,845                     | 5,930                      |
| Indicated                         | 0.27                | 0.83        | 0.04        | 8.50         | 9.10         | 2,241                      | 111                        |
| Inferred                          |                     |             |             |              |              |                            |                            |
| <b>Totals</b>                     | <b>9.12</b>         | <b>0.97</b> | <b>0.07</b> | <b>11.61</b> | <b>7.55</b>  | <b>88,086</b>              | <b>6,040</b>               |
| <b>Bell Creek North</b>           |                     |             |             |              |              |                            |                            |
| Measured                          |                     |             |             |              |              |                            |                            |
| Indicated                         | 2.3                 | 0.83        | 0.03        | 8.60         | 7.70         | 19,090                     | 621                        |
| Inferred                          |                     |             |             |              |              |                            |                            |
| <b>Totals</b>                     | <b>2.3</b>          | <b>0.83</b> | <b>0.03</b> | <b>8.60</b>  | <b>7.70</b>  | <b>19,090</b>              | <b>621</b>                 |
| <b>Bell Creek Northwest</b>       |                     |             |             |              |              |                            |                            |
| Measured                          |                     |             |             |              |              |                            |                            |
| Indicated                         | 3.07                | 0.77        | 0.047       | 15.70        | 5.20         | 23,639                     | 1,443                      |
| Inferred                          |                     |             |             |              |              |                            |                            |
| <b>Totals</b>                     | <b>3.07</b>         | <b>0.77</b> | <b>0.05</b> | <b>15.70</b> | <b>5.20</b>  | <b>23,639</b>              | <b>1,443</b>               |
| <b>The Neck</b>                   |                     |             |             |              |              |                            |                            |
| Measured                          |                     |             |             |              |              |                            |                            |
| Indicated                         | 0.84                | 0.84        | 0.026       | 8.80         | 6.50         | 7,056                      | 218                        |
| Inferred                          |                     |             |             |              |              |                            |                            |
| <b>Totals</b>                     | <b>0.84</b>         | <b>0.84</b> | <b>0.03</b> | <b>8.80</b>  | <b>6.50</b>  | <b>7,056</b>               | <b>218</b>                 |
| <b>Minnamoolka</b>                |                     |             |             |              |              |                            |                            |
| Measured                          |                     |             |             |              |              |                            |                            |
| Indicated                         | 5.92                | 0.8         | 0.044       | 11.30        | 10.60        | 47,360                     | 2,605                      |
| Inferred                          | 1.16                | 0.78        | 0.023       | 8.90         | 10.20        | 9,048                      | 267                        |
| <b>Totals</b>                     | <b>7.08</b>         | <b>0.80</b> | <b>0.04</b> | <b>10.91</b> | <b>10.53</b> | <b>56,408</b>              | <b>2,872</b>               |
| <b>Kokomo</b>                     |                     |             |             |              |              |                            |                            |
| Measured                          | 1.3                 | 0.81        | 0.17        | 20.40        | 4.60         | 10,530                     | 2,210                      |
| Indicated                         | 11.7                | 0.66        | 0.12        | 21.90        | 3.20         | 77,220                     | 14,040                     |
| Inferred                          | 3.2                 | 0.63        | 0.1         | 19.10        | 3.00         | 20,160                     | 3,200                      |
| <b>Totals</b>                     | <b>16.2</b>         | <b>0.67</b> | <b>0.12</b> | <b>21.23</b> | <b>3.27</b>  | <b>107,910</b>             | <b>19,450</b>              |
| <b>Greenvale Mine Site</b>        |                     |             |             |              |              |                            |                            |
| Measured                          |                     |             |             |              |              |                            |                            |
| Indicated                         | 3.2                 | 1.16        | 0.08        | 22.00        | 4.30         | 37,120                     | 2,560                      |
| Inferred                          | 1.3                 | 1.03        | 0.09        | 23.00        | 4.40         | 13,390                     | 1,170                      |
| <b>Totals</b>                     | <b>4.5</b>          | <b>1.12</b> | <b>0.08</b> | <b>22.29</b> | <b>4.33</b>  | <b>50,510</b>              | <b>3,730</b>               |
| <b>Lucknow</b>                    |                     |             |             |              |              |                            |                            |
| Measured                          |                     |             |             |              |              |                            |                            |
| Indicated                         | 1.7                 | 0.59        | 0.2         | 24.00        | 2.09         | 10,030                     | 3,400                      |
| Inferred                          | 0.7                 | 0.54        | 0.2         | 23.00        | 2.09         | 3,780                      | 1,400                      |
| <b>Totals</b>                     | <b>2.4</b>          | <b>0.58</b> | <b>0.20</b> | <b>23.71</b> | <b>2.09</b>  | <b>13,810</b>              | <b>4,800</b>               |
| <b>Combined NORNICCO Resource</b> |                     |             |             |              |              |                            |                            |
| Measured                          | 10.15               | 0.95        | 0.08        | 12.81        | 7.13         | 96,375                     | 8,140                      |
| Indicated                         | 29.00               | 0.77        | 0.07        | 17.65        | 5.49         | 223,756                    | 24,998                     |
| Inferred                          | 6.36                | 0.73        | 0.07        | 18.47        | 4.50         | 46,378                     | 6,037                      |
| <b>TOTALS</b>                     | <b>45.51</b>        | <b>0.81</b> | <b>0.09</b> | <b>16.69</b> | <b>5.71</b>  | <b>366,509</b>             | <b>39,174</b>              |

**Notes:**

- Above categories all calculated using a 0.70% NiEq cut-off grade.
- Block models for the above resources estimates were constructed by filling wire frame surfaces representing nickel laterite mineralisation boundary with 10m by 10m by 1m blocks. Nickel (Ni) grades were estimated by ordinary kriging using various search radius, depending on the drill spacing of the deposit. A minimum of 4 and a maximum of 15 composites were used to estimate each block, with a maximum of 3 composites from any 1 drill hole. Therefore, at least 3 drill holes were used to estimate block grade values. At Bell Creek South, Minnamoolka and Kokomo a nominal 0.3% Ni mineralised envelope was used as a hard boundary for Ni and Co block grade estimation. Hard boundaries were also used between the laterite and basement zones.
- Variations due to rounding factors.
- Iron (Fe) and magnesium (Mg) are included to indicate the overall ore quality, as both metals influence acid consumption as well as dissolved Fe, Mg and other metals, which are contaminants to nickel loaded pregnant solution which is treated to produce a marketable nickel and cobalt intermediate product. As a rule, the lower the Fe and Mg in the laterite ore the better metallurgy and the ore is more suited to heap leach processing.

## Nickel-Cobalt and Scandium projects (Qld)



The Study was completed in November 2009 and the key project parameters were as follows:

- Total Capex was estimated at A\$620 million including contingencies and EPCM costs.
- Operating cost was US\$4.17/lb Nickel produced. After cobalt credits the OPEX was estimated to be US\$2.85/lb.

Based on the financial climate at the time, and given the \$620 million capital cost, Metallica decided not to further progress the study for the 1.0 mtpa NORNICO project located at Bell Creek.

Following the purchase of the Greenvale-Lucknow tenements the project team including external consultants commenced a scoping study on establishing a smaller processing operation (and much lower capital cost) at the Greenvale site as part of a two stage process.

### **NORNICO STAGE 1 NI-CO-SC PROJECT (SITED ON THE GREENVALE NICKEL MINESITE)**

The NORNICO Stage 1 Ni-Co and Sc Scoping Study (-10% +30% accuracy) is based on a modest size 180,000 tpa project located at the old Greenvale nickel minesite using heated agitated Atmospheric Acid Leaching (AAL) processing, with acid supply trucked from Townsville, solvent extraction (SX) and recovery of nickel, cobalt and scandium, to produce nickel sulphate plus cobalt sulphide and scandium oxide products.

Feed material will be selected and blended high grade Ni and Co (>1.6% Ni Eq) ores primarily sourced from several deposits within the Greenvale mine site (particularly the Powerline and The Edge) and blended with cobalt and

scandium rich nickel laterite ores trucked from the Lucknow deposit (8 km away) and when required in later years, from the Kokomo (55 km) Ni-Co-Sc deposit.

Annual production of contained metal is targeted at approximately 2,700t Ni, 160t Co and over 7,500 kg scandium.

The Scoping Study is being undertaken by the "in house" NORNICO project team and assisted with external consultants.

Acid supply for the project would be sourced from Townsville. Limestone could be supplied from Phoenix Lime (Ootann project) or its other limestone deposits close to NORNICO – such as Star River. Quicklime will most likely be sourced from Ootann.

The former Greenvale minesite is an excellent location to establish a Ni-Co and Sc ore processing facility as it is within a previously disturbed (and rehabilitated) large mining area, has remnant zones of high grade nickel, is close to the Greenvale township, has sealed access roads, and existing infrastructure, water and limestone supplies.

The scoping study was completed in July–August 2010 and the following summarises the financial model highlights:

- Total Capex was estimated at A\$132 million including contingencies and EPCM costs.
- Total Operating cost was US\$6.20/lb Nickel produced and with Cobalt credits the OPEX was US\$5.10/lb. With Scandium credits this reduced to less than US\$3.00/lb using conservative Scandium oxide prices and assuming offtake agreements in place.
- Forecast net cash flow of A\$45 million per annum.
- NPV of A\$75 million with an IRR of 23%, using a 10% discount rate and a project life of 10 years.

The study is currently being revised to allow for higher bearing iron scandium ores to maximise revenue and ability to maximise future scandium production.

For more detailed information see Metallica ASX Release dated 20 September 2010.

### **METALLURGICAL TESTWORK**

During the past financial year, there has been a considerable amount of laboratory testwork undertaken to provide sufficient design information for the larger 1.0 mtpa Ni-Co Bell Creek project based on agitated atmospheric acid leach (AAL). However as Metallica Minerals' focus moved from the Bell Creek area to the newly acquired Greenvale tenements, so did the focus on the metallurgical testwork. The more recent metallurgical testwork was conducted to support the NORNICO stage 1 Ni-Co and Sc internal scoping study.

All metallurgical testwork was conducted at HRL Testing Pty Ltd's facilities in Brisbane.

A summary of metallurgical testwork conducted included:

- Bench scale agitated atmospheric acid leach (AAL) tests on the Kokomo high scandium ore
- Larger scale agitated atmospheric acid leach (AAL) tests on the Kokomo high scandium ore
- Precipitation testwork on high scandium pregnant liquor solution (PLS)
- Solvent extraction testwork on a PLS from the high scandium ore from Kokomo
- Beneficiation testwork on an ore sample from the Greenvale deposits
- Bench scale agitated atmospheric acid leach tests on the Greenvale ore

The leaching testwork has confirmed that the good extractions of Nickel, Cobalt and scandium can be achieved with moderate to high acid consumption.

Beneficiation of the Greenvale ore types has improved the Nickel/Cobalt/Scandium feed grades with minimum metal losses.

A successful solvent extraction process has been developed for the extraction and recovery of Scandium producing a high purity scandium oxide product.

### COMPETENT PERSONS STATEMENT

Technical information and exploration results contained in this report has been compiled by Metallica Minerals Ltd full time employees Andrew Gillies in the position of Managing Director and Metallica Minerals Ltd Exploration Manager, Mr Pat Smith MSc. B.Sc (Hons). Mr Gillies and Mr Smith are members of the Australasian Institute of Mining and Metallurgy (Aus.I.M.M) and have relevant experience to the mineralisation being reported on to qualify as Competent Persons as defined by the Australasian Code for Reporting of Minerals Resources and Reserves. Mr Gillies and Mr Smith consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

This Mineral Resource estimates above (Table 2 to Table 10) based upon and accurately reflects data compiled, validated or supervised by Mr John Horton, Principal Geologist, who is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of Golder Associates Pty Ltd. Mr Horton has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Horton consents to the inclusion of this information in the form and context in which it appears in this section.

### NORNICO DEVELOPMENT STRATEGY

The tri-metal (Ni-Co-Sc) processing opportunity being developed for NORNICO is unique in Australia's minerals sector, and is further enhanced by Metallica's access to high grade Ni-Co and Sc ores, an excellent processing site and infrastructural setting. Metallica is advanced in developing an innovative and highly efficient flow sheet for simultaneous metal recovery of Ni-Co and Sc, thereby effectively reducing unit operating and capital costs. Metallica also has the potential for boosting revenues by incorporating very high grade Sc ore in to the feed, as we expect the global scandium demand and market to grow substantially.

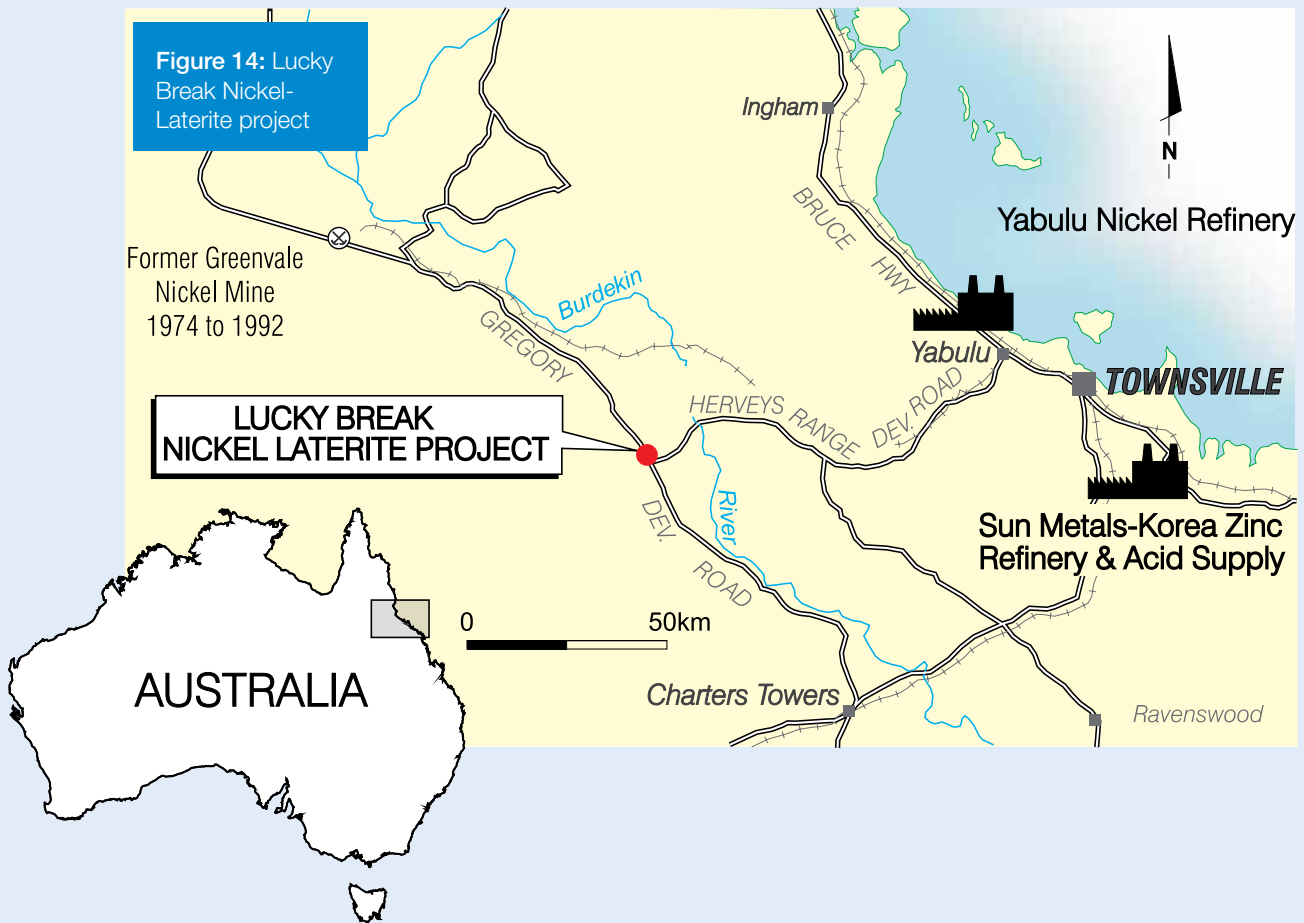
The proposed NORNICO processing operations will be technologically advanced and non conventional and

cannot be compared to most previous nickel laterite projects. Metallica's NORNICO development strategy is focused on margins and maximising returns from the flexibility of three simultaneous revenue streams from nickel, cobalt and scandium depending on variations of the metal prices and markets at a given time. Metallica plans to be a significant supplier of nickel and cobalt, and expects to emerge as the major world supplier of scandium.

Metallica envisages that NORNICO Stage 2, (several years after Stage 1) will be a much larger Ni-Co +/- Sc operation, hosting its own acid and power plant. It would be established at the northern end of the NORNICO project, at the Bell Creek Ni-Co project near Mt Garnet, with supplementary ore feed trucked from the Minnamoolka and Kokomo deposits.

# Lucky Break nickel project

50:50 METALLICA – METALS FINANCE JOINT VENTURE



- A revised Definitive Feasibility Study (DFS), with positive results, has been completed on the proposed 60,000 tpa Lucky Break nickel project, 140 km west of Townsville (see Figure 14), under a recently revised 50:50 joint venture between Metals Finance Ltd and Metallica whereby Metals Finance is responsible for funding, developing and managing the Lucky Break project if it proceeds.
- The project, with a planned mine life of just under six years with nickel recoveries of 85% and average grades of 1.3% Ni, is to be developed and brought into nickel production at no cash cost to Metallica and hence does not dilute shareholder equity.
- Upon implementation, 100% of the project's cash flow surplus will be directed to repayment by Metallica of a project loan to it from Metals Finance and once paid, all future cash flow surplus will be shared 50:50.
- The DFS defined an estimated capital cost of \$12.45 million, gross revenue of \$86 million, operating costs of \$47 million and a projected surplus of \$39 million.
- A 12 month implementation schedule is envisaged with MFC currently examining funding options.



# Coal projects (Qld)

METROCOAL LTD (56% MLM)



## MLM HOLDS 80 MILLION SHARES BEING 56% OF METROCOAL (ASX: MTE)

MetroCoal holds tenements which cover more than 4,000 km<sup>2</sup> of coal-bearing strata in Queensland's Surat and Ipswich Basins (see Figure 15) and has an Exploration Target\* of 2.5–3.5 billion tonnes of coal by December 2011 – with a total Inferred and Indicated resource of 620Mt of thermal coal already defined from the Juandah, Bundi and Norwood resource areas, see Table 14.

## BUNDI PROJECT (WITHIN EPC 1164 & 1167)

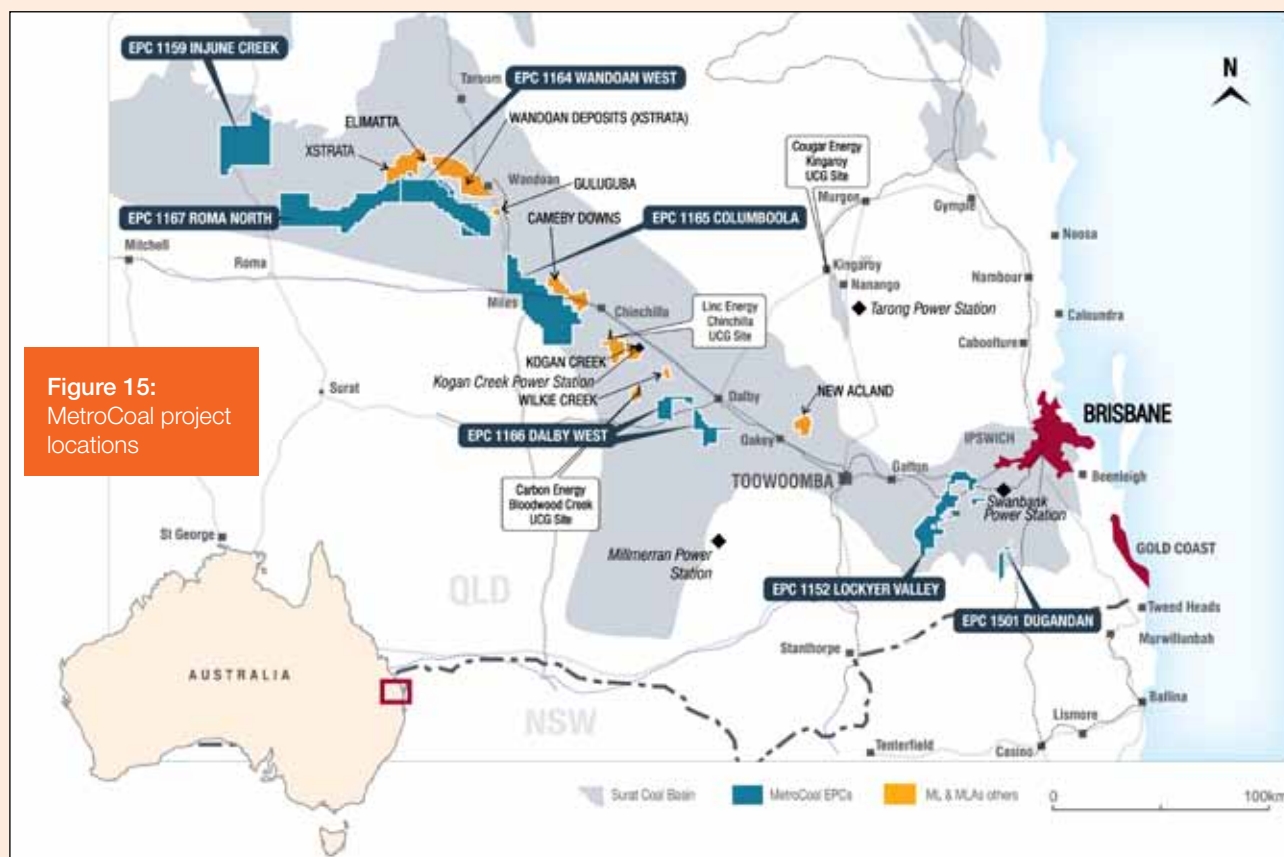
- The Bundi export thermal coal project achieved a fivefold increase during the year in the Inferred Resource of 292Mt (from 58Mt previously), see Table 14
- There is strong potential to increase the Bundi Inferred Resource area with ongoing drilling.

## NORWOOD PROJECT (WITHIN EPC 1167)

- The Norwood Project Area, within EPC 1167 (Roma North), in the Surat Basin is down dip to the Pony Plains deposit and adjacent to Xstrata Ltd's recently submitted Wandoan Extended Mining Lease. The Norwood coal project area contains an Inferred thermal coal resource of 156Mt (see Table 14).
- The coal seams are continuous and correlatable across the resource area and provide a sound basis for an underground mining resource.
- Initial raw cal quality data suggests that the resource will be suited to the production of a typical Surat Basin export quality thermal coal.
- Average thickness of the working sections is approximately 2.76 for Norwood West and 4.15m for Norwood East at a depth of between 81m and 291m.
- The resource estimate is considered to be conservative with the focus based solely on the continuous, correlatable Macalister Upper Coal Seam.

\* Exploration Targets – the potential quantity and quality is conceptual in nature, and that there has been insufficient exploration to define a Mineral Resource or Ore Reserve and that it is uncertain if further exploration will result in the determination of a Mineral Resource or Ore Reserve.

## Coal projects (Qld)



**Figure 15:**  
MetroCoal project locations

**TABLE 14: METROCOAL – SURAT COAL PROJECT RESOURCE\***

| Resource     | Norwood<br>(Underground Coal) | Bundi<br>(Underground Coal) | Juandah<br>(UCG) | Total<br>(UG & UCG) |
|--------------|-------------------------------|-----------------------------|------------------|---------------------|
| Inferred     | 156 Mt                        | 292 Mt                      | 149 Mt           | 597 Mt              |
| Indicated    |                               |                             | 23 Mt            | 23 Mt               |
| <b>TOTAL</b> | <b>156 Mt</b>                 | <b>292 Mt</b>               | <b>172 Mt</b>    | <b>620 Mt</b>       |

### JUANDAH PROJECT (MDLA406)

- MetroCoal's Juandah Project area, east of Bundi has been identified as containing a substantial underground coal resource, suitable for underground coal gasification (UCG).
- Following the completion of a 16-hole drilling program, the Company reported a maiden JORC resource of 172Mt in April 2009 (see Table 14).
- There is also significant scope to increase the resource in areas where the Macalister Lower Seam coalesces with the Macalister Upper creating potential working sections up to 12m thick. Importantly the deposit does not have any overlapping gas tenements.

### CUMBOOLA PROJECT (EPC1165)

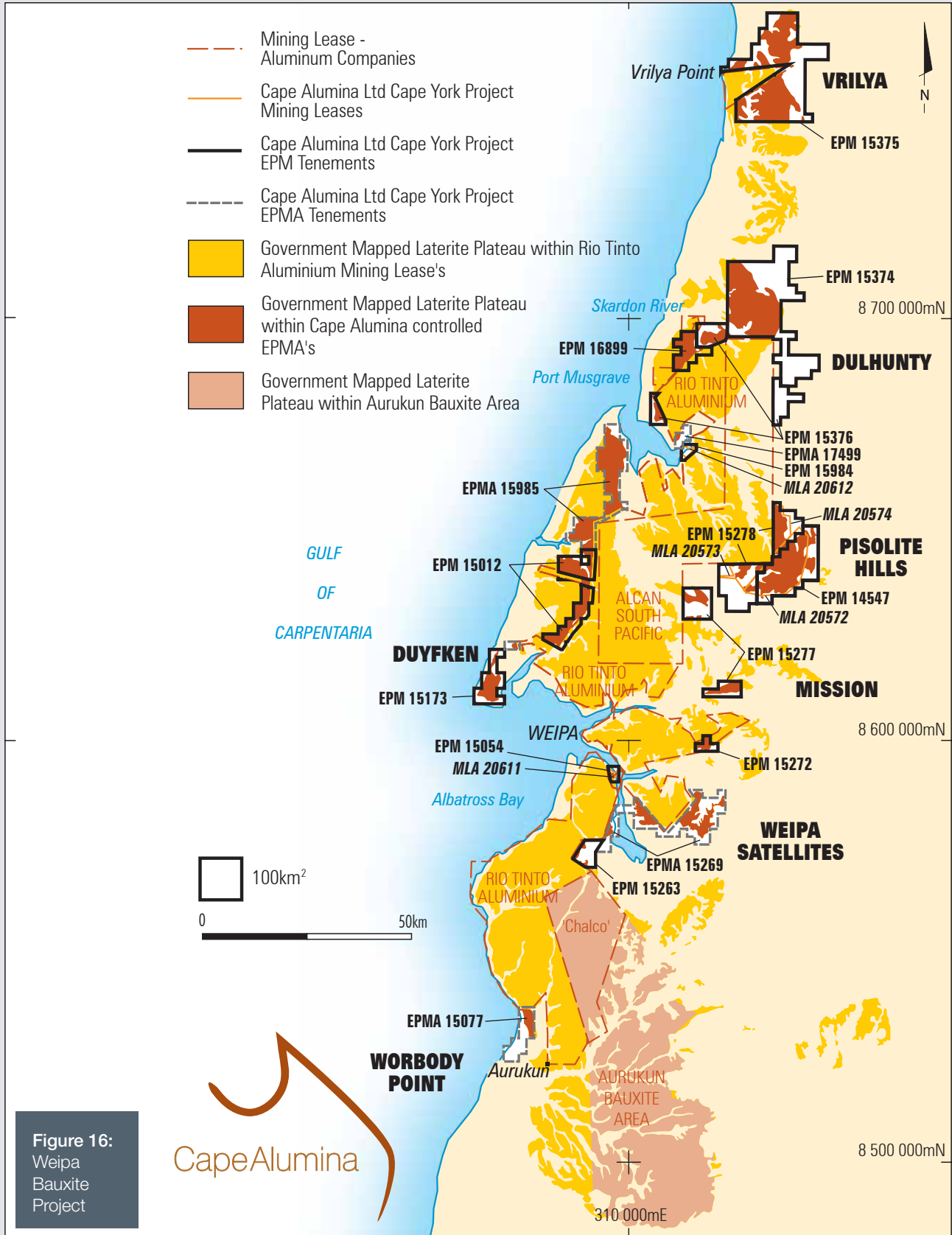
- In April 2010, MetroCoal signed a Joint Venture Agreement (JVA) with China Coal Import & Export Company (CCIEC), a wholly owned subsidiary of China National Coal Group Corp (China Coal), under which CCIEC will acquire a 51% interest in MetroCoal's EPC 1165 Columboola by completing for an exploration and evaluation expenditure of A\$30 million.
- A minimum spend of \$4 million is required within the first two years of the agreement.

For further information see MetroCoal Ltd Annual Report 2010.



# Bauxite projects (Qld)

CAPE ALUMINA LTD (MLM 29.9%)





**TABLE 15: PISOLITE HILLS BAUXITE RESOURCE**

| Resource Category    | In-situ Dry Tonnes (Mt) | Dry Beneficiated Tonnes (Mt) | Beneficiated Bauxite Qualities |  |                                    |                      |         |              |           |           |
|----------------------|-------------------------|------------------------------|--------------------------------|--|------------------------------------|----------------------|---------|--------------|-----------|-----------|
|                      |                         |                              | Total SiO <sub>2</sub> (%)     | Total Al <sub>2</sub> O <sub>3</sub> (%) | Fe <sub>2</sub> O <sub>3</sub> (%) | TiO <sub>2</sub> (%) | LOI (%) | Recovery (%) | RXSi (%)* | THA (%)** |
| Total Measured       | 27.5                    | 20.1                         | 10.8                           | 54.4                                     | 6.7                                | 2.2                  | 25.6    | 73.1         | 6.4       | 41.8      |
| Total Indicated      | 56.1                    | 37.9                         | 12.5                           | 53.5                                     | 6.2                                | 2.2                  | 25.3    | 67.7         | 7.6       | 41.8      |
| Total Inferred       | 48.8                    | 29.3                         | 13.2                           | 51.8                                     | 7.6                                | 2.3                  | 24.8    | 60.6         | 8.2       | 40.8      |
| Pisolite Hills Total | 132.4                   | 87.3                         | 12.3                           | 53.1                                     | 6.8                                | 2.2                  | 25.2    | 66.6         | 7.5       | 41.5      |

\* RXSi – Reactive silica at 150°C

\*\* THA - Trihydrate Available Alumina (gibbsite alumina + kaolinite alumina – low temperature desilication product [DSP] alumina) at 150°C

**CAPE ALUMINA METALLICA HOLDS 29.9% OF CAPE ALUMINA LIMITED (ASX: CBX).**

Metallica holds approximately 38.6 million ordinary shares in Cape Alumina, after Metallica completed a share transfer of 3.87 million Cape Alumina shares for 7.74 million Metallica shares held by Resource Capital Funds (RCF) and Metallica's shareholding in Cape was reduced from approximately 32.9% (when MLM previously held 42.3 million shares) to 29.9%.

Cape Alumina (Cape) is evaluating and exploring a number of bauxite deposits within the Weipa Bauxite province on Queensland's Cape York Peninsula (see Figure 16). Up to mid 2010, Cape had been primarily focused on the Pisolite Hills Bauxite Project where it has established a 132Mt bauxite resource (see Table 15) and completed a positive Pre-Feasibility Study.

- In the 2009/2010 year Pisolite Hills faced significant political challenges at both Queensland Government and Federal Government levels, however Cape Alumina remains resolute in pursuing its bauxite ambitions on its Weipa Bauxite projects with strong local and regional community support.
- The Queensland Government declared the Wenlock River Basin near the project area a wild river area and imposed an arbitrary 500 m environmental buffer around waterways, contrary to available scientific advice. This imposition, which significantly encroached on the Pisolite

Hills bauxite resource, has seriously jeopardised the economic viability of the project.

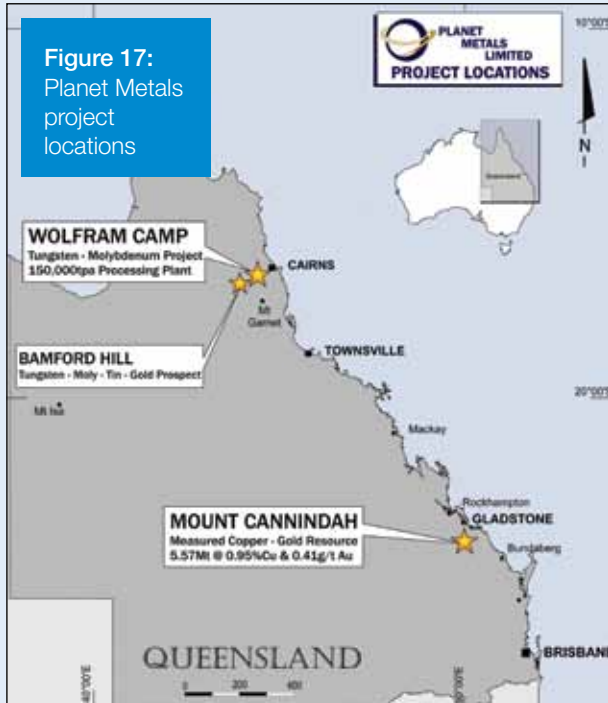
- Cape Alumina continues to review the Pisolite Hills Project – the project area is more than 3–10 km from the Wenlock River – to determine its next actions against the Queensland Government's decision.
- The Company's other bauxite tenements in Cape York remain under review with the aim of prioritising future bauxite exploration activities. Cape Alumina is also lobbying to have the Queensland Government call new tenders for the development of the Aurukun bauxite deposits in western Cape York. This follows the failure of the Government and Chinese aluminium producer, Chalco, to agree on a development path for the Aurukun bauxite project.

**COMPETENT PERSONS STATEMENT**

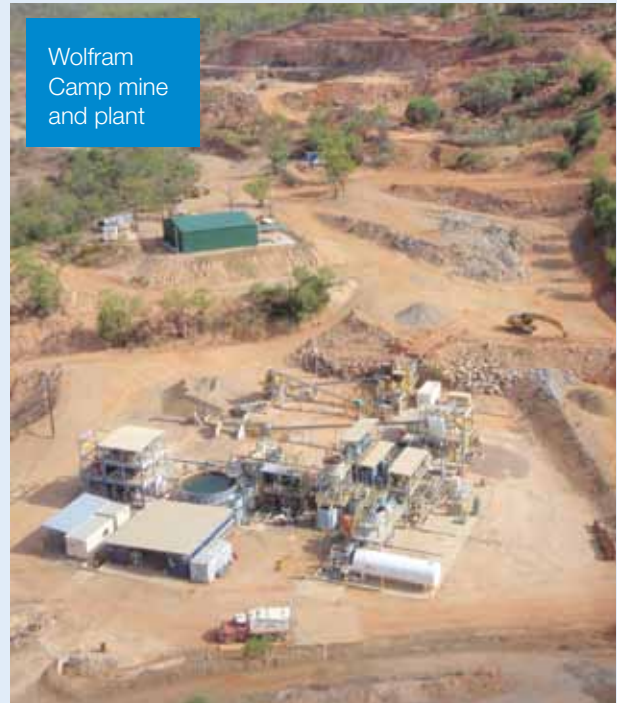
Technical information relating to Cape Alumina Limited contained in this report has been compiled by Mr John Cameron who is a competent person and full time employee of Cape Alumina Limited and member of the Australasian Institute of Mining and Metallurgy with relevant experience to the mineralisation being reported on to qualify as a Competent Persons as defined by the Australasian Code for Reporting of Minerals, Resources and Reserves. Mr Cameron consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

# Tungsten-Molybdenum project (Qld)

PLANET METALS LTD (MLM 76%)



**Figure 17:**  
Planet Metals  
project  
locations



Wolfram  
Camp mine  
and plant

## PLANET METALS LIMITED METALICA HOLDS 76% OF PLANET METALS LIMITED

Planet Metals is a Brisbane-based ASX-listed mining development and exploration company focused on tungsten, molybdenum, copper and gold. Metallica commands a 76% stake (45.5 million shares) of Planet's 59.7 million ordinary shares on issue and its 1.5 million unlisted options.

## WOLFRAM CAMP TUNGSTEN- MOLYBDENUM PROJECT

### 85% OWNED BY PLANET METALS

- Planet Metals conducted a 200 hole, 4,840m drill program on the mine site in late 2009 and into this year.
- Early in 2010, Planet Metals completed a revised independent (Golder Associates) resource estimate, and the Wolfram Camp resource now stands at 1.42 million tonnes at 0.60% WO<sub>3</sub> (tungsten) and 0.12% Mo (see Table 16) a 50% increase in tonnage and 45% increase in grade compared to the previous in-house resource estimates.
- On 21 June 2010, Planet Metals entered into a Heads of Agreement for Tropical Metals Pty Ltd to acquire the Wolfram Camp project, located 90km west of Cairns

in Queensland (see Figure 17), for a cash sale price of \$8 million. A non refundable deposit of \$400,000 has since been received and the transaction is to be approved by Planet shareholders as a precondition of settlement.

**TABLE 16: WOLFRAM CAMP RESOURCE ESTIMATE**

| Resource Classification | Tonnage (Mt) | WO <sub>3</sub> (%) | Mo (%)      |
|-------------------------|--------------|---------------------|-------------|
| Indicated               | 0.78         | 0.56                | 0.13        |
| Inferred                | 0.64         | 0.65                | 0.11        |
| <b>TOTAL RESOURCE</b>   | <b>1.42</b>  | <b>0.60</b>         | <b>0.12</b> |

### COMPETENT PERSONS STATEMENT

The Wolfram Camp Resource estimate is based upon and accurately reflects data compiled or supervised by Dr Andrew Richmond, Principal Geostatistician, who is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of Golder Associates Pty Ltd. Dr Richmond has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral resources and Ore Reserves'. Dr. Richmond consents to the inclusion of this information in the form and context in which it appears in this report.

# Copper-Gold project (Qld)

PLANET METALS LTD (MLM 76%)

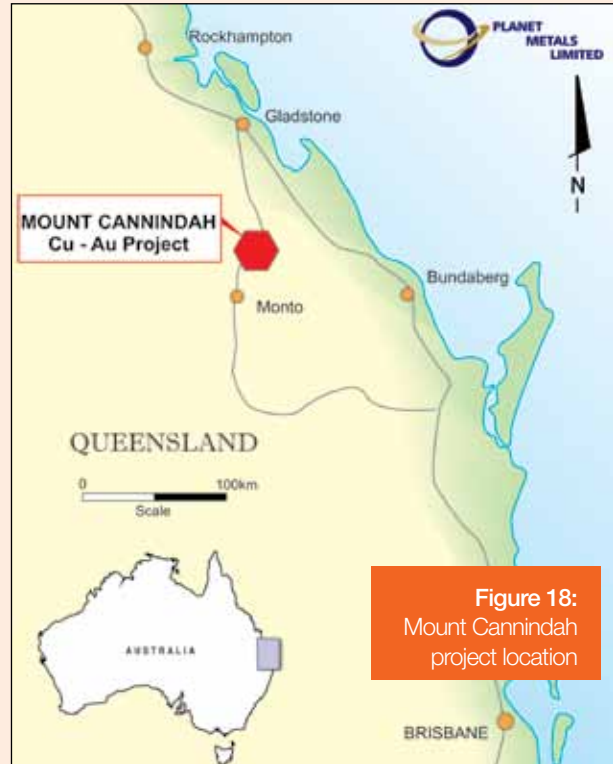
## MOUNT CANNINDAH COPPER-GOLD PROJECT – PLANET METALS 100%

During the year, Planet Metals collated and reviewed all available historical exploration data relating to the project's 6 km<sup>2</sup> of granted mining leases, 100 km south of Gladstone in Queensland (see Figure 18). Mount Cannindah is a large Cu-Au mineralised porphyry copper type system which has similarities to the style of mineralisation at Newcrest's Cadia Cu-Au deposits (NSW). The most advanced Cu-Au deposit within the large mining lease area is the Cannindah mine deposit which has a total Measured and Inferred Resource of 7.43 million tonnes at 0.97% copper and 0.38g/t gold; of which 5.57 million tonnes at 0.95% copper and 0.41g/t gold is in the Measured Resource category and 1.9 million tonnes @ 1.0% copper and 0.3g/t gold is in the Inferred Category.

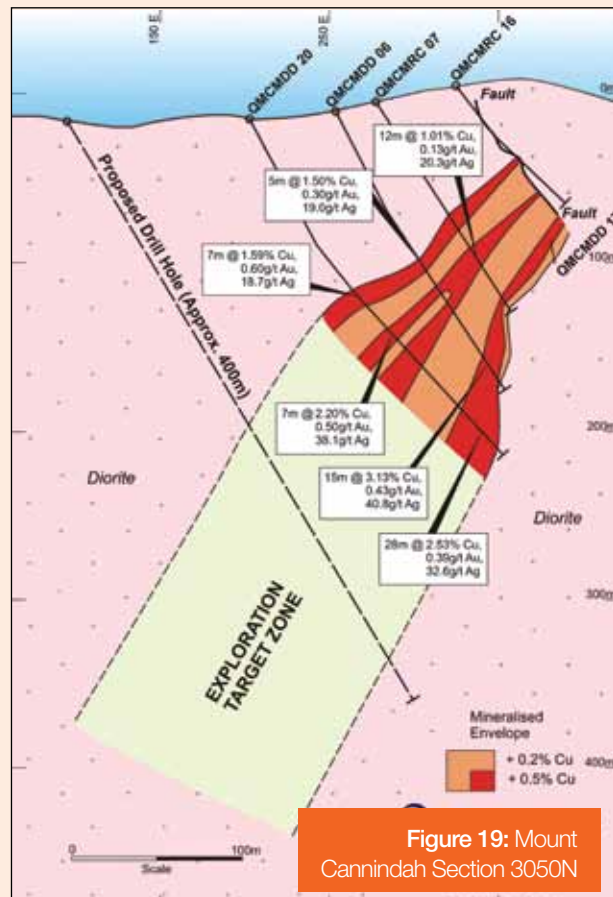
- Drilling of two diamond holes testing (see Figure 19) the down dip extent of the Mount Cannindah mine ore zone, the first there for two years, commenced in the September 2010 quarter.
- Completion of the sale of the Wolfram Camp project will provide Planet Metals with the strong financial base it has sought to more rapidly progress the Mount Cannindah Cu-Au project.

### COMPETENT PERSONS STATEMENT

Technical information contained in this report relating to the Mount Cannindah project has been compiled and/or supervised by Mr Andrew Border and Dr Andrew Richmond, both of whom are members of the Australian Institute of Mining and Metallurgy (AusIMM). Dr Richmond, a full time employee of Golder Associates Pty Ltd was responsible for the resource block model and estimation. Mr Border was a full time employee of Planet Metals Limited and was responsible for all other aspects of the mineral resource estimate. Both Mr Border and Dr Richmond have sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which they have undertaken to qualify as Competent Persons as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Border and Dr. Richmond consent to the inclusion of this information in the form and context in which it appears in this report.



**Figure 18:**  
Mount Cannindah project location



**Figure 19:** Mount Cannindah Section 3050N

# Gold and Rare Earth Elements (REEs) (Qld and WA)

ORION METALS LTD (MLM 25.4%)

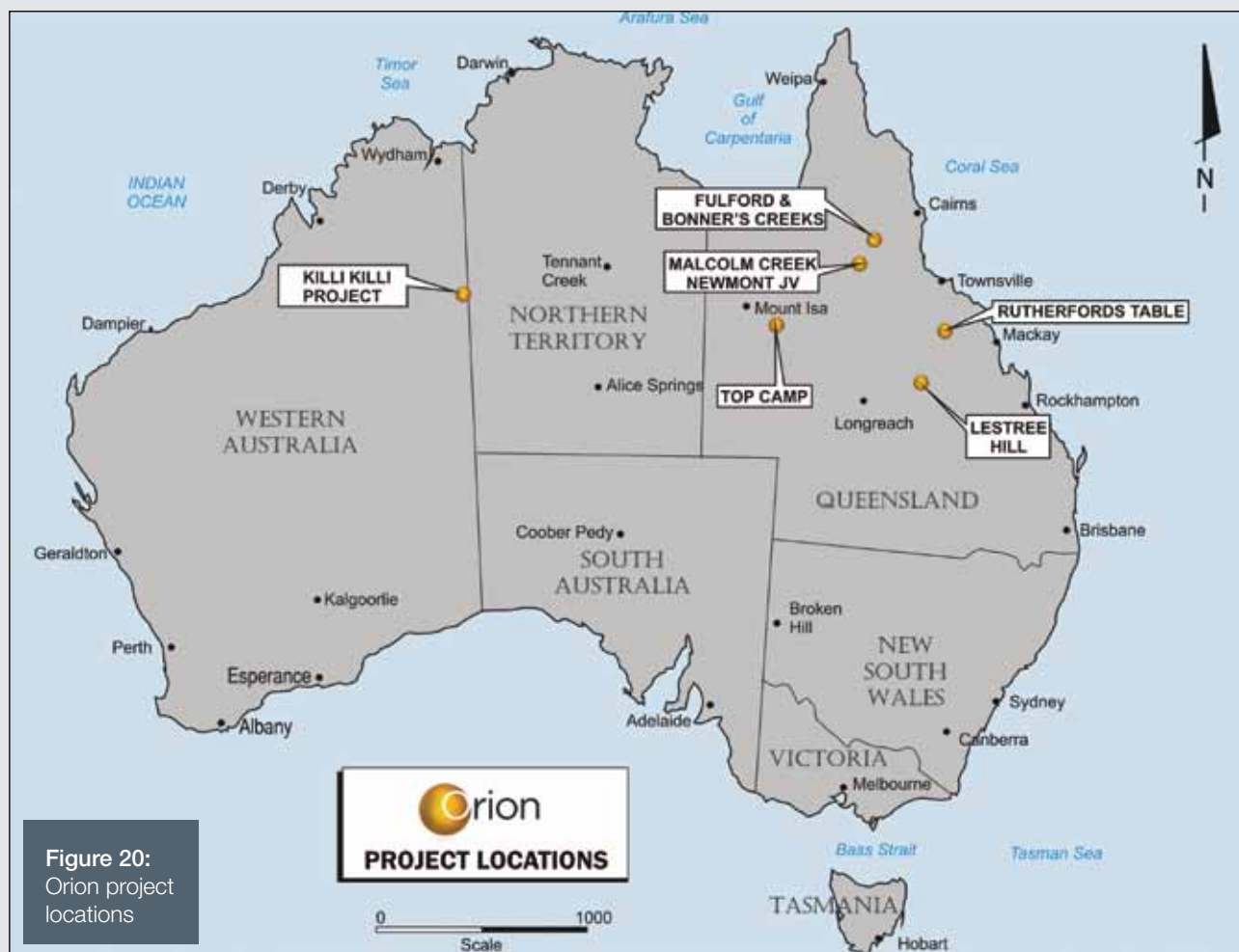


Figure 20:  
Orion project locations

## ORION METALS METALLICA HOLDS 25.4% OF ORION METALS LIMITED

Orion Metals is a Brisbane-based exploration company focused on gold and Rare Earth Elements (REEs). As at 30 June 2010, Orion Metals had 49.39 million ordinary shares and 12.35 million options on issue, with Metallica then holding 29.3% (14.47 million shares) and Jien Mining Pty Ltd (controlled by Jilin Nickel of China), 14.98%.

Orion has gold and REE projects located in Queensland and the Killi Killi REE Project in Western Australia, (see Figure 20)

A rights issue was successfully completed in May to raise \$1.235 million with a further \$315,000 raised as a placement post the rights issue for a total of approximately \$1.5 million to fund drilling at the Top Camp gold-copper project, 40 km south of Cloncurry in Queensland, and for working capital.

At the date of this report, Orion Metals has 55.7 million shares on issue, with Metallica and Jien Mining Pty Ltd now holding 25.4% and 12.97% respectively.

A part-time Managing Director, Mr James Canning-Ure, was appointed from March 2010.

### TOP CAMP (GOLD)

- Eight RC holes were drilled at Top Camp in June, providing overall less than expected results. Anomalous copper values were associated with the magnetite zones and scattered anomalous gold grades. Future exploration options are being considered including attracting a JV partner to test deep exploration targets.



### MALCOLM CREEK (GOLD)

- The Malcolm Creek Gold Project is located 80 km south of Georgetown in Queensland and Orion holds its interests there in joint venture with Newmont Exploration Pty. Ltd.
- Field work has been completed and drill targets defined for a drill program later in 2010.

### KILLI KILLI HILLS (WA) (REE AND GOLD)

- In July-August 2010, Orion completed due diligence and a site visit on the Killi Killi Hills Project, a uranium and rare earth element (REE) project, located approximately 80 km North-East of the Coyote Gold Mine in the Tanami Desert in Western Australia. On 9 September 2010 an option to purchase the two Killi Killi exploration tenements was exercised.
- During a helicopter reconnaissance, 45 rock chip samples were collected and a suite of geochemical analyses, petrological examination and preliminary mineral separation were subsequently completed. Many samples have recorded

significant levels of REE, especially those of the “heavy” end of the sequence and the preliminary data is being collated and assessed.

- Orion has obtained title transfers and statutory clearances so a drilling program can be completed before December.

Orion continues to assess other gold and REE project opportunities as well as investigating new project generation concepts.

### COMPETENT PERSONS STATEMENT

In accordance with Listing Rules 5.1 and 5.12 of the Australian Securities Exchange technical information contained in this report has been compiled by Mr. Adrian Day BSc (Geology), MAIG, MSEG, MGSA who is a competent person and member of the Australasian Institute of Geoscientists. Mr Day has relevant experience to the mineralisation being reported on to qualify as a Competent Person as defined by the Australasian Code for Reporting of Minerals Resources and Reserves. Mr Day is a non-executive Director of Orion Metals Limited and part-time consultant to the company. He consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

# Limestone projects (Qld)

PHOENIX LIME PTY LTD (MLM 100%)

Metallica owns six strategically located, high quality limestone projects comprising Ootann (near NORNICO), Star and Mt Podge (near Lucky Break & Townsville), Boyne and Fairview (both near Gladstone), the Blue Rock deposit (between Minnamoolka and Kokomo) and the Craigie Limestone Project 60km SW of Greenvale (see Figure 21).

## OOTANN

Phoenix Lime Pty Ltd (a wholly owned subsidiary of Metallica) holds 240 hectares of mining leases covering a large high grade limestone deposit suitable for calcining and underpinning NORNICO's lime and limestone requirements. Ootann is located approximately 130km via road from the proposed NORNICO processing site.

### FEASIBILITY

Phoenix Lime has investigated the construction of a new lime kiln at the Ootann limestone quarry operation. To support this, a comprehensive drilling program was completed on site. The results of this drilling program were compiled in September 2009 to determine a resource compliant to the JORC code (see Table 17).

**TABLE 17: OOTANN LIMESTONE DEPOSIT – RESOURCE CATEGORIES**

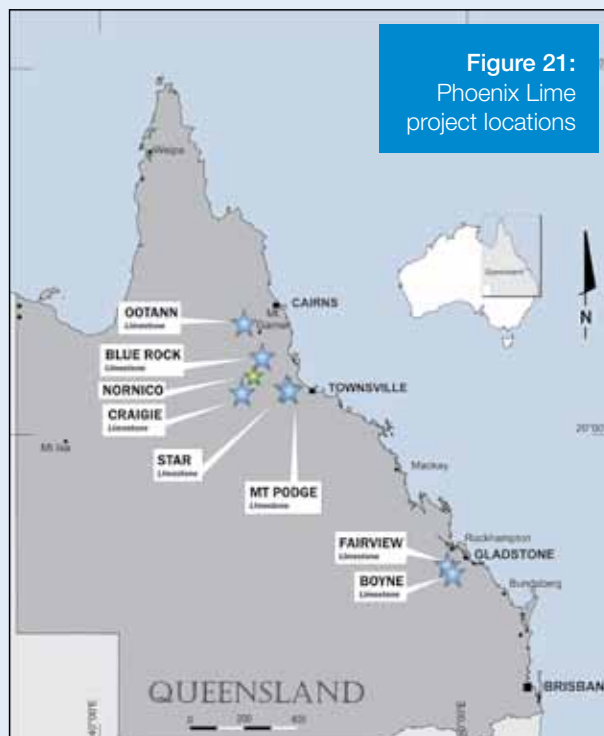
| Category  | Tonnes     | % CaO |
|-----------|------------|-------|
| Measured  | 9,900,000  | 55.0  |
| Indicated | 14,300,000 | 54.7  |
| Inferred  | 28,900,000 | 54.8  |
| Total     | 53,100,000 | 54.8  |

### LIMESTONE SALES 2009–2010

The past year saw significant sales of crushed rock into the upgrading and maintenance of the Burke Development Road. This together with sales of agricultural lime and other rock products have contributed to Phoenix Limes' cash flow.

## BLUE ROCK

This limestone deposit is conveniently located between Minnamoolka and Kokomo nickel deposits, approximately 60 km from the proposed NORNICO nickel operation. Site 4WD access, mapping and sampling was completed in the September Quarter 2009. Stone samples assayed indicate outcropping limestone to be of high quality. It is Phoenix's intention to peg a mining lease encompassing this outcrop and survey access roads in 2010–2011 in order to have this deposit available for Metallica's NORNICO Project.



**Figure 21:**  
Phoenix Lime project locations

## FAIRVIEW

During 2009–2010 Fairview has been developed to ensure its readiness to supply limestone into the expanding industrial market of Gladstone when the opportunity arises. MDL394 was granted 24th August 2009 and ML80162 (application) was lodged 18th August 2009.

## BOYNE

The two Boyne mining leases contain large high quality limestone deposits suitable for lime and limestone markets in the Gladstone region. Proposed activities for 2010–2011 include a drilling program for the purpose of defining a limestone resource within the Boyne tenements.

## STAR RIVER

The high grade limestone deposit at Star River occurs as a slightly elevated mostly exposed limestone deposit with little or no overburden and is only 105 km from Townsville. No field work or activities have been undertaken recently. The granted mining lease at Star River is strategically positioned close to Herveys Range Road and well placed to take advantage of markets emerging in the Townsville region.



Ootann  
Limestone  
Deposit and  
Limeworks

### MOUNT PODGE

The project is located 80 km West of Townsville near the Herveys Range Road and close to the Star River mining lease. A 15 hole drilling campaign was completed in September 2009. The results of this campaign were encouraging, and further drilling was carried out in June 2010. The results of the drilling campaigns are currently being assessed. Early indications are that the area has the potential to provide a significant high grade limestone deposit close to infrastructure.

### COMPETENT PERSONS STATEMENT

The information contained in this report relating to mineral resources, was compiled Brett H Duck who is a Fellow of the Australasian Institute of Mining and Metallurgy, and has five years of relevant experience in relation to the mineralisation being reported on, to qualify as a Competent Person as defined in the 2004 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Duck is a fulltime contract geologist with Breemar Minerals Pty Ltd. Mr. Duck consents to the inclusion of this information in the form and context in which it appears in this document.

# Zircon-Rutile project (Qld)

ORESOME AUSTRALIA (MLM 100%)

## ORESOME AUSTRALIA PTY LTD – WEIPA & WESTERN CAPE YORK (HMS) PROJECT

Urquhart Point, three kilometres southwest of Weipa, contains an Indicated Resource of 2.8Mt @ 7.0% Heavy Mineral Sand (HMS) with a high proportion of Zircon & Rutile to a maximum depth of three metres, with a further nine kilometres of coastline still to be tested, see Figure 22.

Through its wholly owned subsidiary Oresome Australia Pty Ltd, Metallica holds 100% of the Cape York Mineral Sands Project. At this stage the project consists of three granted EPM's (Urquhart Point, Jardine and Doughboy), six EPM Applications and one Mining Lease application. (see see Figure 23 and Tenement Schedule). Mining Lease Application (MLA) 20699 covers the Urquhart Point HMS resource, see insert in Figure 23.

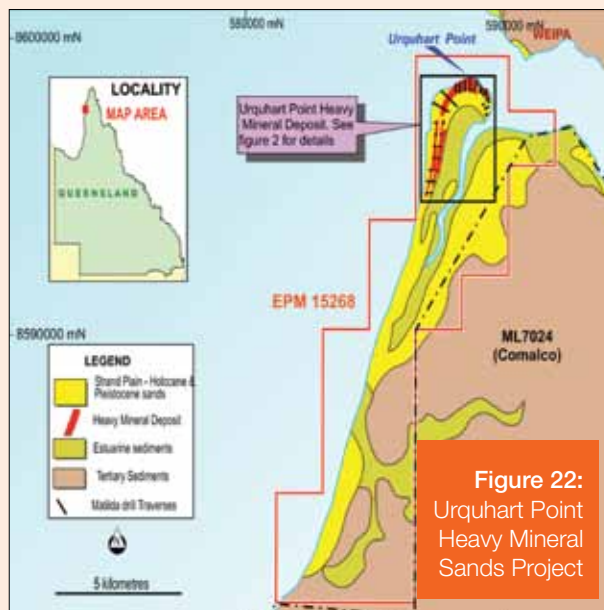
The project is targeting rutile and zircon in sand dunes and strandlines along the coast line near Weipa and north to the tip of Cape York Peninsula. Oresome currently holds approximately 1,500 km<sup>2</sup> of highly prospective yet under-explored ground, see Figure 23.

In 2008, an Indicated Resource of 2.8Mt @ 7.0% Heavy Mineral Sands (HMS) to a maximum depth of three metres was identified at the Urquhart Point deposit, three kilometres south-west of Weipa (see Figure 22). The valuable HMS suite is dominated by zircon and rutile, likely greater than 30% combined. The strandlines are characterised with an extremely low slimes content and minimal overburden. There is a further nine kilometres of coastline still to be tested within the Urquhart Point tenement alone, EPM15268.

Metallica through Oresome is pursuing the development of the Cape York Mineral Sands Project. Discussions are underway with all affected parties related to the MLA over Urquhart Point, including the Aurukun Shire Council and the Traditional Owners. 2010–2011 will see continued work on granted EPM's, the results of which will hopefully enhance the potential life of the project.



Left to right: Tony Keridun, Fred Keridun and Stewart Hagan, General Manager Oresome Australia Pty Ltd.

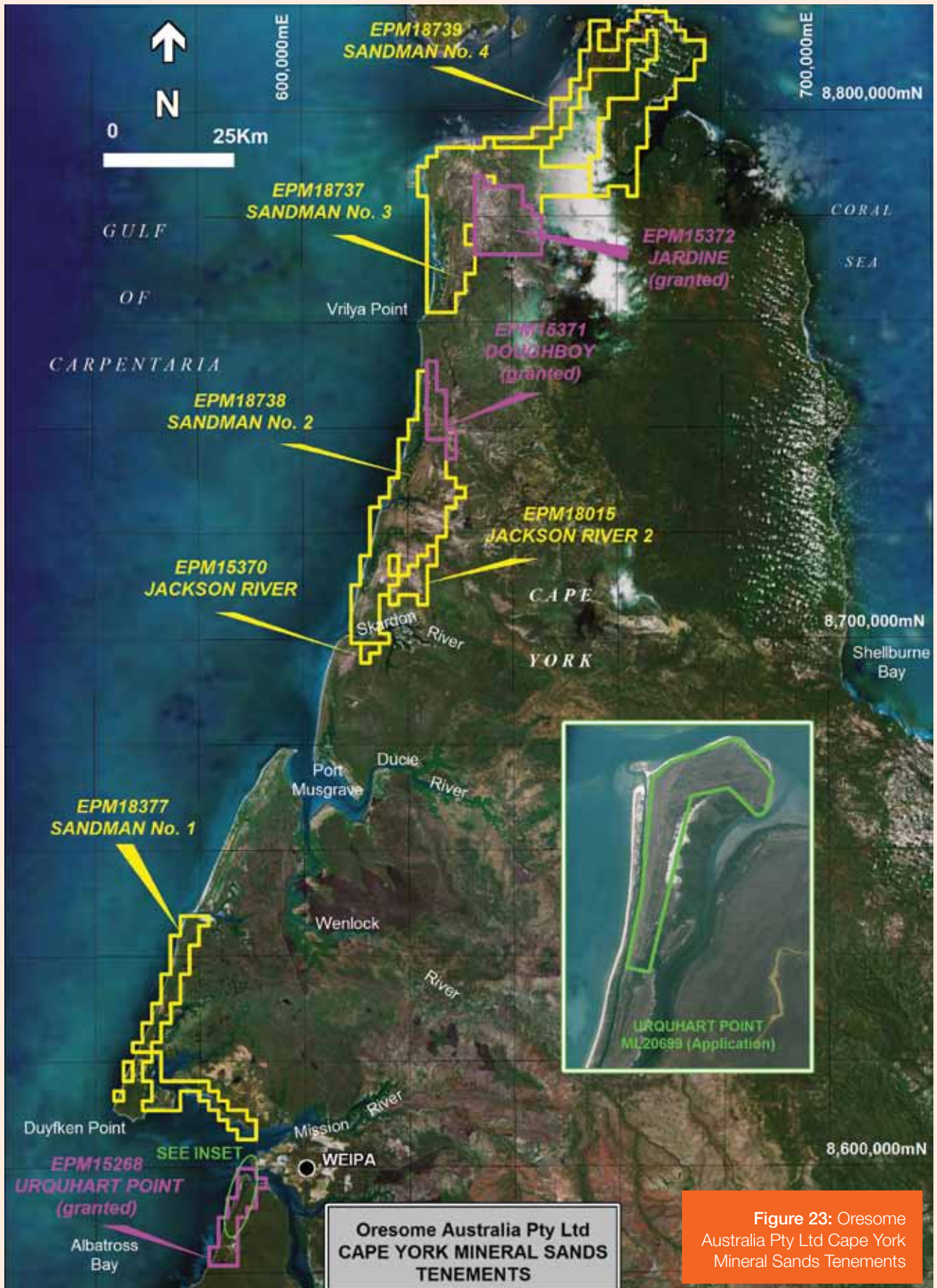


There is excellent potential to form a modest size high grade zircon and rutile project with relatively low capital cost to produce a zircon and rutile concentrate.

### COMPETENT PERSON STATEMENT

The exploration comments have been prepared by Mr Roger Hobbs B. App. Sc. (Geophys & Geol), MAusIMM, who was previously a Director of Matilda Minerals Ltd (Oresome's former joint venture partner), who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is to be undertaken to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hobbs consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.





**Figure 23:** Oresome Australia Pty Ltd Cape York Mineral Sands Tenements

# Copper, Gold, Uranium (SA)

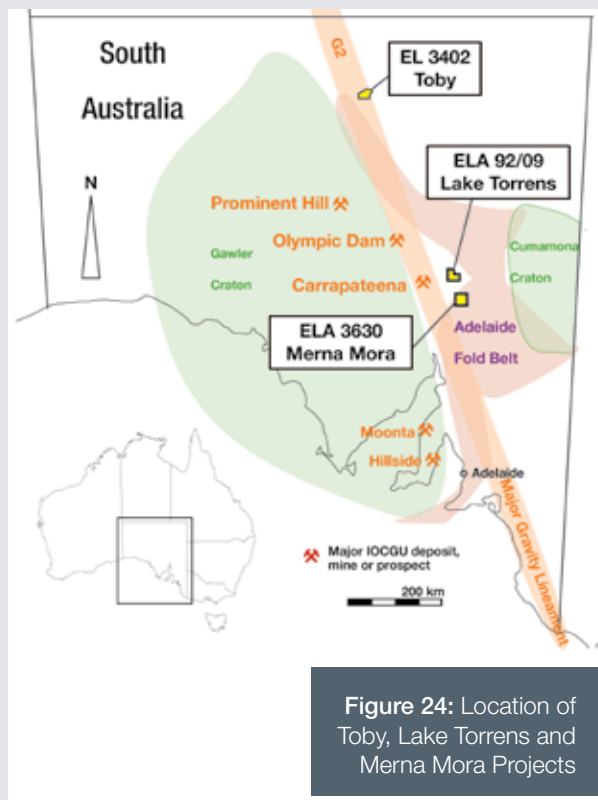


## METALLICA – SALISBURY JOINT VENTURE METALLICA 75% SALISBURY RESOURCES 25%

Metallica has a 75% interest in three South Australian Iron oxide, copper-gold, uranium (IOCGU) prospective tenements, EL 3402 (Toby), 65 km east of Oodnadatta, EL 3630 (Merna Mora) 30 km southwest of Hawker and EL 4118 and EL 4119 (Lake Torrens) project, 50 km east of the Carrapateena Iron Ore Copper Gold Uranium Cu-Au deposit (see Figure 24).

In late 2009, a single deep hole was drilled to a depth of 670m in the large Toby Gravity feature and magnetic complex. Unfortunately no economic mineralisation was recorded, however it is a very large exploration target.

A drilling program in the December Quarter is currently being planned for the Merna Mora tenement.



**Figure 24:** Location of Toby, Lake Torrens and Merna Mora Projects

# Since balance date

- In September 2010, positive results for the NORNICO Stage 1 nickel (Ni), cobalt (Co) and scandium (Sc) initial scoping study found the estimated A\$132 million capital cost project “economically and technically robust” and strongly supported further progress into the feasibility of development. Start-up mining and processing would initially be based on the higher grade Greenvale Ni-Co and nearby Lucknow Ni-Co + Sc deposits employing a modest sized, 180,000 tonne per annum heated agitated Atmospheric Acid Leaching (AAL) plant located on the Greenvale nickel mine site. The findings support Metallica’s objective to be in Ni-Co and Sc production by 2013 – preceded by a planned move to a full bankable feasibility study commencing early in 2011.
- Due to potential improvements identified on the proposed processing flow sheet, the scoping study will be revised (Mark II) to incorporate a more efficient iron removal step (with a potential reduction in reagent consumption) which will also potentially allow the increased ability to process higher iron bearing ores, particularly the high grade (>200g/t Sc) scandium ores discovered at Lucknow earlier this year. The revised Scoping Study (Mark II) will also allow for further resource drilling to enhance and define the Greenvale Ni-Co resource base in preparation for mining studies before the expected commencement of a full feasibility study in early 2011.
- First Lucknow maiden resource – an Indicated and Inferred resource of 6.1 Mt @ 169 g/t Sc, announced for the scandium mineralisation within Lucknow,

and includes a higher grade resource of 4.1Mt @ 205 g/t Sc (see table 4 & 5).

- Commencement in September of additional detailed drilling on the Greenvale Mine site to further enhance the Greenvale Ni-Co resource.
- Planet Metals finalised its Share Sale Agreement with Tropical Metals for the sale of the Wolfram Camp and Bamford Hill Projects, for a total final sale price (including deposits) of \$7.9 million, subject to final approval by Planet Metals’ shareholders.

## PLANNED ACTIVITIES FOR THE 2010–2011 YEAR ON NORNICO

- Completion by December 2010 of the planned enhanced Scoping Study (Mark II) on NORNICO Stage 1 processing.
- Metallurgical testwork on the Lucknow Co-Ni and Sc ores will also be undertaken along with baseline site environmental studies on the old Greenvale mine site and Lucknow deposit.
- Subject to above, the commencement of the NORNICO Stage 1 Bankable Feasibility Study and initiate pit design and mining schedules for the high Ni-Co-Sc zones in the Lucknow deposit and high Ni-Co zones with the combined Greenvale mine site resources.

# Conclusion

2009/10 was another active and positive year for Metallica, with solid progress on NORNICO, particularly from the enhancement of the Kokomo Ni-Co-Sc project, the acquisition of the Greenvale and Lucknow Ni-Co projects and the discovery of a large high grade scandium resource on Lucknow. This has shifted the centre of gravity now towards the southern half of NORNICO being developed first as NORNICO Stage 1 near Greenvale and this has been the focus of Metallica’s evaluation work in 2010 which will continue into 2011.

In December 2009, Metallica’s Surat basin coal interests were significantly advanced by the ASX listing of MetroCoal which raised \$10 million and has been performing strongly since. Metallica holds 80 million shares being 56% shareholding in MetroCoal and this investment alone has a current market value of over \$25 million.

As at 30 June 2010, Metallica had combined cash and ASX listed investments of around \$55 million.

Metallica is an established multi-commodity resource development and investment company.

# Tenement schedule

## NORNICO NICKEL-COBALT PROJECT – NORTH (100%)

| Tenement  | Project Name            | Holder/Applicant | Status (Expiry date) | No. Sub Block | Commodity Targeted | Min. Annual Expenditure |
|-----------|-------------------------|------------------|----------------------|---------------|--------------------|-------------------------|
| ML 4187   | Bell Creek North Lease  | NORNICO Pty Ltd  | Granted (29/2/2020)  | 71.35 Ha      | Ni , Co            | N/A                     |
| ML 4188   | Bell Creek South Lease  | NORNICO Pty Ltd  | Granted (29/2/2020)  | 98.11 Ha      | Ni , Co            | N/A                     |
| MLA 20549 | Bell Creek Consolidated | NORNICO Pty Ltd  | Application          | 2145 Ha       | Ni, Co             | N/A                     |
| MDL 387   | Minnamoolka             | NORNICO Pty Ltd  | Granted (30/6/2013)  | 654.26 Ha     | Ni, Co             | \$100,000               |
| EPM 10235 | Minnamoolka             | NORNICO Pty Ltd  | Granted (8/9/2011)   | 5             | Ni , Co            | \$100,000               |
| EPM 11285 | Bell Creek              | NORNICO Pty Ltd  | Granted (27/8/2011)  | 8             | Ni , Co            | \$50,000                |
| EPM 14101 | Mt Garnet South         | NORNICO Pty Ltd  | Granted (22/12/2010) | 80            | Ni, Co, Au, PGE    | \$60,000                |
| EPM 14273 | Moonmyata               | NORNICO Pty Ltd  | Granted (22/12/2012) | 6             | Ni, Co, Au , PGE   | \$50,000                |
| EPM 14518 | Mt Garnet South #2      | NORNICO Pty Ltd  | Granted (7/3/2012)   | 56            | Ni, Co, Au, Cu     | \$60,000                |
| EPM 15198 | Kinrara                 | NORNICO Pty Ltd  | Granted (26/9/2011)  | 67            | Ni, Co, PGE, Cu    | \$50,000                |

## NORNICO NICKEL-COBALT-SCANDIUM PROJECT – SOUTH (100%)

| Tenement   | Project Name           | Holder/Applicant             | Status (Expiry date)  | No. Sub Block | Commodity Targeted | Min. Annual Expenditure |
|------------|------------------------|------------------------------|-----------------------|---------------|--------------------|-------------------------|
| EPM 10680  | Lucknow North          | Greenvale Operations Pty Ltd | Granted (31/12/2010)* | 3             | Ni, Co, Sc         | \$60,000                |
| EPM 10866  | Lucknow South          | Greenvale Operations Pty Ltd | Granted (31/12/2010)* | 4             | Ni, Co, Sc         | \$60,000                |
| EPM 11223  | Dinner Creek           | Greenvale Operations Pty Ltd | Granted (31/12/2010)* | 7             | Ni, Co             | \$61,000                |
| MLA 10342  | Kokomo                 | NORNICO Pty Ltd              | Application           | 3593.07 Ha    | Ni, Co, Sc         | N/A                     |
| EPM 10699  | Kokomo                 | NORNICO Pty Ltd              | Granted (21/8/2013)   | 21            | Ni, Co, Sc, Au     | \$50,000                |
| EPM 14066  | Greenvale South        | NORNICO Pty Ltd              | Granted (22/08/2011)  | 48            | Ni, Co, PGE        | \$70,000                |
| EPM 14070  | Greenvale North        | NORNICO Pty Ltd              | Granted (22/08/2011)  | 35            | Ni, Co, Cu, Au     | \$70,000                |
| EPM 14181  | Lucky Downs            | NORNICO Pty Ltd              | Granted (22/08/2011)  | 18            | Ni, Co, Cu         | \$40,000                |
| EPM 14381  | Greenvale South #2     | NORNICO Pty Ltd              | Granted (14/12/2011)  | 15            | Ni, Co, Cu         | \$50,000                |
| EPMA 17892 | Lockup Well            | NORNICO Pty Ltd              | Application           | 1             | Ni, Co             | N/A                     |
| EPMA 17893 | Broken River South     | NORNICO Pty Ltd              | Application           | 3             | Ni, Co             | N/A                     |
| EPM 18175  | Pinnacles Consolidated | NORNICO Pty Ltd              | Granted (22/2/2015)   | 21            | Ni, Co             | \$50,000                |

**LUCKY BREAK NICKEL PROJECT (100%) – SUBJECT TO 50/50 JOINT VENTURE WITH MFC**

| Tenement | Project Name | Holder/Applicant | Status (Expiry date) | No. Sub Block | Commodity Targeted | Min. Annual Expenditure |
|----------|--------------|------------------|----------------------|---------------|--------------------|-------------------------|
| ML 10324 | Dingo Dam    | NORNICO Pty Ltd  | Granted (28/02/2026) | 36.17 Ha      | Ni                 | N/A                     |
| ML 10332 | Lucky Break  | NORNICO Pty Ltd  | Granted (30/11/2027) | 241.7 Ha      | Ni                 | N/A                     |

**GOLD & BASE METALS (100%)**

| Tenement  | Project Name | Holder/Applicant | Status (Expiry date) | No. Sub Block | Commodity Targeted                       | Min. Annual Expenditure |
|-----------|--------------|------------------|----------------------|---------------|--|-------------------------|
| EPM 13873 | Six Mile     | NORNICO Pty Ltd  | Granted (10/12/2011) | 31            | Tungsten,<br>Molybdenum,<br>Gold, Copper | \$70,000                |

**LIMESTONE PROJECTS (100%)**

| Tenement   | Project Name         | Holder/Applicant       | Status (Expiry date) | No. Sub Block | Commodity Targeted | Min. Annual Expenditure |
|------------|----------------------|------------------------|----------------------|---------------|--------------------|-------------------------|
| ML 10276   | Star River Limestone | Metallica Minerals Ltd | Granted (30/4/2023)  | 18.54 Ha      | Limestone          | N/A                     |
| ML 80131   | Boyne Limestone NE   | Metallica Minerals Ltd | Granted (30/4/2027)  | 54.40 Ha      | Limestone          | N/A                     |
| ML 80132   | Boyne Limestone SW   | Metallica Minerals Ltd | Granted (30/9/2027)  | 52.70 Ha      | Limestone          | N/A                     |
| EPM 13423  | Boyne Limestone      | Metallica Minerals Ltd | Granted (1/1/2011)   | 4             | Limestone          | \$15,000                |
| EPM 17018  | Mt Podge             | Phoenix Lime Pty Ltd   | Granted (12/2/2014)  | 4             | Limestone          | \$25,000                |
| EPMA 18253 | Craigie              | Phoenix Lime Pty Ltd   | Application          | 16            | Limestone          | N/A                     |
| EPMA 18761 | Fairview             | Metallica Minerals Ltd | Application          | 6             | Limestone          | N/A                     |
| MDL 394    | Fairview             | Metallica Minerals Ltd | Granted (31/8/2014)  | 776.6 Ha      | Limestone          | Nil                     |
| MDLA 440   | Fairview             | Metallica Minerals Ltd | Application          | 692.8 Ha      | Limestone          | Nil                     |
| MLA 80162  | Fairview             | Metallica Minerals Ltd | Application          | 692.8 Ha      | Limestone          | N/A                     |
| ML 4788    | Ootann -Crotty 1     | Phoenix Lime Pty Ltd   | Granted (31/1/2026)  | 2.023 Ha      | Limestone          | N/A                     |
| ML 4789    | Ootann -Crotty 2     | Phoenix Lime Pty Ltd   | Granted (31/1/2026)  | 2.023 Ha      | Limestone          | N/A                     |
| ML 5079    | Ootann -Crotty       | Phoenix Lime Pty Ltd   | Granted (30/4/2025)  | 25.95 Ha      | Limestone          | N/A                     |
| ML 5372    | Ootann -Crotty 3     | Phoenix Lime Pty Ltd   | Granted (31/1/2013)  | 210 Ha        | Limestone          | N/A                     |

## Tenement schedule

### MINERAL SANDS: ZIRCON-RUTILE (100%)

| Tenement   | Project Name     | Holder/Applicant          | Status (Expiry date) | No. Sub Block | Commodity Targeted  | Min. Annual Expenditure |
|------------|------------------|---------------------------|----------------------|---------------|---------------------|-------------------------|
| EPM 15268  | Urquhart Point   | Oresome Australia Pty Ltd | Granted (24/10/2012) | 24            | Rutile, Zircon, HMS | \$30,000                |
| EPMA 15370 | Jackson River    | Oresome Australia Pty Ltd | Offered for grant    | 3             | Rutile, Zircon, HMS | N/A                     |
| EPM 15371  | Doughboy         | Oresome Australia Pty Ltd | Granted (28/9/2014)  | 16            | Rutile, Zircon, HMS | \$15,000                |
| EPM 15372  | Jardine          | Oresome Australia Pty Ltd | Granted (28/9/2014)  | 45            | Rutile, Zircon, HMS | \$15,000                |
| EPMA 18015 | Jackson River #2 | Oresome Australia Pty Ltd | Offered for grant    | 14            | Rutile, Zircon, HMS | N/A                     |
| EPMA 18377 | Sandman #1       | Oresome Australia Pty Ltd | Application          | 63            | Rutile, Zircon, HMS | N/A                     |
| EPMA 18737 | Sandman #3       | Oresome Australia Pty Ltd | Application          | 126           | Rutile, Zircon, HMS | N/A                     |
| EPMA 18738 | Sandman #2       | Oresome Australia Pty Ltd | Application          | 122           | Rutile, Zircon, HMS | N/A                     |
| EPMA 18739 | Sandman #4       | Oresome Australia Pty Ltd | Application          | 125           | Rutile, Zircon, HMS | N/A                     |
| MLA 20669  | Urquhart Point   | Oresome Australia Pty Ltd | Application          | 366.07 Ha     | Rutile, Zircon, HMA | N/A                     |

*Note:*

*All tenements 100% held unless expressed otherwise*

*(\*) Renewal pending*

*PGE = Platinum Group Elements*

*HMS = Heavy Mineral Sands*

*EPM = Exploration Permit for Minerals*

*EPMA = Application for Exploration Permit for Minerals*

*ML = Mining Lease*

*MLA = Application for Mining Lease*

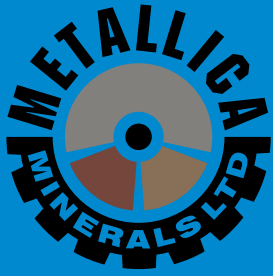
*MDL = Mineral Development Licence*

*MDLA = Mineral Development Licence Application*

*MFC = Metals Finance Ltd*

**A Queensland multi-commodity  
resource development company,  
with major interests in nickel-cobalt,  
scandium, coal, bauxite, tungsten,  
copper, gold, zircon-rutile  
and rare earth elements**





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