



QUARTERLY REPORT

to 30 Sept 2015

ASX Release

30 October 2015

Metallica Minerals Limited is an Australian bauxite, zircon-rutile, nickel-cobalt-scandium and graphite resource development and exploration company

ASX:MLM

ISSUED CAPITAL (30/09/15)

166,891,830 Ordinary Shares
6,000,000 Options

See latest Appendix 5B Lodged
12/10/15 for more detail

SHAREHOLDERS (30/09/15)

2,009 shareholders
Top 20 shareholders hold 59.01%

LARGEST SHAREHOLDERS

Jien Mining Pty Ltd – 24.0%
Victorian Ferries Pty Ltd – 9.8%
Golden Breed Pty Ltd – 5.3%
Bondline Ltd – 2.9%

DIRECTORS

Barry Casson
Non Executive Chairman

Andrew Gillies
Non Executive Director

Shu Wu
Non Executive Director

Shu Zhang
Alternate Director to Dr Wu

SENIOR MANAGEMENT

Simon Slesarewich
Chief Executive Officer

John Haley
CFO & Company Secretary

CASH BALANCE

As at 30/09/15, MLM's cash balance was approximately \$1.4 million. No debt.

PROJECT HIGHLIGHTS

CAPE YORK HMS & BAUXITE JOINT VENTURE

- » On 6 October 2015, the final A\$650,000 was received under the Joint Venture Agreement between Oresome Australia Pty Ltd and Ozore Resources Pty Ltd. Ozore Resources has now earned a 50% interest in the Cape York HMS and Bauxite JV.

URQUHART POINT HMS PROJECT

- » The project is fully permitted.
- » The HMS plant is expected to be shipped from South Africa to Australia in early November.
- » Cost reductions were successfully implemented.
- » The JV will assess all options to ensure that the project is robust before proceeding to production.

URQUHART BAUXITE PROJECT

- » Environmental studies and permitting are ongoing.
- » Adjacent Mining Lease Applications 100044 and 100049, with a combined area of 1,379 Ha, have been lodged covering the Urquhart Bauxite Project area and the potential standalone load-out facility at North Point Jetty.
- » Inferred Mineral Resource of 7.5 million tonnes (Mt) averaging 51% total aluminium oxide (Al_2O_3) and 16.3% total silicon oxide (SiO_2) of Direct Shipping Bauxite (DSB).¹
- » Low temperature, Direct Shipping Bauxite (DSB) confirmed for Area A with high available alumina and moderate reactive silica.^{2,3}
- » Area B drilling confirmed additional bauxite in 40 of 62 holes.
- » Current demand and growth forecast for bauxite remains strong.

ESMERALDA GRAPHITE PROJECT

- » Drilling has commenced on the granite-hosted, hydrothermal-style Esmeralda graphite deposit.
- » Initial assay results are expected in November 2015.

¹ ASX Release 11 May 2015 "Maiden Bauxite Resource", available www.asx.com.au.

² ASX Release 17 April 2015 "Direct Shipping Bauxite confirmed at Urquhart Point", available www.asx.com.au.

³ ASX Release 26 February 2015 "Direct Shipping Bauxite results", available www.asx.com.au.

COMPANY HIGHLIGHTS

CORPORATE

- » The sale of the Ootann and Star River limestone projects was completed on 15 September 2015. A further \$845,000 was received from the Sale Agreements.^{4,5}
- » The company is in discussions on the potential sale of other non-core limestone assets near Gladstone.
- » A private company has completed nickel ore mining operations at the Lucky Break Project. Payment of \$200,000 in royalties was received on 21 September. The final royalty payment is expected to be received in early November. The private company is now undertaking mine site remediation and rehabilitation work.

SAFETY

- » There were no lost-time injuries recorded during the September quarter.

FINANCIAL AND INVESTMENT POSITION

- » Metallica had approximately \$1.4 million in cash as at 30 September 2015 and no debts other than trade creditors.

NOTICES

COMPETENT PERSON'S STATEMENT

The technical information contained in this report was compiled or supervised by Mr Andrew Gillies, BSc(Geol), a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and Director of Metallica Minerals Ltd. Mr Gillies has relevant experience in the mineralisation, exploration results and resources being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). Mr Gillies consents to the inclusion of this information in the form and context in which it appears in this release.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

Certain statements made in this announcement contain or comprise certain forward-looking statements. Although Metallica believes that the estimates and expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in commodity prices and exchange rates and business and operational risk management. Metallica undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.

⁴ ASX Release 9 July 2015 "\$500k sale of Ootann Limestone Project", available www.asx.com.au.

⁵ ASX Release 28 July 2015 "\$370,000 sale of Star Limestone Project", available www.asx.com.au.

OUTLOOK

FOR THE DECEMBER QUARTER

Drilling and assays from two diamond drill core holes will be completed at the company's wholly owned Esmeralda Graphite Project. Initial assay results are expected in late November 2015. Depending on the results, the company may undertake further metallurgical analysis to determine the quality and purity of the Esmeralda graphite.

The Urquhart HMS plant is expected to be in transit from South Africa to Australia in November. On-site construction may commence after the next wet season. The company continues to monitor the mineral sands market and potential impacts on the Urquhart Point HMS Project. Given the continuing decline in zircon-rutile prices, the Cape York HMS and Bauxite Joint Venture will assess all options to ensure that the project is robust before proceeding to production. The current focus is on completing the work required to enable granting of mining leases for the adjoining bauxite deposits (Areas A and B),

which includes environmental base line and hydrology studies that are currently underway.

The attractiveness of Metallica's considerable bauxite assets was boosted by the Indonesian Government's export ban on bauxite. If the ban is not reversed, a major shortfall in seaborne bauxite supply is forecast.

Metallica remains in discussion with an established nickel company for a possible joint venture partnership on the SCONI (Ni-Co-Sc) Project. The company is also in an early stage of negotiation with another party on a potential joint venture partnership on the Cape Flattery Silica Sands Project.

Following the sale of its Ootann and Star River limestone projects, the company is evaluating further opportunities to realise the value of its remaining Queensland limestone assets. The company also continues to assess potential acquisitions that will add value to shareholders.



CAPE YORK

HMS AND BAUXITE JOINT VENTURE

AREA	1,797 Ha under mining leases and applications and 1,257 km ² under exploration tenure
COMMODITY	Heavy Mineral Sands (zircon, rutile, titanium minerals) and Bauxite
HOLDING	MLM 50% (Ozore Resources Pty Ltd 50%)

Pursuant to the joint venture agreement, the Cape York HMS and Bauxite Project Joint Venture is now held 50% by Oresome Australia Pty Ltd, a wholly owned subsidiary of Metallica Minerals, and 50% by a private Chinese investor, Ozore Resources Pty Ltd (Ozore). In accordance with the JV agreement, Ozore has provided A\$7.5 million to the JV to fund the development of the Urquhart HMS Project. The final \$650,000 payment of which was received on 6 October 2015.

Since the formation of the JV on 8 September 2014, the JV has expended in excess of \$7.5 million on progressing the Urquhart HMS Project and regional exploration programs within the vast JV tenements on western Cape York. The majority of funds were applied to the fabrication of the Urquhart HMS processing plant in South Africa, which was recently completed and is expected to be shipped in early November. Metallica has a free-carry interest in the project until Ozore's total funding commitment is satisfied.

The Cape York HMS and Bauxite Project Joint Venture comprises three separate projects: Urquhart Bauxite Project, Urquhart Point HMS Project, and Cape York Regional HMS and Bauxite Exploration Project.

PRIORITIES FOR THE DECEMBER QUARTER

- » Undertake dry season environmental survey and monitoring at Urquhart Bauxite Project.
- » Continue bauxite project evaluation and initial market studies.
- » Complete shipping of the HMS plant from South Africa.
- » Continue to monitor the mineral sands market and assess all options to ensure that the Urquhart Point HMS Project is robust before proceeding to production.



FIGURE 1: Civil works completed in preparation for the HMS processing plant with haul road from the initial mining area

URQUHART POINT

HMS PROJECT

The Urquhart Point HMS Project is located on Urquhart Point, 3 km south-west of Weipa (see Figure 2). The JV is developing a simple dry mining (less than 3 metre depth) and wet sand mineral processing operation using standard gravity (spiral concentrators) HMS separation to produce a zircon-rutile heavy mineral concentrate (HMC).

The mineral processing involves the separation of the heavy zircon-titanium and iron oxide minerals (>4 specific gravity [SG]) from the lighter (<3 SG) quartz and calcareous sands. No chemicals are required for HMS processing or HM concentration. The HMS processing rate will be approximately 110 tonnes per

hour (270,000 tonnes per year), producing an average of approximately 17,000 tonnes HMC per year.

Pre-civil site preparation works have been completed (see Figure 1) in readiness for assembly of the modularized plant. On-site construction will not commence during the wet season.

The JV continues to monitor the mineral sands market. Given the continuing decline in zircon-rutile prices, the JV will assess all options to ensure that the project is robust before proceeding to production. Offtake discussions and product marketing are, nevertheless, at an advanced stage.

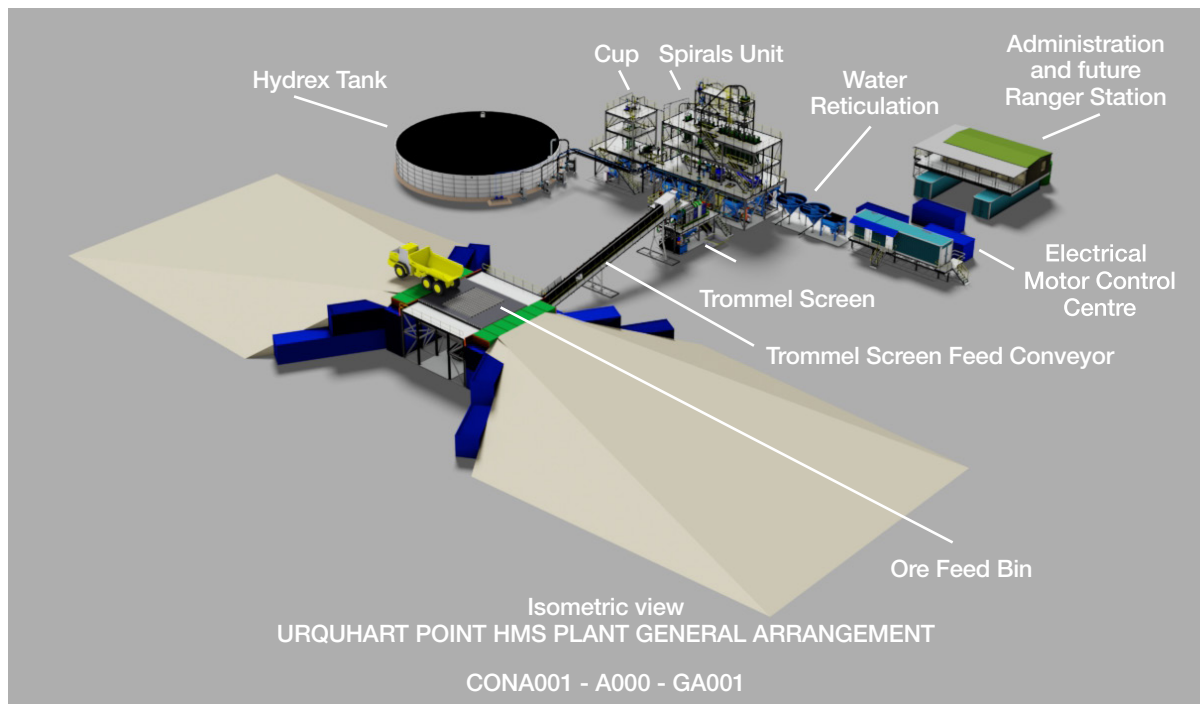


FIGURE 3: 3D CAD image Urquhart HMS plant design

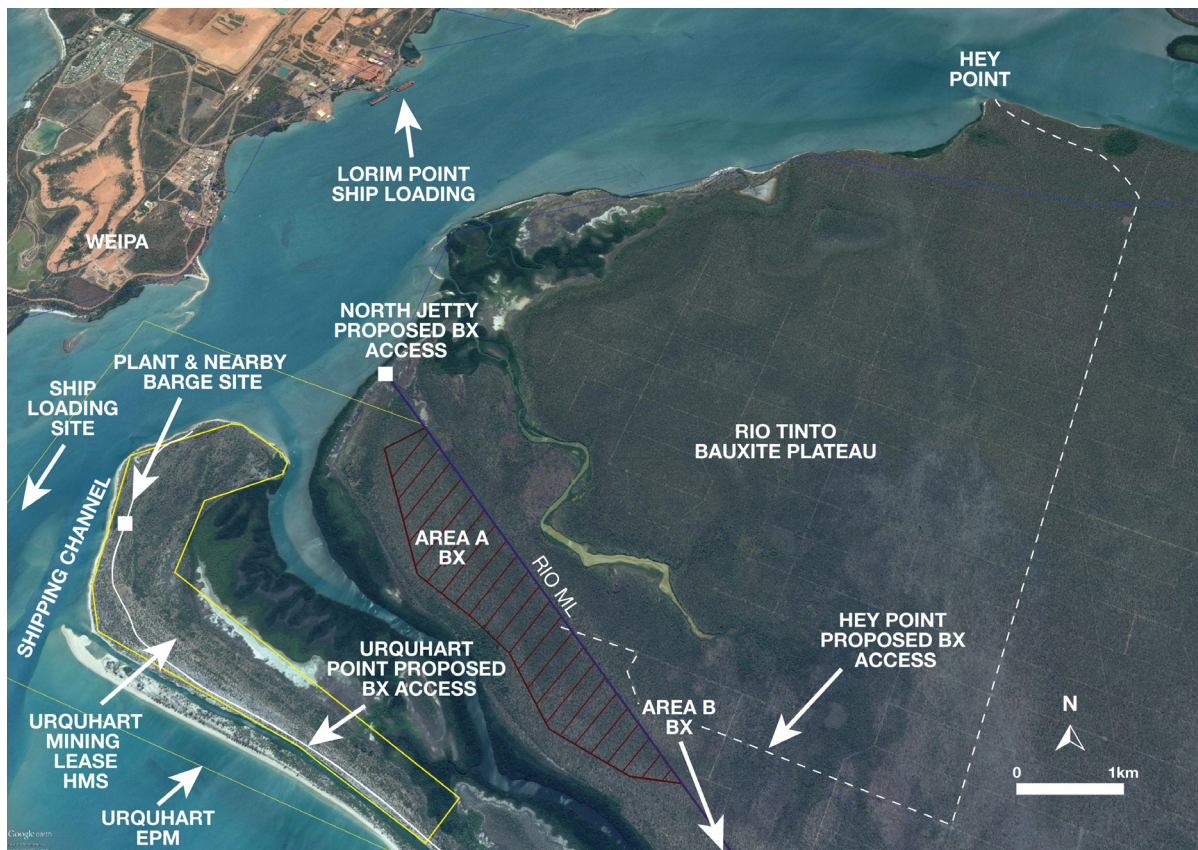


FIGURE 4: Aerial view showing Urquhart Point HMS & Urquhart Bauxite projects including load out options for Urquhart Bauxite.

URQUHART

BAUXITE PROJECT

The Urquhart Bauxite Project is situated adjacent to the HMS project, some 5 km south-west of Weipa on Queensland's Cape York Peninsula. The western Cape York is world-renowned for its extensive deposits of high-quality, export-grade pisolitic bauxite. The project consists of two bauxite plateaus, known as Area A and Area B, which are wholly contained within the lease area.

The JV recently lodged Mining Lease Application (MLA) 100044 of 1,379 Ha, which covers the Urquhart bauxite resource (Area A and Area B), and MLA 100049, which covers the proposed North Point Jetty load-out facility (one of three potential locations)⁶.

Drilling results, coupled with the completed geological modelling, confirm that the majority of the Urquhart bauxite resource is suitable for Direct Shipping Bauxite (DSB). The DSB will be barged from one of three locations, two within the mining lease⁶ and one held by a private company, and then trans-shipped via the sheltered Weipa Port (see Figure 4). The potential production of DSB expedites permitting and development of the project due to the relatively simple mining-truck-barge operation with consequentially low capital and operating costs. DSB will be produced at an average production rate of 1.5 to 2 million tonnes per year.

The high-quality, low temperature, export-grade, Weipa-type bauxite has a high alumina content (>50% Al_2O_3), which is sought after in the seaborne market. In May 2015, the JV announced a maiden JORC-compliant bauxite Mineral Resource.¹ The May 2015 Inferred Mineral Resource estimate for the Urquhart Bauxite Project (Areas A and B) at a 45% Al_2O_3 cut-off for DSB is 7.5 million tonnes @ 51.0% Al_2O_3 , 16.3% SiO_2 . Additional details of the bauxite Resource are provided in Table 1.

In Area A, available alumina (AAI) and reactive silica (RSi) were selectively sampled for intervals below a threshold of 15% SiO_2 or above 48% Al_2O_3 . This represents the lower half of the bauxite horizon defined in Area A. Subsequently, this lower section was modelled as a separate domain where the assays for AAI and RSi were available. In comparison, Area B has generally higher SiO_2 and a much smaller and less continuous lower bauxite domain. It has similar chemistry, but currently no AAI or RSi assay results are available to conclusively determine the overall quality of Area B. Estimates for the lower bauxite horizon as a higher grade subset of the 45% Al_2O_3 cut-off Resource shown in Table 1 are provided in Table 2 at an effective cut-off grade of 15% SiO_2 .

TABLE 1: Urquhart DSB Resource statement details at 45% Al_2O_3 cut-off

Area	DSB (in situ)		
	Kt	$\text{Al}_2\text{O}_3\%$	$\text{SiO}_2\%$
A	5,121	52.0	15.0
B	2,366	48.8	19.0
Total	7,487	51.0	16.3

TABLE 2: Urquhart DSB Resource statement for the lower bauxite profile

Area	Kt	DSB (in situ)			
		$\text{Al}_2\text{O}_3\%$	$\text{SiO}_2\%$	AAI%	RSi%
A	3,987	53.3	13.0	40.6	4.9
B	777	52.7	13.2	-	-
Total	4,764	53.2	13.0	-	-

a Tonnages in Table 2 are a subset of those reported in Table 1.

b Recovered tonnage (tonnes x yield) for the same DSB cut-off grade and DSB in situ dry tonnage.

⁶ ASX Release 25 June 2015 "Urquhart Bauxite Mining Lease Application lodged", available www.asx.com.au.

CAPE YORK

REGIONAL EXPLORATION PROJECT

The Joint Venture did not undertake any field work on its regional HMS and bauxite exploration targets during the September quarter. With the onset of the wet season imminent and a clear focus on the Urquhart

Bauxite Project, regional exploration is currently on hold. Regional exploration will recommence at an appropriate time in 2016.



A local contractor's barge, travelling via the deep sheltered water shipping channel adjacent to the Urquhart Point mining lease, about to unload a drilling rig and other equipment on the beach at Urquhart Point. Similar barges can be used in the future for barging HMS concentrate and potentially bauxite for trans-shipment to a nearby ship.

ESMERALDA

GRAPHITE PROJECT

AREA	750 km ² exploration tenure
COMMODITY	Graphite (large scale “graphite in granite”) – targeting high purity graphite
HOLDING	MLM 100% (through subsidiary Touchstone Resources Pty Ltd)

In July 2015, Metallica was granted Exploration Permits for Minerals (EPMs) 25779, 25806 and 25807, which make up the Esmeralda Graphite Project. The project, located near Croydon in north Queensland (see Figure 5), covers a combined area of over 750 km² and is held 100% by Metallica's wholly owned subsidiary Touchstone Resources Pty Ltd.

Metallica has identified significant graphite occurrences within the Esmeralda Granites in the project area. These occurrences were first identified in 2006 by Metallica during a drilling program that targeted well-defined airborne and ground-defined intense electromagnetic (EM) anomalies. At the time, the drilling focused on base metal and gold-bearing massive sulphide mineralisation. Instead of sulphides, Metallica discovered significant graphite mineralisation. The discovery was unexpected because graphite is rarely associated with igneous rocks, such as granite.

Subsequently, a literature review of graphite occurrences in the Esmeralda Granites and Croydon Volcanics indicated large suites of potentially graphite-bearing igneous rocks. Metallica has identified targets where magmatic differentiation or structural controls could concentrate graphite into significantly higher percentages. Previous percussion drilling, including the 2006 Metallica program, have recorded significant zones of observable graphite mineralisation (>10% graphite visually) while exploring for metals and other types of mineralisation. Fourteen historic percussion exploration drill holes were identified intersecting significant graphitic granite.

Igneous or hydrothermal-style graphite deposits, such as Esmeralda, are rare. The more common metamorphic-style graphite deposits make up 95% of the world's known graphite deposits. And unlike

the metamorphic-style deposits, hydrothermal-style graphite deposits are typically of high purity graphite in either flake or crystalline form. Examples of this style of mineralisation include the high-grade, narrow-vein Sri Lankan deposits and the Albany graphite deposit in Canada. The carbon source is non-organic and the carbon is thought to be from deep carbon dioxide (CO₂) or methane (CH₄) gaseous injection into the magma chamber, which later crystallises out as pure or near-pure carbon (graphite) crystals.

Metallica has developed a hydrothermal mineralisation model for the Esmeralda granite based on work completed by the Bureau of Mineral Resources (BMR) in 1988 and the recent (2013) discovery of the Albany graphite deposit.

On 23 October 2015, the company announced that a drill rig had been mobilised to carry out an initial drilling program on the project.^{7,8} Drilling has commenced and will be completed early in November 2015. Initial assay results should be available late November. Depending on the results, the company may then undertake further metallurgical analysis to determine the quality of the Esmeralda graphite.

PRIORITIES FOR THE DECEMBER QUARTER

- » Complete drilling two 125 metre deep diamond drill core holes located 1 km apart to assess the grade and quality of the graphite in granite.
- » Initial assay results will be available in late November 2015.
- » Undertake further metallurgical test work based on assay results.

⁷ ASX Release 23 October 2015 “Drill rig mobilised to the Esmeralda Graphite Project”, available www.asx.com.au.

⁸ ASX Release 15 July 2015 “Graphite in Granite Project”, available www.asx.com.au.

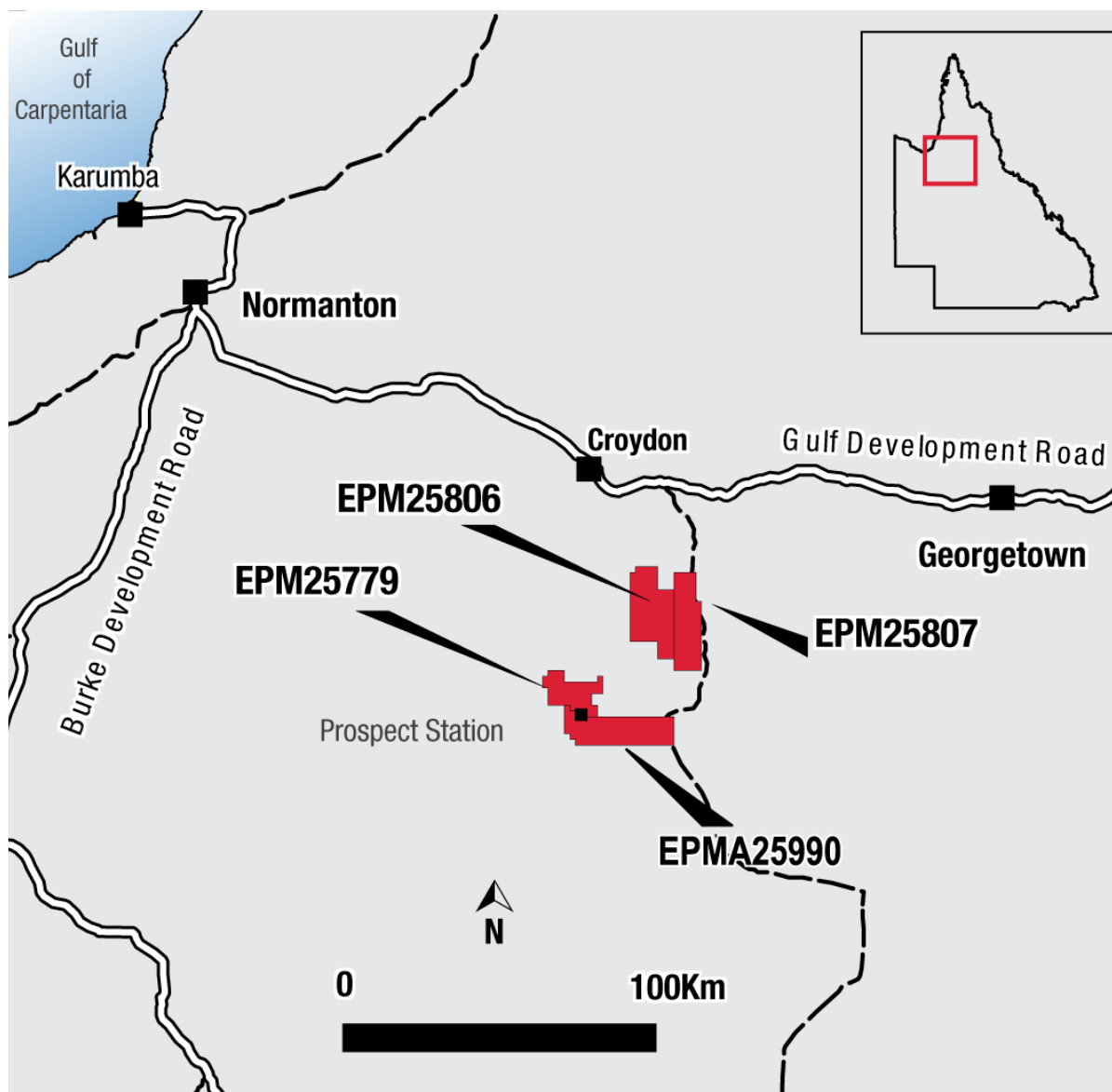


FIGURE 5: Esmeralda Graphite Project Area

SCONI

NICKEL – COBALT – SCANDIUM PROJECT

AREA	2,049 Ha under mining leases, 478 Ha under mineral development licences, and 155.6 km ² under exploration tenure
COMMODITY	Nickel, Cobalt and Scandium (Ni-Co-Sc)
HOLDING	MLM 100%

Metallica is seeking strategic partners to develop the SCONI Project (previously named NORNICO) (see Figure 6). The company remains in discussion with potential partners. This takes time to develop relationships and build confidence in the project. Consequently, during the September quarter, no significant project work was undertaken.

Several pre-feasibility studies have previously been undertaken on the SCONI Project, which concluded that there is considerable scope to enhance the project's processing flowsheet and resulting economics. Subject to reaching a satisfactory funding arrangement, further optimisation studies will be conducted on:

- » Beneficiation of nickel, cobalt and scandium minerals.
- » Combining pressure acid leaching (PAL) and atmospheric acid leaching (AAL) methods (previously investigated separately).
- » Reviewing and testing the latest laterite processing technologies.
- » Sourcing major plant and equipment from China and other lower cost manufacturing countries.

For further information, refer to Metallica Minerals Annual Report 2015.

PRIORITIES FOR THE DECEMBER QUARTER

- » Continue negotiations with potential joint venture partners.
- » Approach existing and emerging scandium producers about licensing of Metallica's proprietary technology for production of high-purity scandium oxide (99.99% Sc₂O₃).

More information about the SCONI project and scandium is available on the Metallica Minerals website⁹.

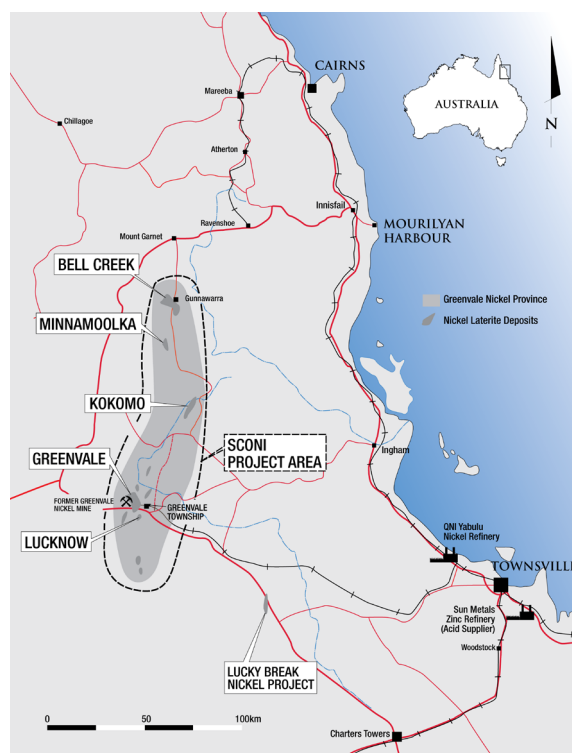


FIGURE 6: SCONI Project Area

⁹ "A New Spice Metal to Enhance Industry & Life" www.metallicaminerals.com.au/media-articles.

LUCKY BREAK

NICKEL PROJECT

AREA	103 Ha under mining leases
COMMODITY	Nickel Laterite
HOLDING	MLM 100% (subject to Royalty Agreement)

On 12 January 2015, Metallica entered into a royalty agreement with a private company to allow the mining and extraction of nickel laterite ore from Metallica's Dingo Dam Mining Lease, which is part of the Lucky Break Nickel Project, located 140 km by road west of Townsville (see Figure 7).

The private company has advised that it has completed mining operations in the royalty area and has extracted more than 100,000 tonnes of high-grade nickel laterite ore. The company is currently undertaking mine site remediation and rehabilitation work. Under the royalty agreement, the removal of the 100,000 tonnes of ore triggers two further payments (in addition to the \$250,000 already received on 12 January 2015) of \$200,000, one of which was received in September and a further \$200,000 is expected in early November.

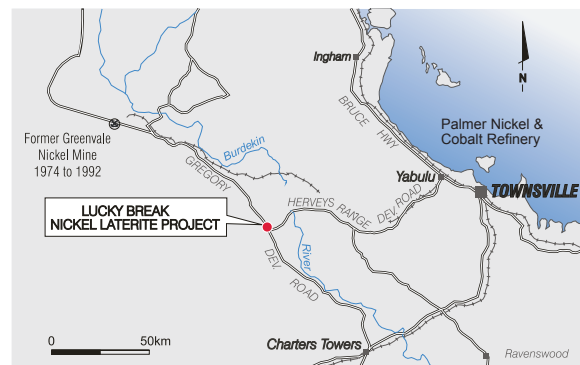


FIGURE 7: Lucky Break Nickel Project Area

CAPE FLATTERY

SILICA SANDS PROJECT

AREA	54 km ² under exploration tenure
COMMODITY	Silica Sand (for bulk export shipping)
HOLDING	MLM 100% (through subsidiary Oresome Australia Pty Ltd)

The Cape Flattery Silica Sands Project is located approximately 200 km north of Cairns in North Queensland (see Figure 8). The EPM covers part of a large Quaternary sand dune field, which is known to contain high-grade silica sand. A section of the sand dune field is currently being mined by Cape Flattery Silica Mines Pty Ltd (CFSM), a wholly owned subsidiary of Mitsubishi Corporation (see Figure 9). Cape Flattery has operated since 1967 and is the world's largest silica sand mining operation.

PRIORITIES FOR THE DECEMBER QUARTER

- » Metallica is currently undertaking desktop studies and preparing material to attract potential joint venture partners for a potential silica sand mining and bulk shipping operation.



FIGURE 8: Cape Flattery Project Area

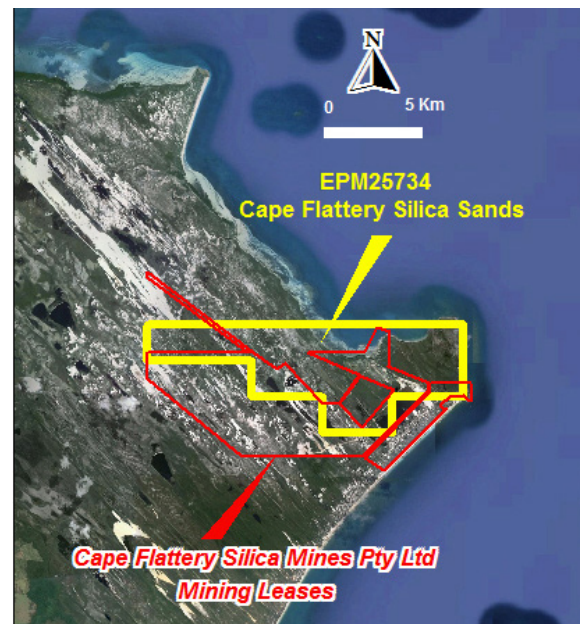


FIGURE 9: Cape Flattery EPM & CFSM mining lease location

SUBSIDIARY COMPANIES

NORNICO Pty Ltd ACN 065 384 045
Oresome Australia Pty Ltd ACN 071 762 484
Oresome Bauxite Pty Ltd ACN 606 362 252
Lucky Break Operations Pty Ltd ACN 126 272 580
Phoenix Lime Pty Ltd ACN 096 355 761
Greenvale Operations Pty Ltd ACN 139 136 708
Scandium Pty Ltd ACN 138 608 894
Touchstone Resources Pty Ltd ACN 126 306 018



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