QUARTERLY REPORT

to 30 June 2016

ASX Release

30 June 2016

Metallica Minerals Limited is an Australian resources developer primarily focused on advancing its bauxite, graphite and mineral sands projects

ASX:MLM

ISSUED CAPITAL (30/06/16)

227,311,635 Ordinary Shares
29,935,691 Listed Options
8,000,000 Unlisted Options

See Appendix 5B Lodged 20/07/16 and 25/07/16 for more detail

SHAREHOLDERS (01/07/16)

2,116 shareholders

Top 20 shareholders hold 41.09%

LARGEST SHAREHOLDERS

Jien Mining Pty Ltd – 17.64%
Golden Breed Pty Ltd – 3.96%

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 30/06/16, MLM's cash balance was approximately $2,280,000. No debt.

PROJECT HIGHLIGHTS

CAPE YORK BAUXITE AND HMS JOINT VENTURE (JV QLD)

URQUHART BAUXITE PROJECT

- First bauxite production remains on schedule for the first half of 2017.
- Department of the Environment (Commonwealth Government) confirms that it does not require an Environmental Impact Study (EIS) to be completed.[1]
- Heads of Agreement executed for bauxite logistic services and transhipping access to ensure very low start–up capital and a compressed start–up schedule, thereby significantly de–risking the project.[2]
- Completed the planning and mobilisation for a drill program scheduled to commence early in August 2016 to increase the current Resource category confidence and further underpin studies to verify the results of a previously completed internal Options Study.
- Inferred Mineral Resource of 7.5 million tonnes (dry Mt) averaging 51% total aluminum oxide (Al_2O_3) and 16.3% total silicon oxide (SiO_2) of Direct Shipping Bauxite (DSB).[3]
- DSB confirmed for Area A with high available alumina of 40.6% and moderate reactive silica of 4.9%.[4]

URQUHART HMS PROJECT

- The project is fully permitted.
- The JV has deferred construction of the mineral sand processing plant to focus on the higher value Urquhart Bauxite Project.
- Interest received from third parties in relation to the HMS Project, as well as use of the wholly–owned mineral sands processing plant.

ESMERALDA GRAPHITE PROJECT (QLD)

- Two drill holes completed on the granite–hosted, hydrothermal–style Esmeralda graphite deposits near Croydon.
- Assay results confirm thick graphite (Cg) mineralised intervals in the first two exploration holes:[5]
  - WD001 – 95.0 m @ 6.5% Cg from 71 m
  - WD002 – 29.1 m @ 7.8% Cg from 71.9 m, including 7.1 m @ 12.9% Cg
- High grade concentrate of 97.8% Total Carbon (TC) produced.[6]
- Standard flotation tests delivered a 91.5% TC concentrate with a 91% recovery.[6]

[1] ASX Release 24th June 2016 "Commonwealth Government confirms Urquhart Bauxite does not require an EIS".
[2] ASX Release 7 April 2016 "Logistics Solution for Urquhart Bauxite Project", available www.asx.com.au.
[3] ASX Release 11 May 2015 "Maiden Bauxite Resource", available www.asx.com.au.
[4] ASX Release 17 April 2015 "Direct Shipping Bauxite confirmed at Urquhart Point", available www.asx.com.au.
[5] ASX Release 10 December 2015 "Assays strongly support potential for large graphite deposit", available www.asx.com.au.
[6] ASX Release 24 May 2016 "High Purity and Recovery from Esmeralda Graphite testwork", available www.asx.com.au.

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COMPANY HIGHLIGHTS

CORPORATE

Received final payment of $900,000 from the sale of the Boyne Limestone project in Queensland to a private group.[7]

SAFETY

There were no Lost–Time Injuries recorded during the June 2016 quarter.

FINANCIAL AND INVESTMENT POSITION

Metallica had approximately $2,280,000 in cash as at 30 June 2016 and no debts other than trade creditors.

IronClad self–propelled barge moored at the mother vessle loading point in the Embley River, Weipa, North Queensland – June 2016

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 a non–Executive 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.

[7] ASX Release 27 June 2016 "$900,000 boost to Metallica cash balance", available www.asx.com.au.

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OUTLOOK
FOR THE SEPTEMBER QUARTER

The Company's current focus is on completing the work required to enable the granting of mining leases for the Urquhart Bauxite project and on progressing the full access and logistics agreements to utilise the nearby Hey Point facility. A drill program is planned to commence early in August 2016 and is designed to increase the resource category confidence. This in turn will underpin further studies that are expected to confirm results from a previously completed internal Options Study. The attractiveness of Metallica's considerable and strategically located Cape York bauxite assets has been boosted by the Indonesian Government's export ban on bauxite and the further imposition of a bauxite mining moratorium by the Malaysian Government.

Drilling and assays from two diamond drill core holes were completed at Metallica's wholly–owned Esmeralda Graphite Project near Croydon. Initial assay results were received in December 2015. The Company has now completed the final testwork with a high grade concentrate of 97.8% Total Carbon (TC) produced. The Company will now focus on locating near surface graphite deposits.

The HMS processing plant is currently stored near Brisbane. Given the continuing low heavy minerals sands prices, the Cape York Bauxite and HMS Joint Venture has deferred planned construction of the HMS plant to focus on the higher value Urquhart Bauxite Project. Following several approaches from third parties, the Joint Venture is progressing several options that may deliver value to the Joint Venture.

The Company is currently in ongoing discussions with an established nickel company for a possible joint venture or other partnership on the SCONI (Ni–Co–Sc) Project northwest of Townsville. It is also seeking a potential joint venture partnership or other transactions on the Cape Flattery Silica Sands Project.

Metallica continues to assess potential acquisition opportunities that will add value to shareholders.

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CAPE YORK

BAUXITE AND HMS JOINT VENTURE

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

Pursuant to the joint venture agreement, the Cape York HMS and Bauxite Project Joint Venture is 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).

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

Since the formation of the JV on 8 September 2014, the JV has expended in excess of $8.5 million. The funds have been applied to progressing development of the Urquhart Bauxite Project as well as the design and fabrication of the Urquhart Point HMS processing plant.

PRIORITIES FOR THE SEPTEMBER QUARTER

Development of the Urquhart Bauxite Project remains on schedule to commence production in Urquhart Bauxite Project H1 2017. The JV will continue on with permitting and approvals necessary to realise production from Urquhart Bauxite and commence the drilling program as referred to in this report.

The Joint Venture will also look to commence negotiations for the binding Logistics and access Agreements for trans shipping operations from the nearby Hey Point following on from the Heads of Agreement executed in April 2016.

Approaches from third parties in relation to the Urquhart Point HMS Project and processing plant, will be progressed so as to potentially deliver value to the Joint Venture.

Installed barge loading facility at Hey Point – June 2016

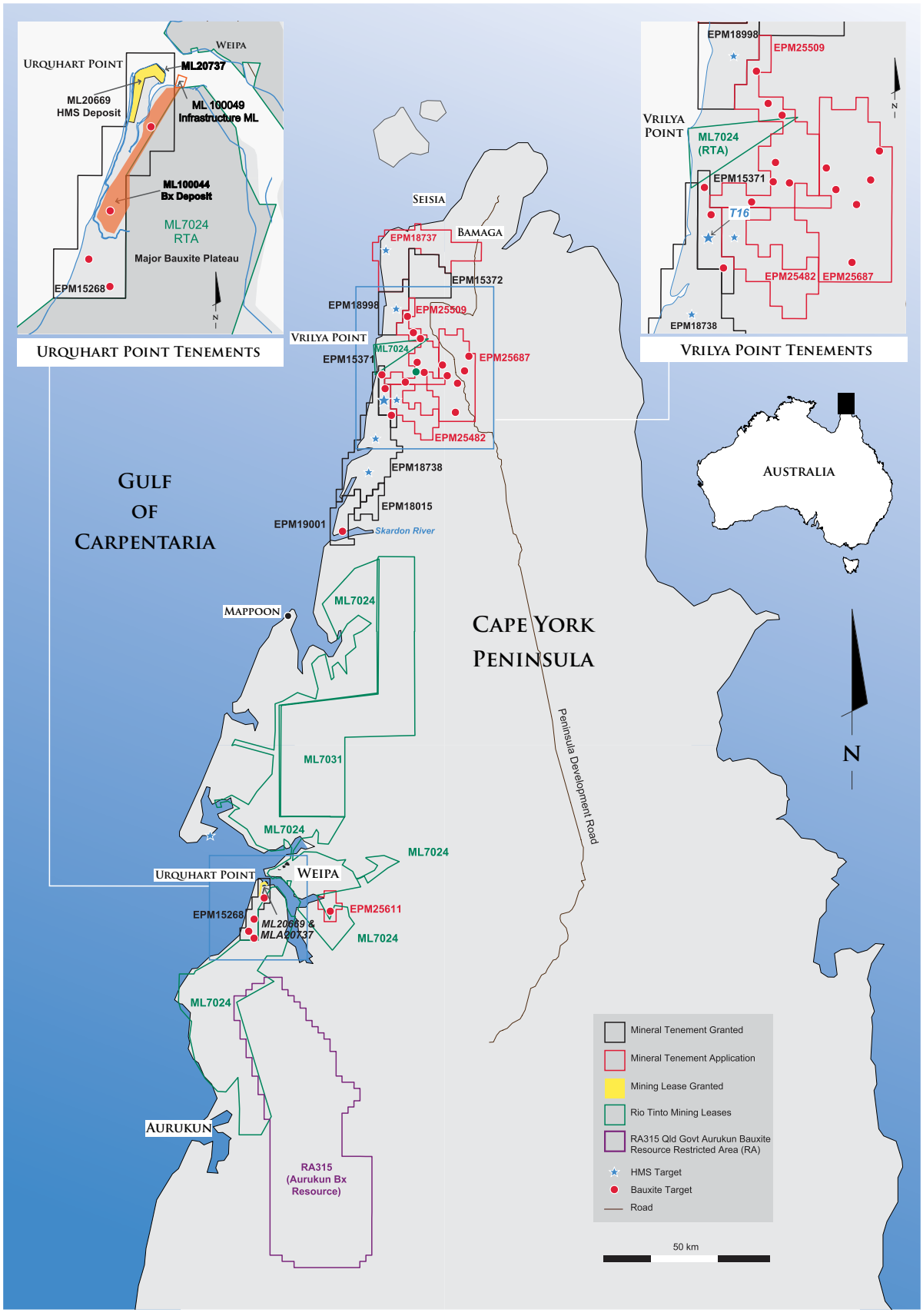

FIGURE 1: Cape York HMS and Bauxite Project Areas

URQUHART
BAUXITE PROJECT

The Urquhart Bauxite Project is situated adjacent to the Urquhart Point (HMS) granted mining lease, some 5 km south–west of Weipa on the west coast of 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 plateaux, known as Area A and Area B, which are wholly contained within the lease area.

A Heads of Agreement (HoA) was executed early in April 2016[8] for bauxite logistic services and trans shipping access. This agreement significantly de–risks the project and delivers a very low start–up capital requirement and a compressed start–up schedule. Under the agreement, direct shipping bauxite (DSB) from the Urquhart Bauxite Project will be delivered to export vessels via the approved nearby Hey Point load–out facility, located only 15 km from the Urquhart Bauxite Project.

The HoA includes attractive, capped contracting rates over the projected life of the project and access to the Hey Point load–out facility for trans shipping bauxite. The HoA will form the basis of a full binding service contract and a binding access agreement, which are targeted for execution by 31 August 2016 (or such later date as agreed between the parties).[8]

The JV has lodged Mining Lease Application (MLA) 100044 of 1,379 Ha, which covers the Urquhart Bauxite Resource (Area A and Area B).[9]

A drill program is planned to be commenced in early August 2016 that is expected to result in an increase in the Resource category confidence and will underpin further studies that are predicted to verify the recently completed in–house Options Study that identified Hey Point as the preferred logistics solution.

To date, 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 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 is planned to be produced at an average production rate of 1.5 to 2 Mtpa.

The high–quality 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. 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 Mt @ 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 (AAl) 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 AAl 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 AAl 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 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	Al_2O_3%	SiO_2%
A	5,121	52.0	15.0
B	2,366	48.8	19.0
Total	**7,487**	**51.0**	**16.3**

[8] ASX Release 7 April 2016 "Logistics Solution for Urquhart Bauxite Project", available www.asx.com.au
[9] ASX Release 25 June 2015 "Urquhart Bauxite Mining Lease Application lodged", available www.asx.com.au

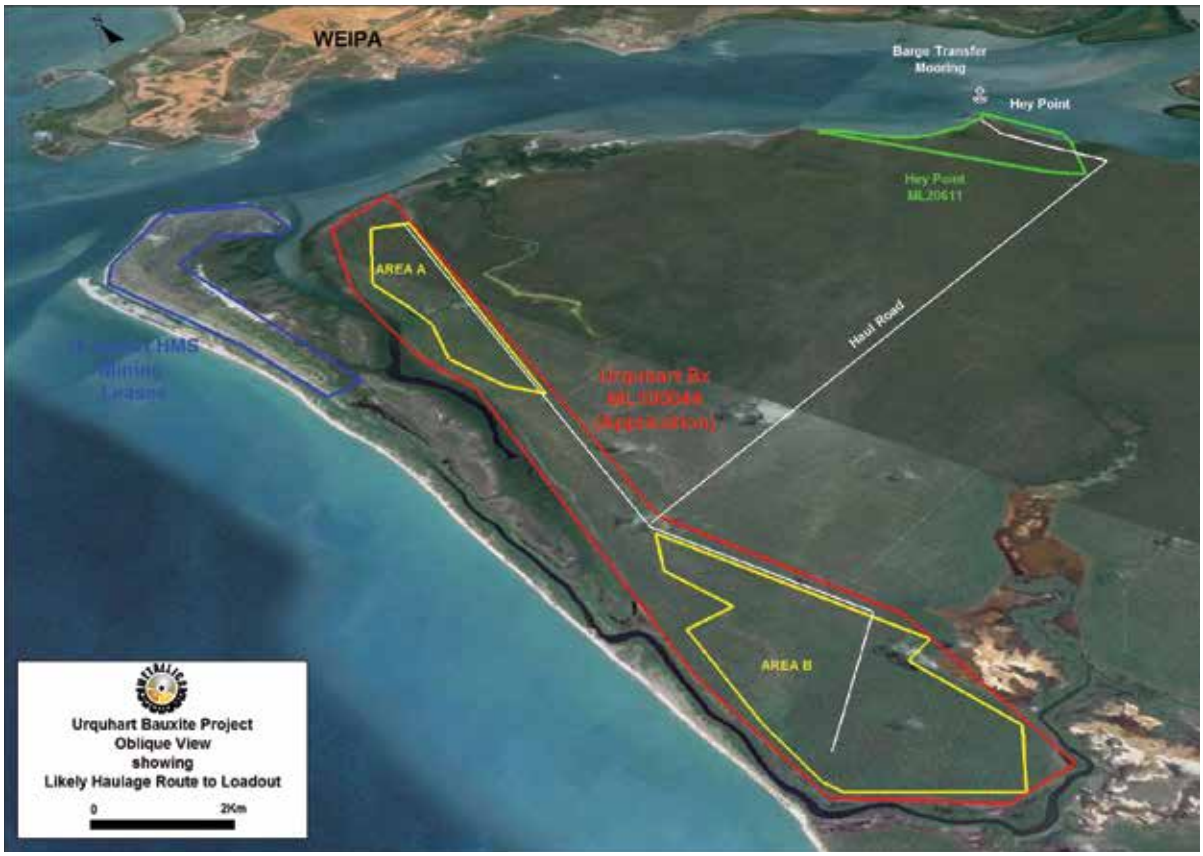

FIGURE 2: Aerial view showing likely haulage route and proximity of Hey Point load–out facility (green) to the Urquhart Bauxite Project lease (red) and mining areas (yellow)

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

Area	DSB (in situ)				
	Kt	Al_2O_3%	SiO_2%	AAl%	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.

URQUHART POINT
HMS PROJECT

The modularized HMS processing plant arrived in Australia in December 2015 and is currently stored near Brisbane. Given the continuing low heavy mineral sand prices, the JV has deferred construction of the heavy mineral sand processing plant to focus on the higher value Urquhart Bauxite Project. Following several approaches from third parties, the Joint Venture is progressing several options that may deliver value to the Joint Venture.

The Urquhart Point HMS Project is located on Urquhart Point, 3 km south–west of Weipa (see Figure 3). The JV has developed 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 development plan can be implemented very quickly to deliver production if there is an improvement in commodity prices.

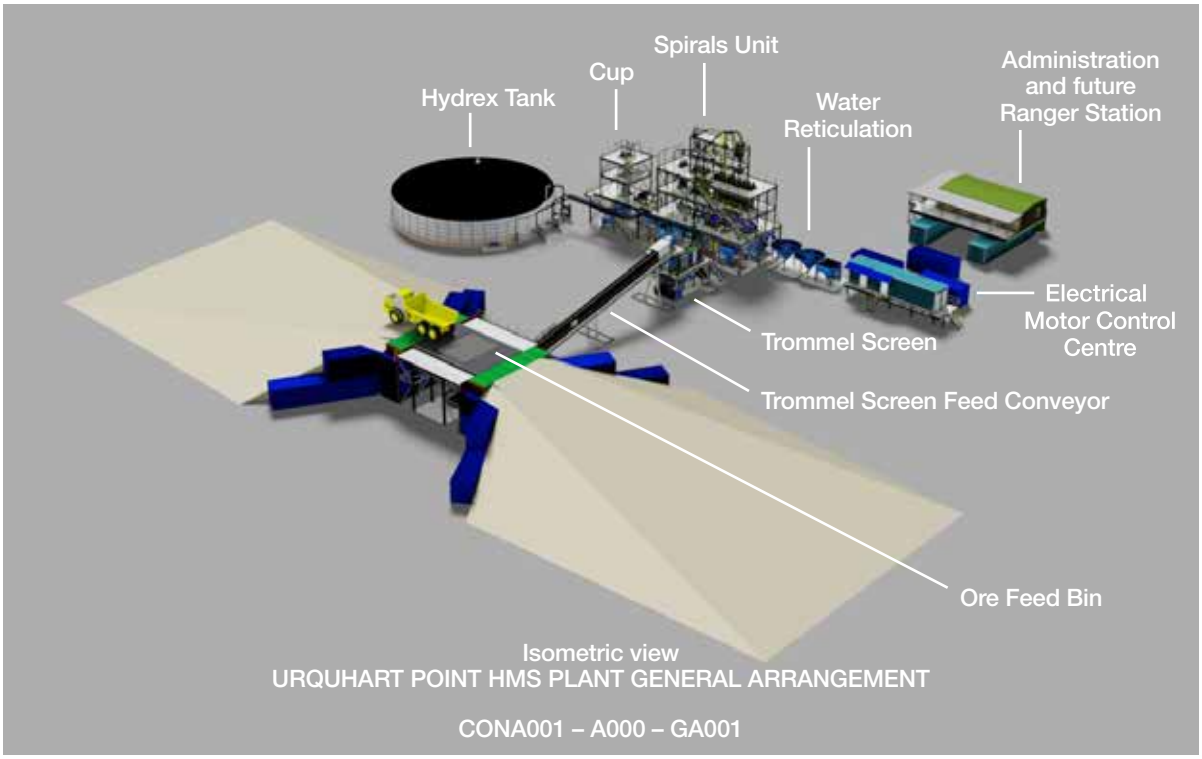

FIGURE 3: 3D CAD image Urquhart HMS plant design

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CAPE YORK

REGIONAL HMS EXPLORATION PROJECT

The Joint Venture did not undertake any field work on its regional HMS and bauxite exploration targets during the June quarter. With a clear focus on the Urquhart Bauxite Project, regional exploration is currently on hold.

Bauxite stockpiles at Hey Point – June 2016

Hold of the IronClad self-propelled barge with mother vessel loading equipment – June 2016

ESMERALDA
GRAPHITE PROJECT

AREA	1,068 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 Minerals was granted Exploration Permits for Minerals (EPMs) 25779, 25806, 25807 and 25990, which make up the Esmeralda Graphite Project. The project, located near Croydon in north Queensland (see Figure 4), covers a combined area of more than 1,000 km^2 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, has 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

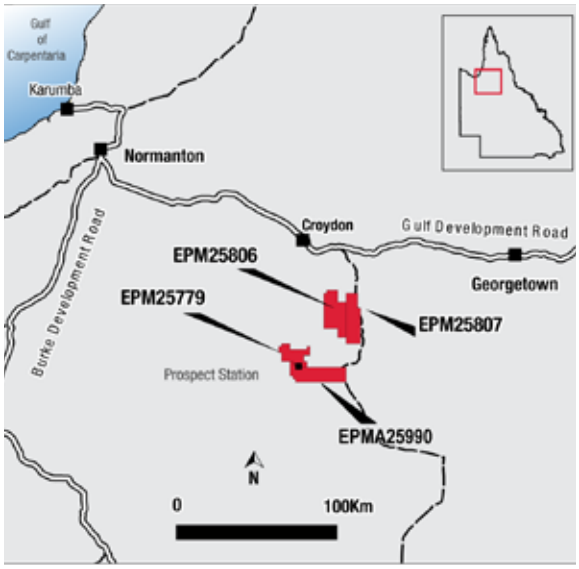

FIGURE 4: Esmeralda tenements

the carbon is thought to be from deep carbon dioxide (CO_2) or methane (CH_4) 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.

The Company mobilised a drill rig to site in October 2015 to carry out an initial drilling program on the project.[10, 11] The assay results confirm thick graphite (Cg) mineralised intervals in the first two exploration holes.

The core was assayed for graphite content and total carbon. In summary, both drill holes (in a vertical two–hole drilling program) intersected significant broad graphite mineralisation (using a 3%Cg cut–off) with continuous intercepts of:

» WD001 – 95 m @ 6.5% Cg from 71m

» WD002 – 29.1 m @ 7.8%1Cg from 71.9 m

An independent petrology study has also been completed on six representative samples from the mineralised zones. The petrology study identified the same distinctive alteration and mineralisation style present in both holes which is associated with consistent grades indicating that the graphite mineralisation may be continuous for 1.2 km or more.

These results add strong support to the Company's belief that the Esmeralda deposit is very large and would be uniquely amenable to large–scale bulk mining. WD001 ended in significant graphite mineralisation (4.1% Cg), with mineralisation open in all directions.

Metallurgical results, including those from the Mineral Liberation Analysis, show that 97.8% TC purity product can potentially be even further improved by removing impurities via conventional processing methods, including additional purification stages.

The test work followed standard procedures that involved crushing and preparation of representative drill core samples for bench scale floatation testwork. With the addition of standard floatation reagents, a concentrate grade of 91.5% TC (90.6 % Graphitic Carbon – Cg) was able to be produced at a 91% recovery.

The floatation concentrate underwent purification to produce a concentrate grade of 97.8% TC. Purification involved a single stage caustic bake and wash.[12]

PRIORITIES FOR THE SEPTEMBER QUARTER

Undertake an electromagnetic (EM) geophysics program to identify near surface graphite mineralisation for follow up testing.

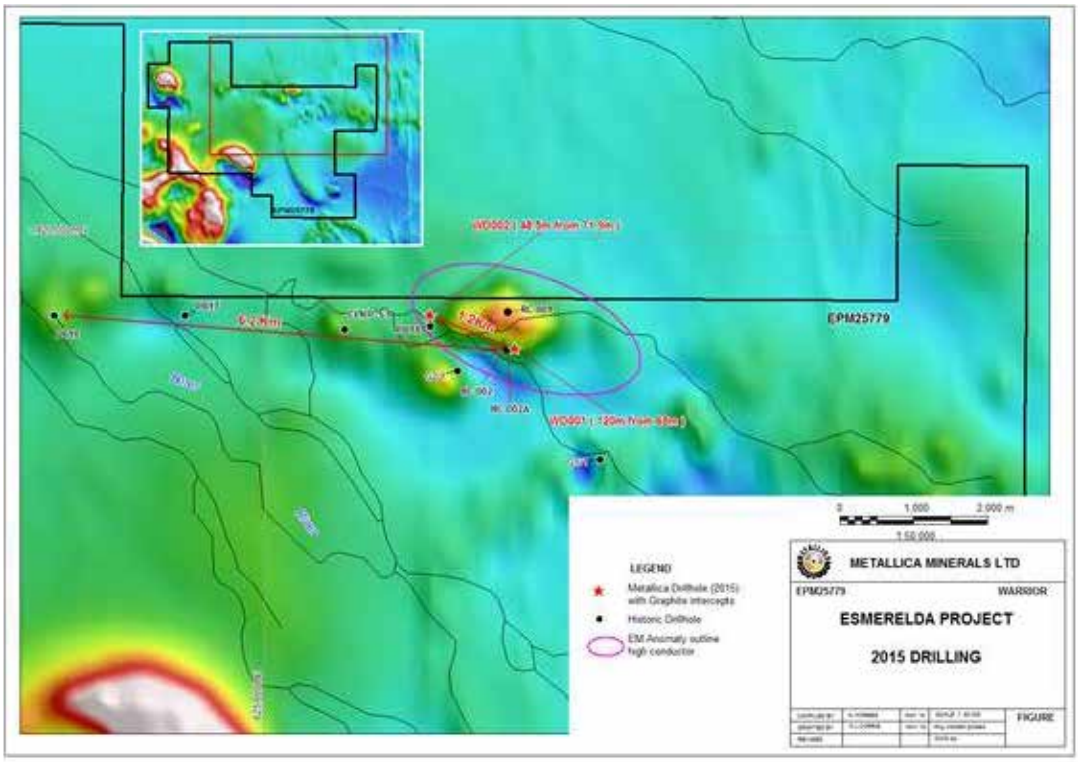

FIGURE 5: 2015 drill holes with historic holes up to 6.2 km away with graphite intersections reported

[10] ASX Release 23 October 2015 "Drill rig mobilised to the Esmeralda Graphite Project", available www.asx.com.au.
[11] ASX Release 15 July 2015 "Graphite in Granite Project", available www.asx.com.au.
[12] ASX Release 24 May 2016 "High Purity and Recovery from testwork on the Esmeralda Graphite Project in North Qld", available www.asx.com.au.

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 Scandium Off–Take Heads of Agreement with Bloom Energy (Bloom) was terminated during the quarter. The development of Bloom's solid fuel cells has not met expected volumes. The release allows Metallica to better market the project to prospective partners or buyers.

During the June quarter, no significant project work was undertaken.

PRIORITIES FOR THE SEPTEMBER QUARTER

Continue negotiations with potential joint venture or other partners. Metallica may undertake a review of cobalt mineralisation within the SCONI project area to identify high grade shallow mineralisation. Particular focus will be on the Kokomo deposit which is known to host higher grade cobalt mineralisation.

FIGURE 6: SCONI 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 7). The EPM covers part of a large Quaternary sand dune field, which is believed 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 8). Cape Flattery has operated since 1967 and is the world's largest silica sand mining operation.

PRIORITIES FOR THE SEPTEMBER QUARTER

Metallica is in ongoing discussions with parties for a sale of the project, or potential joint venture for a silica sand mining and bulk shipping operation.

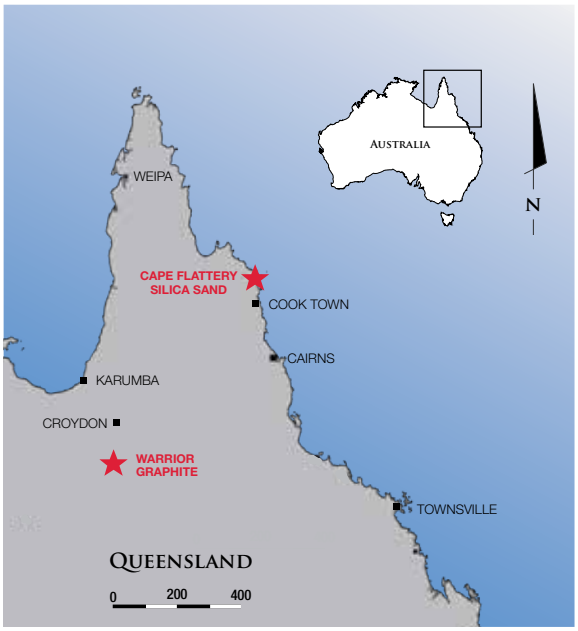

FIGURE 7: Cape Flattery Project Area

FIGURE 8: 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

METALLICA MINERALS LTD

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