# **QUARTERLY** REPORT



FOR THE QUARTER ENDING 30 SEPTEMBER 2017: 30 OCTOBER 2017

#### **METALLICA MINERALS LTD**

Metallica Minerals Limited is primarily an Australian bauxite developer with other interests in graphite, scandium, cobalt, nickel and mineral sands

#### ISSUED CAPITAL

322,447,408 Ordinary Shares 38,000,102 Listed Options 1,000,000 Unlisted Options

#### SHAREHOLDERS\*

2,288 shareholders Top 20 shareholders hold 35.41%

#### LARGEST SHAREHOLDERS

Jien Mining Pty Ltd 12.4% Plan-1 Pty Ltd 3.66%

#### DIRECTORS

Peter Turnbull

Non Executive Chairman

Steve Bouiton

Non Executive Director

Wang Ruobing

Non Executive Director

Shu Zhang

Alternate Director to Wang Ruobing

#### SENIOR MANAGEMENT

Simon Slesarewich
Chief Executive Officer
John Haley
CFO & Company Secretary

#### CASH BALANCE\*

MLM's cash balance is approximately \$3,650,000 . Undrawn \$2 million stand-by credit facility

\*As at 30/09/17

### **HIGHLIGHTS**

### **Fully Funded**

- Secured \$2 million stand-by credit facility<sup>1</sup>
- Cash available -\$3.65 million

#### **Milestones**

- Received Federal government environmental approvals<sup>2</sup>
- Sale of the SCONI Project for \$10 million<sup>4</sup>

### **Appointed**

 Highly respected Marketing Agent

### **PROJECT HIGHLIGHTS**

#### **URQUHART BAUXITE PROJECT (QLD)**

- Received Federal government environmental approvals<sup>2</sup>
- First bauxite production targeted for late in CY 2017<sup>3</sup>
- Queensland government public notification period completed with no submissions being received
- Environmental conditions agreed with the Queensland government
- Final project permitting and offtake negotiations are ongoing

### SCANDIUM-COBALT-NICKEL SCONI PROJECT (QLD)

Executed binding agreements to sell SCONI to Australian Mines Ltd (ASX:AUZ) with the key terms being<sup>4</sup>:

- Completion Payment \$3.5 million in cash by Australian Mines to Metallica on the Completion Date;
- Consideration Shares Issuance of Australian Mines shares to Metallica to the value of \$1.5 million (based on a 30-day volume weighted average price) upon the earlier of the completion of a Definitive Feasibility Study by Australian Mines or 30 June 2018; and
- Production Payment A further \$5 million in cash or issuance of Australian Mines shares (based on a 30-day volume weighted average price) following the commencement of commercial production.
- 1. ASX Release 10 August 2017 "\$2 million standby credit facility secured". Available www.asx.com.au
- $2. \quad \mathsf{ASX} \ \mathsf{Release} \ \mathsf{22} \ \mathsf{August} \ \mathsf{2017} \ \mathsf{``Federal \, environmental \, approval \, for \, \mathsf{Urquhart} \, \mathsf{Bauxite} \, \mathsf{Project''}. \, \mathsf{Available} \, \mathsf{www.asx.com.au}$
- Subject to receiving approvals with sufficient time to allow operations to commence prior to the wet season
- 4. ASX Release 6 September 2017 "Sale of SCONI Project for \$10 million". Available www.asx.com.au

# **SEPTEMBER QUARTER** REVIEW

The September 2017 quarter saw the culmination of over two years of work with the granting of Federal environmental approvals for the Urquhart Bauxite Project, as well the finalisation of the Queensland state environmental conditions. All of the required components for the grant of a mining lease have now been completed and the Company looks forward to the Oueensland state government completing its processes in this regard.

The environmental studies associated with the haul road were also completed during the quarter. The Company is liaising with stakeholders

to finalise the appropriate approval path, which once agreed will allow processing of the appropriate approval for the haul road and mining operations to commence, once approved.

During the quarter the Company appointed Bigbites Ltd (Bigbites), a specialist bauxite marketing company based in Hong Kong, as its Marketing Agent for sales of the Company's Urquhart bauxite. Bigbites is an associate of The CM Group (CM), the world's leading provider of bauxite market intelligence with an unrivaled understanding of bauxite trade, especially in China. CM

has been providing market analysis services to the world's major aluminum producers, including Rio Tinto Alcan, Alumina Ltd, Alcoa, South32, Norsk Hydro and Vedanta.

As a contingency measure, the Company finalised a \$2 million stand-by credit facility<sup>1</sup>. This facility will give access to additional working capital should it be required during the critical development and start-up phase of the Urquhart Bauxite project. The Company believes that this is prudent capital and risk management for shareholders.

During the quarter Metallica renewed the employment contract of Chief Executive Officer, Simon Slesarewich, on predominantly the same terms as his previous contract. The key terms of the renewed contract are outlined in the table below.

While Metallica is focused on bringing the Urquhart Bauxite project into production, the Company continues to assess potential acquisition opportunities that will add value to shareholders, as well as investigate opportunities to unlock value from noncore assets. The Sale of the SCONI Project to Australian Mines for \$10 million illustrates Metallica's ability to identify and secure value from noncore assets.

Term	Detail
Total Fixed Remuneration (TFR)	\$280,000
Term	Until terminated
Short Term Incentive	Up to 50% of TFR
Long Term Incentive	Ability to participate in the approved Incentive Rights Plan
Termination	Mutual 18 weeks

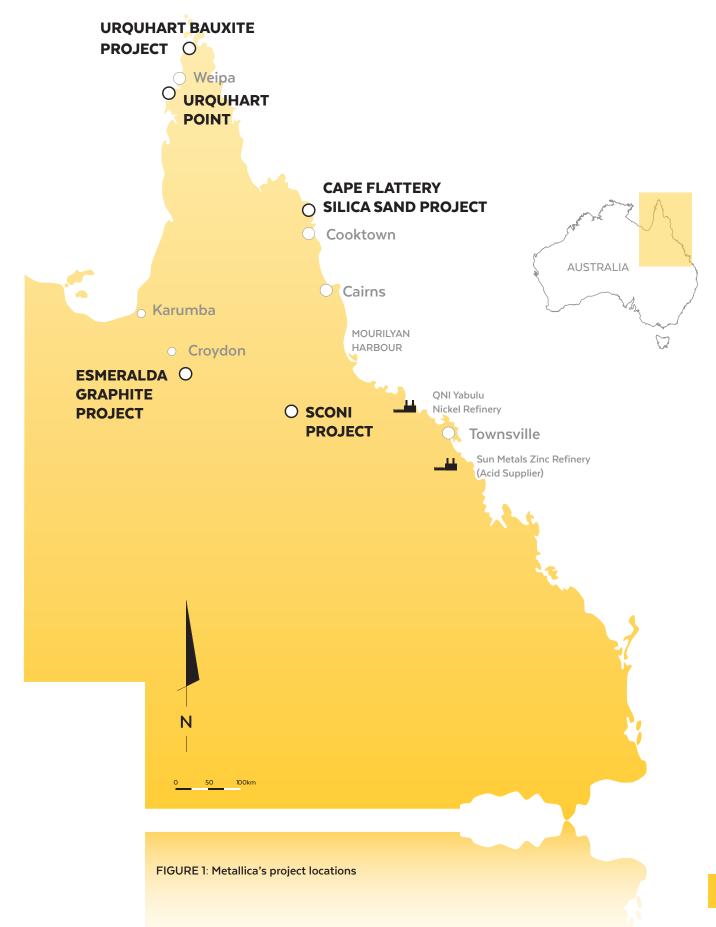
# **DECEMBER QUARTER OUTLOOK**

With Metallica now being fully funded for the maiden bauxite mining operations at its flagship Urquhart Bauxite project, the focus for the December 2017 quarter is to:

- Finalise Queensland environmental approvals and the issue of a mining lease;
- Finalise the negotiations with stakeholders to

- allow approval of the haul road linking the Urquhart Bauxite project to the established barge loading facility at Hey Point;
- Finalise offtake and sales contracts once there is confidence in the date of first shipment;
- Commence mobilisation and production.

# **PROJECT SUMMARIES**



# **CAPE YORK** BAUXITE & HMS JV

### 1,784 Ha

Mining leases and Mining lease applications

### 1,200 km<sup>2</sup>

**Exploration tenure** 

### **Bx & HMS**

Bauxite and Heavy Mineral Sands: zircon, rutile, and titanium minerals

### **MLM 50%**

Ozore Resources Pty Ltd 50%

Pursuant to the Joint Venture (JV) agreement, the Cape York Bauxite and HMS Project JV 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 Bauxite and Heavy Mineral Sands (HMS) Project JV comprises three separate projects: the Urquhart Bauxite project, the Urquhart Point HMS project, and the Cape York regional exploration project.

Since the formation of the JV on 8 September 2014, the JV partners have expended in excess of \$10 million which has been applied to progressing development of the Urquhart Bauxite project as well as the design and fabrication of the Urquhart Point HMS processing plant, which is currently in storage.

### PRIORITIES FOR THE DECEMBER 2017 QUARTER

- First production from the Urquhart Bauxite Project is being targeted for late 2017. The JV will continue to progress and finalise permitting and approvals necessary to meet this schedule.
- There is the potential to realise value from a sale of the Urquhart Point HMS project and processing plant and approaches from third parties will be given due consideration.

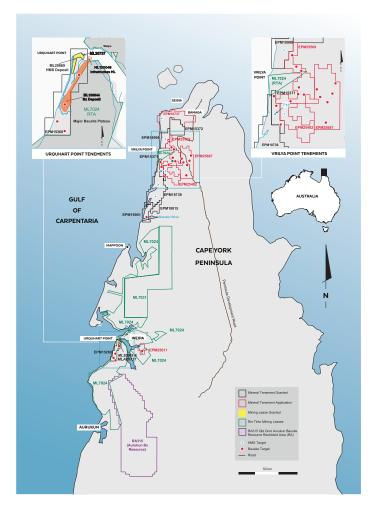


FIGURE 2: Cape York Bauxite and HMS project areas

# **URQUHART** BAUXITE PROJECT

The Urquhart Bauxite project is located some 5km southwest of Weipa on the west coast of Queensland's Cape York Peninsula (see Figure 1). 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.

Both the Queensland<sup>5</sup> and Commonwealth<sup>6</sup> Governments have confirmed that the Urquhart Bauxite project will not require an Environmental Impact Statement (EIS) to be completed prior to mine start-up. The Federal government has finalised its assessment process and granted approval. The Queensland state government is nearing the completion of its assessment which will culminate in the grant of a mining lease. The

public notification period associated with state approvals was completed with no submissions being received and the environmental conditions governing development have also been agreed with the Queensland state government.

The project's JORC (2012) Resource estimate was updated in November 20167, following the drilling program completed in August 2016. The total Mineral Resource increased by 26% to 9.5Mt, with 6.9Mt being in the Measured and Indicated categories. An additional 8.5Mt of lower grade transitional material, over and above the 9.5Mt. has been identified for potential beneficiation through dry screening. Further investigation of the potential of this transitional material will be completed when mining is underway.

Following on from the updated JORC (2012) Resource estimate, a Pre-Feasibility Study (PFS)<sup>8</sup> was completed, showing that the development of the Urguhart Bauxite project had the potential to deliver strong financial returns for minimal capital expenditure, utilising a contractor model that shifted risk and capital on to contractors, thereby maximising returns to shareholders. The contract executed with LCR Group delivers on this strategy with costs being in line with cost assumptions contained within the PFS.

The PFS was independently prepared by Brisbane-based international consultancy, IMC Mining Pty Ltd (IMC), which also completed the update of the JORC (2012) Resource estimate. London-based independent metals analyst, CRU International, estimated the Free On Board (FOB)

USD price of bauxite received utilising the Life of Mine (LOM) schedule produced by IMC.

The completion of the PFS allows for a maiden JORC (2012) Reserves Statement<sup>8</sup> (see Table 3) contained within Mining Lease Application (MLA) 100044.

The barging and associated infrastructure<sup>9</sup> remains in place, whilst LCR Group has confirmed the availability of equipment and critical personal to meet the JV's production plans. Production will only occur during the dry season (April through December inclusive), thereby reducing expensive Infrastructure that would be required to manage bauxite product during the monsoon period.

TABLE 1: Urquhart Bauxite project DSB Mineral Resource at an effective cut-off of 48%  $Al_2O_3$ 

Classification	Area	Mt	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	AAI%*	RSi %**
Measured	А	3.0	54.4	11.8	43.2	5.0
Indicated	Α	3.9	53.3	13.1	40.8	5.2
Inferred	А	0.3	54.2	11.3	42.0	4.7
	В	2.3	49.9	17.4	37.2	6.0
	Subtotal	2.6	50.3	16.8	37.6	5.9
Total		9.5	52.8	13.7	40.7	5.3

<sup>\*</sup> AAI - Available Alumina @ 150°C

<sup>\*\*</sup> RSi - Reactive Silica @ 150°C

<sup>5.</sup> ASX Release 25 October 2016 "DEHP confirms Urquhart Bauxite will not require an EIS", available www.asx.com.au

<sup>6.</sup> ASX Release 24 June 2016 "Commonwealth Government confirms no EIS", available www.asx.com.au

<sup>7.</sup> ASX Release 14 November 2016 "Significant Increase to Mineral Resource at Urquhart Bauxite", available www.asx.com.au

<sup>7.</sup> ASX Release 30 December 2017 "Urguhart Bx PFS-incl Inferred Resource assumptions-P 4 & 5", available www.asx.com.au

<sup>9.</sup> ASX Release 24 October 2016 "Logistics provider ships maiden bauxite cargo", available www.asx.com.au

# **URQUHART** BAUXITE PROJECT

TABLE 2: Summary of 2016 PFS Results - Urquhart Bauxite project

Item	Unit	Scenario 1 (Base Case)	Scenario 2	Scenario 3
		Mining Proved & Probable Reserves in Area A	Additional mining of Inferred resource in both Area A and Area B	At end of mine life, screening transitional stockpiled material
Total Saleable Product	Dry kt	6,532	8,672	10,296
Total Al <sub>2</sub> O <sub>3</sub>	%	52.7	51.6	51.2
Total SiO <sub>2</sub>	%	13.3	14.7	15.4
AAI	%	40.6	39.1	38.1
RSi	%	5.7	6.1	6.1
Total Revenue	A\$M	295.5	364.5	416.9
EBITDA	A\$M	81.8	82.6	90.8
NPV <sub>10</sub> Pre Tax	A\$M	78.4	78.9	86.9
NPV <sub>10</sub> Post Tax	A\$m	53.9	54.2	59.9
LOM Capital	A\$M	2.7	3.0	3.1
Avg FOB Cost***	A\$/tonne	32.72	32.51	31.67
Avg FOB Received	A\$/tonne	45.24	42.03	40.49
Payback	months	5	5	5

<sup>\*\*\*</sup> Includes all operating costs, royalties and other payments

TABLE 3: Urquhart Bauxite project reserves

	Area	Direct shipping Bauxite (low Temp) Dry Kt	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	THA %	Low Temp RSi %
Proved	А	2,964	53.7	12.3	42.3	5.4
Probable	А	3,568	51.9	14.2	39.1	5.9
Ore Reserve	Α	6,532	52.7	13.3	40.6	5.7

# **URQUHART** BAUXITE PROJECT

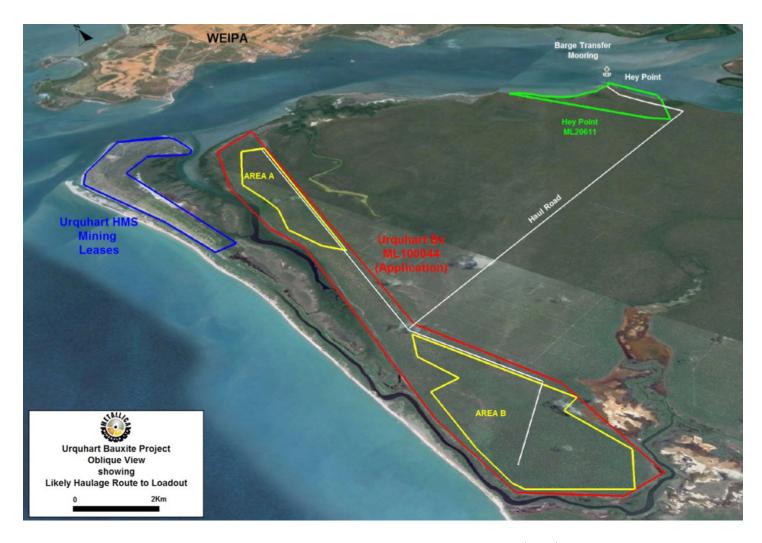


FIGURE 3: Aerial view showing likely haulage route and proximity of Hey Point load-out facility (green) to the Urquhart Bauxite project lease (red) and mining areas (yellow)

# **URQUHART POINT HMS PROJECT**

The modularised HMS processing plant arrived in Australia in December 2015 and is currently stored near Brisbane. Given the continuing low HMS prices, the JV has deferred on-site construction of the HMS processing plant to focus on the higher value

Urquhart Bauxite project. The JV is continuing to seek options that deliver value to the JV.

The Urquhart Point HMS
Project is located on Urquhart
Point, 3km south-west of
Weipa (see Figure 4). 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 further improvement in product pricing.

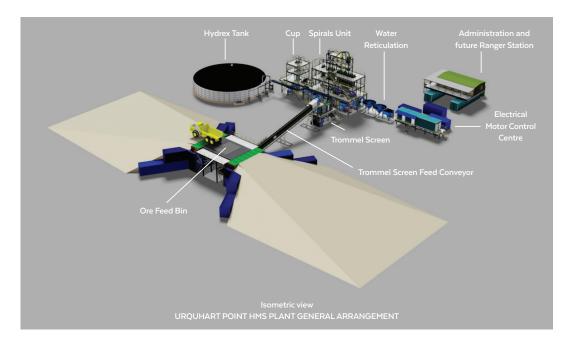
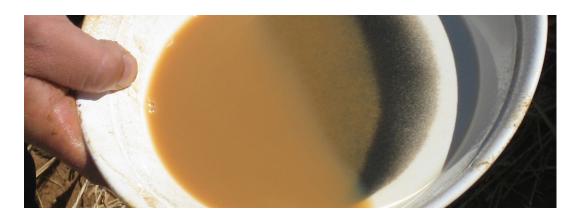


FIGURE 4: 3D CAD image Urquhart HMS plant design

### **CAPE YORK** REGIONAL EXPLORATION

The JV did not undertake any field work on its regional HMS and bauxite exploration targets during the September quarter.

With a clear focus on the Urquhart Bauxite project, regional exploration is currently on hold.



# **SCONI** SCANDIUM, COBALT & NICKEL PROJECT

2,049 Ha

Mining leases

### 478 Ha

Mineral development licenses

#### 155.6 km<sup>2</sup>

Exploration tenure

### **MLM 100%**

Through subsidiaries NORNICO Pty Ltd and Greenvale Operations Pty

In keeping with Metallica's strategy of realising value from non-core assets, the Company entered into a binding agreement for the sale of the SCONI (scandium-cobalt-nickel) project to Australian Mines Ltd (Australian Mines) (ASX:AUZ). The key terms of the transaction are;

- Payment of A\$3.5 million (Completion Payment) in cash by Australian Mines to Metallica on the Completion Date;
- Issuance of Australian
   Mines shares to Metallica
   to the value of A\$1.5 million
   (based on a 30-day volume
   weighted average price)
   (Consideration Shares) upon
   the earlier of the completion
   of a Definitive Feasibility
   Study by Australian Mines or
   30 June 2018;
- A further A\$5 million in cash or issuance of Australian Mines shares (based on a 30-day volume weighted average price) (Production Payment) following the commencement of commercial production from the SCONI project;
- Australian Mines shares issued to Metallica will be

- subject to a three-month escrow period;
- Metallica will obtain a caveat and mortgage over the SCONI tenements to protect its rights under the Agreement; and
- The termination of the Farm-In and JV Agreement between Metallica and Australian Mines.

The Completion Payment is expected to be made five days after a number of conditions precedent are satisfied by Australian Mines, including obtaining shareholder approval for the Sale and Purchase Agreement (if required) and completing a capital raising to fund the Completion Payment. The latter condition was satisfied by Australian Mines in September 2017<sup>10</sup>.

The sale and purchase agreement is subject to several other conditions precedent related to regulatory and other approvals and contains a number of other terms considered normal in an agreement of this nature. If the conditions precedent are not satisfied or waived within 60 business days then the Agreement will be terminated.

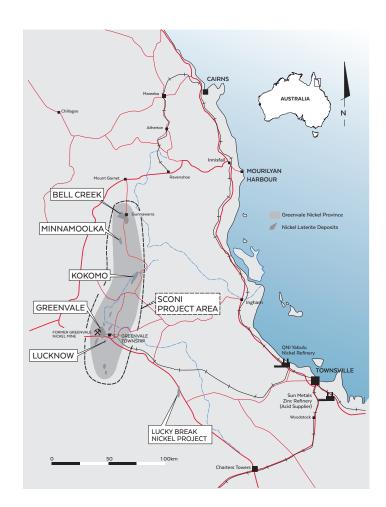


FIGURE 5: SCONI project area

### **ESMERALDA** GRAPHITE PROJECT

### 581 km<sup>2</sup>

**Exploration tenure** 

In October 2015<sup>11</sup> a graphite specific drilling program on the project commenced. The assay results confirmed thick graphite (graphitic carbon – 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%

### **Graphite**

Large scale "graphite in granite" – targeting high purity graphite

Cg cut-off) with continuous intercepts of 12;

WD001 95m @ 6.5% Cg from 71m

WD002 29.1m @ 7.8% Cg from 71.9m

Standard procedures that involved crushing and preparation of representative drill core samples for bench scale floatation testwork showed that a concentrate

### **MLM 100%**

Through subsidiary
Touchstone Resources
Pty Ltd

grade of 91.5% TC (90.6% Cg) was able to be produced at a 91% recovery. Further purification testwork using an additional single stage caustic bake and wash process, produced an even higher concentrate grade of 97.8% TC<sup>13</sup>.

Following on from the electromagnetic geophysics program in October 2016 the Company completed a geological mapping survey of the prospective areas during



the quarter. The survey has identified three areas of interest worthy of further investigation.

Metallica intends to design an appropriate exploration program for 2018, which may include a drilling program. Resources will continue to be focused on the Company's bauxite strategy whilst also incrementally progressing the Esmeralda graphite project.

<sup>11.</sup> ASX Release 23 October 2015 "Drill rig mobilised to the Esmeralda Graphite Project", available www.asx.com.au

AX Release "Assays strongly support potential for large graphite deposit', available www.asx.com.au

<sup>13.</sup> ASX Release 24 May 2016 "High Purity and Recovery from testwork on the Esmeralda Graphite Project in North Qld", available www.asx.com.au

## **CAPE FLATTERY SILICA SANDS**

### 54km<sup>2</sup>

Exploration tenure

The Cape Flattery silica sands project is located approximately 200km north of Cairns in north Queensland (see Figure 6).

The EPM covers part of a large Quaternary sand dune field, which is believed to contain high-grade silica sand, a section of which is currently being mined by Cape Flattery Silica Mines Pty Ltd (CFSM), a wholly-owned subsidiary of Mitsubishi Corporation.

### Silica Sands

For bulk export shipping

The adjacent CFSM operation has operated since 1967 and is the world's largest silica sand mining operation. The dune field is known to contain high grade silica sands. Metallica will evaluate its potential for development as a silica sand mining and bulk shipping operation.

### **MLM 100%**

Through subsidiary
Oresome Australia Pty Ltd





FIGURE 6: Cape Flattery project area

# **NOTICES**

#### **COMPETENT PERSON'S STATEMENT**

#### URQUHART BAUXITE

The Mineral Reserve estimate and Production Target estimates were undertaken by Mr Stewart Lewis, Mining Engineer, who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and the CEO of IMC Mining Pty Ltd. Mr Lewis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Lewis consents to the inclusion of this information in the form and context in which it appears in this release/report.

The Mineral Resource estimate was undertaken by Mr John Horton, Principal Geologist, who is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy and an associate at IMC Mining Pty Ltd. Mr Horton has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for 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 release/report.

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by John Cameron (a geologist of over 25 years experience), and a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is a contract consultant to Metallica Minerals Ltd. Mr Cameron has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cameron consents to the inclusion of this information in the form and context in which it appears in this release/report

#### **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.









Scandium Pty Ltd ACN 138 608 894

Touchstone Resources Pty Ltd ACN 126 306 018