

QUARTERLY REPORT

for the period ended **30 September 2019**

ASX RELEASE
31 OCTOBER 2019

ASX:MLM

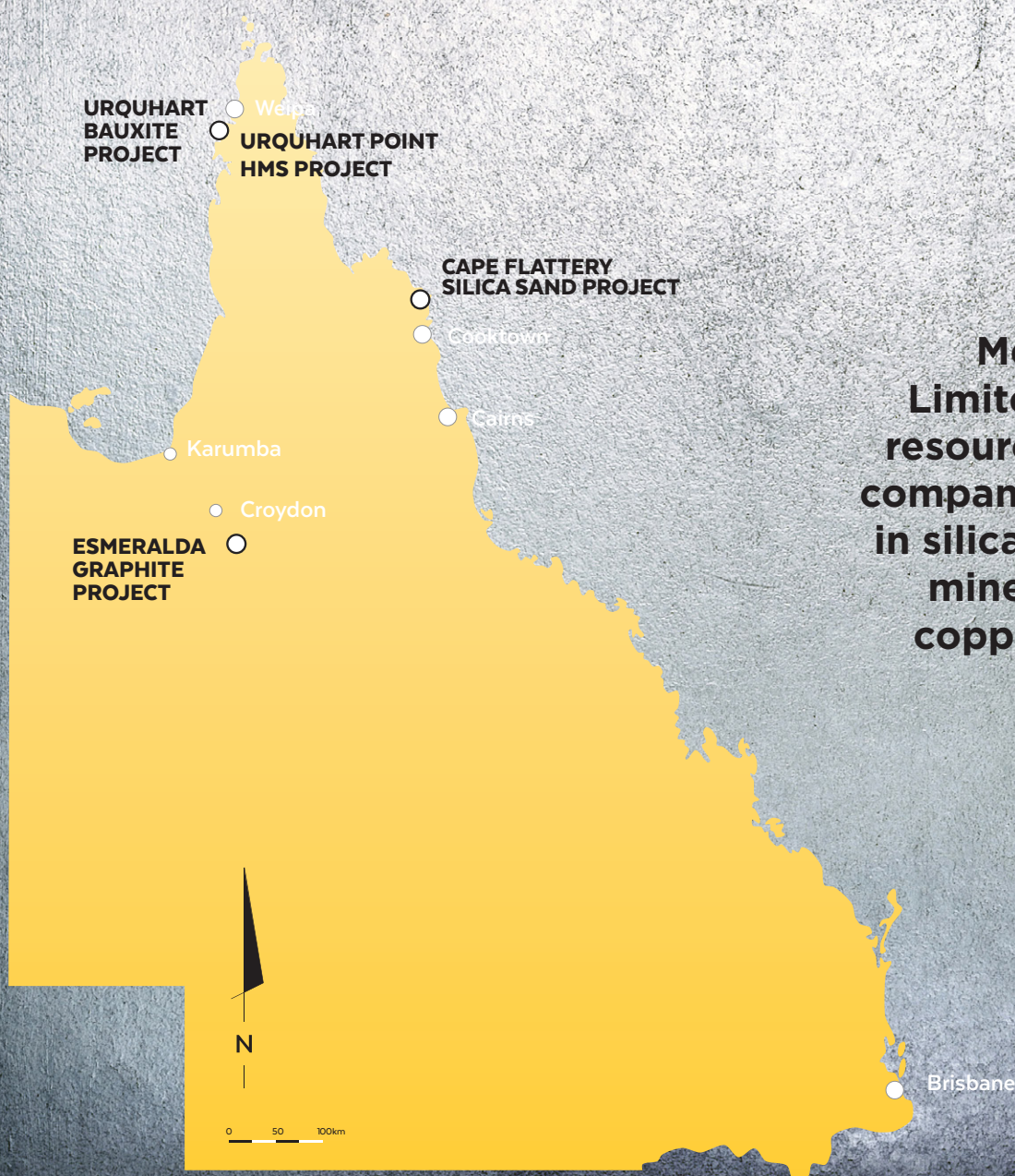
KEY EVENTS

Exploration planning is underway at the Cape Flattery Silica Sands Project to further define the Exploration Target* of 20-100 Mt.¹

The review of the development and logistic options for the Urquhart Bauxite Project was finalised.²

Work on an updated Pre-Feasibility Study for Urquhart Bauxite project has commenced and is due to be completed by December 2019.

\$2.3 million in cash is available at quarter end without any debt.



Metallica Minerals Limited an Australian resource development company, with interests in silica sands, bauxite, mineral sands, gold-copper and graphite.



CORPORATE INFORMATION

*as at 30 September 2019

CASH BALANCE*

As at 30 September 2019, MLM's cash balance was approximately \$2.3m

ISSUED CAPITAL*

324,047,408
Ordinary Shares

1,000,000
Unlisted Options

SHAREHOLDERS*

2,049
Shareholders

Top 20 shareholders
hold 43.3%

LARGEST SHAREHOLDERS

Jien Mining Pty Ltd - 12.4%
Plan-1 Pty Ltd - 4.1%
JP Morgan Nominees
Australia - 2.47%

DIRECTORS

Theo Psaros
Non Executive Chairman

Andrew Gillies
Non Executive Director

Scott Waddell
Executive Director
and Interim CEO

SENIOR MANAGEMENT

John Haley
CFO & Company Secretary

Exploration program at Cape Flattery



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DEVELOPMENT AND EXPLORATION

Metallica Minerals (ASX: MLM) ("Metallica", "the Company") is pleased to present its activities report for the period ended 30 September 2019.

CAPE FLATTERY

SILICA SANDS

MLM INTEREST 100%

During the quarter, the Company completed a review to assess the status of the Cape Flattery Silica Sands Project, which is adjacent to the world class Cape Flattery Silica Sand mining and shipping operation owned by Mitsubishi.

Following this process, the Board of Directors have approved an exploration program designed to follow-up on the encouraging results of reconnaissance sampling completed in 2018. The results from this program should be available in December 2019.

In April 2018, a reconnaissance sampling program identified three target areas with silica oxide (SiO_2) percentages of greater than 99%. These target areas form the basis of an Exploration Target of 20-100* Mt of high purity silica sands, with the insitu quality ranging between 96.9% and 99.6% SiO_2 .

Meetings are also planned with Hopevale Congress who

represent the landowners and are the Registered Native Title Body Corporate.

The Company has also undertaken an initial high-level option study of the project, including planning works/requirements, to assess what is required to better understand the potential silica sand deposit size and quality, as well as options on how a silica mine could be developed.

Cape Flattery is located in a remote part of Queensland and initial investigations show that any development at Cape Flattery is likely to require access to the existing infrastructure owned by Ports North and Cape Flattery Silica Mines Pty Ltd (a subsidiary of Mitsubishi Corporation), and/or development of other infrastructure by the Company.

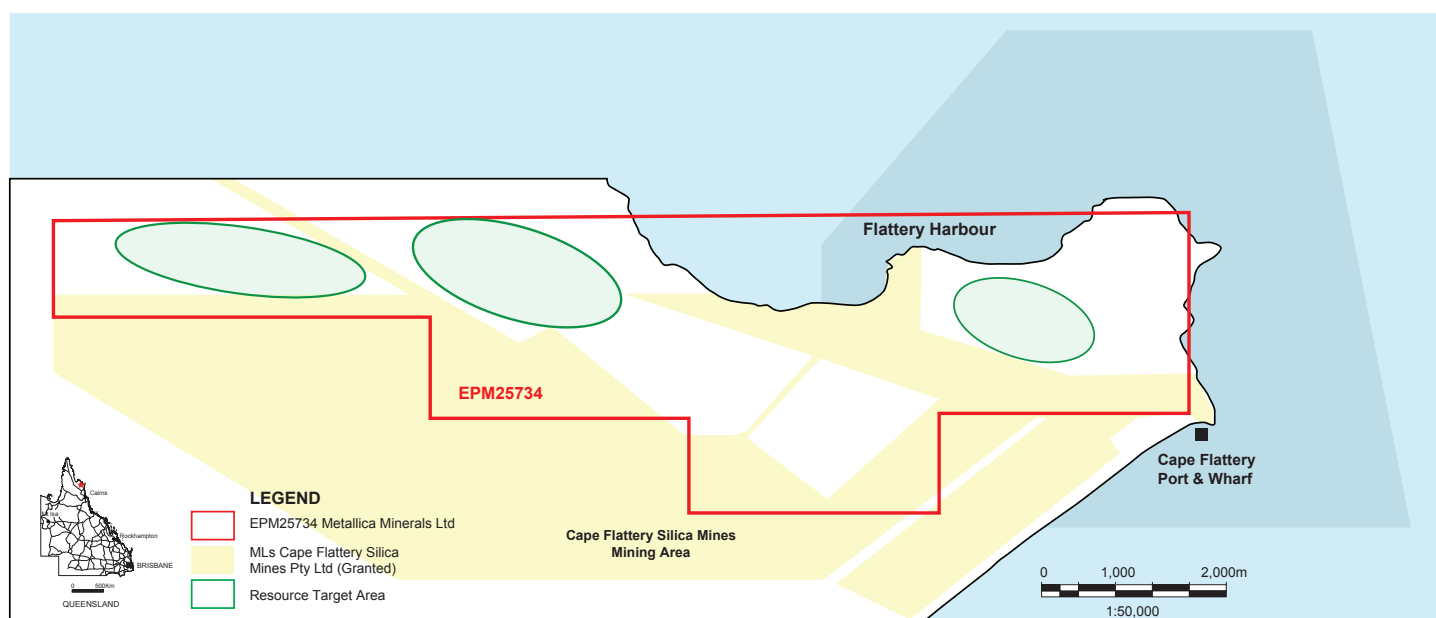
*Exploration Target

The potential quality and grade of the Cape Flattery Silica Sand deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.

According to industry research firm IMARC Group, high-purity silica sands are becoming more sought after, with the global market growing at a compound annual growth rate (CAGR) of around 6% between 2010 and 2017. In 2017, a total of 188 Mt of silica sand was produced globally.

This growth has been driven by silica sand's applications across a broad range of industries including glass-making, foundry casting, water filtration, chemicals and metals, hydraulic fracturing and an increasing number of hi-tech products, including solar panels. For example, in the global glass-making industry, one of the major consumers of high-purity silica has experienced significant growth recently from the construction and automotive industries.

Forecasts have demand for silica sands increasing at CAGR of 7.2% through to 2022, with annual revenues reaching US\$9.6 billion.



DEVELOPMENT AND EXPLORATION

URQUHART BAUXITE

BAUXITE MLM INTEREST 50%

The Urquhart Bauxite Project is located 5 km southwest of Weipa on the western coast of the Cape York Peninsula, which is a region renowned for its extensive deposits of high-quality pisolitic bauxite. The project consists of

two bauxite plateaux, known as Area A and Area B, that are wholly contained within the lease area. The project is a Joint Venture (JV) between Oresome Australia Pty Ltd (a 100% subsidiary of Metallica Minerals) 50% and Ozore Resources Pty Ltd 50%.

In October 2019³, the JV announced that three alternative logistic options for constructing infrastructure to ship bauxite had been identified following studies

by Wave International (“Wave”) and other consultants working for the JV. Further regulatory approvals are required for all three alternatives, and these are planned to be advanced, subject to a positive outcome from an updated Pre-Feasibility (“PFS”) Study which is targeted to be completed by December 2019.

The three potential logistic options identified are as follows (see Figure 4 for details):

OPTION 1

A shiploader to be constructed adjacent to the Urquhart Heavy Mineral Sands (“HMS”) Mining Lease (“ML”), owned by the JV, with a conveyor crossing over Roberts Creek from the Urquhart Bauxite ML to the HMS ML.

OPTION 2

A shiploader to be constructed adjacent to the Urquhart HMS ML owned by the JV. A 17-kilometre haul road would also be constructed from the Urquhart Bauxite resources and tenement through the HMS ML area, leading to the shiploader.

OPTION 3

A barge-loading facility to be constructed, which requires a jetty (about 750 metres in length) to be located adjacent to the Urquhart Bauxite ML.

SHIPLOADER OPTION ANALYSIS Using a shiploader, as proposed in options 1 and 2, has the following major benefits: • The ability to load bauxite directly onto an Ultramax vessel or potentially, a Panamax vessel (>70,000 tonnes per shipment), subject to marine studies confirming that the suitability of tides and other marine factors make the site suitable for a shiploader • Low estimated operating costs for the shiploader fixed infrastructure (estimated	by Wave as being several dollars per tonne shipped), as no transshipment is required. However, the capital cost (“CAPEX”) is higher for these options compared to Option 3 • Very simple bauxite production and transportation system, with only a mine stockpile, a proven conveyor structure with minimal transfer chutes, plus low labour and operating costs • The low operating costs improve the economic attractiveness of Area B in the Urquhart Bauxite project, which contains lower grade bauxite	• The low-cost shiploader facility may also make selling the overburden sand on the ML an attractive option to explore. This is subject to sampling and quality assessment of this sand, regulatory approvals and an economic analysis. The infrastructure construction CAPEX for the options at present is preliminary and is estimated to range from a low of A\$13-16m to a high of A\$27m, depending on the option selected (excluding mining fleet, environmental bonds, contingency, and associated costs).
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DEVELOPMENT AND EXPLORATION

SUMMARY SHIPLOADER FINDING

The most attractive potential option for further investigation at this stage appears to be Option 1 – the shiploader conveyor combination. See Figure 3 and 4 for diagrams of the shiploader configuration.

However, as noted above, further studies are still underway, and Metallica will work to finalise the solution and release an updated PFS which is targeted to be completed during the final quarter of 2019.

A key component of the shiploader option analysis will be obtaining funding and various Government and stakeholder approvals and agreements for the substantial CAPEX required for construction. Options to be explored to fund the shiploader CAPEX include the following:

- Northern Australian Infrastructure Fund (“NAIF”);
- Design, Construct and Operate partner funding, with a \$/tonne payment by the JV;
- Offtake partners; or
- Debt and equity.

Subsequent to the finalisation of the option study the company decided in August 2019 to withdraw its application for the Mining Lease (ML) over the proposed haul road to Hey Point⁴. The granting of the ML would have triggered a number of actions and commitments by the Company which would have required a significant level of shareholder funds to secure the haul road.



Figure 3: Three logistic options for Metallica bauxite JV under evaluation

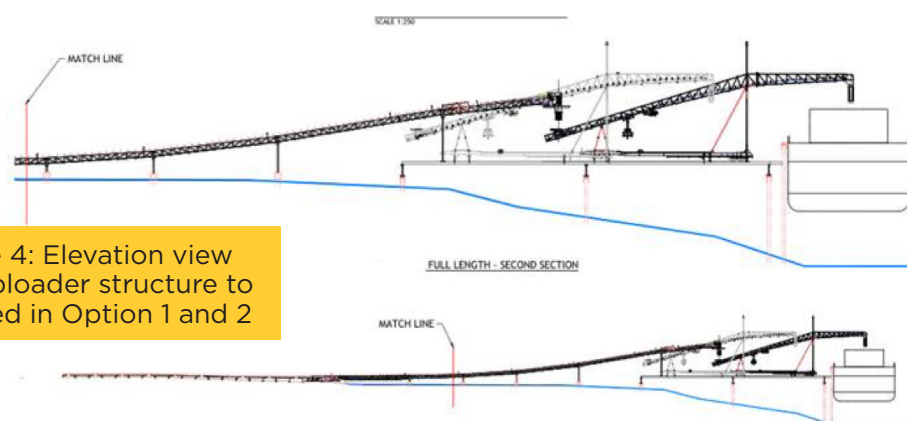


Figure 4: Elevation view of shiploader structure to be used in Option 1 and 2

DEVELOPMENT AND EXPLORATION

URQUHART POINT

HEAVY MINERAL SANDS MLM INTEREST 50%

The Urquhart Point zircon and rutile HMS project is part of the Cape York Joint Venture with a private Chinese investor, Ozore Resources Pty Ltd. There has been no significant work undertaken on the Project during the September 2019 quarter, as Metallica continued to focus on progressing the Urquhart Bauxite Project.

The Company continues to monitor zircon and rutile market prices, and entertain third-party approaches for the Urquhart Point HMS Project and its modularised and containerised HMS processing plant, which remains in storage near Brisbane. The Company's intention is to potentially realise value from the processing plant asset.

CAPE YORK

REGIONAL EXPLORATION MLM INTEREST 50%

Metallica and its Joint Venture partner, Ozore Resources Pty Ltd, did not undertake any field work on regional HMS or bauxite exploration targets during the September 2019 quarter. The Joint Venture is planning a reconnaissance exploration bauxite sampling program on a tenement in the Northern Gulf area later in 2019 before the commencement of the north Queensland wet season.

ESMERALDA

GRAPHITE, GOLD & BASE METALS MLM INTEREST 100%

As part of the ongoing review of the Esmeralda Project, two new Exploration Permits for Minerals Applications EPM(A) were applied for during the March and June Quarters. EPM 27210 Clara⁵ which is located 80km south of Croydon and consists of 100 sub-blocks was granted on 24 September 2019.

A target study for the Esmeralda tenements was completed in the June quarter 2019. The study comprised of modelling public domain geophysical data over the project tenements and this resulted in a better understanding of the occurrence and distribution of the graphitic granites and the associated intrusives beneath the cover sequence. A number of target areas have been identified from the study and Metallica is continuing to interpolate the study results and plan an exploration strategy based on these results.

No other exploration work was undertaken on the Esmeralda tenements during the September 2019 quarter.



CORPORATE

NORNICO PTY LTD* ADMINISTRATORS APPOINTED

Nornico Pty Ltd* was placed into voluntary administration on 16 August 2019.

The Company is proposing to submit a Deed of Company Arrangement (DOCA) prior to the second creditors meeting. If the DOCA is agreed to by International Royalty Company, a creditor or Nornico, this will settle any claims against Nornico or Metallica.

The process is ongoing but the Company is working to resolve this matter including any residual effect on Metallica.

DUE DILIGENCE ON WAGINA ASSET, SOLOMON ISLANDS

Due diligence activities on the advanced Wagina Bauxite Project were halted in late 2018. No costs were expended by Metallica on assessing the Wagina Project in the reporting period.

ANNUAL GENERAL MEETING

The Annual General Meeting⁸ for the Company is to be held on 29 November 2019 at the offices of Colin Biggers & Paisley, Level 35, Waterfront Place, 1 Eagle Street Brisbane QLD 4000 Australia commencing at 11am.

ISSUED CAPITAL

As at 30 September 2019, Metallica had 324,047,408 fully paid ordinary shares and 1,000,000 unlisted options on issue.

FINANCIAL UPDATE

Metallica finished the September 2019 quarter with \$2.3 million in cash and without any debt.

DECEMBER 2019 QUARTER OUTLOOK

Metallica's focus for the December 2019 quarter is to:

- Conduct an exploration program at the Cape Flattery Silica Sands tenement, including holding discussions with the local traditional owner group.
- Review development options in relation to the Urquhart Bauxite Project, including logistics arrangements with third parties.
- Continue to monitor Metallica's involvement in the Wagina Project in the Solomon Islands.
- Progressing preliminary due diligence on several new opportunities in the bauxite and gold-copper commodity sectors.
- Finalise the Voluntary Administration of Nornico Pty Ltd* Administrators Appointed

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 a 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 a 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 Mr 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 a 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.

CAPE FLATTERY SILICA SANDS

The information in this report that relates to the Exploration Results and Targets was undertaken by Mr Neil Mackenzie-Forbes, who is a Member of the Australian Institute of Geoscientist and is a Consulting Geologist employed by Sebrof Projects Pty Ltd. Mr Neil Mackenzie-Forbes has in excess of 20 years mining and exploration experience in Australia with major mining and junior exploration companies. Mr Mackenzie-Forbes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken 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. Mr Neil Mackenzie-Forbes 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.

FOOTNOTES

1. See ASX Release dated 18 April 2018 - "High Purity Silica Sands at Cape Flattery"
2. See ASX Release dated 11 October 2019 - "Urquhart Bauxite Development Options Updated"
3. See ASX Release dated 11 October 2019 - "Urquhart Bauxite Development Options Update"
4. See ASX Release dated 6 August 2019 - "Haul Road Update"
5. See ASX Release dated 1 March 2019 - "New Strategic tenement enhances Esmeralda Project"
6. See ASX Release dated 16 August 2019 - "Voluntary Administrators Appointed for subsidiary company Nornico Pty Ltd"
7. See ASX Release dated 18 September 2019 - "Update on Voluntary Administration of subsidiary Company, NORNICO Pty Ltd"
8. See ASX Release dated 28 October "Notice of Annual General Meeting/Proxy Form"



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SUBSIDIARY COMPANIES

NORNICO Pty Ltd ACN 065 384 045* Administrator Appointed

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
(Subsidiary of NORNICO Pty Ltd)

Scandium Pty Ltd ACN 138 608 894

Touchstone Resources Pty Ltd ACN 126 306 018



APPENDIX 5B

Mining Exploration Entity and Oil and Gas Exploration Entity Quarterly Report

NAME OF ENTITY: Metallica Minerals Limited

ABN: 45 076 696 092

QUARTER ENDED "current quarter": 30 September 2019

Rule +5.5

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Consolidated Statement of Cash Flows		Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	12	12
1.2	Payments for		
	(a) exploration & evaluation	(63)	(63)
	(b) development	(265)	(265)
	(c) production		
	(d) staff costs	(140)	(140)
	(e) administration and corporate costs	(259)	(259)
1.3	Dividends received (see note 3)		
1.4	Interest received	7	7
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Research and development refunds		
1.8	Other (provide details if material) - Nornico administration	(92)	(92)
1.9	Net cash from/(used in) operating activities	(800)	(800)
2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment		
	(b) tenements (see item 10)		
	(c) investments		
	(d) other non-current assets		
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment		
	(b) tenements (see item 10)		
	(c) investments		
	Part of shares held in Australian Mines Limited (ASX:AUZ)	75	75
	(d) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other		
2.6	Net cash from/(used in) investing activities	75	75

APPENDIX 5B

Consolidated Statement of Cash Flows		Current quarter \$A'000	Year to date (3 months) \$A'000
3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares		
3.2	Proceeds from issue of convertible notes		
3.3	Proceeds from exercise of share options		
3.4	Transaction costs related to issues of shares, convertible notes or options		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from/(used in) financing activities	0	0
4.	Net increase/(decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,027	3,027
4.2	Net cash from/(used in) operating activities (item 1.9 above)	(800)	(800)
4.3	Net cash from/(used in) investing activities (item 2.6 above)	75	75
4.4	Net cash from/(used in) financing activities (item 3.10 above)	Nil	Nil
4.5	Effect of movement in exchange rates on cash held		
4.6	Cash and cash equivalents at end of period	2,302	2,302
5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	187	384
5.2	Call deposits	2,115	2,643
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,302	3,027
		Current quarter \$A'000	
6.	Payments to directors of the entity and their associates		
6.1	Aggregate amount of payments to these parties included in item 1.2	57	
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3		
6.3	Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2		

APPENDIX 5B

			Current quarter \$A'000		
7.	Payments to related entities of the entity and their associates				
7.1	Aggregate amount of payments to these parties included in item 1.2				
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3				
7.3	Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2				
8.	Financing facilities available Add notes as necessary for an understanding of the position		Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000	
8.1	Loan facilities				
8.2	Credit standby arrangements		Nil	Nil	
8.3	Other (please specify)				
8.4	Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.				
9.	Estimated cash outflows for next quarter Note:			\$A'000	
9.1	Exploration and evaluation			60	
9.2	Development			245	
9.3	Production				
9.4	Staff costs			115	
9.5	Administration and corporate costs			145	
9.6	Other (provide details if material) – Project Generation			75	
9.7	Total estimated cash outflows			640	
10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	EPM 15372 9 subblocks		50%	Nil
		EPM 18015 2 subblocks		50%	Nil
		EPM 18738 1 subblock		50%	Nil
		EPM 19001 1 subblock		50%	Nil
		EPM 25842 1 subblock		50%	Nil
10.2	Interests in mining tenements and petroleum tenements acquired or increased	EPM 27210		Nil	100%

APPENDIX 5B

COMPLIANCE STATEMENT

1. This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
2. This statement gives a true and fair view of the matters disclosed.



Sign here: Company secretary

Date: 31 October 2019

Print name: John Haley

NOTES

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.