



ASX:SVM

# **MARCH 2019 QUARTERLY ACTIVITIES REPORT**

Sovereign Metals Limited ("**the Company**" or "**Sovereign**") is pleased to present its quarterly report for the period ended 31 March 2019. The Company is focused on development of the world-class Malingunde saprolite-hosted graphite project and is also currently exploring its large ground holding in Malawi for rutile deposits.

#### **HIGHLIGHTS:**

#### **RUTILE**

#### Widespread Mineralisation Identified

- Sovereign has identified significant rutile mineralisation over large areas of its 100%-owned Malawi ground holding.
- FiO<sub>2</sub> assay results for 125 historical hand-auger drill holes demonstrated widespread rutile mineralisation hosted in soft, "free-dig" saprolite.
- Encouraging early indications show rutile concentrates can be produced via typical mineral sands processing methods.

#### Rutile Works Program Underway

- During the quarter, Sovereign continued a comprehensive work program in order to assess the full rutile potential over its very large (4,253km²) tenement position in Malawi.
- Ongoing work includes:
  - Assessing samples from ~50 historical hand auger holes in order to assess rutile recoverability and deportment (grain size, shape, gangue minerals etc).
  - A comprehensive metallurgical test-work program in order to determine the most favourable areas in which to target delineation of an initial rutile mineral resource(s).
  - Ongoing metallurgy to maximise recoveries and concentrate specifications.
  - Extensive hand auger drilling program to assess the broader regional rutile potential.

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#### **GRAPHITE**

#### **Definitive Feasibility Study Advances**



Sovereign commenced the Definitive Feasibility Study (DFS) for its world-class Malingunde saprolite-hosted graphite project:

- Processing of approximately 50t of ore via a pilot plant is underway to provide substantial quantities of graphite concentrates for assessment by potential offtake partners and confirm the process flowsheet at a larger scale.
- The Company is actively engaged in offtake negotiations and discussions with a number of Tier 1 potential offtake partners.
- The Company significantly advanced permitting with the Environmental and Social Impact Assessment (ESIA), Resettlement Action Plan (RAP) and Mining Licence application all near completion and prepared for submission this quarter.
- Key consultants appointed and commenced work on major DFS work packages.



#### **CORPORATE**

#### Completion of A\$5.3m Placement and SPP to Fund Activities

The Company successfully completed a Placement to raise total gross proceeds of A\$4.3 million and a Share Purchase Plan (SPP) to raise an additional A\$1.0 million.

The Placement and SPP places the Company in a strong position to expedite development activities for the Malingunde Flake Graphite Project and additional exploration and metallurgical activities on the identified Rutile potential in Malawi.

**ENQUIRIES** +618 9322 6322 Dr Julian Stephens - Managing Director Sam Cordin – Business Development Manager



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#### **OVERVIEW**

Sovereign controls a large ground package of over 4,253km<sup>2</sup> which contains the Malingunde saprolite-hosted graphite project and newly identified areas of rutile mineralisation. The Company is completing the DFS on the Malingunde graphite deposit whilst also actively assessing the potential for a new style of rutile deposit hosted within the soft, saprolite material.

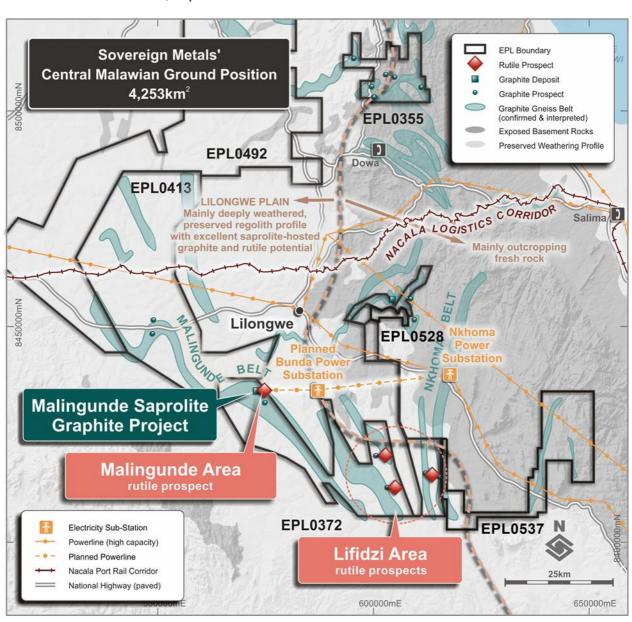


Figure 1: Project Map

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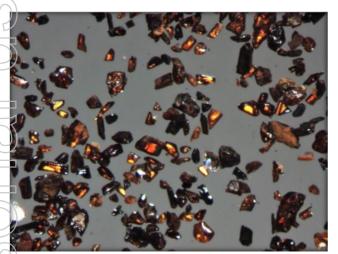
#### **RUTILE POTENTIAL**

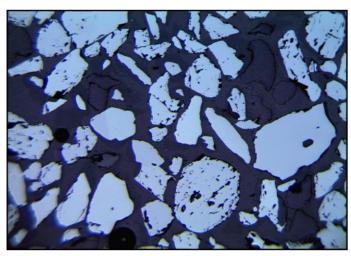
#### Saprolite-hosted rutile

In 2018, Sovereign reported that it had successfully recovered rutile concentrates from tailings at the Malingunde graphite project (ASX announcement 14<sup>th</sup> August 2018). This work showed rutile was the dominant TiO<sub>2</sub> mineral and in concentrates it was shown to be generally present as discrete, clean and liberated grains (Figures 2 & 3). Overall, this program demonstrated the ability to produce rutile concentrates from the soft saprolite material using typical mineral sands processing methods.

The initial positive 2018 mineralogy and metallurgy results encouraged the Company to review its historical exploration samples in order to assess the possibility that rutile may be more widespread across its large ground package in central Malawi.

Sovereign has since identified significant rutile mineralisation over large areas within its 100%-owned Malawi ground holdings. Rutile occurs in soft, free-dig saprolite down to approximately 25m depth with grades also particularly enriched in the upper 5m or so of the weathering profile. Rutile mineralisation shows no discernible chemical, spatial or geological relationship to graphite mineralisation.





Figures 2 (LHS) Rutile concentrate showing distinctive, translucent deep red-brown colour and elongated crystal form. Figure 3 (RHS) Polished section of rutile concentrate showing clean and distinct grains.

The ongoing mineralogical and metallurgical work program has demonstrated encouraging progress toward the production of commercial specification rutile.

The Company is continuing a comprehensive rutile program in order to understand the rutile potential within its large, 4,253km<sup>2</sup> ground position in Malawi:

- A program assessing samples from ~50 historical hand auger holes in order to assess rutile recoverability and deportment (grain size, shape, gangue minerals etc) to concentrates is well advanced.
- A 200kg bulk sample has now being obtained from one of the rutile-rich areas in order to conduct more comprehensive metallurgical test-work.
- An extensive program of regional hand auger drilling to assess the broader regional rutile potential is planned to commence shortly upon the arrival of new hand augering equipment into Malawi.

The Company will continue to inform the market of key developments and results as the Company continues to assess the rutile potential across its vast ground holding in Malawi.

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#### Geological background

Almost all known commercial rutile deposits occur as placer accumulations with the original source rocks most commonly being metamorphosed sedimentary rocks known as paragneisses<sup>1</sup>. These bedrock sources in most cases contain relatively low grades of rutile, although they are often exposed over vast areas. When eroded, this material is washed into large water bodies (oceans, lakes, rivers) where the heavy minerals are concentrated into placers by wind and water action.

In Malawi, Sovereign controls a very large area underlain predominantly by paragneiss rocks which appear to be highly enriched in rutile compared to most other similar terranes globally. Additionally, the weathering process has further concentrated the rutile near surface as lighter and more soluble minerals have been transported away. Overall, this has created an unusually high concentration of rutile in the residual weathering profile. The result is a 20-25m thick "blanket" of rutile mineralisation over significant areas all hosted within soft, friable and free-dig saprolite material.

As a comparison, Iluka Resources controls the world's largest and highest grade rutile mining operation in Sierra Leone. The original source rock for these deposits is also a paragneiss known as the Kasila Gneiss. These deposits were formed as a result of weathering and erosion of the Kasila Gneiss which outcrops in areas adjacent to the mining operations<sup>2</sup>. The rutile grains have been transported only a short distance by alluvial action and deposited into placers. This is reflected by the relatively low levels of sorting, wide grain size distribution and high angularity of the rutile grains. Rutile from Sierra Rutile is considered a premium product due to low impurities and its high angularity. This product is favoured by consumers for its potential to create a higher-quality end product with less waste<sup>3</sup>.

Initial assessments by Sovereign's geological team indicate substantial potential for saprolite-hosted, residual rutile deposits across the Company's significant ground position in Malawi. Initial test work demonstrated the potential to recover rutile via typical mineral sands processing flow-sheets. Visual examination shows high grain angularity related to the fact that the rutile has formed in situ and has not been subject to placer transport. The high angularity is a favourable feature for rutile feedstocks as it denotes a larger grain specific surface area which results in faster and more efficient reactivity in the chlorination process used for pigment production.

#### Rutile market

According to the world's largest natural rutile producer, Iluka Resources Limited (**Iluka**), during the March 2019 quarter "...demand for high grade (titanium) feedstocks remained strong. Demand for pigment strengthened over the first quarter of 2019 and this has contributed to sustained strong demand for high-grade feedstocks." <sup>4</sup>

Illuka sees continued growth in demand for high-grade titanium feedstocks over 2019 and is physically unable to satisfy all requests for feedstock in both the high-grade titanium and ilmenite segments of the market. Iluka's contract prices for rutile exceed US\$1,100 to pigment manufacturers and up to US\$1,300 to small lot customers <sup>5</sup> (welding and sponge).

- 1. Force, E.R., 1980. The Provenance of Rutile. Journal of Sedimentary Petrology, Vol. 50, No. 2.
- 2. Titanium Resources Group 2005. AIM Admission Prospectus Competent Persons Report.
- 3. Industrial Minerals Magazine 2015. Interview with Sierra Rutile Management.
- Iluka Resources Limited. Quarterly Review, 31 March 2019.
- 5. Iluka Resources Limited. Full Year Results to 31 December 2018.

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#### MALINGUNDE GRAPHITE DFS

Sovereign has commenced the DFS for Malingunde Saprolite-Hosted Graphite Project based on the very positive and robust Pre-feasibility Study (**PFS**) outcomes. The high-grade, soft, free-dig saprolite-hosted ore, requiring no primary crush or grind combined with a simple and proven flowsheet results in low capital intensity and extremely low operating costs (less than US\$300/t at steady state).

As previously indicated, the PFS has been undertaken to high standard, with many of the more substantial work programs required for the DFS having been already completed or substantially advanced. For example, all resource drilling is now entirely completed with no drill-out required for the DFS stage.

The Company has appointed all the key technical consultants for the DFS. This includes DRA who have been reappointed to lead the DFS and manage plant design, plant infrastructure and collation the of report; Orelogy Mining Consultants Pty Ltd for mine design and scheduling; SGS Canada Inc for metallurgy and SLR Consulting for tailings waste management and water studies. Environmental and social aspects are being managed by Dhamana Consulting and AECOM.

During the quarter, the Company advanced a number of DFS work programs including:

The pilot plant program in order to confirm the flowsheet at a large scale, and to provide significant quantities of material for assessment by potential offtake partners. 50 tonnes of ROM material has commenced being processed at SGS Lakefield in Canada.

An infrastructure assessment program aimed at identifying opportunities to enhance the project economics through further capital and operating cost reductions.

Detailed design and engineering of the process plant and associated infrastructure.

Completion of the Environmental Social Impact Assessment (ESIA) which is currently well advanced and is prepared for submission this quarter.

A resettlement action plan (RAP) for the Project is well advanced and will be submitted in conjunction with the ESIA. The RAP has been prepared to conform to both Malawian legislation and international best practice standards, specifically the IFC Performance Standards (2012) that deals with land acquisition and resettlement.

The Company has completed the early steps of the Mining Licence application and has appointed well experienced and regarded advisors to assist with the process.

Ongoing marketing – the Company is well advanced in discussions with numerous Tier 1 end users and traders of graphite, and is ramping up its product sales and marketing activities as the project is de-risked and development are established.

Advancement of product transport and logistics agreements, particularly focused on completing a binding rail transport agreement with the rail concessionaire, CEAR.

Continuation of meaningful discussions with finance providers with the intent of securing funding for the development and construction of the Malingunde Project.

Sovereign is targeting completion of the DFS in late-2019, it is expected that the various work programs forming the DFS, permitting, community and in-country relations, financing and potential offtake and marketing discussions. The Company will update the market on all DFS-related activities as they progress.

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#### **EXPANDED GROUND POSITION**

During the March Quarter, the Company was granted two additional exploration licences (**EPLs**) by the Malawi Department of Mines (Figure 1). Newly granted EPL0537 is located in the Dedza District and was primarily selected for its rutile potential. EPL0528 is located in the eastern part of the Lilongwe District adjacent to Sovereign's hard-rock Duwi Graphite deposit. This licence was primarily staked in order to assess bedrock gold potential after a discovery in the area by artisanal gold miners.

Sovereign's total ground position in Malawi has now increased to 4,253km<sup>2</sup> over six EPLs.

#### CORPORATE

The Company successfully completed a Placement and Share Purchase Plan (**SPP**) to raise total gross proceeds of A\$5.3 million. The Placement was strongly supported and also was taken up by the Directors of the Company, with the Directors collectively subscribing for a total of 7 million shares in the Placement.

The Placement and SPP places the Company in a strong position to expedite development activities for the Malingunde Flake Graphite Project and additional exploration and metallurgical activities on the identified Rutile potential in Malawi.

#### **CARPENTARIA JOINT VENTURE**

Mount Isa Mines (MIM), a Glencore Company, continues to manage and sole fund exploration on all tenements comprising the Carpentaria Joint Venture (**CJV**). Sovereign currently holds a 24.91% diluting interest in the tenements.



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#### Competent Person Statements

The information in this Announcement that relates to Exploration Results is extracted from an announcement dated 7 November 2018 and 24 January 2019. This announcement is available to view on www.sovereignmetals.com.au. The information in the original ASX Announcement that related to Exploration Results was based on, and fairly represents, information compiled by Dr Julian Stephens, a Competent Person who is a member of the Australasian Institute of Geoscientists (AIG). Dr Stephens is the Managing Director of Sovereign Metals Limited and a holder of shares and options in Sovereign Metals Limited. Dr Stephens has sufficient experience that 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

The information in this report that relates to Metallurgical Results is extracted from an announcement on 14 August 2018. This announcement is available to view on www.sovereignmetals.com.au. The information in the original announcement that related to Metallurgical Results was based on, and fairly represents, information compiled by Mr Gavin Diener, a Competent Person who is a member of the AusIMM. Mr Diener is the Chief Operating Officer of TZMI, an independent mineral sands consulting company and is not a holder of any equity type in Sovereign Metals Limited. Mr Diener has sufficient experience that 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### Forward Looking Statement

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on Sovereign's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Sovereign, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Sovereign makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.



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# **Appendix 1: Summary of mining tenements**

As at 31 March 2019, the Company had an interest in the following tenements:

Project Name	Permit Number	Percentage Interest	Area (km²)	Status
<u>Malawi</u>				
Central Malawi Ground Holdings	EPL 0372	100%	732	Granted
	EPL 0355	100%	189	Granted
	EPL 0413	100%	1,077	Granted
	EPL 0492	100%	1,895	Granted
	EPL 0528	100%	21	Granted
	EPL 0537	100%	339	Granted
		Total	4,253	

Project Name	Permit Number	Percentage Interest	Joint Venture Partner	Status
Queensland, Australia				
Mt Marathon	EPM 8586	24.91%	Mount Isa Mines	Granted
Mt Avarice	EPM 8588	24.91%	Mount Isa Mines	Granted
Fountain Range	EPM 12561	24.91%	Mount Isa Mines	Granted
Corella River	EPM 12597	24.91%	Mount Isa Mines	Granted
Saint Andrews Extended	EPM 12180	24.91%	Mount Isa Mines	Granted

Beneficial percentage interests in Farm-out agreements disposed during the quarter ending 31 March 2019.

)	Project Name	Permit Number	Type of change	Interest at beginning of quarter	Interest disposed of during quarter	Interest at end of quarter
	Carpentaria JV:					
	Mt Marathon	EPM 8586	Farm out	25.38%	0.47%	24.91%
	Mt Avarice	EPM 8588	Farm out	25.38%	0.47%	24.91%
	Fountain Range	EPM 12561	Farm out	25.38%	0.47%	24.91%
	Corella River	EPM 12597	Farm out	25.38%	0.47%	24.91%
)	Saint Andrews Ext.	EPM 12180	Farm out	25.38%	0.47%	24.91%

+Rule 5.5

# **Appendix 5B**

# Mining exploration entity and oil and gas exploration entity quarterly report

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

#### Name of entity

SOVEREIGN METALS LIMTED

ABN

Quarter ended ("current quarter")

71 120 833 427

31 March 2019

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000	
1.	Cash flows from operating activities			
1.1	Receipts from customers	-	-	
1.2	Payments for			
	(a) exploration & evaluation	(869)	(3,241)	
	(b) development	-	-	
	(c) production	-	-	
	(d) staff costs	(123)	(412)	
	(e) administration and corporate costs	(158)	(443)	
1.3	Dividends received (see note 3)	-	-	
1.4	Interest received	5	36	
1.5	Interest and other costs of finance paid	-	-	
1.6	Income taxes paid	-	-	
1.7	Research and development refunds	-	126	
1.8	Other (provide details if material)			
	Business Development	(47)	(64)	
1.9	Net cash from / (used in) operating activities	(1,192)	(3,998)	

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	-

<sup>+</sup> See chapter 19 for defined terms

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<sup>1</sup> September 2016

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	-
3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	5,335	5,335
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	(108)	(108)
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	5,227	5,227
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,139	3,945
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,192)	(3,998)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	5,227	5,227
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of	5 174	5 174

period

5,174

5,174

<sup>+</sup> See chapter 19 for defined terms

<sup>1</sup> September 2016

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	39	44
5.2	Call deposits	5,135	1,095
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)	5,174	1,139

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	164
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

Payments include director fees and salaries, superannuation and provision of a fully serviced office.

# 7. Payments to related entities of the entity and their associates

Current quarter \$A'000

- 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
- -

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7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Not applicable

# 8. Financing facilities available Add notes as necessary for an understanding of the position

- 8.1 Loan facilities
- 8.2 Credit standby arrangements
- 8.3 Other (please specify)

Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
-	-
-	-
-	-

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.

Not applicable

1 September 2016

<sup>+</sup> See chapter 19 for defined terms

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	1,000
9.2	Development	-
9.3	Production	-
9.4	Staff costs	150
9.5	Administration and corporate costs	120
9.6	Other (provide details if material)	
	Capital Raising	-
9.7	Total estimated cash outflows	1,270

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 8586 EPM 8588 EPM 12561 EPM 12597 EPM 12180	Reduction of interest in accordance with terms of joint venture agreement.	25.38%	24.91%
10.2	Interests in mining tenements and petroleum tenements acquired or increased	EPL0537 EPL0528	Direct Interest Direct Interest	-	100% 100%

#### **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.

	[lodged electronically without signature]	
Sign here:	(Company secretary)	Date: 30 April 2019
Print name:	Lachlan Lynch	

#### **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.

1 September 2016

<sup>+</sup> See chapter 19 for defined terms