# **European Metals Holdings Limited**

ARBN 154 618 989

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## Directors & Management

David Reeves
Non-Executive Chairman

Keith Coughlan

Managing Director

Mr Richard Pavlik **Executive Director** 

Kiran Morzaria

Non-Executive Director

Neil Meadows

Chief Operating Officer

Ms Julia Beckett

Company Secretary

#### **Corporate Information**

ASX: EMH

AIM: EMH

Frankfurt: E861.F

CDIs on Issue: 141.4M



#### 31 October 2018

#### **QUARTERLY ACTIVITIES REPORT – SEPTEMBER 2018**

#### **HIGHLIGHTS**

- Production modelled to increase to 22,500 tpa lithium carbonate
- Update of PFS to reflect production of lithium hydroxide commenced
- Resource and geophysical drilling permits granted
- Lithium hydroxide testwork commenced

European Metals Holdings Limited ("European Metals" or "the Company") is pleased to report on its activities and continued progress in the development of the globally significant Cinovec Lithium / Tin Project ("the project" or "Cinovec") in Czech Republic during the three-month period ending September 2018.

#### PRODUCTION MODELLED TO INCREASE TO 22,500 tpa LITHIUM CARBONATE

The Company completed additional roast optimisation testwork early in the quarter and reported that sustained improved recoveries had resulted in a predicted increase in lithium carbonate production to 22,500 tpa from the project.

#### Highlights:

- Average lithium carbonate production modelled to increase from 20,800tpa to 22,500tpa due to improved recoveries in the leach circuit of 94% being modelled.
- Increased lithium production results in projected increased cash margins of approximately 10%.
- Proposed use of low cost waste gypsum from local power plants as a roasting reagent is a significant positive environmental outcome for the region and a reagent cost benefit to the project.
- Locked cycle testing and larger scale roasting technology confirmation work to commence imminently.
- Preparation of 2 tonnes of lithium concentrate via magnetic separation for lithium carbonate pilot plant trials was almost complete.

The Company reported that the optimised reagent mix developed during the testwork as compared to that reported in the PFS resulted in the elimination of all high cost inputs to the roast predicted previously. The mix now contains a higher proportion of gypsum but the gypsum takes the form of a waste material sourced from the scrubbing of power station off gases. The sample used during the development of this reagent regime was sourced from a power station in the region. Current indications are that this material would be available at a highly competitive price. Also, the PFS predicted the use of hydrated lime and sodium sulphate as relatively high cost reagents to the process, all of which have now been eliminated and replaced by the waste gypsum described, as well as a small addition rate of limestone which can also be sourced at competitive prices in the nearby regions.



These developments enabled the Company to initiate the next two phases of testwork. Firstly, involving locked cycle testing to confirm the flowsheet all the way through to the production of battery grade lithium carbonate and secondly, to enable larger scale roasting proof of technology testing to be completed in the next few months. The Company will also undertake the production of lithium hydroxide during the latter phase.

#### UPDATE OF PFS TO REFLECT PRODUCTION OF LITHIUM HYDROXIDE

The Company provided a project update on 4 September 2018, highlighting further significant advancements made in the development of the Cinovec project.

#### Highlights:

- Work had commenced on an update of the Preliminary Feasibility Study to model the production of higher value lithium hydroxide due to its increasing use in lithium ion batteries.
- Leach recoveries of 94–95% lithium had been replicated in confirmatory laboratory scale roasting and water leaching tests in Germany. Locked cycle testwork would then commence post the lithium hydroxide study to model the selected route.
- Permits had been granted for the commencement of geotechnical drilling at the project.

The Company announced the commencement of development of an updated Preliminary Feasibility Study (PFS) modelling the economics of the production of lithium hydroxide from Cinovec ore. The updated PFS included a process flowsheet whereby battery grade lithium hydroxide may be precipitated directly from the roast and water leach steps.

The Company also recommenced testwork at Dorfner Anzaplan in Germany. Initial testwork was focused on replicating results obtained in laboratory scale roasting testwork, reported on 28 March 2018 (Lithium Recoveries Improved to 95%). Similar results were achieved in 6 tests completed enabling the roasting feed blend and chemistry to be locked in and the stated recovery improvements to be used in future project and economic assessments. The plan was then to commence locked-cycle pilot testwork in September 2018 at Anzaplan with the selected lithium product (ie carbonate or hydroxide).

## RESOURCE AND GEOPHYSICAL DRILLING PERMITS GRANTED LITHIUM HYDROXIDE TESTWORK COMMENCED

The Company announced further advancements made in the development of the Cinovec Project which highlighted:

- Permits required for the DFS resource drilling campaign had been granted.
- A total of 13 drill holes for a total drilled length of 3,386 metres had been permitted.
- The first 4 geotechnical drill holes at the proposed site of the mine portal had been completed.
- Testing of the revised lithium hydroxide product flowsheet had commenced on schedule.

The Company received permission from the relevant statutory authorities in the Czech Republic for the commencement of the planned comprehensive diamond drilling campaign. The drilling is aimed at converting a sufficient portion of the existing Indicated Mineral Resource to the Measured Resource category to cover the first 2 years of the scheduled mining plan. A total of 8 diamond drill holes will be completed for 2,560 metres. This is a key activity in terms of the ongoing ramp up of the project's definitive feasibility study (DFS).



The Company also reported the completion of the initial 4 geotechnical holes reported on 4 September 2018 (CINOVEC PROJECT UPDATE – SIGNIFICANT ADVANCEMENTS), for the portal area. Geotechnical logging of the four holes was planned to be completed in early October 2018. The rig would then continue with drilling a further five geotechnical holes along the planned mining decline route to allow final development ready designs to be completed for the portal and decline designs.

European Metals also reported that testwork at Dorfner Anzaplan in Germany had commenced on schedule. The first stage of the testwork was focused on proving up a flowsheet developed for the production of lithium hydroxide. It is the intention that this work would be followed by locked cycle testing of the flowsheet settled upon.

#### **CORPORATE**

As at 30 September 2018 the issued performance shares including the terms and conditions were as follows:

Number	Description	Summary Terms & Conversion Hurdles
1,000,000	Class B Performance Shares	Convert into Shares and an equivalent number of CDIs upon the Company's Mineral Resource at Cinovec South and Cinovec Main being entered in the State Balance. The B Class Performance Shares shall convert into the number of Shares and equivalent number of CDIs equal to 1,000,000 multiplied by 0.5 and divided by the greater of: (A) \$0.50 per CDI; and (B) the volume weighted average price of CDIs (expressed as a decimal of \$1.00) as calculated over the 5 ASX trading days prior to the date the Mineral Resource is entered.
1,000,000	Class B Performance Shares	Convert into Shares and an equivalent number of CDIs upon the issuance of the preliminary mining licenses relating to the Cinovec Project. The B Class Performance Shares shall convert into the number of Shares and equivalent number of CDIs equal to 1,000,000 multiplied by 0.5 and divided by the greater of: (A) \$0.50 per CDI; and (B) the volume weighted average price of CDIs (expressed as a decimal of \$1.00) as calculated over the 5 ASX trading days prior to the date the final preliminary mining license is issued.
3,000,000	Class B Performance Shares	Convert into Shares and an equivalent number of CDIs upon the completion of a definitive feasibility study ( <b>DFS</b> ). For clarity, the DFS must be: (i) of a standard suitable to be submitted to a financial institution as the basis for lending of funds for the development and operation of mining activities contemplated in the study; (ii) capable of supporting a decision to mine on the Permits; and (iii) completed to an accuracy of +/- 15% with respect to operating and capital costs and display a pre-tax net present value of not less than US\$250,000,000. The B Class Performance Shares shall convert into the number of Shares and equivalent number of CDIs equal to 3,000,000 multiplied by 0.5 and divided by the greater of: (A) \$0.50 per CDI; and (B) the volume weighted average price of CDIs (expressed as a decimal of \$1.00) as calculated over the 5 ASX trading days prior to date of receipt of the completed DFS.



(Together the **Milestones** and each a **Milestone**). For the avoidance of doubt, the number of Shares and equivalent number of CDIs which will be issued on conversion of the B Class Performance Shares will not exceed a ratio of 1 for 1.)

If the Milestone is not achieved or the Change of Control Event does not occur by the required date, then each B Class Performance Share held by a Holder will be automatically redeemed by the Company for the sum of \$0.000001 within 10 ASX trading days of non-satisfaction of the Milestone.

#### **TENEMENT SCHEDULE**

Tenement	Interest at beginning of Quarter	Acquired/Disposed	Interest at end of Quarter
Cinovec	100%	N/A	100%
Cinovec 2	100%	N/A	100%
Cinovec 3	100%	N/A	100%

#### **BACKGROUND INFORMATION ON CINOVEC**

#### **PROJECT OVERVIEW**

#### **Cinovec Lithium/Tin Project**

European Metals, through its wholly owned Subsidiary, Geomet s.r.o., controls the mineral exploration licenses awarded by the Czech State over the Cinovec Lithium/Tin Project. Cinovec hosts a globally significant hard rock lithium deposit with a total Indicated Mineral Resource of 372.4Mt @ 0.44%  $\text{Li}_2\text{O}$  and 0.04% Sn and an Inferred Mineral Resource of 323.5Mt @ 0.39%  $\text{Li}_2\text{O}$  and 0.04% Sn containing a combined 7.18 million tonnes Lithium Carbonate Equivalent and 262,600 t of tin. An initial Probable Ore Reserve of 34.5Mt @ 0.65%  $\text{Li}_2\text{O}$  and 0.09% Sn has been declared to cover the first 20 years mining at an output of 20,800 tpa of lithium carbonate.

This makes Cinovec the largest lithium deposit in Europe, the fourth largest non-brine deposit in the world and a globally significant tin resource.

The deposit has previously had over 400,000 tonnes of ore mined as a trial sub-level open stope underground mining operation.

EMH has completed a Preliminary Feasibility Study, conducted by specialist independent consultants, which indicated a return post tax NPV of USD540m and an IRR of 21%. It confirmed the deposit is amenable to bulk underground mining. Metallurgical test work has produced both battery grade lithium carbonate and high-grade tin concentrate at excellent recoveries. Cinovec is centrally located for European end-users and is well serviced by infrastructure, with a sealed road adjacent to the deposit, rail lines located 5 km north and 8 km south of the deposit and an active 22 kV transmission line running to the historic mine. As the deposit lies in an active mining region, it has strong community support.

The economic viability of Cinovec has been enhanced by the recent strong increase in demand for lithium globally, and within Europe specifically.



#### CONTACT

For further information on this update or the Company generally, please visit our website at www. http://europeanmet.com or contact:

Mr. Keith Coughlan Managing Director

#### COMPETENT PERSON

Information in this release that relates to exploration results is based on information compiled by Dr Pavel Reichl. Dr Reichl is a Certified Professional Geologist (certified by the American Institute of Professional Geologists), a member of the American Institute of Professional Geologists, a Fellow of the Society of Economic Geologists and is a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and a Qualified Person for the purposes of the AIM Guidance Note on Mining and Oil & Gas Companies dated June 2009. Dr Reichl consents to the inclusion in the release of the matters based on his information in the form and context in which it appears. Dr Reichl holds CDIs in European Metals.

The information in this release that relates to Mineral Resources and Exploration Targets has been compiled by Mr Lynn Widenbar. Mr Widenbar, who is a Member of the Australasian Institute of Mining and Metallurgy, is a full time employee of Widenbar and Associates and produced the estimate based on data and geological information supplied by European Metals. Mr Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012 Edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Widenbar consents to the inclusion in this report of the matters based on his information in the form and context that the information appears.

#### **CAUTION REGARDING FORWARD LOOKING STATEMENTS**

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the company's business and operations in the future. The company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the company or management or beyond the company's control.



Although the company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

#### LITHIUM CLASSIFICATION AND CONVERSION FACTORS

Lithium grades are normally presented in percentages or parts per million (ppm). Grades of deposits are also expressed as lithium compounds in percentages, for example as a percent lithium oxide (Li<sub>2</sub>O) content or percent lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) content.

Lithium carbonate equivalent ("LCE") is the industry standard terminology for, and is equivalent to,  $Li_2CO_3$ . Use of LCE is to provide data comparable with industry reports and is the total equivalent amount of lithium carbonate, assuming the lithium content in the deposit is converted to lithium carbonate, using the conversion rates in the table included below to get an equivalent  $Li_2CO_3$  value in percent. Use of LCE assumes 100% recovery and no process losses in the extraction of  $Li_2CO_3$  from the deposit.

Lithium resources and reserves are usually presented in tonnes of LCE or Li.

The standard conversion factors are set out in the table below:

**Table: Conversion Factors for Lithium Compounds and Minerals** 

Convert from		Convert to Li	Convert to Li <sub>2</sub> O	Convert to Li <sub>2</sub> CO <sub>3</sub>
Lithium	Li	1.000	2.153	5.324
Lithium Oxide	Li <sub>2</sub> O	0.464	1.000	2.473
Lithium Carbonate	Li₂CO3	0.188	0.404	1.000

#### WEBSITE

A copy of this announcement is available from the Company's website at <a href="www.europeanmet.com">www.europeanmet.com</a>.



#### **ENQUIRIES:**

**European Metals Holdings Limited** 

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Julia Beckett, Company Secretary Tel: +61 (0) 8 6245 2057

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**Beaumont Cornish (Nomad & Broker)** 

Michael Cornish Roland Cornish Tel: +44 (0) 20 7628 3396

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**Joint Broker** Tel: +44 (0) 20 7186 9950

Damon Health Erik Woolgar **Shard Capital** 

The information contained within this announcement is considered to be inside information, for the purposes of Article 7 of EU Regulation 596/2014, prior to its release. The person who arranged for the release of this announcement on behalf of the Company was Keith Coughlan, Managing Director.

+Rule 5.5

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### 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

European Metals Holdings Limited (ASX: EMH)

ABN

Quarter ended ("current quarter")

55 154 618 989

30 September 2018

Cor	nsolidated 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		
1.2	Payments for		
	(a) exploration & evaluation	(528)	(528)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(209)	(209)
	(e) administration and corporate costs	(355)	(355)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	1
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other (legal costs)	-	-
1.9	Net cash from / (used in) operating activities	(1,091)	(1,091)

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

1 September 2016

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (3.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	-	-
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	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,223	2,223
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,091)	(1,091)
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)	-	-
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	1,132	1,132

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

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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	1,132	1,523
5.2	Call deposits	-	700
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)	1,132	2,223

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	123
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

Amounts paid to directors and their associates as director remuneration and reimbursement expenses.

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	22
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

Amounts paid to Wilgus Investments Pty Ltd a related entity of David Reeves for Rent and Consulting Fees.

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

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		
8.3	Other (please specify)		
8.4	Include below a description of each facility ab whether it is secured or unsecured. If any add proposed to be entered into after quarter end	ditional facilities have bee	en entered into or are
l			

9.	Estimated cash outflows for next quarter	\$A'000	
9.1	Exploration and evaluation	305	
9.2	Development		
9.3	Production		
9.4	Staff costs	213	
9.5	Administration and corporate costs	345	
9.6	Other (provide details if material)		
9.7	Total estimated cash outflows	863	

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	Nil			
10.2	Interests in mining tenements and petroleum tenements acquired or increased	Nil			

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<sup>+</sup> See chapter 19 for defined terms 1 September 2016

#### **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: Date: 31 October 2018

(Company secretary)

Dukel

Print name: Julia Beckett

#### **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.

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