

# SIGNIFICANT INCREASE IN PLANNED LITHIUM **PRODUCTION**

European Metals Holdings Limited (ASX & AIM: EMH, OTCQX: EMHXY and EMHLF) ("European Metals" or the "Company") is pleased to announce a significant increase in the planned annual production of lithium chemicals from the Cinovec Project ("Cinovec" or "the Project").

## **Highlights**

- Planned production of battery-grade lithium hydroxide monohydrate increased by 42% to 41,658 tpa or 36,670 tpa of battery-grade lithium carbonate.
- Planned run-of-mine ore production increased by 42% taking the Project production rate from 2.25 mtpa to 3.20 mtpa, without processing plant head grade, the Life of Mine or plant recovery being significantly impacted.
- This planned increase in production enables the Project to benefit from significant economies of scale which will be confirmed in the Definitive Feasibility Study ("DFS") now due for completion in mid-2025.

Keith Coughlan, Executive Chairman, commented: "This work on the production increase was carried out by Bara as part of its Minina DFS and is another example of the important work being done to improve the economics of the Cinovec Project during the extended timeframe for the DFS. This significant increase in planned lithium output will lead to additional recognition of how important the Cinovec Project is and the role the Project will play in enabling the EU to reach its goals of lithium self-sufficiency by 2030."

## Increase in Planned Mine and Battery Grade End-Product Lithium Chemicals Production

The assessment of production capacity capabilities for the Project has now been completed with the result being that the run-of-mine production ("ROM") has been increased from 2.25 million tonnes per annum ("mtpa") to 3.2 mtpa.

The substantial increase in ROM has resulted in an increase in the planned production of lithium hydroxide monohydrate from 29,385 tonnes per annum ("tpa") to 41,658 tpa or 36,670 tpa of lithium carbonate without the need to increase the size of footprint of the underground mine at surface. This 42% increase in ROM production is expected to result in considerable economic benefits to be gained due to the economies of scale flowing through to the lithium chemical plant.

In the past the critical constraint on mine production capacity for the Project was the size of the proposed Dukla processing plant site, at 24 hectares. The Prunéřov EPR1 site which is now to be used is 36 hectares and enables increased ROM production.

Bara Consulting, the mining adviser to the Project, was instructed to review options for an increase in ROM production. This review was at Concept Study level, building on the previous mining Pre-Feasibility Study ("PFS") published on 19th January 2022 and subsequent DFS-level of work as part of the overall DFS.

**DIRECTORS** AND MANAGEMENT

**CORPORATE INFORMATION** 

**Keith Coughlan** EXECUTIVE CHAIRMAN

**ASX** EMH

**Richard Pavlik EXECUTIVE DIRECTOR** 

**AIM** EMH

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Henko Vos COMPANY SECRETARY

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The limitations placed on ROM capacity review by the Project team were that the mine portal area could not increase in size or change position and that the box-cut and twin decline system would remain the same as designed for the PFS and as a result not materially impact the environmental footprint.

The results of increasing planned mine production levels when compared with the PFS mine production levels are set out in the table below:

		New Plan	PFS
Annual ROM production at capacity, mtpa	+42%	3.20	2.25
Production Years (LOM)		26	25
Production Years excluding ramp-up/down		21	22
Total Mining Inventory mined over LOM, mt	+36%	74.0	54.5
Mining Inventory in Measured & Indicated JORC Resource, mt		55.0	54.5
Mining Inventory in Inferred JORC Resource, mt		19.0	0.0
Percentage of 708.2mt JORC Resource extracted		10.4	7.7
Average LOM ore grade, Li %	-7%	0.262	0.281
Lithium hydroxide monohydrate production, tpa	+42%	41,658	29,386
LCE production, tpa	+42%	36,670	25,868
Lithium recovery to concentrate		91.5%	90%
Lithium recovery in chemical plant		89.5%	91%
Overall lithium recovery		81.9%	82%

The mine plan for the new 3.2mtpa ROM planned production level is the same as the mine plan for the PFS producing 2.25mtpa, except that it is mined faster and Inferred JORC Resources are brought into production in the last eight years of mining (Years 21 to 28), including three ramp-down years). No Inferred Resources are included in the mine plan in Years 1 to 20.

### **Assumed Lithium Recovery Levels**

The lithium recovery to concentrate used in this Study represents the recovery from a Front-End Comminution and Beneficiation circuit ("**FECAB**") design which is 100% flotation. As detailed in the Company's announcements of 31<sup>st</sup> July 2024 and 27<sup>th</sup> November 2024, the repeatable lithium recoveries for un-deslimed flotation achieved in bench-scale testing are >94%. The FECAB recovery rate of 91.5% used in the table above incorporates allowances for full scale-up / industrial plant performance.

#### **DFS Status Update**

As noted in the Cinovec Project Update announcement of 27<sup>th</sup> November 2024, results of the DFS are expected to be released in mid-2025. The increased planned ROM and battery grade lithium product levels will not impact this timeline.

European Metals, in developing the Cinovec Lithium Project, is well positioned to meet the rising demand for battery materials in the European Union ("EU") and to support the EU's objectives to secure supply of Critical Minerals including lithium within the EU. The Cinovec Project is the largest hard rock lithium project in the EU and Europe and is centrally located on the Czech Republic's border with Germany. The project has excellent ESG credentials underpinning the production of battery grade lithium hydroxide and/or carbonate with low CO<sub>2</sub> emissions in a global context.

This announcement has been approved for release by the Board.



#### CONTACT

For further information on this update or the Company generally, please visit our website at <a href="https://www.europeanmet.com">www.europeanmet.com</a> or see full contact details at the end of this release.

# **BACKGROUND INFORMATION ON CINOVEC**

#### **PROJECT OVERVIEW**

#### **Cinovec Lithium Project**

Geomet s.r.o. controls the mineral exploration licenses awarded by the Czech State over the Cinovec Lithium Project. Geomet has been granted a preliminary mining permit by the Ministry of Environment and the Ministry of Industry. The company is owned 49% by EMH and 51% by CEZ a.s. through its wholly owned subsidiary, SDAS. Cinovec hosts a globally significant hard rock lithium deposit with a total Measured Mineral Resource of 53.3Mt at 0.48% Li<sub>2</sub>O, Indicated Mineral Resource of 360.2Mt at 0.44% Li<sub>2</sub>O and an Inferred Mineral Resource of 294.7Mt at 0.39% Li<sub>2</sub>O containing a combined 7.39 million tonnes Lithium Carbonate Equivalent (refer to the Company's ASX/ AIM release dated 13 October 2021) (**Resource Upgrade at Cinovec Lithium Project**).

An initial Probable Ore Reserve of 34.5Mt at 0.65% Li<sub>2</sub>O reported 4 July 2017 (**Cinovec Maiden Ore Reserve – Further Information**) has been declared to cover the first 20 years mining at an output of 22,500tpa of lithium carbonate (refer to the Company's ASX/ AIM release dated 11 July 2018) (**Cinovec Production Modelled to Increase to 22,500tpa of Lithium Carbonate**).

This makes Cinovec the largest hard rock lithium deposit in Europe and the fifth largest non-brine deposit in the world.

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

On 19 January 2022, EMH provided an update to the 2019 PFS Update. It confirmed the deposit is amenable to bulk underground mining (refer to the Company's ASX/ AIM release dated 19 January 2022) (**PFS Update delivers outstanding results**). Metallurgical test-work has produced both battery-grade lithium hydroxide and battery-grade lithium carbonate at excellent recoveries. In February 2023 DRA Global Limited ("**DRA**") was appointed to complete the Definitive Feasibility Study ("**DFS**").

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. The deposit lies in an active mining region.

The economic viability of Cinovec has been enhanced by the recent push for supply security of critical raw materials for battery production, including the strong increase in demand for lithium globally, and within Europe specifically, as demonstrated by the European Union's Critical Raw Materials Act (CRMA).

# **BACKGROUND INFORMATION ON CEZ**

Headquartered in the Czech Republic, CEZ a.s. is one of the largest companies in the Czech Republic and a leading energy group operating in Western and Central Europe. CEZ's core business is the generation, distribution, trade in, and sales of electricity and heat, trade in and sales of natural gas, and coal extraction. The foundation of power generation at CEZ Group are emission-free sources. The CEZ strategy named Clean Energy for Tomorrow is based on ambitious decarbonisation,



development of renewable sources and nuclear energy. CEZ announced that it would move forward its climate neutrality commitment by ten years to 2040.

The largest shareholder of its parent company, CEZ a.s., is the Czech Republic with a stake of approximately 70%. The shares of CEZ a.s. are traded on the Prague and Warsaw stock exchanges and included in the PX and WIG-CEE exchange indices. CEZ's market capitalization is approximately EUR 20.3 billion.

As one of the leading Central European power companies, CEZ intends to develop several projects in areas of energy storage and battery manufacturing in the Czech Republic and in Central Europe.

CEZ is also a market leader for E-mobility in the region and has installed and operates a network of EV charging stations throughout Czech Republic. The automotive industry in the Czech Republic is a significant contributor to GDP, and the number of EV's in the country is expected to grow significantly in the coming years.

# COMPETENT PERSONS AND QUALIFIED PERSON FOR THE PURPOSES OF THE AIM NOTE FOR MINING AND OIL & GAS COMPANIES

Information in this release that relates to the FECAB metallurgical testwork is based on, and fairly reflects, technical data and supporting documentation compiled or supervised by Mr Walter Mädel, a full-time employee of Geomet s.r.o an associate of the Company. Mr Mädel is a member of the Australasian Institute of Mining and Metallurgy ("AUSIMM") and a mineral processing professional with over 27 years of experience in metallurgical process and project development, process design, project implementation and operations. Of his experience, at least 5 years have been specifically focused on hard rock pegmatite Lithium processing development. Mr Mädel consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears. Mr Mädel is a participant in the long-term incentive plan of the Company.

Information in this release that relates to exploration results is based on, and fairly reflects, information and supporting documentation compiled by Dr Vojtech Sesulka. Dr Sesulka is a Certified Professional Geologist (certified by the European Federation of Geologists), a member of the Czech Association of Economic Geologist, and a Competent Person as defined in the JORC Code 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Sesulka has provided his prior written consent to the inclusion in this report of the matters based on his information in the form and context in which it appears. Dr Sesulka is an independent consultant with more than 10 years working for the EMH or Geomet companies. Dr Sesulka does not own any shares in the Company and is not a participant in any short- or long-term incentive plans of the Company.

Information in this release that relates to metallurgical test work and the process design criteria and flow sheets in relation to the LCP is based on, and fairly reflects, information and supporting documentation compiled by Mr Grant Harman (B.Sc Chem Eng, B.Com). Mr Harman is an independent consultant and the principal of Lithium Consultants Australasia Pty Ltd with in excess of 14 years of lithium chemicals experience. Mr Harman has provided his prior written consent to the inclusion in this report of the matters based on his information in the form and context that the information appears. Mr Harman is a participant in the long-term incentive plan of the Company.

The information in this release that relates to Mineral Resources and Exploration Targets is based on, and fairly reflects, information and supporting documentation prepared by Mr Lynn Widenbar. Mr Widenbar, who is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australasian Institute of Geoscientists, 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 has provided his prior written consent to the inclusion in this report of the matters based on his information in the form and context that the information appears. Mr Widenbar does not own any shares in the Company and is not a participant in any short- or long-term incentive plans of the Company.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. 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.

#### **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<sub>2</sub>CO<sub>3</sub>. 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<sub>2</sub>CO<sub>3</sub> value in percent. Use of LCE assumes 100% recovery and no process losses in the extraction of Li<sub>2</sub>CO<sub>3</sub> 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>	Convert to LiOH.H₂O
Lithium	Li	1.000	2.153	5.325	6.048
Lithium Oxide	Li <sub>2</sub> O	0.464	1.000	2.473	2.809
Lithium	Li <sub>2</sub> CO <sub>3</sub>				
Carbonate		0.188	0.404	1.000	1.136
Lithium	LiOH.H <sub>2</sub> O				
Hydroxide		0.165	0.356	0.880	1.000
Lithium Fluoride	LiF	0.268	0.576	1.424	1.618

#### **WEBSITE**

A copy of this announcement is available from the Company's website at www.europeanmet.com/announcements/.

#### **ENQUIRIES:**

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The information contained within this announcement is deemed by the Company to constitute inside information under the Market Abuse Regulation (EU) No. 596/2014 ("MAR") as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 and is disclosed in accordance with the Company's obligations under Article 17 of MAR.



# JORC Code, 2012 Edition – Table 1

# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Between 2014 and 2021, the         Company commenced a core         drilling program and collected         samples from core splits in line with         JORC Code guidelines.</li> <li>Sample intervals honour geological         or visible mineralisation boundaries         and vary between 50cm and 2m.         The majority of samples are 1m in         length.</li> <li>The samples are half or quarter of         core; the latter applied for large         diameter core.</li> <li>Between 1952 and 1989, the Cinovec         deposit was sampled in two ways: in         drill core and underground channel         samples.</li> <li>Channel samples, from drift ribs and         faces, were collected during detailed         exploration between 1952 and 1989         by Geoindustria n.p. and Rudne Doly             n.p., both Czechoslovak State         companies. Sample length was 1m,         channel 10x5cm, sample mass         about 15kg. Up to 1966, samples         were collected using hammer and         chisel; from 1966 a small drill         (Holman Hammer) was used. 14179         samples were collected and         transported to a crushing facility.</li> <li>Core and channel samples were         crushed in two steps: to -5mm, then         to -0.5mm. 100g splits were obtained         and pulverized to -0.045mm for         anallysis.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast,</li> </ul>	<ul> <li>In 2014, three core holes were drilled for a total of 940.1m. In 2015, six core</li> </ul>
	auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type,	holes were drilled for a total of 2,455.0m. In 2016, eighteen core holes were drilled for a total of 6,459.6m. In 2017, six core holes were
	whether core is oriented and if so, by what method, etc).	<ul> <li>drilled for a total of 2697.1m. In 2018, 5 core holes were drilled for a total of 1,640.3 and in 2020, 22 core holes were drilled for a total of 6,621.7m.</li> <li>In 2014 and 2015, the core size was HQ3 (60mm diameter) in upper parts of holes; in deeper sections the core size was reduced to NQ3 (44mm diameter). Core recovery was high (average 98%). Between 2016 and 2021 up to four drill rigs were used, and select holes</li> </ul>



Criteria	JORC Code explanation	Commentary
	•	<ul> <li>employed PQ sized core for upper parts of the drillholes.</li> <li>Historically only core drilling was employed, either from surface or from underground.</li> <li>Surface drilling: 149 holes, total 55,570 meters; vertical and inclined, maximum depth 1596m (structural hole). Core diameters from 220mm near surface to 110 mm at depth. Average core recovery 89.3%.</li> <li>Underground drilling: 766 holes for 53,126m; horizontal and inclined. Core diameter 46mm; drilled by Craelius XC42 or DIAMEC drills.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core recovery for historical surface drill holes was recorded on drill logs and entered into the database.</li> <li>No correlation between grade and core recovery was established.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>In 2014-2021, core descriptions were recorded into paper logging forms by hand and later entered into an Excel database.</li> <li>Core was logged in detail historically in a facility 6km from the mine site. The following features were logged and recorded in paper logs: lithology, alteration (including intensity divided into weak, medium and strong/pervasive), and occurrence of ore minerals expressed in %, macroscopic description of congruous intervals and structures and core recovery.</li> </ul>
Sub-sampling techniques and sample	If core, whether cut or sawn and whether quarter, half or all core taken.  If you care whather riffed tubes.	In 2014-21, core was washed, geologically logged, sample intervals determined and marked than the core was sut in half I grape.
preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for</li> </ul>	then the core was cut in half. Larger core was cut in half and one half was cut again to obtain a quarter core sample. One half or one quarter samples was delivered to ALS Global for assaying after duplicates, blanks and standards were inserted in the sample stream. The remaining drill core is stored on site for reference.  • Sample preparation was carried out by ALS Global in Romania, using



Criteria	JORC Code explanation	Commentary
Circeira	instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>industry standard techniques appropriate for the style of mineralisation represented at Cinovec.</li> <li>Historically, core was either split or consumed entirely for analyses.</li> <li>Samples are considered to be representative.</li> <li>Sample sizes relative to grain sizes are deemed appropriate for the analytical techniques used.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>In 2014-21, core samples were assayed by ALS Global. The most appropriate analytical methods were determined by results of tests for various analytical techniques.</li> <li>The following analytical methods were chosen: ME-MS81 (lithium borate fusion or 4 acid digest, ICP-MS finish) for a suite of elements including Sn and W and ME-4ACD81 (4 acid digest, ICP-AES finish) additional elements including lithium.</li> <li>About 40% of samples were analysed by ME-MS81d (ME-MS81 plus whole rock package). Samples with over 1% tin are analysed by XRF. Samples over 1% lithium were analysed by Li-OG63 (four acid and ICP finish).</li> <li>Standards, blanks and duplicates were inserted into the sample stream. Initial tin standard results indicated possible downgrading bias; the laboratory repeated the analysis with satisfactory results.</li> <li>Historically, Sn content was measured by XRF and using wet</li> </ul>
		chemical methods. W and Li were analysed by spectral methods.  • Analytical QA was internal and external. The former subjected 5% of the sample to repeat analysis in the same facility. 10% of samples were analysed in another laboratory, also located in Czechoslovakia. The QA/QC procedures were set to the
		State norms and are considered adequate. It is unknown whether external standards or sample duplicates were used.  Overall accuracy of sampling and assaying was proved later by test mining and reconciliation of mined and analysed grades.

# European Metals

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>During the 2014-21 drill campaigns Geomet indirectly verified grades of tin and lithium by comparing the length and grade of mineral intercepts with the current block model.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>In 2014-21, drill collar locations were surveyed by a registered surveyor.</li> <li>Down hole surveys were recorded by a contractor.</li> <li>Historically, drill hole collars were surveyed with a great degree of precision by the mine survey crew.</li> <li>Hole locations are recorded in the local S-JTSK Krovak grid.</li> <li>Topographic control is excellent.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Historical data density is very high.</li> <li>Spacing is sufficient to establish Measured, Indicated and Inferred Mineral Resource Estimates.</li> <li>Areas with lower coverage of Li% assays have been identified as Exploration Targets.</li> <li>Sample compositing to 1m intervals has been applied mathematically prior to estimation but not physically.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>In 2014-21, drill hole azimuth and dip was planned to intercept the mineralized zones at near-true thickness. As the mineralized zones dip shallowly to the south, drill holes were vertical or near vertical and directed to the north. Due to land access restrictions, certain holes could not be positioned in sites with ideal drill angle.</li> <li>Geomet has not directly collected any samples underground because the workings are inaccessible at this time.</li> <li>Based on historic reports, level plan maps, sections and core logs, the samples were collected in an unbiased fashion, systematically on two underground levels from drift ribs and faces, as well as from underground holes drilled perpendicular to the drift directions. The sample density is adequate for the style of deposit.</li> <li>Multiple samples were taken and</li> </ul>



Criteria	JORC Code explanation	Commentary
		analysed by the Company from the historic tailing repository. Only lithium was analysed (Sn and W too low). The results matched the historic grades.
Sample security	The measures taken to ensure sample security.	<ul> <li>In the 2014-21 programs, only Geomet's employees and contractors handled drill core and conducted sampling. The core was collected from the drill rig each day and transported in a company vehicle to the secure Geomet premises where it was logged and cut. Geomet geologists supervised the process and logged/sampled the core. The samples were transported by Geomet personnel in a company vehicle to the ALS Global laboratory pick-up station. The remaining core is stored under lock and key.</li> <li>Historically, sample security was ensured by State norms applied to exploration. The State norms were similar to currently accepted best practice and JORC guidelines for sample security.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	

# **Section 2 Reporting of Exploration Results**

(Criteria listed in section 1 also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference     name/number, location and     ownership including     agreements or material     issues with third parties such     as joint ventures,	In June 2020, the Czech Ministry of the Environment granted Geomet three Preliminary Mining Permits which cover the whole of the Cinovec deposit. The permits are valid until 2028.
	partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	<ul> <li>Geomet plans to amalgamate these into a single Final Mining Permit.</li> </ul>
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>There has been no acknowledgment or appraisal of exploration by other parties.</li> </ul>
Geology	<ul> <li>Deposit type, geological</li> </ul>	<ul> <li>Cinovec is a granite-hosted tin-</li> </ul>



Criteria	JORC Code explanation	Commentary
	setting and style of mineralisation.	<ul> <li>tungsten-lithium deposit.</li> <li>Late Variscan age, post-orogenic granite intrusion tin and tungsten occur in oxide minerals (cassiterite and wolframite).  Lithium occurs in zinnwaldite, a Li-rich muscovite.</li> <li>Mineralization in a small granite cupola. Vein and greisen type.  Alteration is greisenisation, silicification.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Reported previously.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	<ul> <li>Reporting of exploration results has not and will not include aggregate intercepts.</li> <li>Metal equivalent not used in reporting.</li> <li>No grade truncations applied.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Intercept widths are approximate true widths.</li> <li>The mineralization is mostly of disseminated nature and relatively homogeneous; the orientation of samples is of limited impact.</li> <li>For higher grade veins care was taken to drill at angles ensuring closeness of intercept length and true widths.</li> <li>The block model accounts for variations between apparent and true dip.</li> </ul>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Appropriate maps and sections have been generated by Geomet and independent consultants. Available in customary vector and raster outputs and partially in consultant's reports.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>Balanced reporting in historic reports guaranteed by norms and standards, verified in 1997 and 2012 by independent consultants.</li> <li>The historic reporting was completed by several State institutions and cross validated.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results;	<ul> <li>Data available: bulk density for all representative rock and ore types; (historic data + 92 measurements in 2016-21 from current core holes); petrographic and mineralogical studies, hydrological information,</li> </ul>
	geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential	hardness, moisture content, fragmentation etc.
	deleterious or contaminating substances.	



Criteria	JORC Code explanation	Commentary
	planned further work (eg tests for lateral extensions or depth extensions or largescale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<ul> <li>underground or drilling from surface. Historically-reported grades require modern validation in order to improve resource classification.</li> <li>The number and location of sampling sites will be determined from a 3D wireframe model and geostatistical considerations reflecting grade continuity.</li> <li>The geologic model will be used to determine if any infill drilling is required.</li> <li>The deposit is open down-dip on the southern extension, and locally poorly constrained at its western and eastern extensions, where limited additional drilling might be required.</li> <li>No large-scale drilling campaigns are required.</li> </ul>

# **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Assay and geologic data were compiled by Geomet staff from primary historic records, such as copies of drill logs and large scale sample location maps.</li> <li>Sample data were entered into Excel spreadsheets by Geomet staff.</li> <li>The database entry process was supervised by a Professional Geologist who works for Geomet.</li> <li>The database was checked by independent competent persons (Lynn Widenbar of Widenbar &amp; Associates).</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The site was visited by Dr. Pavel Reichl who identified the previous shaft sites, tails dams and observed the mineralisation underground through an adjacent mine working and was previously the Competent Person for exploration results.</li> <li>The current Competent Person for exploration results, Dr. Vojtech Sesulka, has visited the site on multiple occasions and has been involved in 2014 to 2021 drilling campaigns.</li> </ul>



Criteria	JORC Code explanation	Commentary
		The site was visited in June 2016 by Mr. Lynn Widenbar, the Competent Person for Mineral Resource Estimation. Diamond drill rigs were viewed, as was core; a visit was carried out to the adjacent underground mine in Germany which is a continuation of the Cinovec Deposit.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The overall geology of the deposit is relatively simple and well understood due to excellent data control from surface and underground.</li> <li>Nature of data: underground mapping, structural measurements, detailed core logging, 3D data synthesis on plans and maps.</li> <li>Geological continuity is good. The grade is highest and shows most variability in quartz veins.</li> <li>Grade correlates with degree of silicification and greisenisation of the host granite.</li> <li>The primary control is the granite-country rock contact. All mineralization is in the uppermost 200m of the granite and is truncated by the contact.</li> </ul>
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>The Cinovec Deposit strikes north-south, is elongated, and dips gently south parallel to the upper granite contact. The surface projection of mineralization is about 1km long and 900m wide.</li> <li>Mineralization extends from about 200m to 500m below surface.</li> </ul>
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining,	<ul> <li>Block estimation was carried out in Micromine 2021.5 using Ordinary Kriging interpolation.</li> <li>A geological domain model was constructed using Leapfrog software with solid wireframes</li> </ul>
	<ul> <li>interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral</li> </ul>	representing greisen, granite, greisenised granite and the overlying barren rhyolite. This was used to both control interpolation and to assign density to the model (2.57 for granite, 2.70 for greisen and 2.60 for all other material).  • Analysis of sample lengths indicated that compositing to 1m was necessary.  • Search ellipse sizes and



Criteria	JORC Code explanation	Commentary
	Resource estimate takes appropriate account of such data.  The assumptions made regarding recovery of byproducts.  Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).  In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.  Any assumptions behind modelling of selective mining units.  Any assumptions about correlation between variables.  Description of how the geological interpretation was used to control the resource estimates.  Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	orientations for the estimation were based on drill hole spacing, the known orientations of mineralisation and variography.  • An "unfolding" search strategy was used which allowed the search ellipse orientation to vary with the locally changing dip and strike.  • After statistical analysis, a top cut of 5% was applied to Sn% and W%; a 1.2% top cut is applied to Li%.  • Sn% and Li% were then estimated by Ordinary Kriging within the mineralisation solids.  • The primary search ellipse was 150m along strike, 150m down dip and 7.5m across the mineralisation. A minimum of 4 composites and a maximum of 8 composites were required.  • A second interpolation with search ellipse of 300m x 300m x 12.5m was carried out to inform blocks to be used as the basis for an exploration target.  • Block size was 10m (E-W) by 10m (N-S) by 5m  • Validation of the final resource has been carried out in a number of ways including section comparison of data versus model, swath plots and production reconciliation. All methods produced satisfactory results.
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Tonnages are estimated on a dry basis using the average bulk density for each geological domain.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>A series of alternative cutoffs was used to report tonnage and grade: Lithium 0.1%, 0.2%, 0.3% and 0.4%.</li> <li>The final reporting cutoff of 0.1% Li was chosen based on underground mining studies carried out By Bara Consulting in 2017 while developing an initial Probable Ore Reserve Estimate.</li> </ul>
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the</li> </ul>	<ul> <li>Mining is assumed to be by underground methods, with fill.</li> <li>An updated Preliminary Feasibility Study prepared in 2019 established that it was feasible and economic to use large-scale,</li> </ul>



Criteria	JORC Code explanation	Commentary
	process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>long-hole sub-level open stope mining.</li> <li>The 2022 updated Preliminary Feasibility Study establishes that it is feasible and economic to mine using long hole open stoping with paste backfill.</li> <li>Using a total processing cost of \$41/t and a recovery of 77% of Li grade in ROM ore, a gross payable value per ROM ore tonne of \$96/t (\$55/t net margin) has been assumed before inclusion in the 2022 PFS mine plan.</li> </ul>
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>Successful locked-cycle tests         ("LCTs") carried out in 2022, a pilot         programme carried out in 2023         and further optimisation LCTs         post-pilot programme carried out         in 2024 demonstrate the Cinovec         project's ability to produce         battery-grade lithium carbonate.         • European Metals has also         demonstrated that Cinovec         battery grade lithium carbonate         can be easily converted into         lithium hydroxide monohydrate         with a commonly utilised liming         plant process.         • Six LCTs were run in 2022 and         the crude lithium carbonate from         LCTs 4, 5 and 6 was successfully         converted to battery grade         lithium carbonate.         • Lithium recoveries of up to 93%         were achieved in the LCTs         performed.         • The LCTs and the pilot         programme tested zinnwaldite         concentrate from the southern         part of Cinovec, representative of</li> </ul>
		<ul> <li>the         first five years of mining.</li> <li>The 2023 pilot         programme successfully         demonstrated the         hydrometallurgical process         flowsheet on a semi-industrial         batch-continuous basis.</li> <li>Nine LCTs performed at Nagrom         Laboratories in 2024 successfully         demonstrated that the sodium         sulphate roast reagent can be         replaced with the mixed sulphate         waste stream. These LCT results</li> </ul>

SysCAD software model, which



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	determined 89.5% overall lithium recovery for the LCP flowsheet.  Extensive testwork was conducted on Cinovec ore in the past. Testing culminated with a pilot plant trial in 1970, where three batches of Cinovec ore were processed, each under slightly different conditions. The best result, with a tin recovery of 76.36%, was obtained from a batch of 97.13t grading 0.32% Sn. A more elaborate flowsheet was also investigated and with flotation produced final Sn and W recoveries of better than 96% and 84%, respectively.  Historical laboratory testwork also demonstrated that lithium can be extracted from the ore (lithium carbonate was produced from 1958-1966 at Cinovec).  Cinovec is in an area of historic mining activity spanning the past 600 years. Extensive State exploration was conducted until 1990.  The property is located in a sparsely populated area, most of the land belongs to the State. Few problems are anticipated with regards to the acquisition of surface rights for any potential underground mining operation.  The envisaged mining method will see much of the waste and tailings used as underground fill.  Waste rock will be disposed of by re-sale to offtakers in the region.  Tailings will be disposed of in a dry-stack facility located at Severočeské doly's (SD) Doly Nástup Tušimice coal mine near Chomutov.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk</li> </ul>	<ul> <li>Historical bulk density measurements were made in a laboratory.</li> <li>The following densities were applied:</li> <li>2.57 for granite</li> <li>2.70 for greisen</li> <li>2.60 for all other material</li> </ul>



Criteria	JORC Code explanation	Commentary
	measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.  • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	· · · · · · · · · · · · · · · · · · ·
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The new 2014 to 2021 drilling has confirmed the Lithium mineralisation model and allowed the Mineral Resource to be classified in the Measured, Indicated and Inferred categories.</li> <li>The detailed classification is based on a combination of drill hole spacing and the output from the kriging interpolation.</li> <li>Measured material is located in the south of the deposit in the area of new infill drilling carried out between 2014 and 2021.</li> <li>Material outside the classified area has been used as the basis for an Exploration Target.</li> <li>The Competent Person (Lynn Widenbar) endorses the final results and classification.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul> <li>Wardell Armstrong International, in their review of Lynn Widenbar's initial resource estimate stated "the Widenbar model appears to have been prepared in a diligent manner and given the data available provides a reasonable estimate of the drillhole assay data at the Cinovec deposit".</li> </ul>
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed	In 2012, WAI carried out model validation exercises on the initial Widenbar model, which included visual comparison of drilling sample grades and the estimated
	appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the	block model grades, and Swath plots to assess spatial local grade variability.  • A visual comparison of Block model grades vs drillhole grades was carried out on a sectional basis for both Sn and Li mineralisation. Visually, grades in the block model correlated well with drillhole grade for both Sn and Li.  • Swath plots were generated from



Criteria	JORC Code explanation	Commentary
	estimate.  • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.  • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	the model by averaging composites and blocks in all 3 dimensions using 10m panels. Swath plots were generated for the Sn and Li estimated grades in the block model, these should exhibit a close relationship to the composite data upon which the estimation is based. As the original drillhole composites were not available to WAI. 1m composite samples based on 0.1% cut-offs for both Sn and Li assays were  • Overall Swath plots illustrate a good correlation between the composites and the block grades. As is visible in the Swath plots, there has been a large amount of smoothing of the block model grades when compared to the composite grades, this is typical of the estimation method.