

EUROPEAN METALS HOLDINGS LIMITED

SIMPLIFIED EXTRACTION PROCESS DELIVERS EXCEPTIONALLY CLEAN BATTERY-GRADE LITHIUM PRODUCT WITH IMPROVED ECONOMICS

HIGHLIGHTS

- Simplified Lithium Chemical Plant ("**LCP**") extraction process has delivered exceptionally clean battery-grade lithium carbonate
- Significant reduction in most impurities far exceeds current market accepted battery-grade specifications and steps required in the LCP process reduced from 15 to 7
- LCP has capability to deliver very high purity lithium hydroxide, lithium carbonate, lithium sulphate or lithium phosphate
- Simplified process is expected to reduce both Capex and Opex in the LCP by 10-20%.
- LCP recoveries of 88-93% lithium proven in locked-cycle testwork, an outright recovery improvement of 3-6% over locked-cycle testwork for earlier more complex flowsheet
- Patent application lodged to protect global intellectual property rights
- Test work proves re-engineered Front-End Comminution and Beneficiation ("**FECAB**") circuit recovers >87% of lithium
- LCP pilot programme to commence in 4Q CY22 with marketing samples available to offtake partners in 1Q CY23; pregnant leach solution containing 48kg of lithium carbonate equivalent is ready to be processed
- New flowsheet provides ESG Benefits - lower reagent use and reduced cooling requirements

European Metals Holdings Limited (ASX & AIM: EMH, OTCQX: EMHXY, ERPNF and EMHLF) ("European Metals" or the "Company") is pleased to announce significant developments in the processing flowsheet for the Cinovec vertically integrated battery metals project ("**Cinovec**") in Czech Republic.

Keith Coughlan, Executive Chairman, said *"The completion of flowsheet development work in both the FECAB and LCP is a significant milestone for the Cinovec Project. The simplification of the process, the improved economics, and the addition of two new significant potential end products are all very pleasing results. This simplification, in reducing the complexity and in reducing the steps required in the LCP process from 15 to 7, eliminates some potential process flowsheet risks. Testwork to confirm optimised FECAB and LCP flowsheets is now complete and production of significant quantities of battery grade lithium chemicals is expected to be available for distribution to long term European offtake partners early next year."*

"The quality of the product is also excellent with almost battery grade material produced as our crude material. In addition, the reduction in both reagent use and energy consumption add to already excellent ESG credentials."

*"Now that the simplified flow sheet has been released to the market, the Company looks forward to being able to provide more frequent updates regarding progress towards completion of the Definitive Feasibility Study ("**DFS**") based on the new flowsheet as well as progress on the offtake discussions in which the Company has been engaged."*

Simplification of the LCP flowsheet

The simplified LCP flowsheet has been tested in six (6) Locked-Cycle Tests ("**LCTs**") at ALS Global in Perth. This simplified new flowsheet has demonstrated overall lithium recoveries of 88-93% in the LCTs programme.

In the programme of six LCTs for the earlier flowsheet, recoveries of 85-87% lithium were demonstrated. The new flowsheet therefore represents an outright lithium recovery improvement of 3-6%.

After roasting and leaching, the pregnant leach solution (**PLS**) is passed through two cleaning steps to remove transition metal and calcium impurities, resulting in a "polished" PLS of lithium sulphate together with sulphates of other similar metals, principally sodium and potassium.

The earlier flowsheet continued to remove unwanted elements before precipitation of a "crude" lithium carbonate. The last step in the earlier flowsheet was to purify the crude lithium carbonate with a bicarbonation and crystallisation step.

The simplified flowsheet precipitates lithium phosphate directly from the polished PLS and then goes on to clean the lithium phosphate to enable precipitation of a much cleaner crude lithium carbonate. The final purification step of bicarbonation and re-precipitation is the same as in the earlier flowsheet but the end-product is of even higher quality due to the input crude lithium carbonate being much cleaner.

The simplification of the central section of the LCP flowsheet reduces the number of basic chemical engineering unit processes (after the initial roast/water leach) from 15 to 7. The revised process also results in the elimination of all energy-intensive cooling processes.

European Metals has been advised by its principal hydrometallurgical adviser, Lithium Consultants Australasia (**LCA**), that the changes to the LCP noted above are expected to reduce both Capex and Opex in the LCP by 10-20%. The basis for this range of estimates is an expert assessment and adjustment by LCA of the equivalent Capex and Opex prepared by Hatch Associates Pty Ltd for the PFS for the production of lithium hydroxide published by EMH in 2019 (refer to the Company's ASX release dated 17 June 2019) (PFS UPDATE CONFIRMS POTENTIAL OF LOW-COST LITHIUM HYDROXIDE PRODUCTION). The Capex reduction is based upon the fact that the simplified flowsheet requires the use of only two crystallisers vs the four crystallisers and 1 evaporator in the original flowsheet. The similar reduction on Opex is achieved through reduced power use resulting from not having to operate the additional equipment. In the 2022 PFS Update, the LCP represented 49.8% of the Capex of the Cinovec Project and Opex/tonne for the full process to produce lithium hydroxide monohydrate (ignoring by-product credits) was US\$6,727.

ESG Benefits from lower reagent use and reduced cooling requirements

Opex and reagent use will be confirmed in the ongoing DFS process; however, EMH's adviser LCA has confirmed lower reagent use and the elimination of all process cooling steps change the environmental footprint of the project positively, reducing the chemicals and energy required in the LCP process. These changes are also expected to further improve the life cycle assessment characteristics of the Cinovec Project reported upon by Minviro (refer to the Company's ASX release dated 23 November 2021) (LCA QUANTIFIES CINOVEC LITHIUM CHEMICAL PRODUCTION CO₂ EMISSIONS AND MITIGATION SCENARIOS IDENTIFIED TO PRODUCE LOW CARBON PRODUCTS) and an update on this life cycle assessment is expected to be reported upon in due course.

High-grade Lithium End-Products

The recently completed testwork for the re-engineered LCP flowsheet produced the following crude and battery-grade lithium carbonate products, compared with the published global standard specification, YS/T 582-2013 with the Li₂CO₃ results highlighted in yellow:

	Li ₂ CO ₃ %	Na ppm	K ppm	Mg ppm	Ca ppm	Mn ppm	Fe ppm	Ni ppm	Cu ppm	Zn ppm	Al ppm	Si ppm	Pb ppm	SO ₄ ²⁻ ppm	Cl ppm
YS/T 582-2013	≥99.5	250	10	80	50	3	10	10	3	3	10	30	3	800	30
Crude LC	99.4	368	3	5	357	0	8	3.4	0.2	1.2	5.1	26	0	4860	NA
Battery- Grade LC	99.99	3	0.8	0.9	2	0.7	6.3	3.4	0.2	1.3	2.8	2.1	0.07	95	NA

As can be seen from the table, the crude lithium carbonate first precipitated (i.e., with no purification or re-precipitation steps) meets the battery-grade specification for 10 of the 14 impurity thresholds.

The battery-grade lithium carbonate recrystallised after a single bicarbonation step shows an exceptionally clean battery-grade material.

The ability to produce an exceptionally clean battery-grade product in a single bicarbonation step is expected to reduce Capex, energy and reagent costs and consequently the Opex of production.

Chlorine was not assayed for in the assessment of battery-grade status and this result will be published once the assay has been completed.

LabWest Minerals Analysis Pty Ltd, Perth ("**LabWest**") assayed for 66 elements. An extended assay table of the 23 elements considered important to minimise for the production of battery-grade lithium carbonate is presented at the end of this ASX release.

Pilot-scale rotary kiln testwork

- Pilot-scale rotary kiln testwork has taken place at the industrial laboratories of several world-renowned rotary kiln OEMs.
- Preliminary tests have roasted 1.5 tonnes of zinnwaldite concentrate (3.1 tonnes of roast mix including the roasting reagents gypsum, limestone and sodium sulphate) in pilot-scale rotary kilns. This roast mix is fully representative of the first five years of mining.
- These tests have demonstrated the effectiveness of the roast mix and optimised roast conditions, yielding up to 99% of the available lithium in a laboratory "ultra-washing" configuration.
- The expected full-scale industrial rotary kiln process resulting from the engineering design work is expected to yield >90% lithium recovery in this part of the process flowsheet. This represents the yield from roast conditions optimised for operability and economic return of 900°C for a 1-hour residence time and requires the roasted mix to be washed four times with the same water at 60°C.

LCP Pilot Programme

- The pilot-scale representative roast mix of 3.1 tonnes has successfully been leached with water and the leach residue has been washed in a test to replicate industrial design conditions as closely as possible.
- The resulting Pregnant Leach Solution ("**PLS**") contains 9.2kg of lithium, representing 48.8kg LCE.
- The PLS will be used to commence a hydrometallurgical pilot programme in 4QCY22 which is expected to be completed during 1QCY23.
- The LCP pilot programme will test the full hydrometallurgical (LCP) process flow sheet on a semi-continuous basis and will provide engineering design information for equipment vendors, enabling equipment sizing and cost estimation to be assessed in detail for the DFS.
- The LCP pilot programme is expected to lose around half of the lithium in solution as samples are removed from the process for various tests, resulting in the final quantity of battery-grade lithium carbonate produced being expected to be between 20-24kg.

Filing of Patent Application

A provisional patent application covering the simplified hydrometallurgical processing flowsheet has been lodged by the Company on behalf of Geomet s.r.o. to protect what the Company believes to be

a very valuable and simple process to produce battery grade lithium carbonate or hydroxide from any lithiferous ore.

Front-End Comminution and Beneficiation ('FECAB') of Cinovec ore

The following changes have been made to the FECAB as a result of extensive testing of 8 tonnes of run-of-mine ore fully representative of the first five years of the mine plan:

- Separate beneficiation processes for coarse and fine ore fractions, to optimise overall recovery of Lithium. Coarse (>150µm) ore will be concentrated using WHIMS, while the finer ore (20-150µm) will be beneficiated using froth flotation. Extensive testwork has confirmed high selectivity and beneficiation efficiency of flotation, resulting in superb recovery of lithium.
- Change of target grind size from P80 <212µm to P80 <500µm to minimise losses to fines (<20µm).
- The flotation of zinnwaldite has been successfully tested in conditions of near-neutral pH in the 7-8 range. This is an important result for environmental permitting of the plant.
- Change of ore transport from mine portal to processing plant site (7km) from slurry pipe to steel rope-supported aerial conveyor. Preliminary engineering design has been prepared for the aerial conveyor. Rope supported conveying is a proven technology operating in numerous applications worldwide and would effectively mitigate operational and environmental risks associated with long distance slurry transport.
- Significant reduction in plant infrastructure footprint at the mine portal area, with primary and secondary crushing now placed underground and no ore processing operations at the mine portal.
- Change of milling from a SAG mill at the mine portal to twin parallel rod mills at the plant site. This configuration mitigates operational risk while rod milling would deliver significantly improved control over fines generation.
- Although the granite / greisen samples processed in pilot testing consisted of drill core recovered some 175 to 365m below surface, the granitic ore contains thin layers of clay minerals embedded in the crystal lattice which are liberated during comminution. Together with the minimised super-fines generated during comminution, these slimes make up approximately 7-8% of the milled ROM ore, which is removed as waste below the grain size of 20µm.

Battery-Grade Lithium Carbonate – Extended Assay Table

The extended assay table presented below includes the 14 elements in the published lithium carbonate battery-grade standard, YS/T 582-2013, (top table) together with the further 9 elemental impurities that are important to minimise for the manufacture of cathodes / batteries (bottom table).

The battery-grade lithium carbonate assays were assessed by LabWest Minerals Analysis Pty Ltd, Perth.

LabWest was used as it has world-leading detection limits for assaying lithium chemicals, with detection limits for the assayed elements shown in the tables below of between 0.01 to 500 ppb (0.00001 to 0.5 ppm).

	Li ₂ CO ₃ %	Na ppm	K ppm	Mg ppm	Ca ppm	Mn ppm	Fe ppm	Ni ppm	Cu ppm	Zn ppm	Al ppm	Si ppm	Pb ppm	SO ₄ ²⁻ ppm	Cl ppm
YS/T 582-2013	≥99.5	250	10	80	50	3	10	10	3	3	10	30	3	800	30
Battery-Grade LC	99.99	3	0.8	0.9	2	0.7	6.3	3.4	0.2	1.3	2.8	2.1	0.07	95	NA

	As ppm	B ppm	Cr ppm	Cs ppm	F ppm	Mo ppm	P ppm	Rb ppm	Sr ppm
YS/T 582-2013	NA	NA	NA	NA	NA	NA	NA	NA	NA
Battery-Grade LC	0.17	2.2	0.26	<0.0001	NA	0.0518	29.2	0.0026	0.0164

Fluorine was not assayed for in the assessment of battery-grade status and this result will be published once the assay has been completed.

BACKGROUND INFORMATION ON CINOVEC

PROJECT OVERVIEW

Cinovec Lithium/Tin Project

Geomet s.r.o. controls the mineral exploration licenses awarded by the Czech State over the Cinovec Lithium/Tin 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% Li₂O and 0.08% Sn, Indicated Mineral Resource of 360.2Mt at 0.44% Li₂O and 0.05% Sn and an Inferred Mineral Resource of 294.7Mt at 0.39% Li₂O and 0.05% Sn containing a combined 7.39 million tonnes Lithium Carbonate Equivalent and 335.1kt of tin (refer to the Company's release dated 13 October 2021) (**Resource Upgrade at Cinovec Lithium Project**).

An initial Probable Ore Reserve of 34.5Mt at 0.65% Li₂O and 0.09% Sn 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 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, the fifth 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 with a trial sub-level open stope underground mining operation.

On 19 January 2022, EMH provided an update to the 2019 PFS Update, conducted by specialist independent consultants, which, based upon the production of 29,386tpa of lithium hydroxide, indicates a post-tax NPV of USD1.938B and a post-tax IRR of 36.3% and confirmed that the Cinovec Project is a potential low operating cost producer of battery-grade lithium hydroxide or battery grade lithium carbonate as markets demand. It confirmed the deposit is amenable to bulk underground mining (refer to the Company's 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 in addition to 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.

There are no other material changes to the original information and all the material assumptions continue to apply to the forecasts.

BACKGROUND INFORMATION ON CEZ

Headquartered in the Czech Republic, CEZ a.s. is an established, integrated energy group with operations in a number of Central and South-eastern European countries and Turkey. 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. CEZ Group is one of the ten largest energy companies in Europe, has 28,000 employees and annual revenue of approximately EUR 9.97 billion.

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 17.7 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.

CONTACT

For further information on this update or the Company generally, please visit our website at www.europeanmet.com or see full contact details at the end of this release.

COMPETENT PERSONS/QUALIFIED PERSON

Information in this announcement relating to the FECAB metallurgical testwork is based on technical data compiled or supervised by Mr Walter Mödel, a full-time consultant to Geomet s.r.o the Cinovec project company. Mr Mödel 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 Mödel consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears. Mr Mödel is a participant in the long-term incentive plan of the Company.

Information in this release that relates to exploration results is based on information 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.

Mr Grant Harman (B.Sc Chem Eng, B.Com) is an independent consultant with in excess of 7 years of lithium chemicals experience. Mr Harman supervised and reviewed the metallurgical test work and the process design criteria and flow sheets in relation to the LCP. 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 information in this report is extracted from ASX announcements made by EMH on 11 July 2018 "Cinovec Production Modelled to Increase to 22,500tpa of Lithium Carbonate", 13 October 2021 "Resource Upgrade at Cinovec Lithium Project" and 19 January 2022 "PFS Update delivers outstanding results" which are available to view on the Company's website: europeanmet.com. 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

The Company has concluded that it has a reasonable basis for providing the forward-looking statements and the forecast financial information included in this ASX release. While the Company considers the assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by LCA will be achieved. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules.

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_2O) content or percent lithium carbonate (Li_2CO_3) 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_2O	Convert to Li_2CO_3	Convert to $\text{LiOH}\cdot\text{H}_2\text{O}$
Lithium	Li	1.000	2.153	5.325	6.048
Lithium Oxide	Li_2O	0.464	1.000	2.473	2.809
Lithium Carbonate	Li_2CO_3	0.188	0.404	1.000	1.136
Lithium Hydroxide	$\text{LiOH}\cdot\text{H}_2\text{O}$	0.165	0.356	0.880	1.000
Lithium Fluoride	LiF	0.268	0.576	1.424	1.618
Lithium Sulphate	$\text{Li}_2\text{SO}_4\cdot\text{H}_2\text{O}$	0.108	0.233	0.577	0.656
Lithium Phosphate	Li_3PO_4	0.180	0.387	0.957	1.087

This announcement has been approved for release by the Board.

WEBSITE

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

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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 authorised for the release of this announcement on behalf of the Company was Keith Coughlan, Executive Chairman.

European Metals Ltd – Cinovec Deposit – October 2022

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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. 	<p>Between 2014 and 2021, the Company commenced a core drilling program and collected samples from core splits in line with JORC Code guidelines.</p> <p>Sample intervals honour geological or visible mineralisation boundaries and vary between 50cm and 2m. The majority of samples are 1m in length. The samples are half or quarter of core; the latter applied for large diameter core.</p> <p>Between 1952 and 1989, the Cinovec deposit was sampled in two ways: in drill core and underground channel samples.</p> <p>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.</p> <p>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 analysis.</p>
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, 	<p>In 2014, three core holes were drilled for a total of 940.1m. In 2015, six core holes were drilled for a total of 2,455.0m. In 2016, eighteen core</p>

Criteria	JORC Code explanation	Commentary
	<p><i>triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p>holes were drilled for a total of 6,459.6m. In 2017, six core holes were 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. 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 employed PQ sized core for upper parts of the drillholes. Historically only core drilling was employed, either from surface or from underground. 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%. Underground drilling: 766 holes for 53,126m; horizontal and inclined. Core diameter 46mm; drilled by Craelius XC42 or DIAMEC drills.</p>
Drill sample recovery	<ul style="list-style-type: none"> • Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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. 	<p>Core recovery for historical surface drill holes was recorded on drill logs and entered into the database. No correlation between grade and core recovery was established.</p>
Logging	<ul style="list-style-type: none"> • 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged. 	<p>In 2014-2021, core descriptions were recorded into paper logging forms by hand and later entered into an Excel database. 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.</p>
Sub-sampling techniques	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. 	<p>In 2014-21, core was washed, geologically logged, sample intervals determined and marked</p>

Criteria	JORC Code explanation	Commentary
and sample preparation	<ul style="list-style-type: none"> • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>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.</p> <p>Sample preparation was carried out by ALS Global in Romania, using industry standard techniques appropriate for the style of mineralisation represented at Cinovec.</p> <p>Historically, core was either split or consumed entirely for analyses. Samples are considered to be representative.</p> <p>Sample sizes relative to grain sizes are deemed appropriate for the analytical techniques used.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • 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. • 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. 	<p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p> <p>Historically, Sn content was measured by XRF and using wet chemical methods. W and Li were analysed by spectral methods.</p> <p>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</p>

Criteria	JORC Code explanation	Commentary
		<p>State norms and are considered adequate. It is unknown whether external standards or sample duplicates were used.</p> <p>Overall accuracy of sampling and assaying was proved later by test mining and reconciliation of mined and analysed grades.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. 	<p>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.</p>
Location of data points	<ul style="list-style-type: none"> • Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<p>In 2014-21, drill collar locations were surveyed by a registered surveyor. Down hole surveys were recorded by a contractor.</p> <p>Historically, drill hole collars were surveyed with a great degree of precision by the mine survey crew. Hole locations are recorded in the local S-JTSK Krovak grid.</p> <p>Topographic control is excellent.</p>
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied. 	<p>Historical data density is very high. Spacing is sufficient to establish Measured, Indicated and Inferred Mineral Resource Estimates.</p> <p>Areas with lower coverage of Li% assays have been identified as Exploration Targets.</p> <p>Sample compositing to 1m intervals has been applied mathematically prior to estimation but not physically.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • 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. 	<p>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.</p> <p>Geomet has not directly collected any samples underground because the workings are inaccessible at this time.</p> <p>Based on historic reports, level plan maps, sections and core logs, the</p>

Criteria	JORC Code explanation	Commentary
		<p>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.</p> <p>Multiple samples were taken and analysed by the Company from the historic tailing repository. Only lithium was analysed (Sn and W too low). The results matched the historic grades.</p>
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<p>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.</p> <p>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.</p>
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<p>Review of sampling techniques was carried out from written records. No flaws found.</p>

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	<ul style="list-style-type: none"> <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a</i> 	<p>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.</p> <p>Geomet plans to amalgamate these into a single Final Mining Permit.</p>

Criteria	JORC Code explanation	Commentary
	<i>licence to operate in the area.</i>	
Exploration done by other parties	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	There has been no acknowledgment or appraisal of exploration by other parties.
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<p>Cinovec is a granite-hosted tin-tungsten-lithium deposit.</p> <p>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.</p> <p>Mineralization in a small granite cupola. Vein and greisen type. Alteration is greisenisation, silicification.</p>
Drill hole Information	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>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.</i> 	Reported previously.
Data aggregation methods	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting off high grades) and cut-off grades are usually Material and should be stated.</i> • <i>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</i> 	<p>Reporting of exploration results has not and will not include aggregate intercepts.</p> <p>Metal equivalent not used in reporting.</p> <p>No grade truncations applied.</p>

Criteria	JORC Code explanation	Commentary
	<p>examples of such aggregations should be shown in detail.</p> <ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	<p>Intercept widths are approximate true widths.</p> <p>The mineralization is mostly of disseminated nature and relatively homogeneous; the orientation of samples is of limited impact.</p> <p>For higher grade veins care was taken to drill at angles ensuring closeness of intercept length and true widths.</p> <p>The block model accounts for variations between apparent and true dip.</p>
Diagrams	<ul style="list-style-type: none"> 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. 	<p>Appropriate maps and sections have been generated by Geomet and independent consultants.</p> <p>Available in customary vector and raster outputs and partially in consultant's reports.</p>
Balanced reporting	<ul style="list-style-type: none"> 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. 	<p>Balanced reporting in historic reports guaranteed by norms and standards, verified in 1997 and 2012 by independent consultants.</p> <p>The historic reporting was completed by several State institutions and cross validated.</p>
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<p>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, hardness, moisture content, fragmentation etc.</p>
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or 	<p>Grade verification sampling from underground or drilling from surface. Historically-reported</p>

Criteria	JORC Code explanation	Commentary
	<p>depth extensions or large-scale step-out drilling).</p> <ul style="list-style-type: none"> Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<p>grades require modern validation in order to improve the resource classification.</p> <p>The number and location of sampling sites will be determined from a 3D wireframe model and geostatistical considerations reflecting grade continuity.</p> <p>The geologic model will be used to determine if any infill drilling is required.</p> <p>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.</p> <p>No large-scale drilling campaigns are required.</p>

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 style="list-style-type: none"> 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. Data validation procedures used. 	<p>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.</p> <p>Sample data were entered in to Excel spreadsheets by Geomet staff.</p> <p>The database entry process was supervised by a Professional Geologist who works for Geomet.</p> <p>The database was checked by independent competent persons (Lynn Widenbar of Widenbar & Associates).</p>
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<p>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.</p> <p>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.</p> <p>The site was visited in June 2016 by Mr Lynn Widenbar, the Competent Person for Mineral Resource Estimation. Diamond drill rigs were</p>

Criteria	JORC Code explanation	Commentary
		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 style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<p>The overall geology of the deposit is relatively simple and well understood due to excellent data control from surface and underground.</p> <p>Nature of data: underground mapping, structural measurements, detailed core logging, 3D data synthesis on plans and maps.</p> <p>Geological continuity is good. The grade is highest and shows most variability in quartz veins.</p> <p>Grade correlates with degree of silicification and greisenisation of the host granite.</p> <p>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.</p>
Dimensions	<ul style="list-style-type: none"> 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. 	<p>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.</p> <p>Mineralization extends from about 200m to 500m below surface.</p>
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, 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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious 	<p>Block estimation was carried out in Micromine 2021.5 using Ordinary Kriging interpolation.</p> <p>A geological domain model was constructed using Leapfrog software with solid wireframes 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).</p> <p>Analysis of sample lengths indicated that compositing to 1m was necessary.</p> <p>Search ellipse sizes and orientations for the estimation were based on drill hole spacing, the known orientations of mineralisation and variography.</p> <p>An "unfolding" search strategy was used which allowed the search ellipse orientation to vary with the</p>

Criteria	JORC Code explanation	Commentary
	<p>elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</p> <ul style="list-style-type: none"> 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. 	<p>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%.</p> <p>Sn% and Li% were then estimated by Ordinary Kriging within the mineralisation solids.</p> <p>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.</p> <p>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.</p> <p>Block size was 10m (E-W) by 10m (N-S) by 5m</p> <p>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.</p>
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<p>Tonnages are estimated on a dry basis using the average bulk density for each geological domain.</p>
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<p>A series of alternative cutoffs was used to report tonnage and grade: Lithium 0.1%, 0.2%, 0.3% and 0.4%.</p> <p>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.</p>
Mining factors or assumptions	<ul style="list-style-type: none"> 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 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 	<p>Mining is assumed to be by underground methods, with fill.</p> <p>An updated Preliminary Feasibility Study prepared in 2019 established that it was feasible and economic to use large-scale, long-hole open stope mining.</p> <p>The 2022 updated Preliminary Feasibility Study establishes that it is feasible and economic to mine using long hole open stoping with paste backfill.</p> <p>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</p>

Criteria	JORC Code explanation	Commentary
	<i>explanation of the basis of the mining assumptions made.</i>	tonne of \$96/t (\$55/t net margin) has been assumed before inclusion in the mine plan..
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>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.</i> 	<p>A new simplified LCP flowsheet has been developed and a locked-cycle test program ("LCTs") run at ALS Metallurgy in 2022 has demonstrated successfully high lithium recoveries of 88-93%.</p> <p>The new flowsheet differs from the original flowsheet tested in that lithium is recovered as a lithium phosphate product that allows treatment of pure lithium bearing stream to lithium carbonation and simplification of the impurity removal steps with little waste product.</p> <p>Battery-grade lithium carbonate produced in the test work exceeded current market-accepted battery-grade specifications.</p> <p>LCP pilot programme utilising the new flow sheet will commence in 4Q CY22 with marketing samples available to offtake partners in 1Q CY23. Bulk representative zinnwaldite concentrate has been prepared and roasted at ThyssenKrupp and water leached at Anzaplan. The resultant pregnant liquor solution is being transferred to ALS Metallurgy in Perth and will be used in the proposed pilot plant run.</p> <p>Extensive testing of 8 tonnes of run-of-mine ore, representing the first five years of the mine plan, indicates lithium recoveries of >87% are achievable from the proposed comminution and beneficiation circuit. The zinnwaldite concentrate is produced using a combination of comminution, magnetic separation, and flotation. The work program optimised the treatment of coarse and fine ore fractions, as well as the targeted grinding size, flotation parameters and comminution approach.</p> <p>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,</p>

Criteria	JORC Code explanation	Commentary
		<p>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.</p> <p>Historical laboratory testwork also demonstrated that lithium can be extracted from the ore (lithium carbonate was produced from 1958-1966 at Cinovec).</p>
Environmental factors or assumptions	<ul style="list-style-type: none"> 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. 	<p>Cinovec is in an area of historic mining activity spanning the past 600 years. Extensive State exploration was conducted until 1990.</p> <p>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.</p> <p>The envisaged mining method will see much of the waste and tailings used as underground fill.</p>
Bulk density	<ul style="list-style-type: none"> 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. The bulk density for bulk material must have been 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 	<p>Historical bulk density measurements were made in a laboratory. The following densities were applied:</p> <p>2.57 for granite 2.70 for greisen 2.60 for all other material</p>

Criteria	JORC Code explanation	Commentary
	different materials.	
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<p>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.</p> <p>The detailed classification is based on a combination of drill hole spacing and the output from the kriging interpolation.</p> <p>Measured material is located in the south of the deposit in the area of new infill drilling carried out between 2014 and 2021.</p> <p>Material outside the classified area has been used as the basis for an Exploration Target.</p> <p>The Competent Person (Lynn Widenbar) endorses the final results and classification.</p>
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<p>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".</p>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed 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 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 	<p>In 2012, WAI carried out model validation exercises on the initial Widenbar model, which included visual comparison of drilling sample grades and the estimated block model grades, and Swath plots to assess spatial local grade variability.</p> <p>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.</p> <p>Swath plots were generated from 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</p>

Criteria	JORC Code explanation	Commentary
	<p>used.</p> <ul style="list-style-type: none"> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<p>0.1% cut-offs for both Sn and Li assays were</p> <p>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.</p>