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EUROPEAN METALS

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PFS UPDATE CONFIRMS POTENTIAL OF LOW-COST LITHIUM HYDROXIDE PRODUCTION

European Metals Holdings Limited ("**European Metals**" or "**the Company**") is pleased to announce the results from the successful update of the process flowsheet previously developed to enable the production of lithium hydroxide ($LiOH.H_2O$). This work has been completed in conjunction with test-work confirming the production of battery grade lithium hydroxide from Cinovec ore.

These results significantly enhance the forecast economics of the Cinovec Project.

HIGHLIGHTS (all $ figures in this release are US Dollars and increases refer to the 2017 PFS Lithium Carbonate study):

- **Net estimated overall cost of production post credits: $3,435 / tonne $LiOH.H_2O$**
- **Project Net Present Value ("NPV") increases 105% to: $1.108B (post tax, 8%)**
- **Internal Rate of Return ("IRR") increased 37% to 28.8% (post tax)**
- **Total Capital Cost: $482.6M**
- **Annual production of Battery Grade Lithium Hydroxide: 25,267 tonnes**
- **Studies are based on only 9.3% of reported Indicated Mineral Resource and a mine life of 21 years processing an average of 1.68 Mtpa ore**
- **The process used to produce lithium hydroxide allows for the staging of lithium carbonate and then lithium hydroxide production to minimize capital and startup risk and enables the production of either battery grade lithium hydroxide or carbonate as markets demand**

European Metals Managing Director Keith Coughlan said, "I am very pleased to report to shareholders on the completion of this update to our 2017 Preliminary Feasibility Study for the Cinovec project which adds significantly to the already robust forecast economics for the project. Since demonstrating that battery grade lithium hydroxide can be produced from zinnwaldite mineralisation we have worked with Hatch to update the flowsheet and engineering required to adapt our lithium carbonate producing flowsheet to one that converts battery grade lithium carbonate into lithium hydroxide. We have now confirmed the ability with our resource, which is the largest lithium resource in Europe, to produce either or both products in line with market requirements once in production. Cinovec is strategically located in central Europe in close proximity to the continent's vehicle manufacturers. With increasing demand for Electric Vehicles and the expected demands of grid storage capacity, the project is very well placed to supply the European lithium market for many decades."

The Cinovec Project remains a potential low operating cost, hard rock lithium producer, due to a number of key advantages:

- By-product credits from the recovery of tin, tungsten, potash and sodium sulphate;
- The ore is amenable to single-stage crushing and single-stage coarse SAG milling, reducing capital and operating costs and complexity;
- Paramagnetic properties of zinnwaldite allow the use of low cost wet magnetic processing to produce a lithium concentrate for further processing at relatively high recoveries;
- Relatively low temperature roasting at atmospheric pressure utilizing conventional technologies, reagent recycling and the use of waste gypsum; and
- Low cost access to extensive existing infrastructure and grid power.

Neil Meadows has, following completion of the updated PFS, stood down with immediate effect as non-Board Chief Operating Officer to pursue another opportunity. The Board thanks Neil for his contribution and wishes him well in his new endeavours.

Cinovec Project Background

The Cinovec Project is located in the Krusne Hory Mountains which straddle the border between the Czech Republic and the Saxony State of Germany. The project is within a historic mining region, with artisanal mining dating back to the 1300s.

In the 1940s a large underground mining operation was established primarily to produce tungsten for the war effort. Mining and processing activities continued under the Czechoslovakian Government with the mine continuing to expand and producing tin as well as tungsten. Due to the fall of communism and lower tin prices, the mine was closed in 1993. In 2011, the old processing plant was removed and the site rehabilitated.

In 2014, European Metals commenced a drilling campaign to validate the comprehensive data generated by the earlier exploration activities. The Company's on-going drilling programme had completed 26 diamond holes for a total of 9,477m drilled by 2017, successfully validating earlier drilling results, adding lithium grade data and providing metallurgical test-work samples.

In 2015, European Metals completed a Scoping Study for the Cinovec Project ("2015 Scoping Study"). The 2015 Scoping Study highlighted that the size, grade and location of the deposit made it a very attractive development opportunity and recommended that the project proceed through to a Preliminary Feasibility Study.

A trade-off study was completed in November 2016 comparing the operating and capital costs of the conventional sodium-sulphate roast and the L-Max process. It was concluded that conventional roasting technology would deliver high lithium recoveries with a lower operating cost, lower technical risk, less impurity removal, and be less dependent on potassium by-product credits. The Company then selected the sodium-sulphate roasting option as the preferred method of lithium extraction for the PFS.

The PFS released in April 2017 highlighted that Cinovec could be a low-cost producer of lithium carbonate via conventional roasting technology used at atmospheric pressure. The PFS estimated average production of 20,800 tpa of lithium carbonate at a cost of $3,843/t. The PFS showed a NPV of $540M (post tax 8%) and a capital cost of $393M.

Cinovec Mineral Resource Estimate

The Cinovec Project hosts a JORC 2012-compliant global Resource of 695.9 Mt in the Indicated and Inferred categories as shown in Table 1 below (see announcement dated 28th November 2017).

JORC CATEGORY	Cut-off	Tonnes	Li	Li_2O	LCE	W		Sn	
	%	(Millions)	%	%	kt	%	T	%	t
INDICATED	0.1 % Li	372.4	0.206	0.5	3,890	0.016	59,580	0.04	148,960
INFERRED	0.1 % Li	323.5	0.183	0.4	2,960	0.013	42,055	0.04	129,400
TOTAL	0.1 % Li	695.9	0.195	0.4	6,990	0.014	101,635	0.04	278,360

Table 1: JORC 2012 Cinovec Mineral Resource Estimate (28 November 2017)

Notes:

1. Mineral Resources are not reserves until they have demonstrated economic viability based on a feasibility study or pre-feasibility study.
2. The Mineral Resources that underpin both the PFS results reported in 2017 and this PFS update are reported inclusive of any reserves and are prepared by Widenbar in accordance with the guidelines of the JORC Code (2012).
3. The effective date of the Mineral Resource is November 2017.
4. All figures are rounded to reflect the relative accuracy of the estimate.
5. The operator of the project is Geomet s.r.o., a wholly-owned subsidiary of EMH. Gross and Net Attributable resources are the same.
6. Any apparent inconsistencies are due to rounding errors
7. LCE is Lithium Carbonate Equivalent and is equivalent to Li_2CO_3.
8. There has been no change to this Mineral Resource statement since publication.

The PFS results reported 19 April 2017 were based on mining 34.5 Mt of material, 100% of which lies within the Indicated Mineral Resource category. There are no changes to the resources which underpin this update to the PFS. The tonnage used in the PFS represents only 5.0% of the total Mineral Resource and 9.3% of the Indicated Mineral Resource.

Cinovec PFS Update Scope

The updated PFS has been prepared by the Company based on technical reports undertaken by independent consultants who are specialists in the required areas of work. These included:

- Resource Estimation - Widenbar and Associates Pty Ltd;
- Mining - Bara Consulting Ltd;
- Front-End Comminution and Beneficiation ("FECAB") - Ausenco Limited; and
- Lithium Carbonate and Hydroxide Plants ("LPP") - Hatch Associates Pty Ltd.

The updated PFS is based upon a mine life of 21 years processing on average 1.68 Mtpa of ore, producing 25,267 tpa of battery grade lithium hydroxide.

The sections of the PFS reported on 19 April 2017 that have not been altered are as follows:

- Mining activities;
- Crushing, milling and slurrying of the ore for transport via pipeline to the processing site;
- Beneficiation circuit;
- Tin and tungsten recovery circuits; and
- Provision of utilities such as electrical power, natural gas, rail and raw water to either the mining or processing sites.

The sections of the PFS reported 19 April 2017 that have been reviewed or altered as a result of the test-work programme described above are as follows:

- The design for the roasting and leaching circuits has been upgraded;
- The fluoride and calcium removal circuit designs have been upgraded as a result of recent test-work results when battery grade lithium hydroxide was produced as reported 8 April 2019; and
- Lithium hydroxide precipitation and product handling facilities have been included.

Mining

The mine design and scheduling was completed by Bara Consulting of Johannesburg (Bara).

Geotechnical Data Gathering and Rock Characterisation

A site visit was carried out by Bara in October 2016, during which a quality assurance - quality control (QAQC) was undertaken on borehole logging data generated by European Metals. Bara also undertook geotechnical logging of core on site and selected rock samples for laboratory testing.

The data collected was transformed into rock mass quality by using classifications such as Rock mass rating (RMR89), Geological Strength Index (GSI) and Q-index (Q and Q’). Laboratory testing of core samples included uniaxial compressive strength with elastic moduli (UCM), triaxial compressive strength (TCS), indirect tensile strength (UTB) and base friction angle (direct shear) tests (BFA).

The output information from the geotechnical characterisation phase was used to derive the underground mine design criteria. The derived mine design criteria for Cinovec are summarised in Table 2:

CINOVEC MINE DESIGN CRITERIA			
Aspect	**Description**	**Value**	
Spans	Maximum stope spans	13.0m	
Potvin's Stability number	Crown (Rhyolite)	19.7	
	Hanging wall (Greisen + Granite orebody)	39.4	
	Footwall (Albite Granite)	52.7	
	End walls (Greisen + Granite orebody)	39.4	
Hydraulic radius	*Stability graph*	*Matthews-Potvin,1992*	*Extended Matthews,2002*
	Crown (Rhyolite)	7.2	9.2
	Hanging wall (Greisen + Granite orebody)	9.3	15
	End walls (Greisen + Granite orebody)	9.3	15
Critical strike span	Stope height (m)	Stope length (m)	
	25	80	
	20	90	
	15	90	
	10	90	
Rib pillar widths [m]	Stope height (m)	Pillar width(m)	
	25	7	
	20	6	
	15	5	
	10	4	
Sill pillar widths [m]	Stope height (m)	Pillar width (m)	
	>25.0	6	
	<25.0	No sill pillars for stope height less than 25.0m	
Crown pillar dimension	Crown pillar width (minimum)	40m	

Table 2: Geotechnical Criteria

Support Strategy

Primary support design guidelines proposed by Barton et al., (1974) which are based on rock mass classification parameters were used for the derivation of systematic support strategy of excavations for Cinovec. Table 3 below presents the derived tendon support spacings and sizes based on Barton's empirical formulae. Other support units offering areal coverage like wire mesh and shotcrete are to be used in areas where poor ground conditions persist.

TENDON SUPPORT SPECIFICATIONS FOR CINOVEC									
				Span (m)	Support pressure (kPa)	Tendon length (m)		Tendon spacing (m)	
Excavation	Jr	Q	ESR			Calculated	Recommended	Calculated	Recommended
Decline	1.5	1.9	2	6	108.25	1.45	2.2	1.3	1
Footwall drives	1.5	21.8	1.6	5	47.78	1.72	2.2	1.9	1.5
Ore drives	1.5	11.2	3	5	59.64	0.92	1.3	1.7	1.5
Passing bays	1.5	1.9	1.6	5	108.25	1.72	2.2	1.3	1
Cross cuts	1.5	21.8	1.6	5	47.78	1.72	2.2	1.9	1.5

Table 3: Support Requirements

Mining Method

The geometry of the payable ore is largely flat or shallow dipping and massive enough to mechanise using long-hole open stope mining.

An evaluation was completed to establish the achievable extraction ratios with and without backfill, based on the geotechnical design criteria including pillar sizes and stope spans (see above). The preferred option was to mine with pillars support only, negating the requirement for a backfill plant.

The payable ore will be split into blocks approximately 90 m long in the strike direction and 25 m high. The bottom of each block will be accessed in the central position by an access crosscut and the block will be developed from the centre to the strike limit by drifting. The stope will then be mined on retreat from the block limit, retreating to the access cross-cut position. The stopes will be a maximum of 13 m wide with rib pillars between stopes of 4 to 7 m wide depending on stope height.

Access to the stopes will be by footwall drives developed in the footwall at 25 m vertical intervals. All stope access crosscuts will be developed out of the footwall drives.

The mine will be accessed by a twin decline system. A conveyor will be installed from the underground primary crusher on 590m Elevation to surface in the conveyor decline. The second decline will be used as a service decline for mineworkers, material and as an intake airway.

The modifying factors used to generate the mining inventory used in the study from the Indicated Mineral resource are:

- Un-planned dilution 3%;

- Un-planned ore loss 3%; and
- Exclusion zones: any ore within 70 m vertical distance from surface was excluded from the mine plan. In the northern areas where mining occurs below the village the crown pillar exclusion was increased to 150 m.

Underground Infrastructure

Underground infrastructure design takes into consideration the life of mine plan to support the underground mining production and development activities. Underground infrastructure comprises:

- Mine service water systems;
- Mine dewatering systems, including clean and dirty water pump stations;
- Mine electrical reticulation;
- Control systems and instrumentation;
- Trackless workshops;
- Refueling bays; and
- Underground crushers, tips, and conveyors.

Surface Infrastructure

Surface infrastructure supports the mine plan with consideration of the labour and mechanised equipment requirements of the operation in addition to the movement of rock, mneworkers and materials. The infrastructure is divided into two distinct areas, with the area at the portal servicing the initial development requirements and the second servicing the production phase.

A schematic of the proposed underground infrastructure and mine schedule is shown in Figure 1. The proposed mining grades and tonnages are shown in Figure 2. Table 4 lists the mining physicals data.

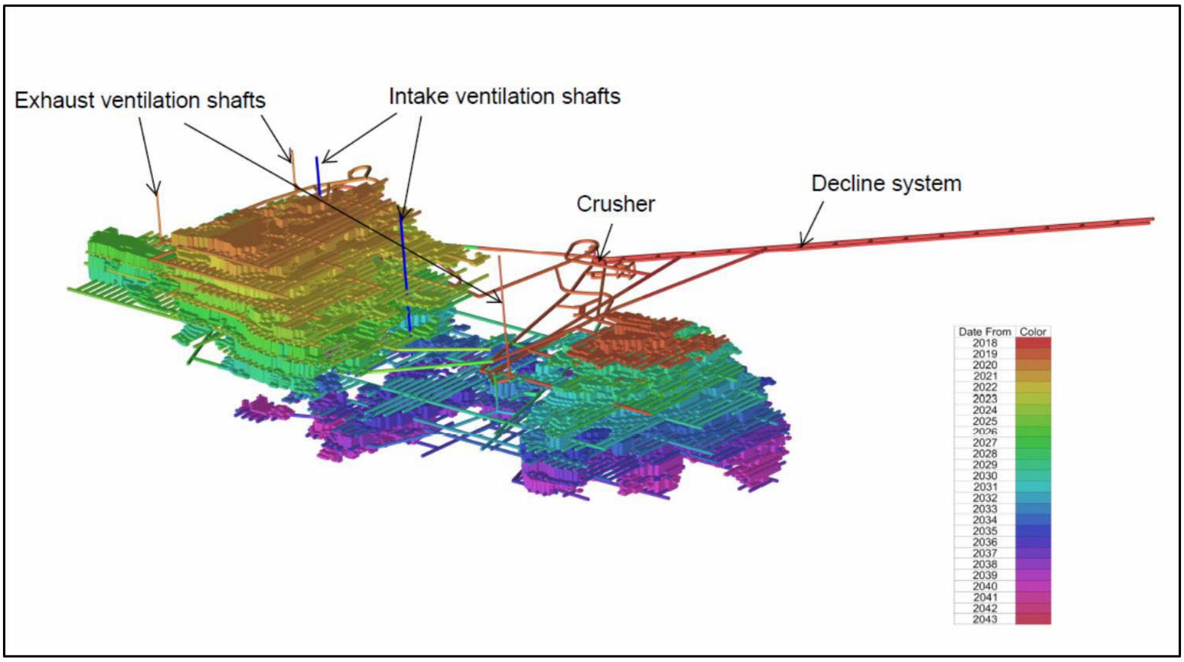

Figure 1: Mine Design and Schedule

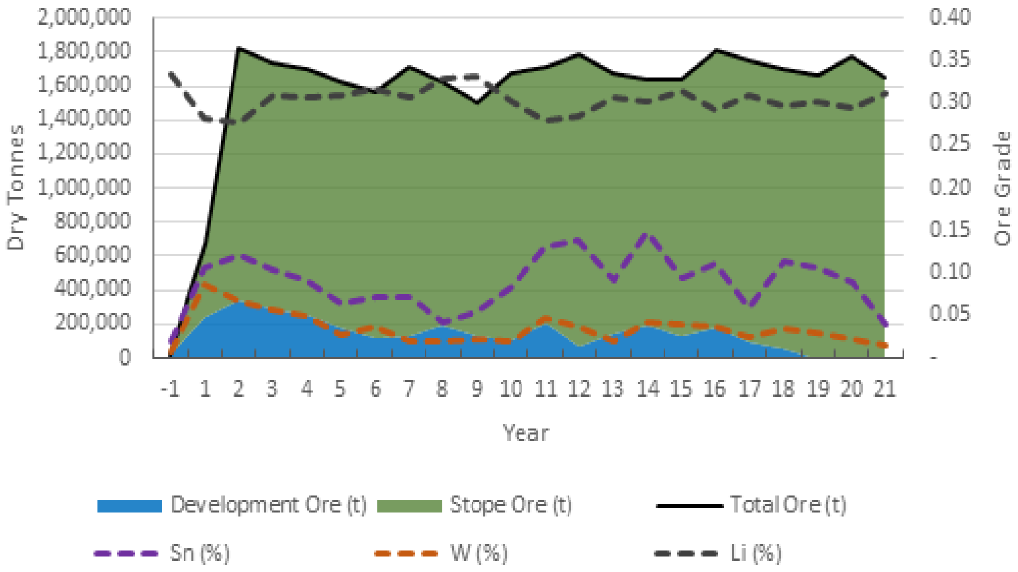

Figure 2: Life of Mine Grade and Tonnages

PHYSICALS		(LOM)
Life of mine	years	22
ROM - ore mined	mt	34.46
Tin grade	%	0.09
Tungsten Grade	%	0.03
Lithium grade (Li_2O)	**%**	0.65

Table 4: Mining Physicals

Processing

European Metal’s approach for operation of the project as a whole is to provide a constant feed rate of 360,000 tonnes per year of mica concentrate to the LPP. The Comminution and Beneficiation plants will therefore vary operating hours to accommodate fluctuations in the mine feed grade, to produce the required level of mica production. The intended mining and processing profile is shown in Figure 3.

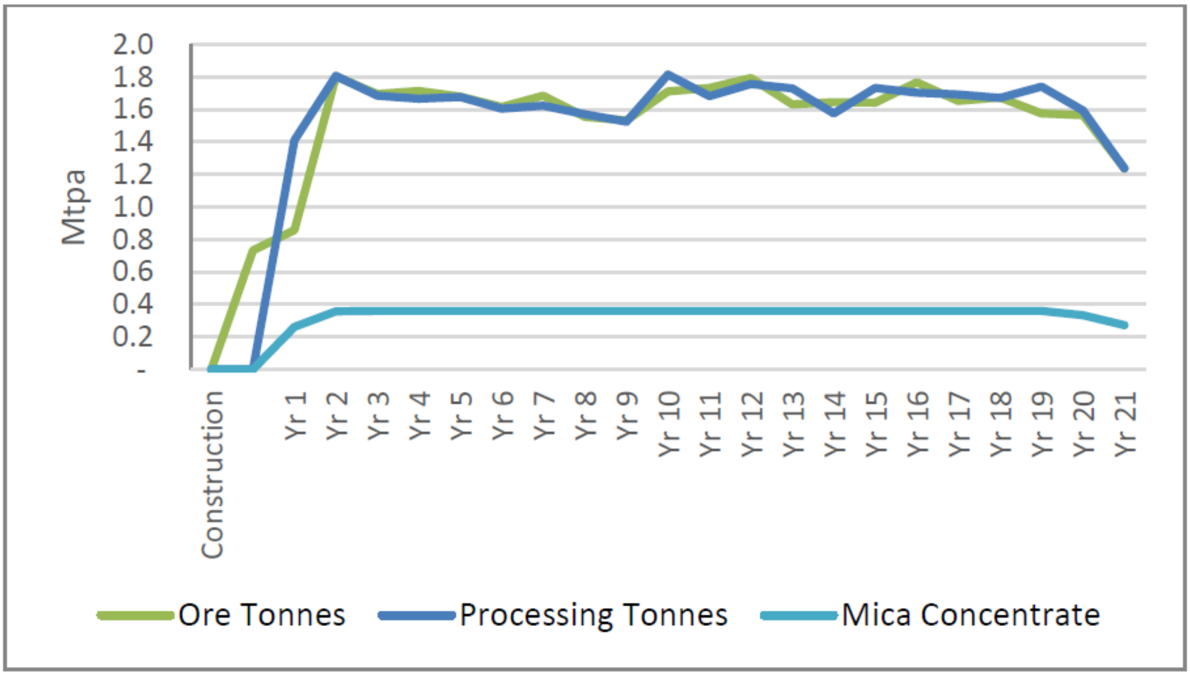

Figure 3: Mining and Processing Throughput

Processing Test-work

Front End Comminution and Beneficiation Test-work

This phase of test-work concerned the beneficiation of primary crushed ROM ore, by primary comminution followed by concentration of zinnwaldite by wet magnetic separation to produce a mica-concentrate, which is further treated by the downstream lithium carbonate plant.

Liberation: Across all lithologies the lithium bearing mica, zinnwaldite, is effectively liberated from the gangue material with a top-end particle size of less than 300 µm. Initial liberation analysis was supported by Heavy-Liquid Separation (HLS) of minerals from each of the various lithologies. This was followed by detailed liberation, mineralogical and petrographic analysis using QEMSCAN of SAG milled composites with a P80 passing 212 µm. These results confirmed those from the HLS tests.
Lithium Concentration: Initial studies investigated both froth flotation and magnetic separation for concentration of zinnwaldite. Magnetic separation was proven to be far superior (91% lithium metallurgical recovery versus 78%) and was selected as the method to be optimized for the PFS.

To ascertain the performance of the chosen method and to allow finalization of the circuit, two composites where produced to reflect a high-grade and low-grade lithium ROM feed. A pseudo-locked- cycle flow sheet was implemented to test the effects of variability of grade and the effects of improving lithium recovery via scavenging.

The results showed that an additional Wet High Intensity Magnetic Separation (WHIMS) stage could be used to upgrade the para-magnetic material to produce a scavenger magnetic fraction, which is sent back to the start of the circuit. The test-work has resulted in an estimated lithium recovery of 91% to the concentrate using a 3-stage magnetic separation flow sheet comprising a rougher, cleaner, and scavenger stage. The cleaner magnetic concentrate was reground and passed over a shaking table to recover liberated tin. The gravity concentrate and the scavenger concentrate are returned to the beginning of the circuit.

A locked-cycle gravity test-work program was conducted to simulate the gravity recovery circuit component of the FECAB plant. A pre- concentrate grade of 8 % Sn was produced with an Sn recovery of 80 -90 % to the magnetic fraction. A dressing circuit was approximated for the test-work by using a Mozley Super-Paner centrifugal separator.

SAGability test-work was conducted at ALS on the three primary lithologies. Cinovec's ore was determined to be amenable to single stage SAG milling, which forms part of the FECAB comminution design. Wardle Armstrong conducted a Starkey SAGability test along with standard bond ball and bond rod work indices.

Updated Roasting & Lithium Hydroxide Process Test-work

Test-work has been conducted over several months leading to this PFS update primarily at Dorfner Anzaplan, Germany on lithium hydroxide production process development as well as earlier roasting confirmation test-work. This test-work was reported on 28 March 2018, 11 July 2018, 4 September 2018 and 8 April 2019.

The results from the early roasting test-work yielded up to 95% lithium extraction and was ultimately replicated in three separate laboratories. The changed reagent mix in the roasting process involved the substitution of waste gypsum from European power stations as the primary source of sulphate for the roasting reactions, the addition of limestone at an approximate ratio of 1:10 (limestone to concentrate) as well as the recirculation of excess sodium sulphate to the roast feed mix. This reagent mix not only produced an increase in lithium recovery but also substituted cost effective reagents for the more expensive addition of hydrated lime and purchased sodium sulphate contemplated in the 2017 PFS. This data coupled with engineering updates described later in this report was used to update the 2017 PFS financial model.

The remainder of the test-work completed in recent months was focussed on developing process flowsheet alternatives that would enable production of battery grade lithium hydroxide. The following results were outlined on 8 April 2019**.**

A series of tests were completed in recent months by Dorfner Anzaplan in Germany looking initially at the direct production of lithium hydroxide from leach liquors and subsequently testing a more traditional route of converting lithium carbonate into lithium hydroxide.
While both process routes were successful in producing battery grade lithium hydroxide, assessment of the relevant process risks indicated that the more robust flowsheet involved the production of battery grade lithium carbonate followed by conversion to battery grade lithium hydroxide.
The composition of the material produced compared with a typical industry specification is detailed in the Table 5.

Deleterious Species	Typical maximum Specification (ppm)	EMH (ppm)
Na	50	<1
K	50	<1
Cl	30	<15
SO4	100	~51
Fe	7	<1

Table 5: EMH lithium hydroxide comparison to typical specification

The engineering assessment was conducted using a 4.3 kg sample of lithium concentrate taken from a stock of historic ore samples taken from various sites in the Cinovec deposit. The sample was subjected to roasting after mixing with sodium sulphate, gypsum and limestone to a prescribed ratio, water leached, various steps of purification undertaken finally rendering a battery grade lithium hydroxide laboratory scale sample upon completion.

The result of the test-work was the production of a sample of battery grade lithium hydroxide. The work concentrated on the grade of product produced and not recovery rates. The total amount of product produced was below 10 grammes. Further information regarding the sampling techniques and data is set out in the tables annexed to this announcement.

Finally, it was reported on 19 April 2017 that at that time ongoing test-work was focused on fluoride and silica removal. This work was successfully completed to “proof of concept stage” during the production of battery grade lithium hydroxide in 2018 whereby a portion of the fluoride dissolved at the leaching stage was removed when lime was introduced at the initial purification step after the water leach and then activated alumina was utilised to reduce the remaining fluoride concentration prior to lithium carbonate production to acceptable levels which then flowed through to the lithium hydroxide product.

Recovery results

Based on detailed analysis of the test-work results, specific recovery algorithms were developed and entered directly into each block in the block model used for mine scheduling. The average metallurgical recoveries used in the project financial model are summarised below:

Lithium recovery to concentrate	90%
Lithium recovery in carbonate plant	91%
Overall lithium recovery –	82%
Tin recovery	65%

Comminution Plant

The purpose of the Comminution Plant (Figure 4) is to reduce the size of the ROM ore to a particle size distribution (PSD) that optimises lithium recovery, whilst allowing efficient pumping to the Beneficiation Plant.

Primary crushed ore is delivered to the Coarse Ore Stockpile. The ore is milled to 250 µm in a single stage SAG mill.

The Comminution Plant is run water neutral to remove the need for make-up water or disposal at the mine-site location. This is achieved by returning water from the Beneficiation Plant via a pipeline. Thus, the comminution plant has the advantage of operating at zero water discharge.

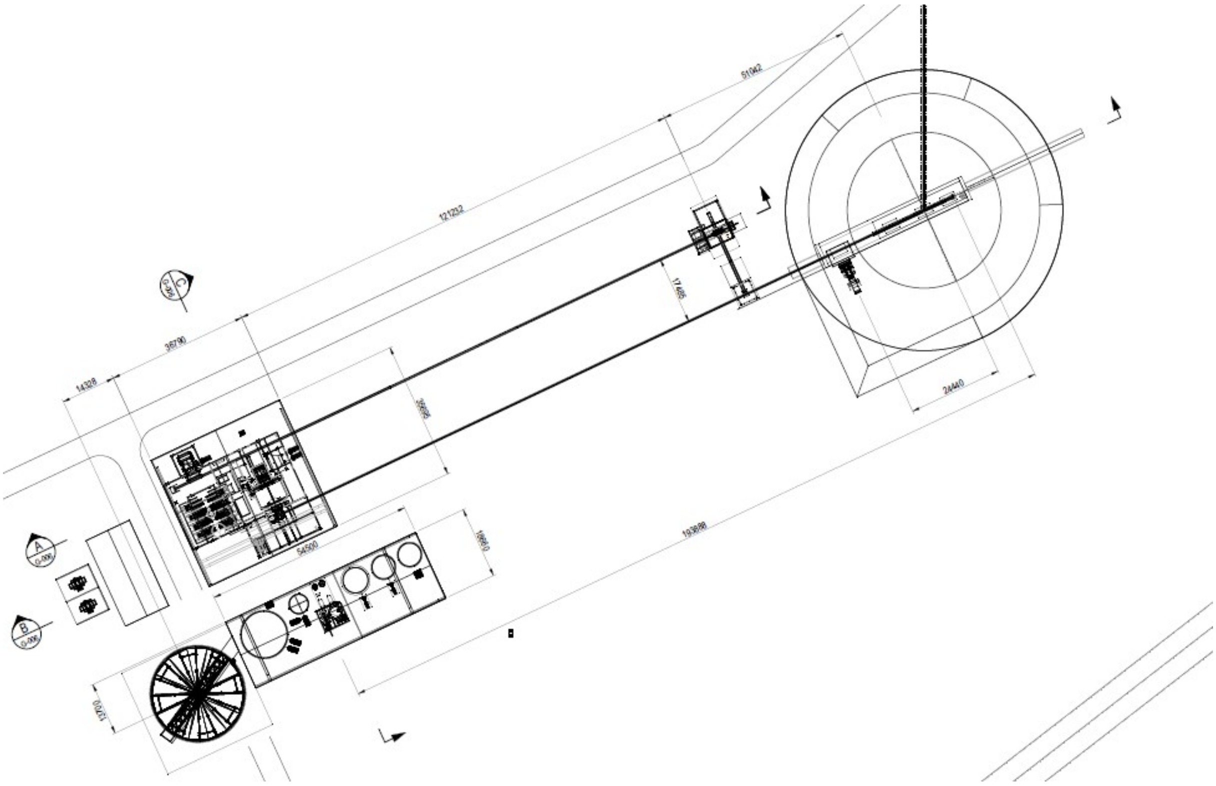

Figure 4: Comminution Plant Layout

The layout of the Comminution Plant maximises the use of the flat land available upon the top of the ridge, shortening the overall footprint. Room has been allowed for future pebble crushing in the SAG mill recirculating load, to allow for retrofitting if conditions warrant.

Beneficiation Plant

The Beneficiation Plant has two functions:

(i) First, to magnetically separate the paramagnetic zinnwaldite to produce a lithium rich magnetic stream (mica-concentrate) to feed the downstream lithium carbonate plant; and

(ii) Second, to then treat the non-magnetics by-product stream with gravity, flotation, magnetic and electrostatic separation to produce tin and tungsten product. Filtered tailings are produced for storage in the TSF.

The layout of the Beneficiation Plant is shown in Figure 5.

Magnetic Circuit

Milled product from the Comminution Plant received via the overland pipeline is stored in the magnetic circuit feed tank. The tank is agitated and acts as a buffer between the Beneficiation Plant and the overland pipeline. The pipeline slurry density is 56% to 58% solids, whilst the discharge density required by the Low Intensity Magnetic Separation ('LIMS') is 40% solids. The LIMS magnets reject ferromagnetic species from the slurry prior to the multi-stage Wet High Intensity Magnetic Separation (WHIMS) process.

The WHIMS circuit features a rougher, cleaner, scavenger arrangement. The scavenger removes the non-magnetic material from the rougher and cleaner units and returns the magnetic fraction back to the start of the circuit to improve mica recoveries.

The cleaner magnetic fraction is reground in closed circuit with a spiral to reduce the PSD to required LPP feed size. Any tin which is liberated in the process is recovered from the mica-concentrate by the spirals.

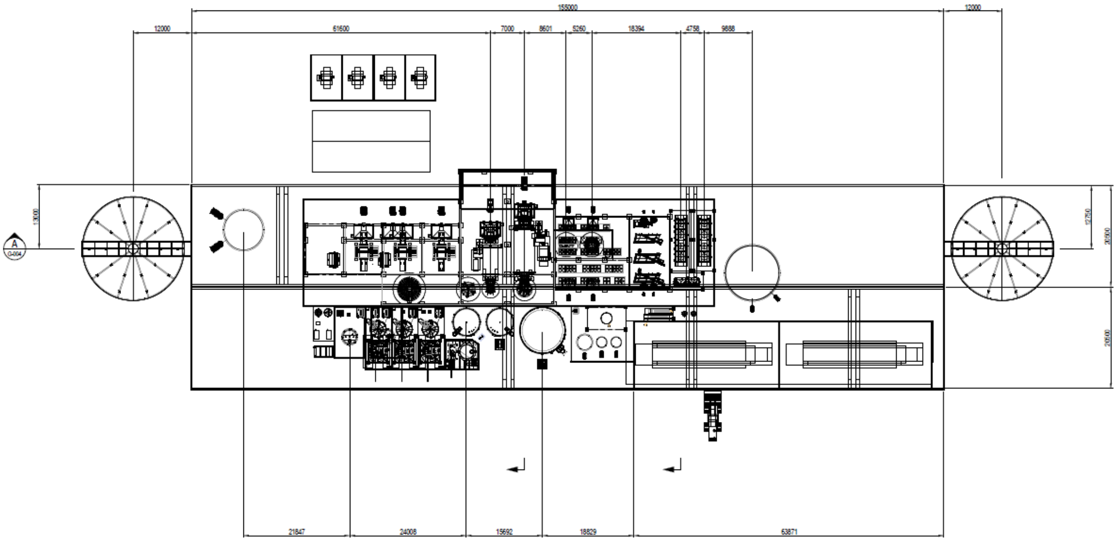

Figure 5: Beneficiation Plant Layout

Non-magnetics Gravity Circuit

The Non-Magnetics Gravity Circuit treats the by-product stream from the Magnetic Separation Circuit's concentrating the tin and tungsten minerals for feeding to the Tin Dressing Circuit, where the final by-product streams are produced. The circuit also has the ability to receive tin and tungsten gravity concentrate as slurry from the Lithium Carbonate Plant.

The circuit incorporates three stages of classification with:

- The coarse fraction is treated by two stages of spirals and two stages of wet tables and also incorporates a regrind mill which is used to achieve the required liberation size of the tin and tungsten minerals;
- The medium sized fraction is treated by two stages of spirals and two stages of wet tables;
- The finer fraction is treated with a flotation and high gravity concentrator; and

- The finest fraction, slimes, is rejected to final tails.

The concentrate produced from the gravity circuit is sent for dressing whilst the tails are dewatered via a thickener and filter.

The dressing circuit upgrades the concentrates through sulphide flotation. Electrostatic precipitation is then used to separate wolframite and cassiterite from the scheelite. Dry magnetics separate the wolframite from the cassiterite to give the final saleable tungsten and tin concentrates.

FECAB Tailings Test-work

Rheology and geochemical work was conducted on various tailings streams. The tests concluded:

- Samples had a definite, but very low level of radioactivity. No U or Th were detected in the SPLP leach; and
- Samples were devoid of sulphides and have no potential to generate acid-mine drainage as confirmed through both the ABA and NAG test. However, the neutralisation potential of samples was also very low and samples also had a very low total carbon content.

Lithium Hydroxide Process Facilities Design

The flowsheet that has been developed for the production of battery grade lithium hydroxide on the back of the results from the test-work described previously is shown in Figure 6. The significant points in the design include:

- The roasting operation will be completed in a rotary kiln;
- The roaster receives a slurry of mica concentrate from the FECAB plant via pipeline;
- The concentrate slurry is dewatered and stored in a covered stockpile to create a buffer between the FECAB and the lithium production facility:
- The concentrate is mixed with limestone, waste gypsum and recycled sodium sulphate before roasting to convert the lithium into a lithium potassium sulphate in the hot calcine which is initially cooled in a rotary cooler, discharged into a small ball mill to ensure that larger particles in the calcine are sufficiently reduced in size and then leached to achieve the dissolution of the contained lithium sulphate values;
- The leached slurry is filtered on one of two belt filters to separate the pregnant leach solution from the residue;

- The leach solution undergoes impurity removal steps to remove calcium, magnesium, fluoride and silica by precipitation and adsorption. Sodium sulphate is then recovered from the leach solution (as Glauber's Salt) by cooling. The Glauber's salt is melted and then crystallised as anhydrous sodium sulphate for recycling back to the roaster feed and/or sale as a by-product;
- Crude lithium carbonate is then precipitated from the purified leach solution through alum precipitation which produces a rubidium rich residue, evaporation, fluoride removal through interaction with activated alumina and addition of sodium carbonate;

- The crude lithium carbonate is then re-dissolved through the addition of carbon dioxide to form lithium bicarbonate. The lithium bicarbonate solution is subsequently filtered and purified through an ion exchange process before pure lithium carbonate is re- crystallised by heating the solution causing the lithium bicarbonate to decompose;
- Potassium sulphate is produced as a by-product from the production of lithium carbonate through initially the recovery of glaserite from the crude lithium carbonate filtrate and subsequent formation of potassium sulphate which is dried and packaged for sale and the remaining sodium sulphate containing solution is recycled back into the process; and
- The flowsheet described in this report then takes the battery grade lithium carbonate through further processing steps to produce battery grade lithium hydroxide. Lithium hydroxide solution is formed initially through conversion with hydrated lime slurry followed by a final purification step involving ion exchange, then lithium hydroxide crystallisation, solids recovery, drying and packaging for sale.

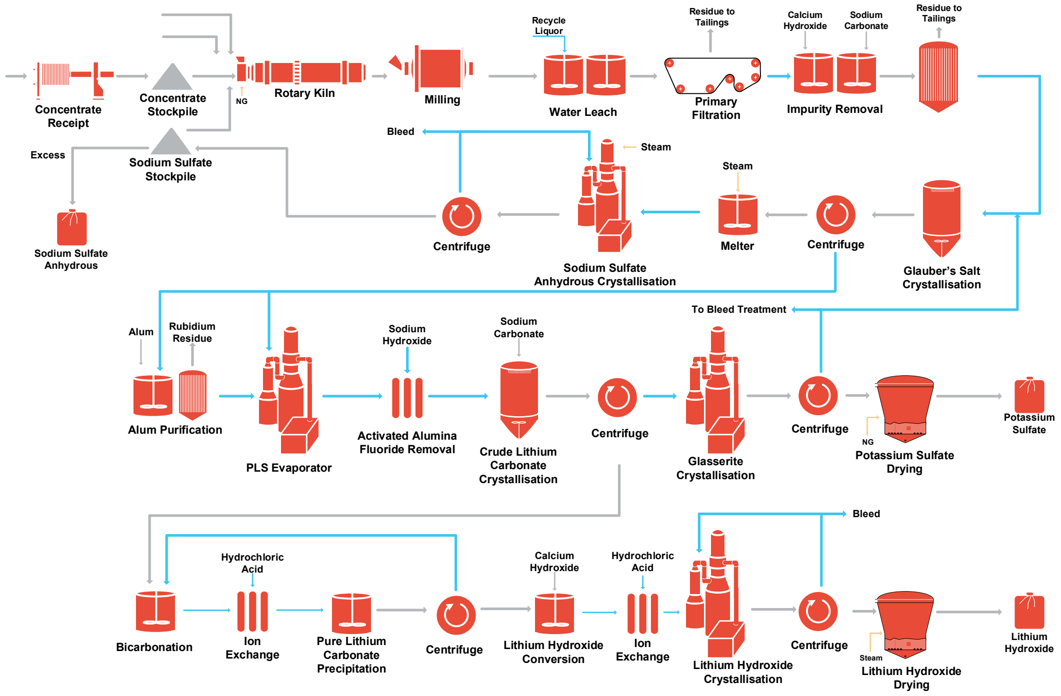

Figure 6: Cinovec Lithium Hydroxide Conversion Process Schematic

Tailings

All the processing tailings produced by the beneficiation and lithium carbonate plants are to be pressed into filter cakes to allow dry stack impoundment a close distance from the processing plants. Tailings consists of approximately 1.5 Mtpa of FECAB material and 0.5 Mtpa of LPP material (mostly leach residue).

Although dry stacking is the more expensive compared to traditional wet deposition, it was chosen due to the following advantages:

- The higher safety factors associated with the design versus conventional storage facilities. The region has historic high levels of rainfall thus dry stacking reduces the amount of water to treat by reducing the TSF footprint;

- Progressive rehabilitation is possible, spreading the cost of closure over a longer time when compared to conventional storage facilities; and
- Filtered tailings allow better recovery of lithium by recovering more liquor.

Filtered tailings will be filtered and dumped onto a pad. Wheel loaders and articulated trucks or rail will transport the tailings to a TSF for impoundment.

An initial TSF cell was designed to accommodate the first two years of combined tailings, with the associated capital cost included in the capital estimate. The TSF was lined and featured water collection and diesel powered decant pumps for returning any run off water to the processing plant. This is no longer envisaged to be required and could result in costs savings in the feasibility study.

Environmental

The Project is governed by Act No.100/2001 Coll., on Environment Impact Assessment (hereinafter referred to as the “EIA Act”). The competent authority is the Ministry of the Environment (Environment Impact Assessment Department). An integrated permit is issued upon completion of the EIA process.

The EIA documentation is required to be structured as follows:

- details concerning the notifier;
- details concerning the development project;
- details concerning the status of the environment in the region concerned;
- comprehensive characteristics and assessment of the project impacts on public health and the environment;
- a comparison of project versions (if any);
- a conclusion; and
- a commonly understood summary and annexes (opinion of the Building Authority, opinion of the Nature Protection Authority, expert studies and assessments).

The following expert studies and assessments must be compiled during the EIA Documentation preparation stage:

- noise impact study;
- air quality impact study;
- biological survey;
- human health impact study;
- transport impact study;
- landscape impact study; and
- water quality and hydrology impact study.

In this case, with respect to the location of the project at the border with Germany, an “international assessment” provision applies (Section 13 of the EIA Act).

The Company has commenced the EIA process with a baseline study, prepared by GET s.r.o an independent Czech based environmental consultancy, which has identified the environmental areas to be assessed and determined preliminary outcomes.

The underground mine and surface portal is located on the border of or immediately adjacent to an environmentally sensitive area. From that perspective, the EIA will focus particularly on project impacts on European protected areas Natura 2000 (protected birds) and mine water discharge into surface streams. The Company has re-positioned key infrastructure to minimise impacts to both the environment and the community and has placed crushing facilities underground to minimise noise as well as enclosing the mill to further reduce noise and visual impacts. Considering the long-term mining history in the region and at the deposit itself, the project will not significantly impact the environment.

Lithium Hydroxide Production Capital Costs Estimate

Hatch Associates Pty Ltd ("Hatch") completed a PFS study in 2017 for the sodium sulphate roast process treating lithium concentrate to produce lithium carbonate. In 2018, Hatch was engaged by EMH to modify the 2017 PFS to convert lithium carbonate to lithium hydroxide product and incorporate an updated roast design. This work was further supported in 2019 by additional test work conducted at Dorfner Anzaplan. Hatch have now completed the update to their 2017 PFS report to include capital and operating cost estimates for the production of lithium hydroxide.

In the 2017 PFS, the estimated capital cost of the Cinovec Project for the production of 20,800 tpa lithium carbonate was $393 M based on Q1 CY2017 pricing. The accuracy of that estimate was considered at the time to be +/-25%. The capital cost estimate included all costs for design and construction of the plant and infrastructure on the site for the mine, FECAB and LPP. Allowances were made for connection to off-site services such as gas, electricity and water, construction of a tailings storage facility, project contingency and owners costs including project management team, project approvals, establishment of the operating team and commissioning.

For the updated 2019 PFS, a summary of the current project capital cost estimate for an average production rate of 25,267 tpa lithium hydroxide is presented in Table 6. The only section containing new cost estimates is that for the lithium production facility (LPF). The capital cost estimate summarised in Table 6 has been derived from modifications to the capital cost estimate produced during the study. The need for the significant modifications that were made, which for example resulted in the prediction that all equipment in the leaching and roasting sections could be reduced in size by approximately 10%, were determined after the completion of the PFS update. As a result, the Syscad plant simulation model was revised to allow for confirmation that the envisaged changes were significant and to gain insight into the quantum of plant scale change that would result. As such the cost estimate from the original study has been factored using industry norms to reflect the 10% reduction in size of the roasting, leaching and some reagent facilities resulting in an accuracy of +/-30% for this portion of the plant. The total estimated capital cost to construct a facility for the production of 25,267 tpa lithium hydroxide is estimated to be $482.6 M.

The capital cost estimate is based by Hatch upon the engineering designs produced during the PFS update based on process modelling and mass flow calculations, mechanical equipment lists, costs for major items of equipment and factored project commodities.

Section	TOTAL US$ M
Underground Mining Development	
Mining Directs	67.3
Mining Indirect Costs	3
Total Mining Cost	70.3
Front End Comminution & Beneficiation Plant (FECAB)	
Comminution - Direct	25.2
Beneficiation - Direct	40.5
Infrastructure - Direct	20.8
FECAB Indirect Costs	18.4
Total FECAB	104.9
Lithium Production Facility	
Production Plant Directs	213.8
Production Plant Indirect Costs	50.5
Total Lithium Production Plant	264.3
Overall Project Contingency @ 10%	43.9
TOTAL CAPITAL COST	482.6

Table 6: Overall Project Development Capital Cost

Lithium Hydroxide Production Operating Costs Update

Operating costs have not been updated in the areas of mining, FECAB plant operation, tin and tungsten recovery or corporate office costs and other overheads as there has been limited inflation in the intervening period . The only operating costs that have been re-estimated by Hatch have been those specifically for the production of lithium hydroxide from the flowsheet shown in Figure 6. The costs are based on an average production rate modelled in EMH's Syscad plant simulation model of 25,267 tpa lithium hydroxide ($LiOH.H_2O$) which is equivalent to 22,259 tpa of lithium carbonate. The average operating cost for the Cinovec Project detailed in Table 7 is $3,435 per tonne of lithium hydroxide after by- product credits.

Average Operating Cost (yr. 3-20)	$M pa	$t / ROM	$t / LiOH	% Op Cost
Mining	40.7	24.3	1,625	33%
FECAB	19.4	11.6	770	16%
LiOH Plant	62.1	37.0	2,458	50%
Overall Project Admin	0.9	0.5	34	1%
Total Operating Cost	**123.1**	**73.4**	**4,876**	

By-product Revenue Credits	$M pa	$t / ROM	$t / LiOH
Sn/W (yr3-2 0)	29.2	17.4	1,156
Potash & sodium sulphate	7.8	4.6	285
Excluding Sn/W Royalties & Transportation Cost			
Total Opex (Net of By-product Credits)	**86.1**	**51.4**	**3,435**

Table 7: Average Project Operating Cost

Overhead corporate office costs are excluded. The maintenance costs used in the operating cost modelling includes requirements for sustaining capex. The cost of tailings impoundment is included in the above numbers.

Lithium Hydroxide Production Financial Summary

The updated Hatch capital and operating cost estimates for the production of lithium hydroxide have been utilised by the Company to re-estimate the project economics derived from the production of lithium hydroxide rather than carbonate from the Cinovec Project. The key project metrics are provided in Table 8 but can be summarised as the project yielding a post-tax NPV (discounted at 8%) of $1,108 M and a post-tax Internal Rate of Return of 28.8%.

Commodity prices used for the update of the 2017 PFS are unchanged (other than Lithium hydroxide which was not included in the 2017 PFS) as follows:

- Lithium hydroxide: $12,000/t;
- Lithium carbonate: $10,000/t
- Tin: $22,500/t;
- Tungsten: $330/MTU; and
- Potassium sulphate: $520/t.

Lithium is the key driver of the Project. In arriving at forecast pricing for both battery grade lithium carbonate and battery grade lithium hydroxide the Company has considered the outlook presented by a number of key industry groups.

According to JP Morgan in their May 2019 assessment, battery grade lithium carbonate prices will fluctuate between $ 11,500 and $ 13,500 over the forecast period. Battery grade lithium hydroxide is forecast to fluctuate between $ 12,000 and $ 14,000 for the same period.

Benchmark Mineral Intelligence (“Benchmark”), a leading battery metals advisory expects similar future pricing and consider the use of the Company’s pricing forecasts to be reasonable.

Benchmark have recently published an update to its supply and demand forecasts which gives a clear indication of the growing need for lithium.

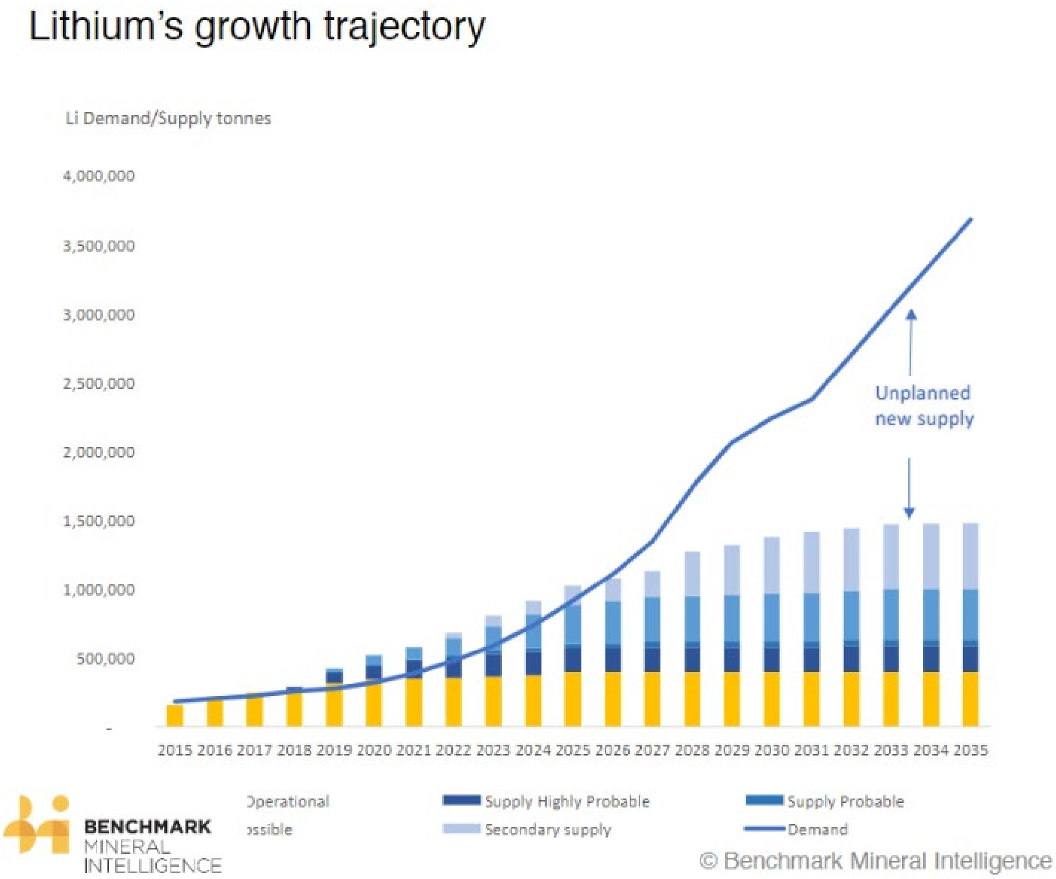

Figure 7: Benchmark Li Supply/Demand Chart - 2019

Tax is calculated at 19% and a 10-year tax free window has been applied as provided for by Czech investment legislation for projects of this scope.

Metric	Value	Metric	Value
NPV @8% Discount	$1,108 M	Average LiOH Production rate	25,267 tpa
IRR (Post tax)	28.8 %	Avg Production Cost (without credits)	$4,876 /t LiOH
Capital Expenditure	$482.6 M	Avg Production Cost (with credits)	$3,435 /t LiOH
Total Mined Ore	34.4 Mt	Avg Mill Rate (yr. 3-20)	1.68 Mtpa
Peak Mill Feed	1.8 Mtpa	Life of Mine	21 years

Table 8: Project Financial Summary

A sensitivity analysis shows lithium pricing has the most impact on the project.

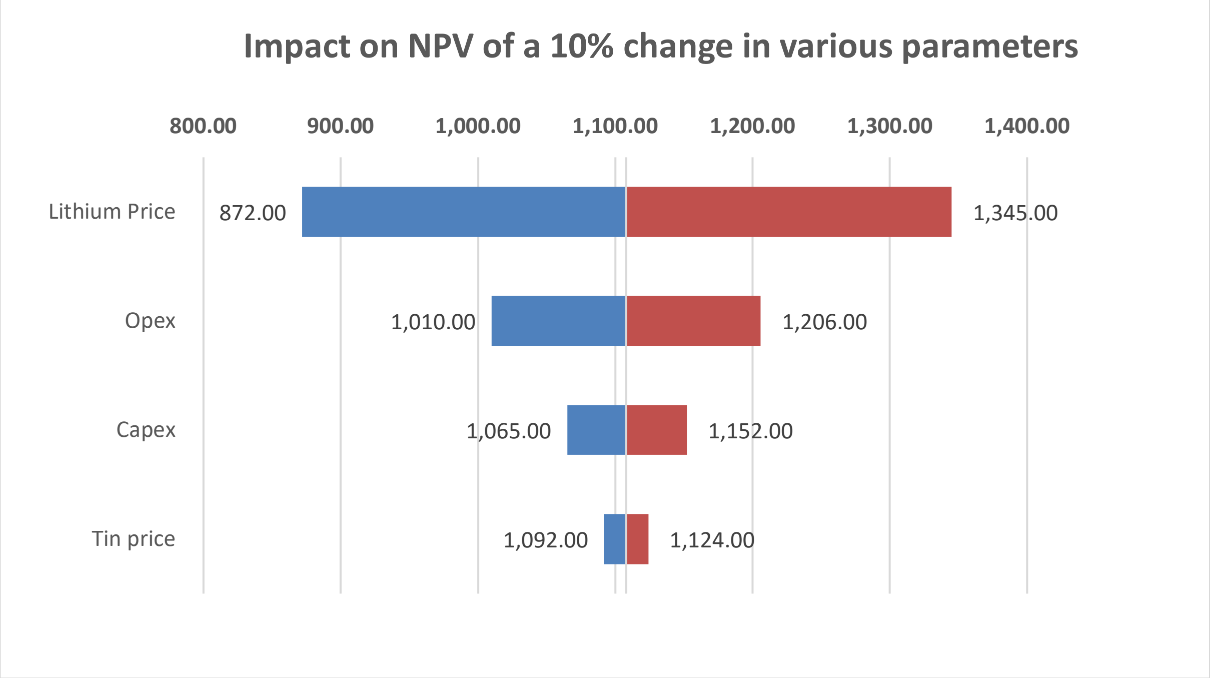

Figure 8: Sensitivity Analysis

Alternative Carbonate Production Strategy

As was reported on 11 July 2018 significant economic improvements were expected to be realised from the use of more cost-effective reagents in the roasting operation and taking account of the increased recoveries seen from the improved roasting reagent mix now instituted as part of the project.

To assess the Alternative Carbonate Production Strategy as part of this 2019 PFS update, the original 2017 project financial model was modified while still producing lithium carbonate to predict the financial impact from those changes with all other variables remaining the same as stated for the 2017 PFS. A summary of the findings from this work is detailed in Table 9.

Metric	Value 2017 PFS	Metric	Value 2018 update
NPV @8% Discount	$540 M	NPV @8% Discount	$716 M
IRR (Post tax)	20.9%	IRR (Post tax)	24.1%
Capital Expenditure	$393 M	Capital Expenditure	$401 M
Avg Production Cost (with credits)	$3,483 /t LCE	Avg Production Cost (with credits)	$2,914 /t LCE
Avg Production rate	20,800 tpa	Avg Production Rate	22,500 tpa

Table 9: Financial Comparison Lithium Carbonate Flowsheet Only

Table 9 confirms the economics are robust and the degree of optionality is strong in terms of supplying either battery grade lithium carbonate or lithium hydroxide into a rapidly developing market. As is normal for this type of study, the PFS has been prepared to an overall level of accuracy of approximately ±25% for capital and operating costs.

Notes Specific to ASX and AIM Announcements

The following announcements were lodged with the ASX and published via RNS in the UK, and further details (including supporting JORC Reporting Tables) for each of the sections noted in this announcement can be found in the following releases:

- 19 April 2017 - PFS study confirms Cinovec as potentially low-cost lithium carbonate producer
- 28 March 2018 - Lithium Recoveries Improved to 95%;
- 11 July 2018 - Cinovec Production Modelled to Increase to 22,500 TPA LCE – 11 July 2018;
- 4 September 2018 - Cinovec Project Update – Significant Achievements – 4 September 2018;
- 8 April 2019 - Cinovec project update – Battery grade lithium hydroxide produced; and
- 8 April 2019 - Battery Grade Lithium Hydroxide Produced – Clarification – 8 April 2019.

Note that these announcements are not the only announcements released to the ASX or published via RNS in the UK but are specific to exploration reporting on the Cinovec Project. The Company confirms that it is not aware of any new information or data that materially affects the published information in respect of the Project.

Project Financing

The Company does not currently have the financial capacity to internally fund 100% of the development of the Cinovec project. External funding in the form of some mix of debt, JV interest and/or equity will be required. In parallel with ongoing work programs pertaining to realising value from the Cinovec resource, the Company is continuing to evaluate its financing strategy with the objective of minimising dilution for existing shareholders. Shareholders should be aware that further equity funding may be required for the future funding for development of the Cinovec project, and if so, their ownership of the Company or the Company's economic interest in the Cinovec project may be diluted.

The Company has engaged advisors and has had preliminary discussions with financiers, to understand the debt carrying parameters of the project. Release of the PFS update now provides a platform for the Company to advance discussions with potential finance providers and/or JV partners. On the basis of the robust market outlook for lithium products and preliminary work already undertaken in relation to financing, the Company considers that there is a reasonable basis that the development of the Cinovec project can be successfully funded.

BACKGROUND INFORMATION ON CINOVEC

PROJECT OVERVIEW

Cinovec Lithium/Tin Project

European Metals, through its wholly owned subsidiary, Geomet s.r.o., controls the mineral exploration licenses awarded by the Czech State over the Cinovec Lithium/Tin Project. Cinovec hosts a globally significant hard rock lithium deposit with a total Indicated Mineral Resource of 372.4Mt @ 0.45% Li_2O and 0.04% Sn and an Inferred Mineral Resource of 323.5Mt @ 0.39% Li_2O and 0.04% Sn containing a combined 7.18 million tonnes Lithium Carbonate Equivalent and 278kt of tin reported 28 November 2017 (**Further Increase in Indicated Resource at Cinovec South**). An initial Probable Ore Reserve of 34.5Mt @ 0.65% Li_2O 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 reported 11 July 2018 (**Cinovec Production Modelled to Increase to 22,500tpa of Lithium Carbonate**).

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

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

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.

CONTACT

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

Mr. Keith Coughlan
Managing Director

COMPETENT PERSON

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

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

CAUTION REGARDING FORWARD LOOKING STATEMENTS

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

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

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

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

Statements regarding plans with respect to the Company’s mineral properties may contain forward-looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code 2012 Edition and the current ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors and production targets and financial forecasts. The following information is specifically provided in support of this belief:

The PFS was completed by independent specialist firms with oversight provided by the Company's Owner's Team under the direction of Andrew Smith (B.Eng., B.Com from University of Sydney). The PFS update was completed under the direction of Neil Meadows (M.App.Sc. (Metallurgy) South Aust. Inst. Tech.).

As is normal for this type of study, the PFS has been prepared to an overall level of accuracy of approximately ±25% for capital and operating costs.

Production targets and financial forecasts disclosed in this announcement are based exclusively on Indicated Resource categories as defined under the JORC Code 2012.

European Metals will both commence infill drilling and will re-access the old exploration drives as part of its next programme to convert Indicated Resources into the Measured category. Given the vast quantity of data associated with the previous mine combined with the size, continuity of mineralisation, geometry of the deposit, the Company and its Resource Consultants Widenbar and Associates are confident of achieving this further mineral resource classification conversion.

The PFS metallurgical test-work programme was developed and supervised by industry leaders in Western Australia and Germany and was performed by specialist laboratories in the areas of expertise that included Dorfner Anzaplan, Nagrom and ALS.

Mr 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 LPP.

The independent consultants prepared the process design criteria and flowsheet based on metallurgical test work and typical industry design parameters.

The mine planning and scheduling for the 1.7Mtpa Base Case were undertaken by independent mining firm Bara Consultants, consisting of Mr Andrew Pooley and Mr Clive Brown (both mining professionals with a combined 50 years of mine planning and operations experience and both fellows of the SAIMM) utilising the Deswik CAD suite of mining software for UG mine planning.

Mining operating costs were based on estimates derived from equipment and mechanical quotes, first principle manpower build-ups and an extensive industry database.

Processing operating costs were estimated based on the mechanical equipment list developed for the PFS design, metallurgical test-work and the process design criteria, typical local labour rates, quoted energy costs and typical consumables supply costs. The information in this announcement that relates to Process Plant capital and operating cost estimates is based on reports compiled by the independent consultants.

Capital estimates are based on preliminary engineering designs produced by the independent consultants. Each consultant provided a capital estimate for their respective scope of works. Based on process modelling and mass flow calculations, detailed mechanical equipment lists were compiled, with quotes for all items costing over $100 k. The mechanical equipment list was then used as a base for factoring other project commodities. Material take-offs from the 3D modelling were then used as an integrity check.

Mining related geotechnical engineering was undertaken by independent mining firm Bara Consulting and included extensive geotechnical logging and laboratory testing.

The Project will potentially be the first large-scale hard rock mine to be developed in the Czech Republic in many decades. As such, stakeholder engagement with the Government of Czech, both locally and regionally and in particular with the Ministry of Industry has been on going. We therefore anticipate that given the potential size, scale and significance of the Project to the Czech Republic and the potential downstream use of the lithium product and assuming any development complies with all relevant mining and environmental legislation, all necessary approval processes will be able to be secured for the Project.

The Company has engaged a specialist environmental consulting firm in Czech, GET s.r.o Ltd, to advise it on all aspects of the ESIA process. This includes all environmental baseline studies.

The Company believes that the amount and detail of work and studies carried out for this study in many areas exceeds what would normally be expected at a PFS level.

The Company's Board and management have had a very successful track record of developing and financing mineral resource development globally. The Company is confident there is a good possibility that it will continue to increase the mineral resources at the Project through exploration. The Company is confident that this exploration combined with the use of only 5% of the Resource base in the PFS, will extend the mine life greatly from that which is currently modelled.

The Project's positive technical and economic fundamentals provide a platform for the Company to advance discussions with traditional debt and equity financiers and forward sales arrangements. The size and location of the deposit in the middle of large end users associated with European electric vehicles that is driving lithium demand will make the project a strategic asset as evidenced by the large interest shown in the Project by end users and large lithium specialist companies to-date. An improvement in market conditions since work commenced and a perceived high growth outlook for the global lithium market enhance the Company's view of the fundability of the Project. Based on this, the Board is confident the Company will be able to finance the Project through a combination of debt and equity, or forward sales. In addition, the Company's aim will be to avoid dilution to existing shareholders, to the greatest extent possible.

The Study is based on the assumption that all metal produced will be sold via long term contracts to end users. It is assumed the lithium carbonate will be sold electric vehicle end users in both Czech and surrounding countries and that tin and tungsten concentrates will be sold to Asian smelters for further processing.

Board and Management has been responsible for the study, financing and/or development of several large and diverse mining and exploration projects globally. These include the development of the Ngezi Platinum Mine, Zimbabwe (Zimplats); Cominco Phosphate (Republic of Congo), Leeuwkop Project, South Africa (Afplats), Ncondezi Coal (Mozambique) and Talga Resources projects in Sweden. Based on this experience the board believes that a traditional debt:equity ratio of 70:30 is potentially achievable for the Project based on the PFS results.

For the reasons outlined above, the Board believes that there is a "reasonable basis" to assume that future funding will be available and securable.

All material assumptions on which the forecast financial information is based have been included in the announcement.

Key Risks

Key risks identified during the study include:

- Adverse movements in lithium pricing;
- Adverse movements in key operating cost inputs;
- Timely project approvals by the authorities;
- Conversion of existing Resources to Reserves;
- Results of future feasibility studies are uncertain; and
- Project funding.

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
Lithium	Li	1.000	2.153	5.325
Lithium Oxide	Li_2O	0.464	1.000	2.473
Lithium Carbonate	Li_2CO_3	0.188	0.404	1.000
Lithium Hydroxide	$LiOH.H_2O$	0.165	0.356	0.880

WEBSITE

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

TECHNICAL GLOSSARY

The following is a summary of technical terms:

“ball and rod indices”	Indices that provide an assessment of the energy required to grind one tonne of material in a ball or rod mill
“carbonate”	refers to a carbonate mineral such as calcite, $CaCO_3$
“comminution”	The crushing and/or grinding of material to a smaller scale
“cut-off grade”	lowest grade of mineralised material considered economic, used in the calculation of Mineral Resources
“deposit”	coherent geological body such as a mineralised body
“exploration”	method by which ore deposits are evaluated
“flotation”	selectively separating hydrophobic materials from hydrophilic materials to upgrade the concentration of valuable minerals
“g/t”	gram per metric tonne
“grade”	relative quantity or the percentage of ore mineral or metal content in an ore body
“heavy liquid separation”	is based on the fact that different minerals have different densities. Thus, if a mixture of minerals with different densities can be placed in a liquid with an intermediate density, the grains with densities less than that of the liquid will float and grains with densities greater than the liquid will sink
“Indicated” or “Indicated Mineral Resource”	as defined in the JORC and SAMREC Codes, is that part of a Mineral Resource which has been sampled by drill holes, underground openings or other sampling procedures at locations that are too widely spaced to ensure continuity but close enough to give a reasonable indication of continuity and where geoscientific data are known with a reasonable degree of reliability. An Indicated Mineral Resource will be based on more data and therefore will be more reliable than an Inferred Mineral Resource estimate
“Inferred” or “Inferred Mineral Resource”	as defined in the JORC and SAMREC Codes, is that part of a Mineral Resource for which the tonnage and grade and mineral content can be estimated with a low level of confidence. It is inferred from the geological evidence and has assumed but not verified geological and/or grade continuity. It is based on information gathered through the appropriate techniques from locations such as outcrops, trenches, pits, working and drill holes which may be limited or of uncertain quality and reliability
“JORC Code”	Joint Ore Reserve Committee Code; the Committee is convened under the auspices of the Australasian Institute of Mining and Metallurgy
“kt”	thousand tonnes
“LCE”	the total equivalent amount of lithium carbonate (see explanation above entitled Explanation of Lithium Classification and Conversion Factors)
“LiOH”	lithium hydroxide monohydrate ($LiOH.H_2O$), the commercial form of lithium hydroxide
“lithium”	a soft, silvery-white metallic element of the alkali group, the lightest of all metals
“lithium carbonate”	the lithium salt of carbonate with the formula Li_2CO_3
“magnetic separation”	is a process in which magnetically susceptible material is extracted from a mixture using a magnetic force
“metallurgical”	describing the science concerned with the production, purification and properties of metals and their applications
“Mineral Resource”	a concentration or occurrence of material of intrinsic economic interest in or on the Earth’s crust in such a form that there are reasonable prospects

	for the eventual economic extraction; the location, quantity, grade geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge; mineral resources are sub-divided into Inferred, Indicated and Measured categories
“mineralisation”	process of formation and concentration of elements and their chemical compounds within a mass or body of rock
“Mt”	million tonnes
“optical microscopy”	the determination of minerals by observation through an optical microscope
“ppm”	parts per million
“recovery”	proportion of valuable material obtained in the processing of an ore, stated as a percentage of the material recovered compared with the total material present
“SAGability”	testing material to investigate its performance in a semi-autonomous grinding mill
“spiral concentration”	a process that utilises the differential density of materials to concentrate valuable minerals
“stope”	underground excavation within the orebody where the main production takes place
“t”	a metric tonne
“tin”	A tetragonal mineral, rare; soft; malleable: bluish white, found chiefly in cassiterite, SnO_2
“treatment”	Physical or chemical treatment to extract the valuable metals/minerals
“tungsten”	hard, brittle, white or grey metallic element. Chemical symbol, W; also known as wolfram
“W”	chemical symbol for tungsten

ADDITIONAL GEOLOGICAL TERMS

“apical”	relating to, or denoting an apex
“cassiterite”	A mineral, tin dioxide, SnO2. Ore of tin with specific gravity 7
“cupola”	A dome-shaped projection at the top of an igneous intrusion
“dip”	the true dip of a plane is the angle it makes with the horizontal plane
“granite”	coarse-grained intrusive igneous rock dominated by light-coloured minerals, consisting of about 50% orthoclase, 25% quartz and balance of plagioclase feldspars and ferromagnesian silicates
“greisen”	A pneumatolitically altered granitic rock composed largely of quartz, mica, and topaz. The mica is usually muscovite or lepidolite. Tourmaline, fluorite, rutile, cassiterite, and wolframite are common accessory minerals
“igneous”	said of a rock or mineral that solidified from molten or partly molten material, i.e., from a magma
“muscovite”	also known as potash mica; formula: $KAl_2(AlSi_3O_{10})(F,OH)_2$.
“quartz”	a mineral composed of silicon dioxide, SiO2
“rhyolite”	An igneous, volcanic rock of felsic (silica rich) composition. Typically >69% SiO_2
“vein”	a tabular deposit of minerals occupying a fracture, in which particles may grow away from the walls towards the middle
“wolframite”	A mineral, $(Fe,Mn)WO_4$; within the huebnerite-ferberite series
“zinnwaldite”	A mineral, $KLiFeAl(AlSi_3)O_{10}\,(F,OH)_2$; mica group; basal cleavage; pale violet, yellowish or greyish brown; in granites, pegmatites, and greisens

ENQUIRIES:

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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 arranged for the release of this announcement on behalf of the Company was Keith Coughlan, Managing Director.

JORC Code, 2012 Edition - Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.*	• Between 2014 and 2017, the Company commenced a core drilling program and collected samples from core splits in line with JORC Code guidelines. • Sample intervals honour geological or visible mineralization boundaries and vary between 50cm and 2m. Majority of samples is 1m in length • The samples are half or quarter of core; the latter applied for large diameter core. • Between 1952 and 1989, the Cinovec deposit was sampled in two ways: in drill core and underground channel samples. • 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. • 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. • 4.3 kg of lithium concentrate sample was used from a stock previously derived from samples historically taken from various sites in the deposit for the production of lithium hydroxide. • The sample in this case was subjected to roasting after mixing with sodium sulphate, gypsum and limestone to a prescribed ratio, water leached, various steps of purification undertaken finally rendering a battery

Criteria	JORC Code explanation	Commentary
		grade lithium hydroxide laboratory scale sample upon completion.
Drilling techniques	- *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, 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).*	- 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, eight core holes were drilled for a total of 2,795.6m.In 2017, six core holes were drilled for a total of 2697.1m. - 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%). In 2016 and 2017 up to four drill rigs were used, and select holes employed PQ sized core for upper parts of the drill holes. - Historically only core drilling was employed, either from surface or from underground. - Surface drilling: 80 holes, total 30,340m; 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.
Drill sample recovery	- *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.*	- 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.
Logging	- *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.*	- In 2014-2017, 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 6 km from the mine site. The following features were logged and recorded in paper logs: lithology, alteration (including intensity divided

Criteria	JORC Code explanation	Commentary
		into weak, medium and strong/pervasive), and occurrence of ore minerals expressed in %, macroscopic description of congruous intervals and structures and core recovery.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *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.*	• In 2014-17, core was washed, geologically logged, sample intervals determined and marked then the core was cut in half. In 2016 and 2017 larger core was cut in half and one half was cut again to obtain a quarter core sample. One half or one quarter samples were 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 industry standard techniques appropriate for the style of mineralisation represented at Cinovec. • Historically, core was either split or consumed entirely for analyses. • Samples are considered to be representative. • Sample size and grains size are deemed appropriate for the analytical techniques used.
Quality of assay data and laboratory tests	• *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.*	• In 2014-17, core samples were assayed by ALS Global. The most appropriate analytical methods were determined by results of tests for various analytical techniques. • 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. • About 40% of samples were analysed by ME-MS81d (ME-MS81 plus whole rock package). Samples with over 1% tin were analysed by XRF. Samples over 1% lithium were analysed by Li-OG63 (4 acid and ICP finish). • Standards, blanks and duplicates were inserted into the sample

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		stream. Initial Sn standard results indicated possible downgrading bias; the laboratory repeated the analysis with satisfactory results. • Historically, Sn content was measured by XRF and using wet 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. Where applicable the following analytical techniques and standards were utilized in chemical testwork. • Selected samples were characterized by X-ray diffraction (XRD) analysis (Bruker, Diffractometer D8 ADVANCE with DAVINCI design) according to DIN 13925. The crystalline phases were identified by an expert using the JCPDS data base (International Centre for Diffraction Data). • The chemical composition was analysed by X-ray fluorescence spectroscopy (XRF, S8 Tiger by Bruker AXS, S4 Pioneer by Bruker AXS) • According to DIN EN ISO 12677. XRF analysis was applied for all solid samples, except for analysis of Li and Rb, which were analysed by ICP after Na_2O_2 fusion. • Moisture content was determined by drying the sample at 105°C in a drying oven according to EN ISO 787-2. • Loss on ignition was determined according to DIN EN ISO 12677 at a temperature of 1,025 °C in a muffle furnace.

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		- The chemical composition of selected samples was analysed by Inductively Coupled Plasma spectrometry (ICP, Varian Vista MPX) according to DIN EN ISO 11885 E22. ICP was applied for all liquid samples. - Li and Rb analysis by chemical digestion of the samples was carried out by sodium peroxide (Na2O2) fusion. Na2O2 was used to oxidize the sample that becomes soluble in a diluted acid solution. Lithium and rubidium analysis was performed by using inductively coupled plasma spectrometry (Varian, Vista MPX). - Particle size, morphology and structure of particles can be visualized by SEM providing valuable information for the interpretation of processing results (e.g. degree of sintering, crystallization). Samples were investigated with a Phenom XL scanning electron microscope with qualitative information on the elemental composition of selected particles determined by EDX. - An additional analytical tool in SEM is the detection of backscattered electrons (BSD). The intensity of backscattered electrons is proportional to the atomic number of the material, thus heavy elements in the sample appear bright while light elements are much less pronounced.
Verification of sampling and assaying	- *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.*	- During the 2014-17 drill campaigns the Company indirectly verified grades of Sn and Li by comparing the length and grade of mineral intercepts with the current block model. - No adjustments or calibrations were made to any primary assay data collected for the purpose of reporting assay grades and mineralized intervals.
Location of data points	- *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*	- In 2014-17, drill collar locations were surveyed by a registered surveyor. - Down hole surveys were recorded by a contractor. - Historically, drill hole collars were

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	control.	surveyed with a great degree of precision by the mine survey crew. - Hole locations are recorded in the local S-JTSK Krovak grid. - Topographic control is excellent.
Data spacing and distribution	- *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.*	- Historical data density is very high. - Spacing is sufficient to establish an inferred resource that was initially estimated using MICROMINE software in Perth, 2012. - Areas with lower coverage of Li% assays have been identified as exploration targets. - Sample compositing to 1m intervals has been applied mathematically prior to estimation but not physically.
Orientation of data in relation to geological structure	- *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.*	- In 2014-17, drill hole azimuth and dip was planned to intercept the mineralized zones at near-true thickness. As the mineralised 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. - The Company has not directly collected any samples underground because the workings are inaccessible at this time. - 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. - Multiple samples were taken and analysed by the Company from the historic tailing repository. Only Li was analysed (Sn and W too low). The results matched the historic grades.
Sample security	- *The measures taken to ensure sample security.*	- In the 2014-19 programs, only the Company'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

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		to the secure Company premises where it was logged and cut. Company geologists supervised the process and logged/sampled the core. The samples were transported by Company personnel in a Company vehicle to the ALS Global laboratory pick-up station. The remaining core is stored under lock and key. Metallurgical samples are transported at times utilizing global carriers. • 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.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Review of sampling techniques possible from written records. No flaws found.

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, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *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.*	• Cinovec exploration rights held under three licenses Cinovec (expires 30/07/2019), Cinovec 2 (expires 31/12/2020) and Cinovec 3 (expires 31/10/2021), all 100% owned, no native interests or environmental concerns. A State royalty applies to metals production and is set as a fee in Czech crowns per unit of metal produced. • There are no known impediments to obtaining an Exploitation Permit for the defined resource.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been no acknowledgment or appraisal of exploration by other parties.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Cinovec is a granite-hosted Sn-W-Li deposit. • Late Variscan age, post-orogenic granite intrusion Sn and W occur in oxide minerals (cassiterite and wolframite). Li occurs in zinnwaldite, a Li-rich muscovite • Mineralisation in a small granite cupola. Vein and greisen type.

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		Alteration is greisenisation, silicification.
Drill hole Information	• *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:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	• Reported previously.
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Reporting of exploration results has not and will not include aggregate intercepts. • Metal equivalent not used in reporting. • No grade truncations applied.
Relationship between mineralisation widths and intercept lengths	• *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').*	• Intercept widths are approximate true widths. • The mineralisation is mostly of disseminated nature and relatively homogeneous; the orientation of samples is of limited impact. • For higher grade veins care was taken to drill at angles ensuring closeness of intercept length and true widths • The block model accounts for variations between apparent and true dip.
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 the Company, and independent consultants. Available in customary vector and raster outputs, and partially in consultant's

Criteria	JORC Code explanation	Commentary
		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.*	- Balanced reporting in historic reports guaranteed by norms and standards, verified in 1997, and 2012 by independent consultants. - The historic reporting was completed by several State institutions and cross validated.
Other substantive exploration data	- *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.*	- Data available: bulk density for all representative rock and ore types; (historic data + 92 measurements in 2016-17 from current core holes); petrographic and mineralogical studies, hydrological information, hardness, moisture content, fragmentation etc.
Further work	- *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale 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.*	- Grade verification sampling from underground or drilling from surface. Historically-reported grades require modern validation in order to improve the resource classification. - The number and location of sampling sites will be determined from a 3D wireframe model and geostatistical considerations reflecting grade continuity. - The geological model will be used to determine if any infill drilling is required. - 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. - No large scale drilling campaigns are required.

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	- *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.*	- Assay and geological data were compiled by the Company staff from primary historic records, such as copies of drill logs and large scale sample location maps. - Sample data were entered in to Excel spreadsheets by Company staff in Prague.

Criteria	JORC Code explanation	Commentary
		• The database entry process was supervised by a Professional Geologist who works for the Company. • The database was checked by independent competent persons (Lynn Widenbar of Widenbar & Associates, Phil Newell of Wardell Armstrong International).
Site visits	• *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.*	• The site was visited by Mr Pavel Reichl who has identified the previous shaft sites, tailings dams and observed the mineralisation underground through an adjacent mine working. • 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	• *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.*	• The overall geology of the deposit is relatively simple and well understood due to excellent data control from surface and underground. • Nature of data: underground mapping, structural measurements, detailed core logging, 3D data synthesis on plans and maps. • Geological continuity is good. The grade is highest and shows most variability in quartz veins. • Grade correlates with degree of silicification and greisenisation of the host granite. • The primary control is the granite-country rock contact. All mineralisation is in the uppermost 200m of the granite and is truncated by the contact.
Dimensions	• *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.*	• The Cinovec South deposit strikes north-south, is elongated, and dips gently south parallel to the upper granite contact. The surface projection of mineralisation is about 1 km long and 900 m wide. • Mineralisation extends from about

Criteria	JORC Code explanation	Commentary
		200m to 500m below surface.
Estimation and modelling techniques	- *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 elements or other non-grade variables of economic significance (eg 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.*	- Block estimation was carried out in Micromine using Ordinary Kriging interpolation. - 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). - Analysis of sample lengths indicated that compositing to 1m was necessary. - Search ellipse sizes and 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%; no 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, swathe plots and production reconciliation.
Moisture	- *Whether the tonnages are estimated on a*	- Tonnages are estimated on a dry

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	dry basis or with natural moisture, and the method of determination of the moisture content.	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.*	- A series of alternative cutoffs was used to report tonnage and grade: Sn 0.1%, 0.2%, 0.3% and 0.4%. Lithium 0.1%, 0.2%, 0.3% and 0.4%.
Mining factors or assumptions	- *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 explanation of the basis of the mining assumptions made.*	- Mining is assumed to be by underground methods. A Scoping Study was used at the time of calculating the Resource to determine the optimal mining method. - Limited internal waste will need to be mined at grades marginally below cutoffs. Mine dilution and waste are expected at minimal levels and the vast majority of the Mineral Resource is expected to convert to an Ore Reserve. - Based on the geometry of the deposit, it was envisaged that a combination of drift and fill mining and longhole open stoping would be used, this has been confirmed in the PFS.
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.*	- Previous testwork on 2014 drill core indicates an Sn recovery of 80% can be expected. - Testwork on Li has been completed for various flowsheets with 80% recovery of Li to lithium carbonate or hydroxide products via magnetic concentration, roasting and atmospheric leach reported. - Extensive testwork was conducted on Cinovec South ore in the past. Testing culminated with a pilot plant trial in 1970, where three batches of Cinovec South ore were processed, each under slightly different conditions. The best result, with an Sn 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

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		demonstrated that Li can be extracted from the ore (lithium carbonate was produced from 1958-1966 at Cinovec).
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.*	• 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.
Bulk density	• *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 different materials.*	• Historical bulk density measurements were made in a laboratory. • The following densities were applied: ○ 2.57 for granite ○ 2.70 for greisen ○ 2.60 for all other material
Classification	• *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.*	• Following a review of a small amount of available QAQC data, and comparison of production data versus estimated tonnage/grade from the resource model, and given the close spacing of underground drilling and development, the majority of the Sn resource was originally classified in the Inferred category as defined by the 2012 edition of the JORC code. • The new 2014 and 2016-17 drilling has confirmed the Sn mineralisation model and a part of this area has been upgraded to the Indicated category. • The Li% mineralisation has been assigned to the Inferred category where the average distance to composites used in estimation is less

Criteria	JORC Code explanation	Commentary
		than 100m. Material outside this range is unclassified but has been used as the basis for an Exploration Target. - The new 2014 and 2016-17 drilling has confirmed the Lithium mineralisation model and a part of this area has been upgraded to the Indicated category. - The Competent Person (Lynn Widenbar) endorses the final results and classification.
Audits or reviews	- *The results of any audits or reviews of Mineral Resource estimates.*	- 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".
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 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 used.* - *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	- In 2012, Wardell Armstrong International 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. - 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. - Swathe 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 0.1% cut-offs for both Sn and Li assays were - Overall Swathe plots illustrate a good correlation between the composites

Criteria	JORC Code explanation	Commentary
		and the block grades. As is visible in the Swathe 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.