

**Cadence Minerals Plc**  
**("Cadence Minerals", "Cadence", or "the Company")**

**European Metals Holdings- Cinovec Lithium Project Update**

Cadence Minerals (AIM: KDNC) is pleased to note the announcement by European Metals Holdings Limited (ASX & AIM: EMH) ("European Metals" or the "Company" regarding the Cinovec Lithium Project (Cinovec). EMH advises that the timeline for the completion of the Definitive Feasibility Study ("DFS") and therefore construction of the Cinovec lithium processing plant continue to be worked on.

Given the change to the location of the lithium processing plant from Dukla to Prunérov, additional geotechnical work is currently underway to confirm the optimal construction method and layout at the new site. Results from this geotechnical work are expected to be available at the end of September. DRA Global is then expected to provide a detailed timeline and begin the DFS finalisation program of work.

EMH will provide a further update to the market once it has received a revised timeline for completion of the DFS.

The Project team continues to progress several DFS-related programs on the Front-End Comminution and Beneficiation circuit ("FECAB") and Lithium Chemical Plant circuit ('LCP") to improve the overall flowsheet which are expected to positively impact Project economics.

**Process Flowsheet Improvements - FECAB**

EMH previously announced changes to the FECAB process flowsheet from beneficiation based entirely on magnetic separation to a process incorporating both magnetic separation and flotation. This improvement yielded a total FECAB lithium recovery of >87%, with 7-8% lost to the fines fraction and the balance of 5-6% losses due to process inefficiency. By mass, the proportion of the ore recovered to concentrate achieved was 30% of the total feed and the grade of the concentrate entering the LCP was 1.198% lithium (2.58% Li<sub>2</sub>O).

To improve FECAB performance, targeting a higher-grade concentrate, additional flotation testwork has been carried out. Representative ore samples were utilised, milled to P80<150µm and tested without removing the <20µm slimes fraction before flotation.

Results, benefits and impacts of this testwork are:

- Potential for complete elimination of the magnetic separation step from the FECAB flowsheet;
- Flotation process without desliming has been successfully optimised, which improves the recovery of zinnwaldite from the <20µm fraction whilst not impacting reagent consumption or other process beneficiation performance factors;
- A capability to deliver overall FECAB lithium recovery improvements from >87% to >94.7%, proven on a repeated basis;
- Uplift in concentrate grade from 1.198% Li (2.58% Li<sub>2</sub>O) to produce almost pure zinnwaldite concentrate with average grade of 1.46% Li (3.14% Li<sub>2</sub>O);
- The grades of concentrate produced in the flotation testwork are the highest to date, based on the recoveries achieved and mass rejection (of gangue) of 80% on average;
- The flotation testwork program was carried out at neutral pH and there was no need for chemical addition to adjust pH;
- The above results are from repeated locked cycle testwork;
- The locked cycle testwork achieved optimisation of recirculation in the flotation circuit, such that the final circuit contained only a single recirculation stream;
- The improved lithium grade and purity of concentrate recovered are expected to significantly impact both the operating costs per tonne ("Opex/t") of battery-grade end-product as well as the capital expenditure per tonne ("Capex/t") for the LCP;

- The results of this recent testwork have translated into impacts on the DFS which include re-sizing of kilns for roasting the concentrate and reagent and energy consumption reductions for the same overall process outputs, with the intensive magnetic separation plant Capex/t and Opex/t eliminated;
- Expected economic improvements include a reduction in roasting reagents (gypsum, limestone and sodium sulphate) required for the same output;
- The purity of the flotation concentrate achieved further supports production of exceptionally clean battery-grade end products for Cinovec;
- A flotation-only process simplifies the FECAB operationally (in addition to reducing Capex/t and Opex/t);
- The measured Particle Size Distribution ("PSD") of the flotation concentrate is close to the ideal PSD for kiln feed.

As a result, the need for a concentrate regrind mill currently in the process flowsheet is being re-assessed.

The flotation testwork has yielded excellent results and the Project team is now considering the full ramifications in bulk materials handling, tailings storage and backfilling, should a positive decision be made to change the FECAB process flowsheet to 100% flotation beneficiation. EMH will provide an update when a decision has been made.

#### **Process Flowsheet Improvements - Lithium Chemical Plant**

The principal roasting reagents mixed with lithium-bearing ore (zinnwaldite) concentrate, as stated above, are gypsum, limestone and sodium sulphate. The LCP process produces a waste stream of mixed sulphate, including sodium sulphate, potassium sulphate, rubidium sulphate, with a residual component of lithium sulphate derived from lithium which is not converted into lithium phosphate during its first pass through the lithium phosphate reactor tank.

EMH has recently managed locked cycle tests that demonstrate the effects of replacing sodium sulphate roasting reagent entirely with the mixed sulphate waste stream, targeting reduced overall reagent consumption.

Nine locked cycles were performed with fully-representative zinnwaldite concentrate roasted in each test. This testwork was undertaken at Nagrom Laboratories in Perth, WA.

These tests have been successful, with the overall lithium recovery in the LCP circuit remaining in the previously announced range of 88-93%.

The recycling of this mixed sulphate waste stream is a key component of the patent pending for the Cinovec LCP process.

The benefits and impacts of this optimisation testwork of the LCP circuit are:

- Elimination of sodium sulphate as a roasting reagent, reducing Opex/t for the project;
- Lithium not recovered in its first pass through the lithium phosphate reactor tank circuit is reprocessed, enabling higher overall lithium recovery. Modelling, based on the results of cycles 5 and 6 of the 2022 Locked Cycle Test program assuming fresh, pure (>98%) sodium sulphate addition upfront, estimates the amount of lithium lost to the mixed sulphate waste stream as 1.2%. This is now available for recovery in the revised LCP circuit design; and
- Reduction in the overall mixed sulphate waste stream required to be onwards-treated has been achieved, further reducing Opex/t of the end-product.

The updated LCP circuit design with recycling of mixed sulphate into the roast mix results in recycling of approximately 50% of the total mixed sulphate produced. The remaining mixed sulphate will be reprocessed as waste.

#### **Land Acquisition at Dukla Transport Hub**

Geomet s.r.o., the Cinovec Project holding company, has acquired the land and buildings of the disused Lesní Brana railway station, proximate to the proposed Dukla transport hub. This site is expected to be cleared and used for the control room for rail operations in and out of the Dukla transport hub, which will handle run-of-mine crushed ore (<70mm) onto trains for transport to the Prunéřov lithium processing plant site and, in the reverse direction, handle backfill material to then be transported by conveyor to the mine portal area for use as mine backfill.

The DFS continues to work towards optimising and maximising the planned mine production and ore transfer by rail to the change of Cinovec processing plant site away from Dukla to Prunéřov. This has enabled the Project team to review maximising the mine outputs and ore transfer by rail utilising only a small proportion of the area available at Dukla and not disturbing existing industrial users at Dukla. This optimisation is not expected to result in an increase in the rail fleet as reagent deliveries are no longer required at the Dukla site.

#### **Just Transition Fund**

Representatives of Geomet met with the Regional Standing Conference ("RSK"), in the Czech Republic which is one of the

bodies that approves and recommends Just Transition Fund ("JTF") support,

Geomet has submitted an initial application for funding of a part of the project (called a "sub-project"), which initially included the preliminary mine portal area works - a box-cut (mine entrance), an exploration adit, work on a portal access road. These construction works are able to take place under the existing exploration licenses and not requiring an Environmental Impact Assessment ("EIA"). The total initial grant requested from the JTF has in turn been reduced from CZK 1.12 billion to CZK 0.8 billion (approximately EUR 31 million).

The RSK meeting has recommended the sub-project for JTF support. The next step will be the final funding approval by the Ministry of Environment.

Link [here](#) to view the full EMH announcement

## Cinovec Lithium/Tin Project

Geomet s.r.o. controls the mineral exploration licenses awarded by the Czech State over the Cinovec Lithium/Tin Project. Geomet has been granted a preliminary mining permit by the Ministry of Environment and the Ministry of Industry. The company is owned 49% by EMH and 51% by CEZ a.s. through its wholly owned subsidiary, SDAS. Cinovec hosts a globally significant hard rock lithium deposit with a total Measured Mineral Resource of 53.3Mt at 0.48% Li2O and 0.08% Sn, Indicated Mineral Resource of 360.2Mt at 0.44% Li2O and 0.05% Sn and an Inferred Mineral Resource of 294.7Mt at 0.39% Li2O and 0.05% Sn containing a combined 7.39 million tonnes Lithium Carbonate Equivalent and 335.1kt of tin.

Cadence Minerals holds approximately 2.52% per cent of the equity in European Metals Holdings.

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### Qualified Person

Kiran Morzaria B.Eng. (ACSM), MBA, has reviewed and approved the information contained in this announcement. Kiran holds a Bachelor of Engineering (Industrial Geology) from the Camborne School of Mines and an MBA (Finance) from CASS Business School.

#### **Cautionary and Forward-Looking Statements**

Certain statements in this announcement are or may be deemed to be forward-looking statements. Forward-looking statements are identified by their use of terms and phrases such as "believe", "could", "should", "envise", "estimate", "intend", "may", "plan", "will", or the negative of those variations or comparable expressions including references to assumptions. These forward-looking statements are not based on historical facts but rather on the Directors' current expectations and assumptions regarding the company's future growth results of operations performance, future capital, and other expenditures (including the amount, nature, and sources of funding thereof) competitive advantages business prospects and opportunities. Such forward-looking statements reflect the Directors' current beliefs and assumptions and are based on information currently available to the Directors. Many factors could cause actual results to differ materially from the results discussed in the forward-looking statements, including risks associated with vulnerability to general economic and business conditions, competition, environmental and other regulatory changes actions by governmental authorities, the availability of capital markets reliance on key personnel uninsured and underinsured losses and other factors many of which are beyond the control of the company. Although any forward-looking statements contained in this announcement are based upon what the Directors believe to be reasonable assumptions. The company cannot assure investors that actual results will be consistent with such forward-looking statements.

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