CARINA MODULE IONIC CLAYS ARRIVE AT OUR PILOT PLANT IN CHILE FOR HEAVY RARE EARTHS CARBONATE PRODUCTION

TORONTO, ON, December 20, 2023 – Aclara Resources Inc. ("Aclara" or the "Company") (TSX: ARA) is pleased to announce that the 25-tonne shipment of ionic clays extracted from its Carina Module deposit located in Goiás, Brazil, (the "Project") has successfully arrived at its fully owned pilot plant facility in Concepción, Chile. The Company will start the piloting operation at the end of December and aims to complete it at the end of February 2024.

Piloting Objectives

- **Semi-industrial scale processing:** To assess the compatibility of the patented Circular Mineral Harvesting technology with the Carina Module ionic clays on a semi-industrial scale.
- **Production of heavy rare earth carbonate samples for commercial purposes:** To produce a premium heavy rare earths carbonate product and initiate discussions with potential separators and other commercial stakeholders.
- **Optimization of processing flowsheet:** To evaluate the process flowsheet modifications identified during the piloting campaign conducted in 2023 with the Penco Module ionic clays. The objective is to ensure these modifications facilitate the production of an end product that is more conducive to the subsequent Rare Earth Element (REE) separation stage.
- **Continued demonstration of environmental attributes:** Revalidate the Circular Mineral Harvesting methodology, wherein 95% of the water and 99% of the primary reagent (ammonium sulfate) employed in the extraction process are recycled, thereby preventing the generation of liquid residues and eliminating the necessity for a tailings storage facility.

Aclara COO, Barry Murphy, commented:

"Following the release of the mineral resource estimate for the Carina Module, we are looking to initiate commercial discussions while commencing the production of heavy rare earth carbonate samples over the next two months at our piloting facilities in Chile. We have confidence in the outstanding quality of this asset and remain dedicated to accelerating the project development process across all disciplines to expedite the asset's production at the earliest feasible time."



Fig. 1. Aclara's Pilot Plant in Concepcion, Chile and receipt of the ionic clay shipment from the Carina Module in Goiás, Brazil

This update follows the successful completion of our initial piloting operation for the Penco Module ionic clays in September of this year where a total of 120 tonnes of ionic clays were processed, leading to the production of approximately 107 kilograms of wet, high-purity Heavy Rare Earth Elements ("HREE") carbonate. The pilot operation also underscored the sustainability attributes inherent in Aclara's Circular Mineral Harvesting process.

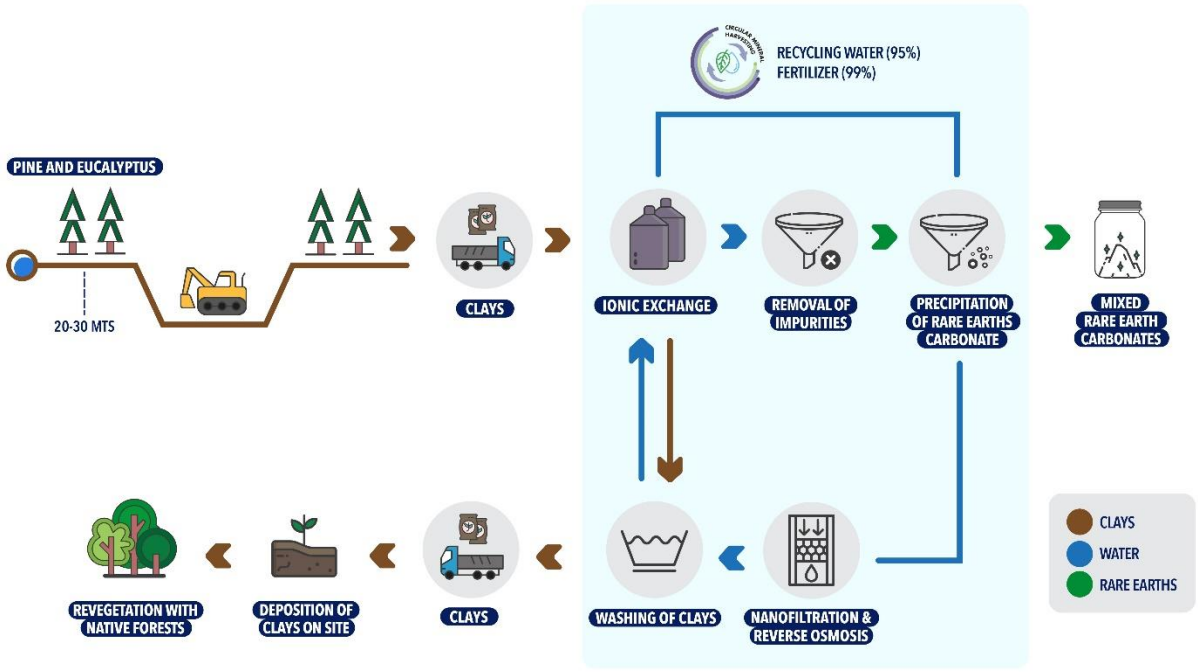


Fig. 2. Aclara's Rare Earths extraction process - Circular Mineral Harvesting

The Carina Module

On October 11, 2023, the Company announced the discovery of the Carina Module, its new heavy rare earth deposit hosted in ion-adsorption clays in Goiás, Brazil. The discovery was made through the successful completion of an initial auger drilling campaign, which on December 12, 2023, confirmed (i) a large mineral resource estimate (MRE) of 168 million tonnes of inferred category with a NSR value of US$32.3/t[1], (ii) prospective heavy and light rare earth grades resulting in significant quantities of dysprosium (Dy), terbium (Tb), neodymium (Nd) and praseodymium (Pr), which are the rare earth elements critical to the production of permanent magnets used in electric vehicles and wind turbines, (iii) metallurgical compatibility with the technology patented and successfully demonstrated on a pilot scale by Aclara in Chile, designed to minimize both cost and environmental footprint, and (iv) the growth potential of the deposit at depth as the average drill depth of the MRE was only 8.1 metres and did not consistently reach the bottom limits of the mineralization.

The short-term catalysts for the Carina Module project development will be (i) the production of samples by processing the Project's ionic clays at Aclara's pilot plant in Chile from December 2023 until the end of February 2024, (ii) the completion of a Preliminary Economic Assessment ("PEA") in January 2024, and (iii) pursuit of additional resources at depth through the completion of a 9,090-meter reverse circulation ("RC") drilling campaign, which is already underway and scheduled to be completed in Q2 2024.

[1]Cut-off NSR of US$7.4/t

About Aclara

Aclara Resources Inc. (TSX: ARA) is a development-stage company that focuses on heavy rare earth mineral resources hosted in Ion-Adsorption Clay deposits. Its primary project is known as the Penco Module and is located in the BioBio Region of southern Chile. The Company is also evaluating a second module, the Carina Module, located in the State of Goiás in central Brazil.

Presently, Aclara has a strong focus on the development, construction, and future operation of the Penco Module, with the primary objective of establishing a processing plant designed to produce heavy rare earths carbonate.

Aclara's extraction process offers several environmentally attractive features. It does not involve blasting, crushing, or milling. Additionally, it does not generate tailings, eliminating the need for a tailings storage facility. The Company utilizes 100% recycled water and minimizes water consumption through high levels of water recirculation. The ionic clay feedstock is amenable to leaching with a fertilizer, and harmful radionuclides are not concentrated.

Simultaneously, alongside the development of the Penco Module, the Company intends to identify and evaluate further opportunities, such as the Carina Module, for increasing production of heavy rare earth elements. This will involve intensive greenfield exploration programs and the development of additional project "modules" within the Company's concessions in Brazil, Chile and Peru.

Forward-Looking Statements

This news release contains "forward-looking information" within the meaning of applicable securities legislation, which reflects the Company's current expectations regarding future events, including statements with regard to: piloting production timing, processing compatibility at a semi-industrial scale, quality of the Carina Module commercial product, improved results based on the process flowsheet optimizations and the expectations of the Company's management as to the results of such piloting works. Forward-looking information is based on a number of assumptions and is subject to a number of risks and uncertainties, many of which are beyond the Company's control. Such risks and uncertainties include, but are not limited to risks related to operating in a foreign jurisdiction, including political and economic problems in Chile and Brazil; risks related to changes to mining laws and regulations and the termination or non-renewal of mining rights by governmental authorities; risks related to failure to comply with the law or obtain necessary permits and licenses or renew them; compliance with environmental regulations can be costly; actual production, capital and operating costs may be different than those anticipated; the Company may be not able to successfully complete the development, construction and start-up of mines and new development projects; risks related to mining operations; and dependence on the Penco Module and/or the Carina Module. Aclara cautions that the foregoing list of factors is not exhaustive. For a detailed discussion of the foregoing factors, among others, please refer to the risk factors discussed under "Risk Factors" in the Company's annual information form dated as of March 28, 2023, filed on the Company's SEDAR+ profile. Actual results and timing could differ materially from those projected herein. Unless otherwise noted or the context otherwise indicates, the forward-looking information contained in this news release is provided as of the date of this news release and the Company does not undertake any obligation to update such forward-looking information, whether as a result of new information, future events or otherwise, except as expressly required under applicable securities laws.

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