Critical minerals' dark horse Elcora gallops toward near-term graphite, manganese, and vanadium production

written by Tracy Hughes | November 28, 2022

Recently I heard Troy Grant President, CEO & Director from Elcora Advanced Materials Corp. (TSXV: ERA | OTCQB: ECORF) ("Elcora") speak at the Critical Minerals Summit in Toronto hosted by the CMI. Having followed Elcora since 2013, I was reminded of what an inciteful business leader Troy is. Participating on a panel titled **Dealing with the Resource Challenge. The Critical Minerals Shortage**, I quickly confirmed that manganese is listed on the critical minerals list for the USA, Canada, and Australia and prepared this summary on where Elcora is today.

Elcora has been structured to become a vertically integrated battery materials company. As part of the vertical integration strategy, Elcora has developed a cost-effective process to purify high-quality battery metals and minerals that are commercially scalable.

Focused on extracting plus refining battery raw materials to produce high-value end products in the battery supply chain, the three key battery metals that Elcora is involved in are graphite, manganese, and vanadium. They also have exposure to anode materials and graphene.

Ragedara Graphite Mine, Ragedara Processing Facility, and anode powder producer

Elcora holds a 40% position in the Ragedara Graphite Mine 3 hour's drive from Colombo, Sri Lanka. Elcora states "at the present time, the mine could produce and yield about 500 tonnes of graphite per year." The Mine is an underground mine with high graphite grades in the form of high-purity aggregates of crystals.

The Company's first graphite processing plant is located near the Ragedara mine in Sri Lanka. This facility performs 4 refining activities: grinding, flotation, dewatering, and product load-out. The fully refined graphite has a purity of over 99% and size range between 5 microns to 1 millimeter.

Elcora's processes require no acids or alkaline systems and result in no environmentally damaging productions, by products or waste. This makes Elcora one of the most environmentally friendly graphite producers.

Investors can view a video showing the Ragedara Graphite Mine and Processing Facility here.

Elcora also aims to be increasingly vertically integrated and has already developed proprietary processes that produce high quality anode powder for lithium-ion battery anodes. Elcora also produce graphene at their Canadian subsidiary (Graphene Corp.) R&D facility located in Canada. These are higher value specialty materials with a rapidly rising demand profile.

Atlas Fox Manganese Deposit in Morocco

Elcora 100% owns the 16 km² Ermazon Manganese concession which holds the Atlas Fox Manganese Deposit. As announced on November 15, 2022, Elcora is now preparing a mining plan for manganese production. The exciting part is the high manganese grades, where manganese masses were recently tested and resulted in between 16% and 50% grades, with an average grade of 34%. The Deposit is easily accessible for surface deposit mining with the mining area accessible via public road. The mining method will initially be open pit, the production potential run rate at the Atlas Fox Deposit is thought to be approximately 2,500 metric tonnes/month.

Elcora stated: "Heavy machinery and production equipment are already being shipped on-site. The Atlas Fox Deposit had been mined until the mid-fifties when the French rule in Morocco came to an end leaving on-site about 40 extracted Manganese ore piles and numerous surface veins and pits……..Our local Moroccan team is diligently working on getting the last Government requirements with the objective to start production before the

end of 2022.” That certainly is a fast moving mining plan.

Atlas Lion Vanadinite Polymetallic Deposit

Elcora owns 17 polymetallic/vanadium licenses over 304 km^2, which include a former vanadium mine, at their Atlas Lion Vanadinite Polymetallic Deposit in Morocco. All polymetallic research licenses contain the mineral vanadinite, which contains high levels of lead, vanadium and traces of cobalt, copper, tantalum and other metals.

On June 14, 2022 Elcora announced a first resource report for their Atlas Lion Vanadinite Polymetallic Deposit. The announcement stated: “The three structures were identified over a length of 2.5km representing a total of 772.000 tonnes of Mineral of which 463.000 tonnes account as indicated resources and 309.000 tonnes of inferred resources according to National Instrument 43-101. The fourteen (14) tested samples results averaged 36,52% Lead (Pb) and 4,125% Vanadium (V) with a maximum of 50,76% Pb and 6,66% V.”

Closing remarks

Elcora offers investors exposure to graphite production and potential near term production of manganese and vanadium. All three are key elements in the various types of batteries such as lithium-ion and vanadium redox flow. They are also key metals involved in the steel industry, meaning the demand drivers are at least twofold. Elcora is also already able to produce downstream value-added products such as anode materials and graphene.

Elcora Advanced Materials Corp. trades on a market cap of only C$7.5 million. Definitely a company that should be on investor's radar.