## Elcora Ramps Up Manganese Sales with Vanadium Prospects on the Near-Term Horizon

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Elcora Advanced Materials Corp. (TSXV: ERA) ("Elcora") is a relatively new manganese ore producer and has other battery material projects containing vanadium, graphite, and copper located in Morocco and Canada. Elcora also has exposure to anode materials and graphene. Demand for manganese remains strong both for the steel industry, but also for lithium-ion batteries containing manganese, typically used for electric vehicles.

Elcora's goal is to be a globally competitive extractor and processor of battery-grade minerals and metals. They plan to do this by becoming a vertically integrated battery materials company and use their cost-effective process to purify high-quality battery metals and minerals that are commercially scalable.

How Elcora is anticipating and responding to the Global Energy Revolution



Source: Elcora Advanced Materials company presentation

### Manganese production has started in Morocco and new orders are rolling in

As <u>announced</u> in June 2023, Elcora delivered its first manganese order of 500 metric tons of 37%+ high-quality manganese from their Morocco Mine. Elcora owns the Atlas Fox Project in Morocco, which includes the Beni Mellal Manganese Deposit/Mine and the Ouarzazate Project (includes the Omar Mine). Elcora plans to rapidly ramp up their manganese production from these projects with an 8-12 month production target of 20,000 tonnes per month of 37% manganese ore.

As <u>announced</u> on July 6, 2023, Elcora has secured two more orders for a total of 1,500 metric tons of 37%+ manganese ore set to be delivered by the end of July 2023, thereby securing sales revenue for the second month in a row for Elcora.

## Vanadium production plans with sales potentially as soon as only 6 months away

Elcora is currently developing their Atlas Lion Vanadium Project in Morocco.

Elcora <u>announced</u> in June 2023 the completion of the first phase of vanadinite comminution testing. The result was 8.9% vanadium concentrate. Elcora then began shipping bulk samples for trial tests in smelters in Asia and Europe, and if results come back positive Elcora say they could potentially have concentrate sales revenue in as quick as <u>6 months</u>.

The short-term plan is to build a semi-mobile concentrator plant to produce a 46% lead ("Pb") and 9%+ vanadium ("V") concentrate, with a ramp up to 2,500t/month of concentrate production. Elcora's mid-term plan is to build a hydrometallurgical plant scheduled to produce 1,500 t/year of 99.99% V and 15,000t/year 99.99% Pb.

#### Elcora's graphite products

In addition to manganese, vanadium and lead; Elcora has developed the technology to produce flake graphite, advanced natural graphite anode powder and graphene. Elcora states:

"Elcora has developed a unique low-cost effective process to make commercially scalable graphite nanomaterials ranging from micro-graphite to graphene."

Flake graphite and anode powder are in growing demand for electric vehicles and energy stationary storage where the

graphite is used in the anode part of the battery. Graphene has numerous potential uses and is known as a new wonder material.

#### Elcora states:

"Elcora has been structured to become a vertically integrated graphite & graphene company that <u>mines</u>, <u>processes</u>, refines graphite, and produces both the graphene and end graphene applications. Elcora's graphene production system is suitable for use with many different graphite sources and has produced industry-leading quality graphene."

#### Closing remarks

Elcora is executing well on their plans to become a vertically integrated battery materials company. Elcora already has a strong history within the flake graphite, anode powder, and graphene sectors.

Near-term catalysts will be further sales revenue of manganese concentrate from their Moroccan Mine and potentially good news on their vanadium concentrate smelting trials. Looking out a year or so from now Elcora should potentially have ramped up their vanadium concentrate production to 20,000t/month and vanadium concentrate to 2,500t/month. Beyond that, the plan is to potentially produce a final product via more processing thereby value adding to their current situation.

Elcora Advanced Materials trades on a market cap of only <u>C\$6</u> <u>million</u>. Exciting times for Elcora, especially if they can continue to execute well and bring in growing revenues in 2023.

# Multitasking across the critical material supply chain, Auxico Resources is focused on rare earths in Colombia

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Every once in a while, I get to discuss a company of which it is hard to capture the true essence. For the most part, when we look at junior mining (exploration and early development) companies, they are focused either geographically or by resource, but one way or the other, they are a junior mining, basically exploration, company. Occasionally, they are also dabbling in special or creative ways to process the particular ore at the heart of their operations. But today we are going to dig into a company that does all of the above, as well as getting into the marketing and sales of the finished products, whether it be theirs or not. And at first glance, it's almost hard to tell which opportunity has the most upside. Given my background, my bias is the marketing side of things, but I will try and keep an open mind as we dig into this interesting and somewhat unique company.

Without further ado, let's have a look at <u>Auxico Resources</u> <u>Canada Inc.</u> (CSE: AUAG), which is a combination project generator, miner, processor and marketer all rolled up into one. Auxico is a Canadian company, founded in 2014 and based in Montreal, engaged in the acquisition, exploration and development of mineral properties in Colombia, Brazil, Bolivia, Mexico, the Democratic Republic of the Congo and the Ivory Coast

(so far). Across these countries, Auxico is involved in gold, silver, coltan (which I had never even heard of before but is a dull black metallic ore from which the elements niobium (aka, columbium) and tantalum are extracted), iridium, tin, manganese and last but certainly not least a full basket of Rare Earths.

Perhaps you might be starting to get a feel for why this is a tough Company to talk about but wait there's more...a lot more. The Company has numerous agreements in place to market various products to generate cash flow today, which is not typical for a junior mining company. A great example is <u>manganese ore sales</u> from Brazil to India, China and the UAE. Auxico has purchased and sold a total of 15,000 metric tons of manganese ore, with a minimum grade of 46% Mn (~15% net profit margin), as part of two contracts with customers to provide for shipments of up to 120,000 MT per month cumulative of manganese ore. Additional marketing agreements include an MOU for exploitation and commercialization of tantalum, niobium, iridium and tin from industrial sands located in Bolivia, and an LOI for the exploitation and trading of tantalum and iridium in Ivory Coast. These and other similar arrangements serve the company in two ways. As noted, it provides a source of revenue to the Company, so they don't always have to go to the market and raise cash to drill more on their exploration properties and it gets them into the deal flow to potentially acquire interests in some of these mining plays if they so desire.

I also made mention early about being an innovator on the processing side of the equation. On July 30<sup>th</sup> Auxico <u>signed a technology license agreement</u> with Central America Nickel for the use of a patent-pending ultrasound assisted extraction process ("UAEx") for mineral extraction. The UAEx process is a sustainable metallurgical process for the refining of critical minerals using ultrasound technology. In particular, artisanal

gold miners, who produce an estimated 15 million ounces of gold yearly, use mercury in their process plants. The UAEx process is able to extract gold and silver in less than one hour in a closed-loop system and does not use cyanide or mercury, which can solve the environmental issues created by artisanal mining. Additionally, this process will dramatically reduce capital and operating costs as most known metallurgical processes that use sulfuric acid, cyanide or hydrochloric acid do so in a 24-hour cycle. As you could well imagine, this could be Auxico's diamond in the rough, but it might not even be the most exciting aspect of the Company.

I think I've saved the best for last, at least as things currently stand for Auxico, and that's the rare earths project in Columbia. Auxico has <u>discovered high-value rare earths</u> with total rare earth oxide content over 56% at the Company controlled Vichada property. And if that's not good enough, they've also <u>discovered platinum group metals</u> on the property along with tantalum, niobium and tin. The Company has an MOU agreement with the Colombian company Minampro Asociados S.A.S., to earn a 70 % interest. Auxico's partner has an exclusive purchase agreement for industrial sands within 20,000 hectares of land owned by the indigenous community Guacamayas-Maipore.

The graph below is an eye opener:



Source: Auxico Resources MD&A for the period ended June 30, 2021

My head is starting to spin thinking about all the things on the go at Auxico so I will leave it here for now. To summarize they have impressive exploration prospects, a sustainable, environmentally friendly mineral extraction process, and marketing agreements that are already generating revenue. That's quite a bit going on for a company that currently has a market

cap of roughly \$84 million. I don't think I'd even know where to start to try and value all the various parts, but the Columbian assets have definitely caught my eye.