

Pilot Plant Project to Produce Battery Metals Yields Positive First Steps

written by Chris Thompson | March 26, 2021

Last week, [Canada Silver Cobalt Works Inc.](#) (TSXV: CCW | OTC: CCWOF) (“CCW”) announced that [bench-scale test work](#) has yielded positive results in producing a concentrate required for its Re-20x process.

In addition to owning a silver-cobalt exploration project, CCW also owns a proprietary hydrometallurgical process known as Re-20X that can process mineral concentrates into cobalt sulphate, an important component for making Electric Vehicle (“EV”) batteries.

Re-20X Process

The environmentally-friendly Re-20X process, bypasses the smelting process, to produce a cobalt sulphate hexahydrate from feed material such as mineral ore, tailings or recycled batteries.

While the Re-20X process recovers cobalt, manganese, nickel, silver and other metals, it can also remove toxic compounds. The recovered metals can be sold without smelting or further processing.

In 2018, the Company extracted an 82-kg sample of vein material from its Castle Mine in northern Ontario, Canada and sent it to SGS Laboratories in Lakefield, Ontario.

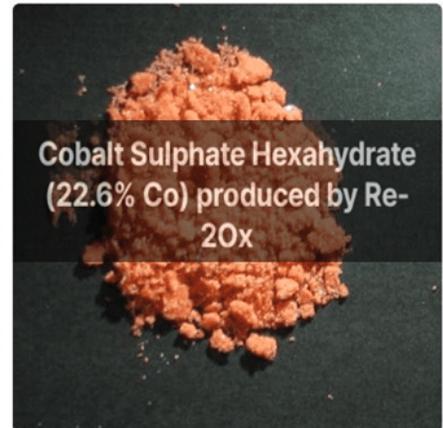
The vein material was processed into cobalt-rich gravity concentrates and then run through the Re-20X process. The

process produced EV battery-grade cobalt sulphate at 22.6% cobalt that exceeded the specifications required by battery manufacturers at that time.

The Re-20X process recovered 99% of the cobalt, 81% of the nickel and 84% of the manganese from the concentrate and, importantly, removed 99% of the arsenic.



Re-20x



[SOURCE:](#)

Battery Metal Pilot Plant Underway

CCW is now working with SGS on a Pilot plant to scale up the Re-20X process for the production of cobalt-nickel-rich gravity concentrates. The Company believes the process can be an economic method of producing, locally sourced, client-specific battery metals for the North American EV market.

The plan calls for the Pilot plant to be built and operated by SGS in Lakefield, Ontario and use silver-cobalt ore from the region including the Castle Mine property.

In May 2020, CCW released a maiden [NI 43-101 mineral resource estimate](#) for the Castle Mine project of 27,400 tonnes of material at an average silver grade of 8,582 g/t (250.2 oz/ton) for a total of 7.56 million Inferred ounces, and 2.54 million cobalt ounces at a grade of 3,260 g/t cobalt.

Frank Basa, CEO and Director commented, “The economics of harvesting both the base metals and silver, then adding value by processing it into premium EV battery metals will provide the Company with two solid income streams and we are excited for the future as the High-Grade and Technology Leader in Canada’s Silver Cobalt Heartland.”

Battery Recycling Using the Re-20x Process

Earlier this month, CCW announced that it has begun studies at SGS Canada to use the Re-20x process to [extract minerals from old batteries](#). The Re-20x process is adaptable to recover rare earth metals from lithium-ion, nickel-hydrate and nickel-cadmium batteries.

“We strongly considered this initiative a few years ago but initial research turned up a lack of feedstock at that time, but this has now changed. With feedstock currently available and coupled with the Re-20x process, the path is clear for the Company to develop what can be a robust and ever-increasing potential income stream by providing future tolling services for the treatment of used batteries,” remarked Frank Basa.

Acquiring EV Properties with the Potential for a Spin-out Battery Metals Company

Last month, CCW announced the acquisition of 39,200 hectares of EV properties in Quebec and Ontario.

The Company also reported that it was their intention to transfer the properties to another public company, in order to capitalize on the current EV market, and to dividend the shares to CCW’s existing shareholders.

Final Thoughts

CCW’s is focusing on becoming a producer of both silver, cobalt

and other battery metals for the North American EV market. With its high-grade silver-cobalt mine and Re-20X process, the Company is well positioned to become a Canadian leader in the production of silver, cobalt and other metals used in the EV industry.

CCW closed yesterday at C\$0.46 with a market cap of C\$56.0 million.