Canada Silver Cobalt Begins Testwork Using Re-2Ox on Granada Gold Mine Rubidium Mineralized Material for the Storage Battery Market

written by Raj Shah | June 30, 2021

June 30, 2021 (Source) – Canada Silver Cobalt Works Inc. (TSXV: CCW) (OTC: CCWOF) (Frankfurt: 4T9B) ("Canada Silver Cobalt") and Granada Gold Mines Inc. ("Granada" or "Granada Gold") (TSXV: GGM) (OTC: GBBFF) (Frankfurt: B6D) are pleased to jointly announce that Canada Silver Cobalt has begun preliminary test work at SGS, Lakefield, Canada on mineralized material from the Granada Gold Mine in Rouyn-Noranda, Quebec.

The planned test work was announced earlier this year (March 30, 2021 joint news release) after Granada Gold announced the unexpected discovery of a rare earth and alkali metals deposit at the Granada property in Quebec during exploration for gold.

Rubidium, one of the discovered alkali metals, showed particularly high assays and potential value based on quoted market prices (March 23 and May 12, 2021 Granada news releases) and therefore is an important part of the focus of the Re-2Ox test work.

Rubidium has numerous applications in various industries (see below), including in sodium-ion batteries which may see significant growth ahead due to their reported cost-effectiveness as stationary energy storage for homes, the grid and data centres.

Frank J. Basa, P.Eng., CEO, commented: “Granada currently expects that rubidium will be treated as a zero-cost, by-product alkali metal recovery from Granada’s gold mineralized resource. The preliminary test program will evaluate the potential recovery of rubidium mineralization and the subsequent amenability of the Re-2Ox process for the leaching and production of rubidium salts. Granada Gold intends to review the viability of suppling rubidium salts as a by-product of gold processing for evaluation into the new fast-evolving sodium-ion storage battery market.”

Planned Re-2Ox testing

A 10-kilogram drill core sample was sent to SGS, Lakefield for mineralogical studies to identify the minerals associated with rubidium. The studies indicated so far that rubidium is likely in the micas and/or K-feldspars. Analytical results returned a grade of 1,238.5 ppm for rubidium. Distinct rubidium minerals do not commonly occur in nature and are almost always associated with feldspars and micas.

The test program at SGS will be undertaken in two stages. The first stage will consist of straight forward flotation followed by leaching using the Re-2Ox process. The second stage is straight leaching using the Re-2Ox process. The test program was developed to target rubidium in the mineralized zones.

Rubidium at Granada

The Rubidium mineralized material at Granada has been found to be on top on the gold-bearing mineralized material that the company is targeting as a gold mineral resource and for mining. Drill hole GR-20-22 was drilled to a depth of 1,626 meters on the Big Claim 1.6 kilometers west on strike from the discovery drill hole GR-20-20 which was drilled to depth of 588 meters. Drill hole GR-20-22 intercepted 21 distinct mineralized zones

ranging in core length from 177 meters to 2.8 meters. Rare earths and alkali metals of note identified to date are caesium (Cs), rubidium (Rb), scandium (Sc), zirconium (Zr), cerium (Ce), gallium (Ga), hafnium (Hf), neodymium (Nd) and strontium (Sr) – others pending. While still to be determined, the company may be in the position of mining the rare earth and alkali mineralized zones to access the gold-bearing mineralized material. The entire size of the rare earth and alkali metals deposit has not yet been determined.

Rubidium in Sodium-Ion Batteries

Rubidium salts have been commonly used as an electrolyte to improve the efficiency cycle of sodium-ion batteries. In recent years, it has been implemented into a larger scale for further technological advances to improve the performance rate and better cyclability in the batteries. Sodium-ion batteries have demonstrated about half the energy density of lithium-ion batteries and have applications as stationary storage like renewable energy for homes and the grid or backup power for data centers, where cost is more important than size and energy density. Currently available information places the cost of sodium-ion batteries to be about 10–20 percent less than lithium-ion batteries.

Sodium-ion batteries use abundant, cheap, and benign materials. In the Earth's crust there is over one-thousand times more sodium than lithium. It also costs less to extract and purify. Sodium metal oxide cathodes are typically used in batteries and the anodes are carbon just like lithium-ion batteries but can be made from plentiful metals such as iron and manganese. The Department of Energy's Advanced Research Projects Agency–Energy in September 2020 awarded Santa Clara, California-based Natron Energy $19.9 million US dollars as part of a new program to fast-track technologies, with the goal of advancing

their commercialization efforts. The batteries are now in low-volume commercial production. Natron's first customers are data centers and telecom companies. Sodium-ion batteries are also more stable and safer than lithium-ion. They have a wider temperature range, are nonflammable, and do not have thermal runaway.

Additional Applications of Rubidium in Industry

Applications for rubidium and its compounds include biomedical research, electronics, specialty glass, and pyrotechnics. Specialty glasses are the leading market for rubidium; rubidium carbonate is used to reduce electrical conductivity, which improves stability and durability in fiber optic telecommunications networks. Biomedical applications include rubidium salts used in antishock agents and the treatment of epilepsy and thyroid disorder; rubidium-82, a radioactive isotope used as a blood-flow tracer in positron emission tomographic imaging; and rubidium chloride, used as an antidepressant. Rubidium atoms are used in academic research, including the development of quantum-mechanics-based computing devices, a future application with potential for relatively high consumption of rubidium. Quantum computing research uses ultracold rubidium atoms in a variety of applications. Quantum computers, which have the ability to perform more complex computational tasks than traditional computers by calculating in two quantum states simultaneously, were expected to be in prototype phase by 2025. Rubidium's photo-emissive properties make it useful for electrical-signal generators in motion-sensor devices, night vision devices, photoelectric cells (solar panels), and photomultiplier tubes. Rubidium is used as an atomic resonance-frequency-reference oscillator for telecommunications network synchronization, playing a vital role in global positioning systems. Rubidium-rich feldspars are used in ceramic applications for spark plugs and electrical

insulators because of their high dielectric constant. Rubidium hydroxide is used in fireworks to oxidize mixtures of other elements and produce violet hues (Source USGS).

Qualified Person

The technical information in this news release was prepared under the supervision of Mr. Frank J. Basa, P.Eng., CEO of Canada Silver Cobalt Works Inc., a qualified person in accordance with National Instrument 43-101.

About Canada Silver Cobalt Works Inc.

The Castle Property is 15 km east of Aris Gold Corp's Juby gold deposit, 30 km due south of Alamos Gold's Young–Davidson mine, 75 km southwest of Kirkland Lake Gold's Macassa Complex, and 100 km southeast of new gold discoveries in the Timmins West area.

Canada Silver Cobalt Works released the first-ever resource in the Gowganda Camp and greater Cobalt Camp in May 2020. A total of 7.56 million ounces of silver in Inferred resources comprising very high-grade silver (8,582 grams per tonne un-cut or 250.2 oz/ton) in 27,400 tonnes of material from two sections (1A and 1B) of the Robinson Zone beginning at a vertical depth of approximately 400 meters were identified. The discovery remains open in all directions (mineral resources that are not mineral reserves do not have demonstrated economic viability) (refer to Canada Silver Cobalt Works Press Release May 28, 2020) Report reference: Rachidi, M. 2020, NI 43-101 Technical Report Mineral Resource Estimate for Castle East, Robinson Zone, Ontario, Canada, with an effective date of May 28, 2020, and a signature date of July 13, 2020).

Canada Silver Cobalt's flagship Castle mine and 78 sq. km Castle Property features strong exploration upside for silver, cobalt, nickel, gold and copper in the prolific past

producing Gowganda high-grade Silver District of Northern Ontario. With underground access at Castle, a pilot plant to produce cobalt-rich gravity concentrates on site, a processing facility (TTL Laboratories) in the town of Cobalt, and a proprietary hydrometallurgical process known as Re-2Ox for the creation of technical grade cobalt sulphate as well as nickel-manganese-cobalt (NMC) formulations, Canada Silver Cobalt is strategically positioned to become a Canadian leader in the silver-cobalt space. More information at www.canadasilvercobaltworks.com

"Frank J. Basa"
Frank J. Basa, P. Eng.
Chief Executive Officer

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. This news release may contain forward-looking statements which include, but are not limited to, comments that involve future events and conditions, which are subject to various risks and uncertainties. Except for statements of historical facts, comments that address resource potential, upcoming work programs, geological interpretations, receipt and security of mineral property titles, availability of funds, and others are forward-looking. Forward-looking statements are not guarantees of future performance and actual results may vary materially from those statements. General business conditions are factors that could cause actual results to vary materially from forward-looking statements.

SOURCE Canada Silver Cobalt Works Inc.

For further information: Frank J. Basa, P.Eng., Chief Executive Officer, 416-625-2342