

# VanadiumCorp Resource Inc. Phase II Production Trials Completed

VANCOUVER, Dec. 19, 2017 /CNW/ - VanadiumCorp Resource Inc. (TSX-V: "VRB") (the "Company") is pleased to announce the completion of Phase II production trials at Electrochem Technologies & Materials Inc. ("Electrochem") facilities located in Boucherville, Quebec. Phase II yielded positive results that demonstrated the great potential for VanadiumCorp-Electrochem chemical technology. Phase II resulted in successful processing of a variety of global feedstocks ranging from magnetite, slags and calcine that related industries cannot process efficiently or avoid the significant release of greenhouse gases.

## Phase II results include:

- Efficient processing of a plethora of feedstocks with 95% of the material being recovered in the case of magnetite
- Recovery of vanadium as vanadyl sulfate used a precursor for the preparation of vanadium electrolyte (VE)
- Demonstration of the full potential of the VanadiumCorp-Electrochem chemical technology for primary production and monetization of waste materials
- Detailed mass and energy balances allowing the calculations of specific energy consumptions for the overall chemical and electrochemical integrated processes
- Titania and silica were recovered as value added byproducts with good marketable values
- Excellent reproducibility with similar yields and recoveries of vanadium, iron, titania and silica products from magnetite from various geographical origins
- Technical and cost-effective confirmation of Electrochem's patented technology (Canadian Patent 2,717,887 C) for electrowinning pure electrolytic iron from the ferrous sulfate heptahydrate (copperas) produced
- Confirmed industrial potential for the fully integrated CO<sub>2</sub> free iron making process for replacing the blast furnace in the iron and steel making industries in global jurisdictions having access to affordable electricity
- Trial production reactor and equipment are located at Electrochem facilities in Boucherville

## The following products were recovered:

- Vanadyl sulfate targeting VanadiumCorp Electrolyte<sup>™</sup>
- Ferrous sulfate heptahydrate (Copperas) to be processed into pure electrolytic iron using Electrochem's patented iron electrowinning technology (Can. Pat. 2,717,887 C)
- Pure red ferric oxide as an alternate recovery option for plant locations facing high electricity cost
- Vanadium oxides and vanadium chemicals
- Titania-rich by-product
- Silica by-product

#### Phase III objectives for 2018 – Further Announcements Pending

- Piloting the technology at client locations using custom designed units mounted onto a skid
- Commercial plant in Canada or internationally
- Global licensing and deployment strategy for the two technologies
- Continued prototype and pilot testing and evaluation of the robustness of the technologies for the vanadium, steel, oil and energy storage industries

#### About VanadiumCorp

The company is developing and exploring licensing potential for an innovative, carbon-free process technology that unlocks a new strategic supply of vanadium and coproducts from virtually any source. Jointly developed and owned with Electrochem, this innovative chemical process allows for integrated and carbon-free recovery of critical metals needed on a global scale. VanadiumCorp also holds a significant NI 43-101 vanadium resource base in mining friendly Quebec, Canada.

#### **About Electrochem**

Electrochem Technologies & Materials Inc. is a private Canadian corporation that invents, develops, patents, scales-up and commercializes proprietary chemical, metallurgical and electrochemical technologies that are innovative, and sustainable. Electrochem owns the exclusive rights for its patented iron electrowinning process worldwide. The company also manufactures industrial electrodes and produces tantalum and tungsten fine chemicals.

# VanadiumCorp Electrolyte<sup>™</sup> is a registered trademark representing the new industry standard. VanadiumCorp is developing as baseline of battery grade quality compliant with international standards.

ON BEHALF OF THE BOARD Adriaan Bakker, President and Chief Executive Officer

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FORWARD LOOKING STATEMENTS: This news release contains forward-looking statements, which relate to future events or future performance and reflect management's current expectations and assumptions. Such forward-looking statements reflect management's current beliefs and are based on assumptions made by and information currently available to the Company. Investors are cautioned that these forward looking statements are neither promises nor guarantees, and are subject to risks and uncertainties that may cause future results to differ materially from those expected. These forward-looking statements are made as of the date hereof and, except as required under applicable securities legislation, the Company does not assume any obligation to update or revise them to reflect new events or circumstances. All of the forward-looking statements made in this press release are qualified by these cautionary statements and by those made in our filings with SEDAR in Canada (available at *WWW.SEDAR.COM*).

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