

# MGX Minerals Announces Phase Two Development of Silicon Based Anode for High-Energy Lithium-Ion Batteries

VANCOUVER, Feb. 26, 2019 /CNW/ - **MGX Minerals Inc.** ("MGX" or the "Company") (CSE: [XMG](#) / FKT: [1MG](#) / OTCQB: [MGXMF](#)) reported today that its collaborative research partnership with the University of British Columbia ("UBC") has completed a comprehensive baseline assessment of metallurgical silicon originating from each of the Company's three silicon projects in southeastern British Columbia. MGX and UBC are working together to develop next-generation Li-ion batteries capable of quadrupling energy density from current 100 Wh/kg up to 400 Wh/kg for use in long-range electric vehicles and grid storage.

With the Phase One assessment completed, Phase two of the collaborative is now underway and will focus on developing a scalable process to upgrade metallurgical silicon originating from MGX's projects to battery-grade silicon anode. The developed silicon anode will serve as a viable replacement over the present graphite anode and enable higher-energy-density lithium-ion batteries for numerous applications, including electric vehicles, grid storage, telecommunication, wireless sensors and more.

## About the Research Initiative

The objective of the MGX/UBC research consortium is to develop a low-cost and scalable method that will fabricate a silicon-based anode to improve the energy density of Li-ion batteries. The two-year research program seeks to focus on 1) fabricating nanostructured silicon using low-cost metallurgical silicon as a feedstock and 2) compositing nanostructured silicon with commercial graphite to develop a high-performance silicon anode. The initial goal of the research is to replace the graphite anode with silicon and complete a hybrid in the short-term which will not require industry retooling. The ultimate goal is to enable next-generation Li-ion batteries capable of quadrupling energy density from current 100 Wh/kg up to 400 Wh/kg for use in long-range electric vehicles and grid storage.

Dr. Jian Liu, Assistant Professor in the School of Engineering at UBC Okanagan, is leading a research group focused on advanced materials for energy storage. Dr. Liu was previously the technical lead for development of surface coating materials by atomic and molecular layer deposition, and their applications in surface and interface engineering on the anode and cathode of Li-ion batteries and beyond, at Western University and Pacific Northwest National Laboratory.

## MGX Silicon Projects

MGX operates [three silicon projects in southeastern British Columbia](#)- Koot, Wonah and Gibraltar. A one-ton sample of quartzite from the Company's Gibraltar project was recently shipped to the independent lab Dorfner Anzaplan ("Dorfner") in Germany for mineralogical analyses. Dorfner conducted X-ray diffraction analysis, chemical analyses through X-ray fluorescence spectroscopy, grain size distribution, mineral processing analysis, automated optical sorting and thermal stability testing. Results indicated that the material, after comminution and classification fraction, is of high initial purity (99.5 wt.-%), making the fraction chemically suitable as medium quality feedstock material for metallurgical-grade silicon production.

## About MGX Minerals Inc.

MGX Minerals is a diversified Canadian resource and technology company with interests in global advanced material, energy and water assets.

Neither the Canadian Securities Exchange nor its Regulation Services Provider (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this release.

## Forward-Looking Statements

*This press release contains forward-looking information or forward-looking statements (collectively "forward-looking information") within the meaning of applicable securities laws. Forward-looking information is typically identified by words such as: "believe", "expect", "anticipate", "intend", "estimate", "potentially" and similar expressions, or are those, which, by their nature, refer to future events. The Company cautions investors that any forward-looking information provided by the Company is not a guarantee of future results or performance, and that actual results may differ materially from those in forward-looking information as a result of various factors. The reader is referred to the Company's public filings for a more complete discussion of such risk factors and their potential effects which may be accessed through the Company's profile on SEDAR at [www.sedar.com](http://www.sedar.com).*

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CNW 03:05e 26-FEB-19