

Lomiko, Graphene Labs and Stony Brook University Project Produces Graphene Supercapacitor Prototype

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VANCOUVER, BRITISH COLUMBIA and NEW YORK, NEW YORK--(Marketwired - Dec 4, 2013) - [Lomiko Metals Inc.](#) (TSX VENTURE:LMR)(PINKSHEETS:LMRMF)(FRANKFURT:DH8B), (Europe: ISIN: CA54163Q1028, WKN: A0Q9W7,) (the "Company") and Graphene Laboratories Inc. ("Graphene Labs") announce they have reached a significant milestone by receiving a prototype [graphene supercapacitor](#) and a report from Stony Brook University and New York State's Center for Advanced Sensor Technology (Sensor CAT). The prototype of the supercapacitor was made using graphene composite material prepared using a proprietary technology developed at Graphene Labs. The measured specific capacitance of the prototype was found to be around 500 Farad per gram of the material. This value is comparable with the best values reported in the literature for a supercapacitor of this type.

The exceptional quality of the Reduced Graphene Oxide ("RGO") electrodes allows expansion of the operating voltage window up to 4 Volts. This allows the density of the energy stored in the supercapacitor to be increased. The device has shown this significant performance due to the high specific surface area as well as high electrical conductivity of the graphene produced from graphite material from the Quatre Milles Graphite Project in Quebec. The achievement paves the way for future commercialization efforts by the two companies under the goals of their Strategic Alliance Agreement ("SAA"). The next step is to have the results examined by interested companies within the industry.

Lomiko announced [May 29, 2013](#) that the Research Foundation of Stony Brook University ("RF"), on behalf of the Advanced Energy Research and Technology Center ("AERTC") and the Center for Advanced Sensor Technology ("Sensor CAT"), as well as Graphene Laboratories, Inc. ("Graphene Labs") had agreed to establish a lasting cooperation aimed at investigating novel energy-based applications of graphene.

On [September 17, 2013](#) Lomiko and Graphene Labs reported that in the first step of the conversion process, natural graphite flakes were oxidized and turned into Graphene Oxide ("GO") by modified Hummer's method. As the result, a stable aqueous dispersion with concentration of 40 grams per liter was obtained. Further, the GO was converted into RGO. The specific surface area of the RGO was found to be 500 square metres per gram and its electrical conductivity 4 (four) S per centimeter. These values are similar or exceeding the values for the RGO obtained from other samples of natural graphite taken for comparison and processed by the same procedure.

The properties of graphene, including its high conductivity, mechanical strength, and high specific surface area, make it an ideal electrode material for electrochemical devices used in clean energy applications such as supercapacitors and next-generation Li-ion batteries. Efficient energy storage is the cornerstone for a resilient and reliable energy transmission grid and a key element of the clean energy system.

Under the SAA signed [February 12, 2013](#), Lomiko and Graphene Labs agreed to co-develop a vertically integrated supply chain that includes a secure supply of high-quality graphite, cost-effective and scalable processing, tight quality control and integration of graphene-based products in end-user products. The end goal is to find commercially viable routes to make graphene-based energy storage devices as well as graphene-based nanocomposite materials. In particular, Graphene Labs and Lomiko recently launched a new venture, Graphene 3D Lab Inc. focused on development of the graphene-based composite materials for applications in 3D Printing.

About AERTC

Located in the Research and Development Park on the campus of Stony Brook University, the Advanced

Energy Incubator is space that is home to companies within the Advanced Energy Center. The Advanced Energy Center (www.aertc.org), a New York Center of Excellence is a true partnership of academic institutions, research institutions, energy providers and companies. Its mission is innovative energy research, education and technology deployment with a focus on efficiency, conservation, renewable energy and nanotechnology applications for new and novel sources of energy.

About Sensor CAT

The New York State Center for Advanced Technology at Stony Brook University (<http://www.usensors.com/SENSORCAT/>), designated by Empire State Development's, Division of Science, Technology and Innovation (NYSTAR), provides intellectual, logistical, and material resources for the development of new product technologies - by facilitating R&D partnerships between New York companies with an in-state footprint and university researchers. The important outcomes are new jobs, new patents, training of students in company product matters, and improved competitiveness for New York State businesses.

Graphene Laboratories Inc. Background

Graphene Laboratories, Inc., located in Calverton, NY, specializes in the manufacture and sale of research materials to R&D markets, with the world's largest selection of advanced and 2D materials. Having been first in the market to introduce graphene materials for research use, the company is working towards industrial-scale production of graphene and graphene-like materials, currently with pilot-scale production capabilities. The team at Graphene Laboratories are recognized experts in graphene materials, with staff regularly presenting at international conferences and exhibitions. Researchers at Graphene Labs also specialize in custom projects and R&D.

Graphene Laboratories Inc. operates both the Graphene Supermarket® (www.graphene-supermarket.com) and Maximum Materials® (www.maximum-materials.com), and is a leading supplier of advanced 2D materials to thousands of customers around the globe. The company offers a wide variety of graphene materials, as well as other advanced 2D nanomaterials such as molybdenum disulfide, tungsten disulfide, and boron nitride products.

For more information on Graphene Laboratories, Inc, visit www.graphenelabs.com or contact them or via email at info@graphenelabs.com.

Graphene 3D Laboratories Inc. Background

Graphene 3D Laboratories Inc., a spin-out of Graphene Laboratories Inc, focuses on development of high-performance graphene-enhanced materials for 3D Printing. For more information on Graphene 3D Labs, Inc, visit www.graphene3Dlab.com.

[Lomiko Metals Inc.](#) Background

[Lomiko Metals Inc.](#) is a Canada-based, exploration-stage company. The Company is engaged in the acquisition, exploration and development of resource properties that contain minerals for the new green economy. Its mineral properties include the Quatre Milles Graphite Property and the Vines Lake property which both have had recent major discoveries.

Daniel Stolyarov, Ph.D. in Physical Chemistry from the University of Southern California, CTO of Graphene Laboratories Inc., has reviewed and approved the scientific and technical content of this release.

On Behalf of the Board

A. Paul Gill, Chief Executive Officer

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