

TORONTO, ONTARIO--(Marketwired - Dec 21, 2016) - [Great Lakes Graphite Inc.](#) ("GLK" or the "Company") (TSX VENTURE:GLK)(OTC PINK:GLKIF)(FRANKFURT:8GL) today announces that the Company has engaged Coulometrics, LLC, a leading provider of energy storage consulting services and advanced battery component manufacturing services, to evaluate GLK flake concentrate for lithium ion battery (LIB) applications and also to demonstrate that GLK flake concentrate is suitable for conversion to a premium grade spherical purified graphite (SPG) material for the lithium ion battery market.

Initial test results received from Coulometrics support the high performance of the natural flake graphite material submitted for analysis by Great Lakes Graphite that meets or exceeds the performance standards needed for use as a lithium ion battery anode material for the evaluated graphite properties.

Analysis of the flake material graphite included: Sieve Analysis, Tap Density, Ash Content Analysis, PIXE impurity analysis, BET Surface Area Analysis, SEM/EDS, and XRD Data crystallite size determination. Electrochemical analysis was also completed on the material by Coulometrics. Slurry-based electrodes were prepared with the GLK flake graphite which was processed into coin cells and tested using galvanostatic methods. The electrochemical tests provide capacity for reversible lithium insertion and irreversible capacity used for first cycle efficiency determination. Coulometrics and Great Lakes Graphite intend to pursue additional development work that will include upgrading the material with spheronization and purification. In addition to yielding test results with higher accuracy, additional work will create sufficient material to construct full-size LIBs that will provide accurate performance and life data useful to lithium ion battery manufacturers.

CEO Paul Gorman said, "We are excited about these results from our work with Coulometrics, an outstanding development partner. Everyone has seen the announcements from major automotive companies regarding their plans for electric vehicles. That trend will drive a requirement for large scale production of consistently high quality battery input materials. By working with partners like Coulometrics, Great Lakes is assembling critical links in the lithium ion battery market supply chain."

Dr. Edward Buiel, President and CEO of Coulometrics, LLC, said, "Spheronizing equipment we installed this year has enabled us to produce and test Coated Spherical Purified Graphite 'C-SPG' from end-to-end within North America. We are now positioned to rapidly advance our C-SPG development efforts and evaluation in full-sized lithium ion batteries. By preparing for large scale manufacturing of high purity micronized graphite, Great Lakes Graphite is putting the critical pieces in place that are required to address the needs of the rapidly growing LIB industry."

The tests were performed at a Spherical Graphite Test Facility that Coulometrics began operating at their battery production and test facility in Tennessee, earlier this year. The spheronizing equipment is used to evaluate and optimize the yield of SPG from various graphite concentrates and to develop next generation and high-yield spheronization technology to meet the demanding cost targets for automotive applications.

Coulometrics is a leading provider of energy storage consulting services and advanced battery component manufacturing services. Dr. Edward Buiel, owner of Coulometrics, has a Ph.D. in Physics and 20 years of experience developing carbon-based materials for lithium ion batteries and supercapacitors. Coulometrics has a unique combination of expertise that includes graphite processing for lithium ion batteries and fuel cell electrode coating, calendaring, cell assembly, and testing.

A copy of the Coulometrics report is available on the Great Lakes Graphite website here:
www.greatlakesgraphite.com/wp-content/uploads/2016/12/Coulometrics-GLK-Report-final.pdf.

Qualified Person / Quality Control

The technical information pertaining to the analysis completed by Coulometrics, LLC that is presented in this news release has been reviewed and approved by Mr. Oliver Peters, M.Sc., P.Eng, MBA, Principal Metallurgist and President of Metpro Management Inc. and a Qualified Person under NI 43-101.

About Great Lakes Graphite: [Great Lakes Graphite Inc.](#) is an industrial minerals company focused on bringing value-added carbon products to a well-defined market.

The Company is party to an agreement for shared use of a portion of an industrial facility located in Matheson, Ontario owned by Northfil Resources Limited, as well as for supply of high quality natural graphite concentrate (see news release dated 03/23/15), which have positioned Great Lakes Graphite to become an emerging domestic manufacturer and supplier of micronized products to a growing regional customer base where pricing and demand continue to rise.

Further information regarding Great Lakes can be found on the Company's website at www.GreatLakesGraphite.com.

Great Lakes Graphite trades with symbol GLK on the TSX Venture Exchange and currently has 123,444,330 shares outstanding.

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

Caution Regarding Forward Looking Information: *Certain statements in this press release may constitute "forward looking information" which involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward looking information. When used in this press release, such forward looking information may use such words as "may", "will", "expect", "believe", "plan" and other similar terminology. Forward looking information is provided for the purpose of presenting information about management's current expectations relating to the future events and the operating performance of the Company, and readers are cautioned that such information may not be appropriate for other purposes. The forward looking statements involve a number of risks and uncertainties. These risks and uncertainties include, but are not limited to, the ability of the Company to fulfill the orders and future orders, regulatory requirements, general economic, market or business conditions and future developments in the sectors of the economy in which the business of Great Lakes operates. The foregoing list of factors is not exhaustive. Please see the Company's financial statements, MD&A and other documents available on www.sedar.com, for a more detailed description of the risk factors. The Company undertakes no obligation to update publicly or revise any forward looking information, whether a result of new information, future results or otherwise, except as required by law.*

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