

Thermal Purification Tests Resulted in Graphite Purity up to 99.997%

TORONTO, ONTARIO--(Marketwired - Aug 15, 2016) - [Great Lakes Graphite Inc.](#) ("GLK" or the "Company") (TSX VENTURE:GLK) (OTC PINK:GLKIF) (FRANKFURT:8GL) announces today the results of thermal upgrading of graphite feedstock material being sourced for the Matheson Micronization Facility. The thermal purification was conducted by TevTech LLC, a leading commercial manufacturer of industrial furnace equipment on graphite feedstock material that was first micronized at a pilot plant facility. A series of tests designed to measure the effect of different operating parameters with the objective of obtaining maximum purity were performed on micronized graphite samples. The samples were then thermally upgraded with the best result returning 99.997% purity.

Highlights:

- Assays confirm that GLK's micronized flake graphite products can be upgraded to 99.99%+ purity, with a thermal purification method
- High purity graphite is required to satisfy requirements of high value markets
- Testing provides data for preliminary estimates of CAPEX and OPEX requirements for a commercial-scale solution, in addition to performance data

CEO Paul Gorman said, "GLK is working with partners who are each well-established industry experts, with the objective of building intellectual capital regarding the purification of our micronized graphite products. While this work is ongoing, initial results have demonstrated that our graphite products can be upgraded to 99% purity and above, using both chemical and thermal methods."

Thermal Purification

Great Lakes Graphite is working with TevTech LLC, a private company based in Billerica, Massachusetts that is a leading commercial manufacturer of high-temperature industrial furnaces. These furnaces are capable of operating at the temperatures that are required to purify graphite to very high levels.

Special purpose graphite crucibles were loaded with samples of micronized flake graphite which were then delivered to the manufacturer's facility. A series of tests were conducted to provide performance data at different temperature levels and other techniques that were used to maximize purity.

Jim MacDonald, Managing Partner at TevTech LLC said, "*We are impressed with the effort and focus of the GLK team to have the ability to explore alternative processes to successfully develop products to meet widely varying customer requirements, especially during a commissioning phase of a production facility. Our partnering efforts have yielded exceptional results by altering existing technology used in other mature high tech applications to design products with custom tailored, superior properties*".

Purification Assay and Analysis Results

Samples from the tests were submitted Evans Analytical Group at their facilities in Liverpool, New York for assay by Glow Discharge Mass Spectrometry ("GDMS"). The samples included: flake graphite concentrate, purified flake graphite concentrate and thermally purified micronized flake graphite.

Ultra-trace amounts of selected elemental contaminants detected in the purified micronized flake graphite sample are shown in parts per million (PPM) in the table below. A copy of the assay certificate for all 73 elements that were analyzed by GDMS analysis can be found in the "GDMS report for MG-4599" on the Product Literature page at the corporate website:

<http://www.greatlakesgraphite.com/customers/product-literature/>

Element Conc (PPM)

Al	0.15
Ca	<0.50
Co	<0.05
Cr	<0.50
Cu	<0.10
Fe	0.26
Mo	0.22
Ni	<0.05

Pb	<0.10
Sb	<0.10
Si	15.00
V	0.13
S	1.50
Zn	<0.10
Assay	99.9976%

CEO Paul Gorman said, "These purification test results are significant in two ways. First, we have demonstrated that the material we will be micronizing at the Matheson Micronization Facility can be upgraded to the very high purity levels required by the highest value applications. Our partners are helping to lay the foundation for further efforts that will generate more detailed CAPEX and OPEX costs."

Vice President of Sales Alan Devaney said "These tests confirm that the graphite we are sourcing can be upgraded using various methods to very high levels of purity. Applications requiring high purity graphite are typically very sensitive to particular types of impurities like vanadium, even in trace amounts. This testing confirms that we have the right product to go after the high value markets and is also providing material for samples. Qualification for the battery market, for example, routinely involves testing that can require up to 18 months. While our near term sales efforts are focused on markets that are more readily accessible, we are also actively working with and getting our product into the hands of battery manufacturers and others who require high purity graphite."

Qualified Person / Quality Control

The technical information pertaining to the analysis completed by Evans Analytical Group 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.

Evans Analytical Group certifications and accreditations can be viewed online, at the following location:
<http://www.eag.com/about/certifications-accreditations/>

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 117,561,978 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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