

THUNDER BAY, ON--(Marketwired - January 27, 2016) - [Zenyatta Ventures Ltd.](#) ("Zenyatta" or "Company") (TSX VENTURE: ZEN) (OTCQX: ZENYF) is pleased to announce significant progress related to the laboratory scale production of graphene from high-purity Albany graphite concentrate by a team of scientists at Lakehead University in Thunder Bay, Ontario, Canada.

Graphene was discovered in 2004 at the University of Manchester, UK. Graphene is a single sheet of pure graphite that is one atom thick, flexible, transparent, stronger than diamonds or steel and is highly conductive. Experts believe that graphene will enable many innovative cleantech applications, including low-cost solar cells, super computers and rapid charge batteries. So far, one obstacle to its widespread use is the high manufacturing cost for high-quality graphene. A lower-cost approach is to use high-purity natural graphite, like Albany graphite, as the starting point.

In 2015, Dr. Aicheng Chen, Professor of Chemistry and Canada Research Chair in Materials and Environmental Chemistry at Lakehead University ('Lakehead'), was awarded a Natural Science and Engineering Research Council of Canada ('NSERC') Collaborative Research and Development ('CRD') grant. The goals of the NSERC CRD project are: (i) to characterize the physical and chemical properties of Zenyatta's Albany graphite; (ii) to understand its electrochemical behaviors; (iii) to modify the Albany graphite for practical applications; and, (iv) to develop advanced carbon nanomaterials like graphene from the Albany graphite. Since the award of the grant, Dr. Chen and his research group have made significant advances in the characterization of Zenyatta's Albany graphite and the development of new materials from it for practical applications.

Dr. Chen and his team have tested various graphene exfoliation techniques on samples of Albany graphite. The research team at Lakehead has been intensively exploring new routes for the generation of high-quality graphene for comparative purposes and to facilitate mass production. Initial results indicate that high quality graphene oxides can be produced from Albany graphite at a laboratory scale. [CLICK HERE](#) of the image of scanning electron microscopic image of the graphene oxide produced from Zenyatta graphite. The graphene oxide produced can be converted to graphene via a simple reduction process. Preliminary graphene yields of approximately 98% from Zenyatta's Albany graphite are very encouraging from these tests.

Dr. Chen commented, "From an analytical perspective, the Albany graphite meets all the stringent requirements for a high-quality product, encompassing high-purity, crystallinity, thermal stability, and high surface area. Interestingly, the crystallinity found in Zenyatta's Albany graphite was greater than that of commercially available graphite samples which were also tested for comparative purposes. These initial studies indicate that there are great potential opportunities for the utilization of this product in multiple practical applications. For example, these graphite derivatives will be explored for their medical, energy and environmental technology applications."

In addition to its incorporation into advanced batteries, graphite and its derivatives (like graphene) have been employed for the development of various sensors and electronic devices. Recent investigations of graphene derived from graphite have demonstrated significantly improved electrochemical performance in these systems due to its unique electronic properties, enhanced surface area, novel mechanical and thermal properties, and chemical stabilities, when compared to the parent graphite. These qualities are very important for emerging high-tech or cleantech applications.

Dr. Bharat Chahar, VP of Market Development for Zenyatta, stated, "The Company is excited with these results and is very pleased to learn that Dr. Chen and his research team have confirmed earlier test results from other academic institutions, like Ben-Gurion University in Israel, and continue to show that Zenyatta's Albany graphite is an ideal source material for graphene production (see News Release dated 24 September 2015). The Company is convinced of the importance of this new and superior material (graphene) and is confident that the amount invested globally on R&D by large corporations and academics will result in eventual commercialization at a large scale. It is important for Zenyatta to play an active role in R&D related to graphene research, by providing Albany graphite test samples to research facilities. While we are optimistic about the potential of graphene in large scale commercial usage, we also believe that graphene requires much technological development before realizing this potential. Additionally, the graphene sector will require advancement in the area of mass production and we are uncertain of the total global demand for this nano-material at this time."

Various analytical techniques were used by Dr. Chen and his team to determine the physical and chemical properties of the Albany graphite, including X-ray diffraction, energy dispersive X-ray spectrometry, surface area analysis, thermogravimetric analysis, and Raman spectroscopy. The electrochemical properties of the Albany graphite were also tested, and results indicate that the electrode potential range and double layer capacitance of this material were comparable to those of graphite samples from leading commercial graphite vendors.

Zenyatta continues to develop its unique Albany graphite deposit in Ontario, Canada. The Company's highly crystalline graphite deposit is situated 30 km north of the Trans-Canada Highway, power line and natural gas pipeline near the communities of Constance Lake First Nation and Hearst. A rail line is located 70 km away with an all-weather road approximately 10 km from the graphite deposit. The world trend is to develop products for technological applications that need extraordinary performance using ultra-high purity graphite powder at an affordable cost. High-purity and highly crystalline graphite material is gaining prominence in the cleantech sector at a time when Zenyatta discovered an igneous-related, fluid-derived graphite deposit. Albany graphite can be upgraded with very good crystallinity without the use of aggressive acids (hydrofluoric) or high temperature thermal treatment therefore having an environmental advantage over other types of upgraded high-purity graphite material.

Dr. Bharat Chahar, P.E., VP Market Development for Zenyatta, is a Qualified Person for the purposes of National Instrument

43-101 and has reviewed, prepared and supervised the preparation of the technical information in this news release. To find out more on [Zenyatta Ventures Ltd.](http://www.zenyatta.ca), please visit website www.zenyatta.ca or contact the Company at info@zenyatta.ca or Tel. 807-346-1660.

CAUTIONARY STATEMENT: This analysis does not represent a statistically large sample size. Furthermore, these positive results do not mean that Zenyatta can extract and process Albany graphite for graphite applications on an economic basis. Without a formal independent feasibility study, there is no assurance that the operation will be economic.

CAUTIONARY STATEMENT: Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. This news release may contain forward looking information and Zenyatta cautions readers that forward looking information is based on certain assumptions and risk factors that could cause actual results to differ materially from the expectations of Zenyatta included in this news release. This news release includes certain "forward-looking statements", which often, but not always, can be identified by the use of words such as "believes", "anticipates", "expects", "estimates", "may", "could", "would", "will", or "plan". These statements are based on information currently available to Zenyatta and Zenyatta provides no assurance that actual results will meet management's expectations. Forward-looking statements include estimates and statements with respect to Zenyatta's future plans, objectives or goals, to the effect that Zenyatta or management expects a stated condition or result to occur, including the expected timing for release of a pre-feasibility study, the expected uses for graphite in the future, and the future uses of the graphite from Zenyatta's Albany deposit. Since forward-looking statements are based on assumptions and address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results relating to, among other things, results of metallurgical processing, ongoing exploration, project development, reclamation and capital costs of Zenyatta's mineral properties, and Zenyatta's financial condition and prospects, could differ materially from those currently anticipated in such statements for many reasons such as, but are not limited to: failure to convert estimated mineral resources to reserves; the preliminary nature of metallurgical test results; the inability to identify target markets and satisfy the product criteria for such markets; the inability to complete a prefeasibility study; the inability to enter into offtake agreements with qualified purchasers; delays in obtaining or failures to obtain required governmental, environmental or other project approvals; political risks; uncertainties relating to the availability and costs of financing needed in the future; changes in equity markets, inflation, changes in exchange rates; fluctuations in commodity prices; delays in the development of projects; capital and operating costs varying significantly from estimates and the other risks involved in the mineral exploration and development industry; and those risks set out in Zenyatta's public documents filed on SEDAR. This list is not exhaustive of the factors that may affect any of Zenyatta's forward-looking statements. These and other factors should be considered carefully and readers should not place undue reliance on Zenyatta's forward-looking statements. Although Zenyatta believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. Zenyatta disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law.

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