

Zenyatta's Albany Graphite Tailings Show Promise as Cement Replacement

written by Raj Shah | December 17, 2018

❌ December 17, 2018 ([Source](#)) – **Zenyatta Ventures Ltd.**

(**"Zenyatta"**, **"ZEN"** or **"Company"**) (TSXV: ZEN) is pleased to provide an update on its process development work for the Albany Graphite Project. In addition to its ongoing metallurgical testwork program being carried out at SGS Canada Inc. (**"SGS"**), studies are being conducted on the tailings material generated from processing the Albany Graphite mineralization for potential application as a partial cement replacement material. This work is being conducted by Dr. Ahmad Rteil at the University of British Columbia, Okanagan campus (**"UBC-O"**). Dr. Rteil reports that, based on an initial review of Albany tailings chemistry, this material would meet both CSA and ASTM standards as a potential partial cement replacement in concrete. If this is confirmed, it will have positive implications for project economics by reducing costs for tailings disposal and creating a potential by-product revenue stream.

The concept for using the Albany Graphite tailings material as a potential cement replacement arose from discussions with Dr. Rteil in the context of the Company's market development work for graphene applications in concrete. After a review of technical data on the Albany tailings provided by ZEN, Dr. Rteil observed that the tailings' chemical and physical properties are consistent with the requirements for it to be used in concrete. In order to confirm this, the Company has delivered two drums of tailings material (from both the East Pipe and the West Pipe) to Dr. Rteil's laboratory for further evaluation. Testwork is now

underway which includes 90-day strength measurements on concrete made with tailings used as cement replacement and results are expected within four months.

Metallurgical Testwork Update

The Company also confirms that the metallurgical testwork program for the Albany graphite deposit has now been completed. While Zenyatta is awaiting the final report from SGS, recent test results reported support the conclusions described in the Company's news release dated July 16, 2018. These include achieving a purity of around 99.8%, an overall recovery of approximately 90% with lower energy and reagent consumption and more efficient recycling of the leach solutions when compared with the original process developed for the 2015 PEA. Additionally, the new process further de-risks commercial implementation.

The most recent work, conducted at the SGS Lakefield facility, is a continuation of a program which was initiated in 2017. The main purpose of this work was to determine the effect of the recycling process streams within an integrated process which includes two stages of purification and removal of impurities from leach solutions. Previous work had only tested each of the unit operations in isolation. Moving forward, this process will be used on ZEN's upcoming bulk sample to produce high-purity graphite product which will be used as the precursor material for scaling up graphene production using both mechanical and chemical exfoliation methods. The graphene produced and derivative products will be used for market development and price discovery purposes.

Peter Wood, P. Eng., P. Geo. and James Jordan, P. Eng. are the qualified persons for the purposes of National Instrument 43-101 who have reviewed, prepared and supervised the preparation of

the technical information contained in this news release. SGS performed analyses of all purified Albany graphite samples by direct ash analysis using a platinum crucible, according to a validated method that also accurately quantifies key trace level impurities by subsequent inductively coupled plasma – optical emission spectrometry analysis.

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About Zenyatta

Zenyatta's Albany Graphite Project hosts a large and unique quality deposit of highly crystalline graphite. Independent labs in Japan, UK, Israel, USA and Canada have demonstrated that Zenyatta's Albany Graphite/Naturally Pure™ easily converts (exfoliates) to graphene using a variety of simple mechanical and chemical methods. The deposit is located in northern Ontario just 30km north of the Trans-Canada Highway, near the communities of Constance Lake First Nation and Hearst. Important nearby infrastructure include hydro-power, natural gas pipeline, a rail line 50 km away and an all-weather road just 10 km from the deposit.

To find out more on Zenyatta Ventures Ltd., please visit our website at www.zenyatta.ca. A copy of this press release and all material documents with respect of the Company may be obtained on Zenyatta's SEDAR profile at www.sedar.ca.

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