



zenyatta

Graphite & Graphene

Why Graphite?

Unique chemical, electrical & thermal properties

- Stable & strong in excess of 3000°C
- Resistant to corrosion & thermal shock
- Light reinforcing element
- Great lubricant
- Excellent conductor

Why Graphene?

- 1000 x current carrying capacity of Cu
- 200 x stronger than steel
- 10 x thermal conductivity of Cu
- Thinnest material known to man - 0.33nm
- Stretches like rubber - up to 20% of its length

Strategic Material for Clean Technology Industries

Graphene is the Wonder Material of the Future

Graphene could have a dramatic impact on our future by changing the fields of computing, energy and materials by making everything smaller, stronger and more ecologically sustainable

Share Structure As at January 31, 2017

| | | |
|---------------|------------|-------------------------------|
| Shares Issued | 62,884,284 | |
| Warrants | 845,000 | @ \$1.65 (expiry 11 Aug 2018) |
| Warrants | 982,567 | @ \$0.83 (expiry 11 Jun 2018) |
| Options | 5,450,000 | @ avg. weighted price \$1.67 |
| Fully Diluted | 70,161,851 | |

This document 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.

Please refer to those risks set out in Zenyatta's public documents filed on SEDAR.

Highly Experienced Management Team and Advisors

Aubrey Eveleigh **President & CEO**

Tom Mustapic **CFO**

Dr. Bharat Chahar **VP Market Development**

Peter Wood **VP Exploration**

James Jordan **Project Manager**

Investment Highlights

- Zenyatta is creating high-purity graphite samples for market evaluation and testing by end-users and application developers
- Naturally occurring high-purity graphite competing with synthetic graphite
- Can be processed at a cost advantage with minimal environmental effects compared to HF and/or thermal treatments used in China
- Yields superior purity, highly crystalline graphite which is ideally suited for advanced high-tech applications
- Albany graphite is relatively easy to convert to graphene than other graphites and resulting graphene has a high particle dispersion quality which is critical if added to a composite material like concrete

Graphite & Graphene Applications of Interest

Zenyatta has had discussions and signed confidentiality agreements with over 40 end user, academic and third party testing facilities globally to test Zenyatta graphite for numerous cleantech applications

Highlights from 2015 Preliminary Economic Assessment

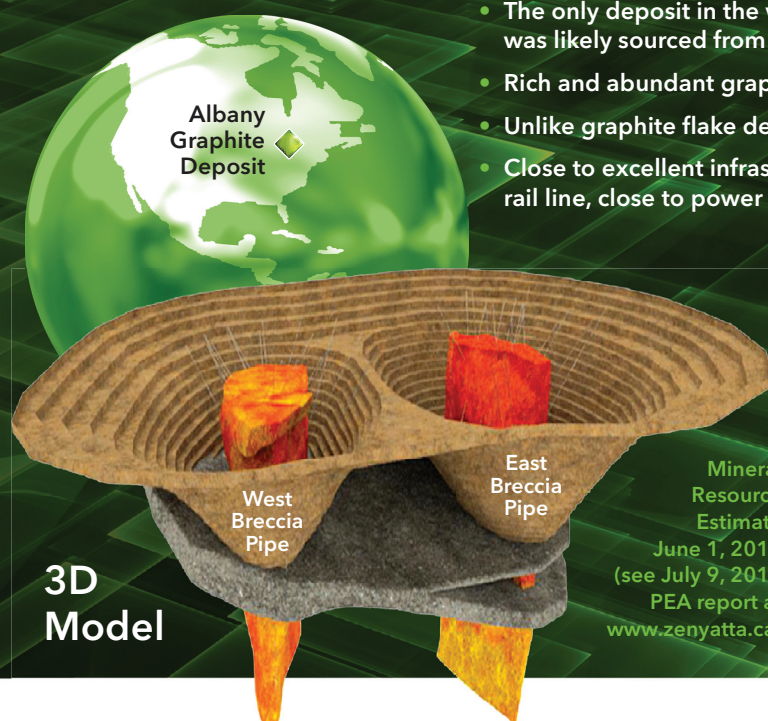
- Open-Pit, Life of Mine ('LOM') of 22 years (less than 50% of the Indicated & Inferred Mineral Resources)
- 3,000 tonne per day open-pit mine and process plant to produce 30,000 tonnes of high-purity (>99.9% Cg) graphite annually
- Price of purified graphite @ \$7,500 per tonne and operating costs of \$2,046 per tonne showing a margin of \$5,454 per tonne
- Total gross revenue of ~US\$4.8 Billion and an after-tax cash average annual cash flow of \$110 Million
- A base case after-tax Net Present Value at a 10% discount rate of \$438 Million yielding an after-tax Internal Rate of Return of 24%

Key Partnerships and Recent Developments

- Graphene infused concrete - Partnership with Ben-Gurion University and Larisplast Ltd.
- Potential to build a customer base for a significant volume and pricing of the mine's graphite production
- Market opportunity: Potential target market: 840M MT high strength concrete (source: USGS)
Addressable market at 0.15wt% graphene (Ben Gurion University): 1.26M MT graphite
(based on Ben Gurion University and USGS data)
- Adding graphene to concrete allows a faster curing time; uses less concrete during construction thereby reducing CO₂ emissions; and inhibits premature failure and withstands large forces produced during earthquakes or explosions
- Li-ion Anode Material Development - ZEN graphite has been tested by several battery companies and results show Albany graphite to be very competitive in performance and better than many benchmark NG based anode materials
- Fuel Cells - Samples of Zenyatta Graphite tested for potential use in PEM Fuel Cell Components by NRC and Ballard Power Systems
- Powder Metallurgy - Three sample tests show formulations containing Zenyatta graphite results in better flowability

Albany Graphite Deposit

A High-Purity Graphite Deposit in a Class of its Own



- Zenyatta has 100% ownership of the large Albany Graphite Deposit which contains 968,000 Indicated contained tonnes Cg and 445,000 Inferred contained tonnes Cg
- The deposit is currently in development with a Preliminary Economic Assessment completed
- Metallurgical tests are being conducted in a pilot plant at SGS Labs and the Pre-Feasibility Study is scheduled to be started in 2017
- The only deposit in the world where the graphite has an igneous origin and the carbon was likely sourced from the mantle
- Rich and abundant graphite is deposited in two well-defined breccia pipes
- Unlike graphite flake deposits where the graphite is formed from in-situ organic material
- Close to excellent infrastructure – 30 km north of the Trans-Canada Highway, 70 km from rail line, close to power line and natural gas pipeline and port access via the Great Lakes

Mineral Resource Estimate
June 1, 2015
(see July 9, 2015 PEA report at www.zenyatta.ca)

| | Cut-off Grade (% Cg) | Tonnes (t) | Grade (% Cg) | Contained Graphitic Carbon (t) |
|-----------------|----------------------|------------|--------------|--------------------------------|
| Open Pit | | | | |
| Indicated | 0.9 | 24.3 | 3.98 | 968,000 |
| Inferred | 0.9 | 5.4 | 2.58 | 138,000 |
| Underground | | | | |
| Indicated | - | - | - | - |
| Inferred | 1.5 | 11.5 | 2.67 | 307,000 |
| Total Indicated | Variable | 24.3 | 3.98 | 968,000 |
| Total Inferred | Variable | 16.9 | 2.64 | 445,000 |

For more information, please contact

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ZEN TSX-V

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