## Greg Fenton on China's graphite export restrictions and Zentek's Albany graphite deposit in Ontario

written by InvestorNews | October 26, 2023 In a recent InvestorNews interview with host Tracy Weslosky, Zentek Ltd.'s (NASDAQ: ZTEK | TSXV: ZEN) CEO and Director, Greg Fenton, discussed China's recent move to restrict graphite exports and its potential impact on global supply chains and the electric vehicle (EV) industry.

# Zentek in the Global Spotlight for ZenGUARD™ Technology Patent

written by InvestorNews | October 26, 2023

Zentek Ltd. (NASDAQ: ZTEK | TSXV: ZEN), an IP development and commercialization company, has recently achieved a major milestone with their revolutionary product, ZenGUARD<sup>™</sup> Technology. As of <u>December 2022</u>, all 54 claims in the company's Canadian patent application were granted by the Canadian Intellectual Property Office (CIPO). This momentous achievement is an essential step in obtaining global patent protection for ZenGUARD<sup>™</sup> Technology. The result of two years of research and testing by 21 global partners, the ZenGUARD<sup>™</sup> Technology is a cutting-edge nanotechnology based on their graphene-oxide silver compound designed to create an invisible barrier on the surface of the mask.

In order to evaluate the performance of ZenGUARD<sup>™</sup> masks compared to standard surgical masks, American Society for Testing and Materials (ASTM) Level 3, 3-ply uncoated masks were used as a comparison group. The results showed that the ZenGUARD<sup>™</sup> masks had 98.9% more bacterial removal efficiency and 97.8% more virus removal efficiency than standard surgical masks. Furthermore, these results were achieved with minimal added weight or bulkiness to the face masks, meaning they remain comfortable while providing superior protection against bacteria and viruses.

Zentek's accomplishment of getting a patent for their ZenGUARD™ technology for personal protective equipment and heating, ventilation, and air conditioning applications marks a significant milestone for the company and could set them up for success globally. This accomplishment took just two years from concept to fully protected asset.

CEO Greg Fenton's leading Zentek highlights their devotion to technology. The dedication to developing the concept and transforming it into a potential revenue-generating asset shows not only the commitment of Mr. Fenton but also Zentek as a whole. They have made great strides in an efficient amount of time and with promising results. This result highlights their capacity to take ideas from the lab bench to the market with patent protection.

With this success comes validation of their business model and a platform from which to extend their rights globally; plans are

underway to eventually launch ZenGUARD<sup>™</sup> Technology worldwide. Zentek also recently announced they are working with patent attorneys to extend patent protection of commercial rights on a global scale. This collaboration is an exciting example of how two organizations can use their collective knowledge to ensure businesses can maximize their intellectual property rights across international borders.

Patent protection extends beyond copyright and trademark law, making it essential for modern companies to understand worldwide patent regulations in order to capitalize on their innovations. By relying on the expertise of IP counsel, Zentek will likely take full advantage of their rights across the globe.

This achievement not only validates Zentek's business model but also demonstrates that its product is both effective and marketable on a global scale. The ability to extend patent protection internationally opens many doors of opportunity for the company; they can now capitalize on their existing investments while also exploring new markets that were previously unavailable due to a lack of legal protection or recognition of intellectual property rights outside Canada's borders. With access to these new markets, there are a number of possibilities ahead for the company-especially when it comes to expanding its customer base and revenue stream potential.

In summary, Zentek Ltd.'s recent achievement of getting a patent for ZenGUARD<sup>™</sup> marks an important milestone in the company's history-one that will potentially lead them down a path toward success both domestically and abroad. With access to new markets made available through patent protection globally, this opens up many opportunities for growth within the industry. As we look forward to 2023, we can continue to look for new developments ahead from Zentek Ltd., especially with regard to its revolutionary product ZenGUARD<sup>™</sup> Technology.

## With technology for the real world, Zentek's graphene nanotech masks are now on store shelves

written by InvestorNews | October 26, 2023

At the start of the year, I was asked to pick a name that I thought could be the "stock to watch in 2022". Naturally the tendency is to step a little further out the risk curve because where's the fun in picking something like Enbridge, Inc. (TSX: ENB | NYSE: ENB) and being up 15% year-to-date plus dividend when you could be up 130% over that same time period with a stock like Ensign Energy Services, Inc. (TSX: ESI). In reality, I would have been a hero if I had picked either of those in light of what the majority of the market has done since the start of 2022. However, I went down the technology route (or should I say rout) and the name I picked has been swept lower in a market beating up anything resembling tech. On top of that, the company I selected was also the focus of a short report, although that appears to have been addressed in March and seems to be a non-issue. But technology stocks are still seeing some pretty unpleasant days here and there, and the pain may not be over yet.

Nevertheless, until the year is over, I still have time to be vindicated with my 2022 pick – Zentek Ltd. (NASDAQ: ZTEK | TSXV: ZEN), which is certainly doing better than Shopify, Inc. (TSX: SHOP | NYSE: SHOP) but sadly that's not setting the bar too high. Reader's will recall that Zentek is an IP development and commercialization company focused on next-gen healthcare solutions in the areas of prevention, detection, and treatment. Zentek is currently focused on commercializing ZenGUARD™, a patent-pending coating shown to have 99% antimicrobial activity, including against COVID-19, and the potential to use similar compounds as products against infectious diseases.

The focus on ZenGUARD™ is paying off with an announcement last week of the <u>sales and distribution of ZenGUARD™ Masks</u> through Mark's, a member of the Canadian Tire Family of Companies. Mark's, which operates over 380 stores across Canada, has placed an initial order for ZenGUARD™ coated masks to be sold at select stores and online. Mark's VP Iain Summers is quoted as saying "We are relentlessly focused on innovative new technologies and products that help keep Canadians safe and comfortable. Zentek, and their ZenGUARD™ masks are a great made-in-Canada innovation using a technology that, when applied to essential masks, provides ultimate protection, while maintaining comfort and breathability. It's the right fit for our customers." This news helped Zentek stock rally 14% on the day.

It was the progress the Company was making with ZenGUARD<sup>™</sup> and their other unique IP opportunities that led to Zentek being my stock to watch. Other technologies under development include an icephobic coating that can potentially be used to improve aircraft and drone safety and sustainability. The Company anticipates applications for aircraft, wind turbines, ocean vessels, and building structures to increase safety and efficiency outcomes in ice-forming weather conditions. The Company recently reported <u>excellent results in three rounds of testing</u> of its icephobic coating, including laboratory tests, real-world flights and applications related to drone operations in adverse weather. Next steps include testing its coating for sand and rain erosion, and other tests are being planned that will evaluate the coating as part of a hybrid ice protection system, where the icephobic properties are combined with a heated de-icing system with the aim to improve efficiency of current ice protection methods used in general and commercial aviation.

In April, Zentek provided an update on a previously awarded R&D test contract through the Innovation Solutions Canada (ISC) Testing Stream to test ZENGuard<sup>™</sup> coated HVAC filters with interest from 3 different units within the National Research Council of Canada. After completion of Phase 1 testing where its ZenGUARD<sup>™</sup> coating was successful in reducing airborne organisms from passing through coated filter material while not inhibiting air flow, it will now proceed to Phase 2 testing within its ISC Testing Stream contract. Phase 2 testing in a real-world classroom environment is aimed to generate additional safety and efficacy data. The importance of indoor air quality and improving health is a top priority for numerous organizations globally, including the Canadian and U.S. governments, and could be an important commercialization milestone for Zentek in this critical area.

Sure all these initiatives were already on the go at the start of the year, but in my opinion, the Company is making great strides in pushing these projects to the revenue generation stage. In fact, ZenGAURD<sup>™</sup> actually started generating revenue in the final quarter of 2021. Additionally, Zentek raised C\$33 million in January and have a quarterly cash burn rate of roughly C\$2-C\$2.5 million per quarter (and no debt), so they should be fine for available capital. With a market cap of roughly C\$247 million there are plenty of creative and unique opportunities being developed to propel this Company into the future and vindicate my selection.

## ZEN Graphene's Greg Fenton discusses Health Canada's approval of the 'gold standard' for face masks

written by InvestorNews | October 26, 2023

In a recent InvestorIntel interview, Tracy Weslosky spoke with Greg Fenton, CEO and Director of <u>ZEN Graphene Solutions Ltd.</u> (TSXV: ZEN) about Health Canada'a approval this week of the **ZEN**Guard<sup>™</sup> disposable face mask with the company's biocidal coating.

In this InvestorIntel interview, which may also be viewed on YouTube (click here to subscribe to the InvestorIntel Channel), Greg said that the graphene based ZENGuard<sup>™</sup> coating on a mask kills airborne pathogens like bacteria, fungi and viruses. Explaining why it is the 'gold standard' for face masks, Greg discusses how as a result of the review, Health Canada has validated that ZENGuard<sup>™</sup>-enhanced surgical masks are safe for use by Canadians.

Responding to the questions on the technology associated with the **ZEN**Guard<sup>™</sup> masks, Greg provides insight into the impact of this approval and what this means for ZEN Graphene. This includes the application of their biocidal coating in other spaces such as the HVAC market.

To watch the full interview, <u>click here</u>.

About ZEN Graphene Solutions Ltd.

ZEN is a nanotechnology company developing and commercializing next-gen healthcare solutions in the areas of disease prevention, detection and treatment. ZEN is currently focused on commercializing **ZEN**Guard<sup>TM</sup>, a patent-pending coating with 99% effective antimicrobial activity against COVID-19, and the potential to use similar compounds as pharmaceutical products against many other infectious diseases. The company also has an exclusive agreement to be the global commercializing partner for a newly developed, highly scalable, aptamer-based rapid pathogen detection technology.

To learn more about ZEN Graphene Solutions Ltd., click here

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If you have any questions surrounding the content of this interview, please email <u>info@investorintel.com</u>.

## ZEN Graphene set to supply a viricidal coating for a minimum 100 million masks

written by InvestorNews | October 26, 2023 This week <u>ZEN Graphene Solutions Ltd.</u> (TSXV: ZEN) ("ZEN") and Trebor RX Corp. ("Trebor") <u>signed a Binding Letter of Intent</u> (LOI) that includes the initial purchase of ZEN's patent pending

graphene based viricidal coating for **a minimum of 100 million masks/filters** with pricing of these mask/filters being variable based on a number of factors.

This news follows the highly successful testing of ZEN's graphene based silver colloidal coating <u>announced</u> on September 22, 2020. Some of the announcement highlights are shown below:

- ZEN's Virucidal ink is <u>99% effective</u> against the COVID-19 virus.
- ZEN's <u>Virucidal ink was still 99% effective</u> a minimum of 35 days after application to N95 mask material.
- ZEN is now developing plans to expedite commercialization of this product, pending regulatory approval.
- <u>ZEN has filed a provisional patent</u> for this graphene-based virucidal product.....
- Very significant virucidal activity was recorded and reported, achieving 99% inactivation of the virus for both samples in 3 separate tests each and verified through a second round of testing..."

But back to the latest potentially game changing news for ZEN of the LOI for a minimum of 100 million masks/filters from Trebor. An order of this size for a relatively small company like ZEN is highly significant. Greg Fenton, ZEN's Chief Strategy Officer, <u>commented</u> (Nov. 9, 2020):

"This is a historic day for ZEN. The signing of this significant commercial agreement is a watershed moment for our organization. Moreover, it is an honour for ZEN to partner with a Canadian company like Trebor and develop a 100% Canadian solution in the fight against the COVID-19 pandemic. The innovation of the Trebor Pro+ Respirator Mask will set a new standard in the mask industry and, combined with our viricidal coating, will bring a new level of safety for our front-line workers...."

Trebor's CEO George Irwin agreed <u>stating</u>: "This is truly a game changer in the PPE space...."

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#### **PRO+** Respirator Mask

It looks like the market also agrees with ZEN, up 358% over the

past 1 year, and up 293% since I wrote "<u>ZEN Graphene Solutions</u> <u>moves towards commercialization of virus-killing mask</u>" back on September 8, 2020.

ZEN Graphene Solutions stock price is up 358% over the past 1 year, and up 293% since September 8, 2020

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### <u>Source</u>

What we know so far is that ZEN and Trebor have signed a LOI and that Trebor is a Canadian personal protective equipment mask manufacturer with an initial production facility located in Collingwood, Ontario, Canada. The announcement on the binding LOI includes several key points:

- Initial first year production is planned to use ZEN's patent pending graphene based viricidal coating for a minimum of 100 million masks/filters.
- Pricing of these mask/filters being variable based on a number of factors.
- 3. This initial minimum order is for the first year and is subject to Health Canada approvals.
- 4. ZEN's viricidal coating will be used on Trebor's patent pending Pro+ Respirator Mask (Pro+) N95 mask and also on their 3-ply surgical mask.

For now, we can only speculate on what the commercial terms would be and what other agreements may follow. What we do know is that the global market demand for face masks is enormous, certainly in the billions. Some have even called the face mask <u>'the world's most valuable commodity'</u>. It is estimated that production of the highly protective N95 face masks in the United <u>States</u> alone will increase to 180 million units per month by the end/winter months of 2020.

Demand for face masks is only increasing as global new COVID-19 cases continue to accelerate higher

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#### <u>Source</u>

Under a Biden presidency it looks highly probable that face masks will be viewed more positively than what happened under Trump. Back in June 2020, CNN <u>quoted</u>: "Biden says he would make wearing face masks mandatory for Americans amid coronavirus pandemic." This week Biden has announced a new <u>COVID-19</u> <u>taskforce</u> to begin work immediately and continue after he is sworn in as president on January 20.

Global daily new cases of COVID-19 have been accelerating and are now averaging **a staggering 600,000 new cases per day**, for a total of over 52 million cases now globally.

All of this should lead to very strong demand for face masks in the year ahead.

Beyond COVID-19 ZEN has many other potential areas and deals to commercialize their graphene. Some recent deals include a collaboration agreement on <u>Carbon Aerogels with German Aerospace</u> <u>Centre</u> and a partnership with <u>the Royal Canadian Navy</u> and Evercloak to test Graphene Oxide Dehumidification Membrane Technology.

To meet all this new demand ZEN has had to <u>double their lab</u> <u>space</u> starting January 1, 2020 and <u>announced</u> this week that ZEN will lease a 25,680 square feet space in Guelph, Ontario to become become ZEN's new manufacturing facility and corporate headquarters. ZEN <u>stated</u>: "The company expects to begin initial production in Q4 2020 for incorporation into masks, other PPE and for HVAC filters and prefilters."

## A summary of ZEN Graphene Solutions

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### <u>Source</u>

## Closing remarks

ZEN Graphene Solution's management is doing a tremendous job. Pivoting in 2020 to produce a viricidal graphene coating was a genius move. Of course COVID-19 will come and eventually go, but demand for industry leading graphene products looks set to boom this decade as the world learns more about the wonders of graphene.

ZEN Graphene Solutions has a market cap of C\$139M and right now appears to have the world at their feet.

**Disclosure**: The author is long ZEN Graphene Solutions Ltd. (TSXV: ZEN).

# A graphene based virucidal ink face mask and line of clothing that does more than protect it intends to kill COVID-19

written by InvestorNews | October 26, 2023 The face mask sector is hot right now. Even <u>China can't make</u> <u>enough face masks</u> to meet their own demand. As countries begin to ease the COVID-19 (coronavirus) lockdowns literally billions of people will require face masks. Many airlines are already <u>making face masks mandatory</u>, and this could soon spread to other forms of mass transport.

Even better than standard face masks are new high tech face masks designed to kill the virus, using antiviral nano-particles embedded inside the protective material.

Two companies are combining their expertise to produce new high tech face masks and other protective clothing that they hope will kill the virus. They are <u>ZEN Graphene Solutions Ltd.</u> (TSXV: ZEN) and Graphene Composites Ltd. (GC). They have teamed up to develop a <u>COVID-19 virucidal graphene-based composite ink</u> for face masks and other protective clothing.

An agent that kills viruses, a virucidal ink that can be embedded into all types of personal protective equipment (PPE) could have immense benefits for the world right now. Imagine owning a mask that not only blocks the virus but can kill it. The medical world will love it, as it will give them the much needed protection they deserve, as they battle on the front lines of this severe pandemic that has now infected over 3.7 million people, killing  $\sim 258, 360$ .

### The plan

ZEN has synthesized a 'silver nanoparticles functionalized graphene oxide ink' that has been documented by previous researchers to kill earlier versions of coronavirus. Silver is well known to be a potential virucidal agent. Testing will be conducted at Western University's ImPaKT Facility Biosafety Level 3 lab in Ontario, Canada.

Once testing is completed (and assuming successful), the virucidal graphene ink would then be incorporated into fabrics to be included into masks and filters designed by GC.

The CEO of ZEN, Francis Dubé, stated:

"We are pleased to be collaborating with GC and be on the forefront of a new innovative technology that could contribute to combating the deadly COVID-19 virus. The development of this potential COVID-19 virucidal graphene ink is coming at a crucial time to provide effective PPE supplies for the safety of frontline workers and hospital staff."

The CEO of GC, Sandy Chen, stated:

"Combining the deep nanomaterials expertise of GC and ZEN with a truly collaborative approach has enabled us to do a year's worth of R&D in a matter of weeks. Quickly developing and deploying our virucidal/germicidal ink would make a significant difference in slowing the rate of infection – thus saving many lives."

## Competitors

Given the newness of the COVID-19 pandemic there is so far little competition when it comes to virucidal protective clothing using graphene. One Israeli company is <u>reportedly</u> using a virucidal embedded into masks that consists of zinc oxide and copper oxide nano-particles.

### ZEN's graphene has a huge range of potential uses

ZEN is already making great progress in the production of graphene with a huge range of potential uses such as: Tyre strengthener, aluminum/rubber/plastics enhancer, a cement additive/enhancer, diesel and jet fuel additive, graphene batteries, graphene based clothing and so on.

### ZEN has unique graphite from which they make graphene

ZEN Graphene Solutions also have their own unique source of

graphite at their Albany Graphite Project, which is highly suitable for graphene production. The unique Albany Graphite Project provides the Company with a potential competitive advantage in the graphene market as independent labs in Japan, UK, Israel, USA and Canada have demonstrated that ZEN's Albany PureTM Graphite is an ideal precursor material which easily converts to graphene, using a variety of mechanical, chemical and electrochemical methods.

## ZEN's new graphene research and development facility at Guelph, Ontario, Canada

ZEN has recently opened their new graphene research and small scale <u>production facility</u> in Canada, with a goal of scaling up graphene production to meet consumer demand. Graphene product sales were launched in early March 2020. The research and engineering team will also be developing and testing custom functionalized graphene formulations as requested by industrial collaborators for product performance enhancement.

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## <u>Source</u>

### Closing remarks

ZEN is one of the most innovate companies out there, with a focus on using graphene to disrupt and improve various industries. Their latest collaboration with Graphene Composites Ltd. is most exciting, as virucidal protective clothing can be a game changer right now in the fight against COVID-19.

Furthermore ZEN already has their own high quality Albany graphite source, and has started scaling up graphene production at their facility in Ontario Canada. This makes them a vertically integrated growing graphene producer, all for a market cap of just C\$32 million.