

Mason Graphite has Tesla's Li-ion battery Gigafactory in its sights

Jim Rogers, a well known New York business writer, has  endorsed Mason Graphite (TSXV: LLG | OTCQX: MGPHF) as one of the logical sources for the graphite that Tesla Motors will need to develop its lithium-ion (Li-Ion) battery 'gigafactory'. While they are called Li-ion, emphasizing the lithium content, these batteries contain around 5% lithium by weight and up to 15 to 20 times more graphite. The cars use aluminum to save weight. The Tesla and the whole breed of competitor cars it will stimulate means that the world needs to start producing much more of the so-called technology metals and especially graphite. Surely, the Tesla can eliminate the need for motorists to fuel up at the gas station but for this to happen on any significant scale we need batteries....Many batteries.

The Gigafactory will need between USD\$ 4 and 5 billion dollars, occupying an area of 930,000 square meters, employ 6,500 employees and a produce enough batteries to equip 500,000 cars per year. Graphite production in North America, the only place where Tesla expects to be sourcing it, will have to increase accordingly. The discovery of high grade mineral graphite sources such as identified by Mason, for instance, will enable battery technology to thrive thanks to higher purity levels and its offshoots into graphene. The path to production is still arduous, but Mason has made very good progress in resource quality and community relations.

Mason Graphite Inc. announced the discovery of new and high-grade intersections of graphite at its Lac Gueret property. The new intersections are part of the latest assay results from its 2013-2014 exploration campaign. In that period, Mason

tested 97 drill holes along a 15 km of surface extension, which delivered a mineralized interval of 98m at 29.8% purity. Mason also explored a mineralized zone extending northeast of the deposit, beyond the currently established limits of the resource. Mason says the new data confirms the presence of near surface mineralization with excellent widths and continuity beyond the limit of the current resource. Benoît Gascon, President and CEO of Mason Graphite said that “the analytical results of the northeast extension are encouraging, said. The exploration target is located at the boundary of the defined mineral resource and is adjacent to the planned pit in the Preliminary Economic Assessment completed in April 2013.” Mason Graphite has the potential to develop one of the most highly concentrated graphite deposits in the world.

Mason plans to invest some CAD\$ 90 million to operate the eventual mine north of Baie-Comeau. To this effect, Mason has been actively looking after its social responsibilities in the area, ensuring that there will be a smooth regulatory transition from exploration to production. Indeed, Mason signed a memorandum of cooperation with the Council of the Innu of Pessamit and work at its graphite in Lake Gueret could begin as early as next year right on the Nitassinan, which is the Innu community of Pessamit’s traditional territory. Mason Graphite expects to create 80 jobs, half of which will be reserved for locals, a plan that has certainly contributed to the establishment of favorable community relations.

Mason will now advance the project steadily toward production; the next steps will be the completion of all pre-feasibility studies, feasibility and environmental permits. There is admittedly still a long way to go before the first graphite is shipped to customers; however, the signing of the cooperation protocol paves the way for friendly negotiations between the company and the band council. Both mason and the Innu are optimistic about what is being dubbed as a “historic agreement.” the negotiations will include all matters from

financial compensation to jobs and contracts. The Pessamit community has so far been very impressed by mason, which might well be the first miner, developing a project on north shore, to consult the indigenous population. in the past, the Pessamit were the last to be consulted, having a negative impact on the community. Relationships with local communities are delicate, they can fall apart if they are improperly managed. Thinking ahead, establishing trust and an overall strategy of reaching out to the community well beyond the scope of the mining activity itself has become critical in the mining sector.

Companies like mason, which have clearly considered these aspects preemptively, integrating them into the overall project, will reap the rewards while reducing investment risk.

Mason Graphite expands resource and stock moves +25% in July

Mason Graphite Inc. (“Mason”, TSX.V: LLG | OTCQX: MGPHF) has the potential to deliver very high purity graphite – up to 99.9% graphitic carbon content – in response to new industrial applications, using traditional processes, which require relatively modest investment. On July 29, Mason expanded its resource, announcing the discovery of high-grade intersections graphite in the northeastern extension of Lake Gueret beyond the original target zone. The drilling identified a mineralized interval of 98 m at 29.8% Graphitic Carbon (Gc) as part of its 2013-2014 exploration campaign, comprising 97 holes totaling over 15,000 meters aiming to extend the project

area while identifying mineral continuity within the established limits. Mason said that the results have confirmed the presence of mineralization near the surface with excellent widths and beyond the limit of the current resource. The estimated resources represent over 150 years of production. The Lac Gueret Project is world class: it is rich in crystalline graphite, which draws international market demand.



Mason Graphite expects the mine to operate for at least 22 years, starting with an annual production of 50,000 tons of graphite concentrate. Production costs have been estimated at about USD\$ 390 per ton of finished product, which now sells for USD\$ 1,525/ton on average. In this context, Mason expects to achieve a rather prompt return on investment or merely after two and a half years of operation. Mason expects to use a method of concentrating and separating that avoids a blast furnace, which means it will be more energy efficient, requiring less gas. The project also benefits from good infrastructure and good roads: everything suggests the project is fully viable. Mason graphite plans to export the ore to U.S. markets and overseas territories. Mason has also covered important community aspects to ensure the Project's ultimate success. In July, Mason signed a memorandum of cooperation with the Innu Council of Pessamit given that its future mine is located (300 km north of Baie-Comeau) in Nitassinan, a traditional territory belonging to the First Nation of Pessamit. It is expected that at full operation, Mason's project will provide 80 direct jobs to be shared Aboriginal and non-natives in the region. Eventually, the company will have an annual capacity of 50,000 tons of graphite concentrate that proponents call "exceptional quality." The mine construction could begin in 2015. On July 16, analysts from National Bank started to follow Mason Graphite and analyst Rupert Merer and not surprisingly: Mason's deposit has some of the highest grade of ore in the

world at 27.4%.

Mason's resource promises to be rich in large and medium flake graphite, the most desirable variety of graphite for applications in clean energy, lighter and more powerful batteries, super capacitors for wind turbines and pebble-bed nuclear reactors. Meanwhile, given its high grades potential, Mason will be ready to address those applications as they become commercially relevant. While Mason is certainly targeting the emerging high technology market, as battery technology advancements trickle down from the lab to retail, Mason is different from other emerging graphite companies, in that it has plans to generate short term revenue as well by addressing the more 'traditional' graphite market as well – or first – such as the steel industry, which needs refractory materials for furnaces and carbon enhancers in steel alloys or lubricants.

Mason believes these sources will help it grow in the near future while high-tech batteries and other applications will become more commercially relevant in a few years' time, representing a future and additional source of revenue. Meanwhile, Mason is also squarely projected to the future as demonstrated its collaboration with Group NanoXplore Inc ('Nanoxplore'), which has given the Company an edge into the emerging graphene market. NanoXplore has developed a proprietary low cost electrochemical method to convert natural flake graphite into graphene, which uses less energy than the more widely used vapor deposition and liquid exfoliation methods. NanoXplore's main advantage, given its lower cost, is scalability, which gives it the potential to make graphene into a more widely available material, bringing it from the lab to the market. Graphite has long gone beyond pencils; it is essential in many industrial applications in batteries for electric cars. There is growing demand for lithium ion batteries and it could increase at a rate estimated at between 15% and 20% per year according to some analysts.

Overbought private placement deal boosts investor confidence in Mason Graphite

✘ There has been much speculation surrounding the trading halt for Mason Graphite Inc. ("Mason", TSX.V: LLG | OTCQX: MGPHF). It is not unusual for a company to halt trading for a few hours, maybe a day, so the two day halt provoked much speculation as to the reason. Normally, halts last a few hours. Nevertheless, the speculation tended toward a favorable kind of news, given Mason's recent achievements and their formal entry into the high technology world of graphene through their alliance with NanoXplore.

Today, Mason revealed that the trading halt was in fact related a material transaction; more specifically, Mason has formed an agreement with a syndicate of underwriters led by Macquarie Capital Markets Canada Ltd., which have agreed to purchase on a bought deal basis 12,307,705 units (the "Units") at a price of \$ 0.65 per unit for gross proceeds of \$ 10,000,000 dollars. The deal also includes the participation of Quebec Resources, a subsidiary of 'Investissement Québec', for a total of 4,615,385 units or CAD\$ 3 million. Resources Quebec have a right of first opportunity for participation in any future financings for Mason Graphite, which is also discussing additional funding with other major institutions in the order of CAD\$ 4 million. The net proceeds will add to the working capital to help Mason develop its Lac Gueret project. Effectively, the underwriting testifies to the confidence that the Government of Quebec (which considers mining an essential, if not primary, economic activity for the Province) has placed in Mason Graphite. This should also help generate an equal

level of confidence among institutional or private investors, given that this strong financial support has clearly demonstrated the quality and viability of the Lac Gueret project, which should complete all feasibility studies in 2014 in order to begin operations in 2015.



Mason estimates its annual production capacity to 50,000 tons of graphite purified to 96%. The cost of production is “very low” because of the level of graphite concentration. Mason’s resource promises to be especially rich in large and medium flake graphite, the most desirable variety of graphite for applications in clean energy, lighter and more powerful batteries, super capacitors for wind turbines and pebble-bed nuclear reactors. Mason, however, is also interested in generating revenue in the short term by supplying the more basic graphite market, including steel industry furnace refractory materials, carbon enhancers in steel alloys, lubricants and even pencils. This attention to the traditional and present market is the mark of a valid business plan, divulging the management’s experience in the sector and its understanding that the traditional business is what will contribute to reducing the ‘time to money’ ratio between production start, timing, identification and location of customers. The graphite market revolves around the ‘application’, which implies a significant understanding of the end user and their specific need. Mason Graphite, as well as other emerging graphite plays with interesting resources, has an advantage over their Chinese competition (70% of natural graphite comes from China) is a better understanding of their customers in the areas where new graphite technologies are emerging – even beyond the graphene space.

Quebec has been involved in graphite mining and production for decades with a propensity for large flake graphite. Given the presence of an active graphite mine, the province is rich in

professional expertise; Quebec is also logistically ideally located to serve the North American and international markets with excellent infrastructure and government support. Mason's project is close to established transportation infrastructure and management has maintained good relations with the local First Nations Native Pessamit community. Mason's other advantage is having a CEO, Benoit Gascon, with more than 20 years experience in the graphite market. Indeed, the company he managed, *Stratmin Graphite – now Timcal Canada is one of the few graphite producers in North America (its deposit is also in the Lac-des-Iles zone) to have survived the 1990's, when much of the world's production of graphite, like so many other industrial developments, shifted to China.*

Growth in developing countries is fueling demand in traditional sectors such as the steel and automotive industry and Mason can offer the right product for these sectors. Moreover, Mason is also ready to address the 'new markets' fueled by demand and development of new technology in the production of electric cars, Li-ion batteries and fuel cells. The new generation of small nuclear reactors (pebble – bed) also require graphite. Quebec', as clearly demonstrated by its investment in Mason, plans to play an important role in challenging China's role in flake graphite production. China continues to pull the strings of the industry and accounts for 70% of world production. However, to ensure its own development, the Chinese government has recently deployed protectionist measures in regulating the export of graphite. A tax of 20% was added to a value added tax of 17%. Result: large consumers such as the United States and Europe are trying to source elsewhere, which should certainly promote Quebecoise graphite companies such as Mason.

From steel to graphene, Mason is one of the 'best rounded' companies in the graphite sector



Mason Graphite Inc. ("Mason", TSX.V: LLG | OTCQX: MGPHF) is proving to be one of the most attractive companies in the entire graphite sector. Mason delivered a strong Preliminary Economic Assessment (PEA) in April 2013. Its highlights included a 22-year mine life with an over 96% rate of graphite recovery and the potential to deliver grades well in excess of 96%. Moreover, in September 2013, Mason showed that it can achieve extremely high purity levels – up to 99.9% graphitic carbon content – in response to new industrial applications, using traditional processes, requiring modest investment.

Mason's resource promises to be especially rich in large and medium flake graphite, the most desirable variety of graphite for applications in clean energy, lighter and more powerful batteries, super capacitors for wind turbines and pebble-bed nuclear reactors. Meanwhile, given its high grades potential, Mason will be ready to address those applications as they become commercially relevant. Large flake graphite, which is cheaper to process than the amorphous variety, has seen sharply rising demand, accounting for a fivefold price increase from USD\$ 500/ton to USD\$ 2,500/ton since 2005 with the steepest price increases occurring over the past two years.

Apart from the quality of the Mason project itself, Benoit Gascon's more than 20 years experience in the graphite space is also reassuring. Mr. Gascon served as CEO of Stratmin

Graphite, one of the few graphite producers in North America, having a deposit in the same highly prolific Lac-des-Iles zone. Gascon has decades of experience in the graphite industry and he understand what it takes to address the very specific customer needs for this commodity as well as how to confront competition from China. Mason Graphite is very close to Timcal's Lac-des-Iles deposit – which has just a few years of ore supply remaining. Given, Gascon's connection to Timcal and Mason's geographic proximity, the possibility of some kind of 'union' between these two cannot be ruled out in the medium term.

While Mason is certainly targeting the emerging high technology market, as battery technology advancements trickle down from the lab to retail, Mason is different from other emerging graphite companies, in that it has plans to generate short term revenue as well by addressing the more 'traditional' graphite market as well – or first – such as the steel industry, which needs refractory materials for furnaces and carbon enhancers in steel alloys or lubricants. Mason believes these sources will help it grow in the near future while high-tech batteries and other applications will become more commercially relevant in a few years' time, representing a future and additional source of revenue. Meanwhile, Mason is also squarely projected to the future and none demonstrates this better than its recent investment in Group NanoXplore Inc ('Nanoxplore'). Mason closed the first tranche of its investment in NanoXplore on January 13th 2014, under an agreement whereby Mason Graphite can acquire up to 40% of NanoXplore's issued and outstanding shares for \$700,000 in two tranches. The second tranche should be completed by or before July 31, 2014.

The deal will give Mason Graphite an edge into the emerging graphene market as a supplier of graphite and a distributor of graphene. This is because, NanoXplore has developed a proprietary low cost electrochemical method to convert natural

flake graphite into graphene, which uses less energy than the more widely used vapor deposition and liquid exfoliation methods. NanoXplore's main advantage, given its lower cost, is scalability, which gives it the potential to make graphene into a more widely available material, bringing it from the lab to the market.

The exploration and development of graphene is underway in many countries at full speed. China has taken the lead in the race for potential graphene applications with Ningbo Morsh Technology, which built the world's largest to-date graphene production plant last January. As noted by InvestorIntel's Dr. Luc Duchesne, in 2013, there has been a sharp increase in patent applications for various graphene applications since 2007. This trend has accelerated even further in 2013 and, unfortunately for the 'West', China is currently the world leader in such patents. Ningbo Morsh is able to make 15-inch single-layer graphene films. The company has already signed a deal with 'Guangdong Zhengyang' to make ten million 'Thin Film Composites' (TCF) used for the production of super-thin, touch-sensitive screens for mobile devices. The investments are expected to amount to the equivalent of around 16 million dollars.

The Chinese have made graphene research one of their technological priorities and they are quickly moving from the pure research and development phase towards implementation in various application-ready products. One of the most eagerly awaited developments will be the production of graphene coatings for Li-ion battery cathodes, which translate to a much longer battery life (by slowing down the discharge rate) and to improved cycle stability. China is also planning a graphene industrial park to advance the research and development of this material and the prompt development of new practical applications.

In this context, Mason's deal with NanoXplore is far more valuable than its financial cost. It is one of the first – and

few – examples of direct collaboration between a high grade graphite supplier such as Mason and a graphene production company. NanoXplore and Mason, therefore, will be competing alongside the graphene R&D facilities being set up around the world in the race to achieve the best method to deliver scalable graphene. All the while, Mason has ‘hedged’ its future by addressing all graphite applications, making it one of the best-rounded companies in the sector.