

# Analyst on Nemaska Lithium road to production

Warren Buffet and Elon Musk were onto the growth of the lithium market before it happened. We consider lithium as one of the most applicable metals of modern life. Much of our daily lives are driven by this red metal: tablets, smart phones and electric cars, being only a handful of applications for this minor metal.

A company such as Canadian junior miner Nemaska Lithium Inc. (TSX: NMX | OTCQX: NMKEF) ("Nemaska") is well placed to benefit from this burgeoning market.

We think the company is going places. It is well advanced in its construction of its Whabouchi mine, with the latest feasibility study upgrading the company's resource, while the company is well underway with the construction of the mine's infrastructure. Phase I of the lithium hydroxide plant has just been commissioned, and the first tonne of lithium hydroxide has just been scheduled for delivery.

Nemaska Lithium has applied for patents in multiple jurisdictions on its proprietary process of its lithium hydroxide and carbonate converted from its spodumene concentrate, which we think is pretty neat.

The life of the Whabouchi mine, which will be open pit and underground combined, will initially be 26 years, and it promises to be a top notch mine with high grade spodumene on what the company terms as the most important lithium spodumene hard rock deposit in the world in volume and grade.

We like that the company is putting best practices in place to ensure sustainable development of its mine and plant, including: reducing the amount of mine infrastructure to be built; keeping the majority of the infrastructure near the ore

deposit; and minimize the ecological footprint of the project. In addition, the company has reviewed the location of its stockpiles, basins and effluents as far as possible away from Mount Lake, and reduce wetland losses, as well as conserving potential archaeological areas.

Nemaska has an exceedingly experienced management team, led by Guy Bourassa who has more than 30 years in the mining industry. It is through his leadership that Nemaska bought the Whabouchi deposit and developed the new innovative process of producing high purity lithium hydroxide and carbonate that could shape Nemaska into a world leader in the lithium salts market.

The rest of Bourassa's team are equally experienced with Michel Baril, the chairman of the board, formerly an executive at Bombardier, and former Rio Tinto engineer, François Godin.

Our verdict on Nemaska Lithium is that the company has a bright future. We expect it to become a lithium player to be taken seriously. It has an excellent resource, managed by a vastly experienced team. Once it starts producing in earnest, we should start seeing some excellent returns on investment. The company already has supply agreements in place, making Nemaska Lithium a solid investment.

For now, the share price is trading within a rather tight band of \$1.18 and \$1.2, but we see it breaking out of that band as soon as it becomes a fully fledged producer of lithium hydroxide and carbonate. We're watching its progress with interest.

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# Nemaska Lithium's Whabouchi project to ship lithium hydroxide in first quarter

Nemaska Lithium Inc. (TSX: NMX | OTCQX: NMKEF) is a producer of the compound in Quebec, Canada, and is aiming to supply to the rapidly growing market. The company wholly owns the Whabouchi Mine project, a deposit believed to rank second in the world for size and lithium concentration. The company has developed a commercial process of producing lithium hydroxide (patent pending), which is the compound anticipated to lead demand in batteries.

The Whabouchi project is the flagship of this company, but not only for its size and quality of material. Officially authorised by the Quebec and Canadian Federal Governments in 2015, the project is being funded by over \$69 million in investment raised in an offering in July 2016, from when the company began trading on the Toronto Stock Exchange. The Company has previously ranked as "Top Company Overall" of the 2016 OTCQX® Best 50 and performed second best out of the mining sector on the 2016 TSX Venture 50®. Nemaska Lithium has further attracted a significant grant from Sustainable Development Technology Canada, receiving a second installment of \$2.12 million in June. In September, new deposits were discovered at the Whabouchi project, leading to the decision to extend the drilling program from 13,700 meters to more than 17,000 meters. The project's most recent update confirmed in October that the Phase 1 Plant was proceeding according to budget and is on time, with respect to the primary shipments of their lithium hydroxide product. Maiden shipments is anticipated for the first quarter of 2017.

In April of this year a new feasibility report for the

Whabouchi Mine was released as an update to their May 2014 report. The report estimated a savings on production costs of 22% and 18% for lithium hydroxide and lithium carbonate respectively. The updated report further took into account the significant rise in the price of lithium from the time the initial report was conducted two years ago, which led to the consultants doubling their estimate for after-tax net present value to \$1.16 Billion. This report has not, however, considered the September discoveries, which should naturally lead to an even higher value for the project.

The Whabouchi Mine project has been headed up by a new Vice President of Operations who joined the company in August 2016, although his appointment was announced some months earlier. François Godin arrives with over 28 years experience in the Iron and Titanium department of Rio Tinto, where he has progressed to seniority through operations and optimization roles. At the height of his exploits with Rio Tinto, Godin began and developed a \$1 billion project in Madagascar, commanding annual expenditure of \$150 million. With so much investment making its way to Nemaska, and the Whabouchi Mine specifically set to become a dominating market force, Godin arrives with the background and experience to ensure that the project is in steady and capable hands.

As the business gears up to begin its initial product distribution in the New Year, Nemaska Lithium Inc.'s share price has performed impressively over the preceding 12 months, rising from \$0.32 to \$1.32. Before 2015 encroaches above \$0.32 were rare, and the recent strong performance is most likely assisted by a combination of factors, not least of which being the ongoing and successful development at Whabouchi, successful rounds of capital investment, and the general appreciation of the lithium market. Nemaska Lithium therefore looks set to take a significant proportion of the growing demand which is current being faced with lethargic supply channels.

Nemaska Lithium has supply agreements with FMC to provide 8,000 tonnes per year of lithium carbonate, beginning from mid-2018. In addition the company has a multi-year supply agreement with Johnson Matthey Battery Materials.

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## **Why Nemaska Lithium's programme is "going better than expected"**

On the 6th of September, Nemaska Lithium Inc. (TSX: NMX | OTCQX: NMKEF) provided an update to its drilling results. This drilling update follows shortly after the update on the 16th of August which discussed the bulk sample and dense media separation (DMS) modular mill installation at Whabouchi mine located in the James Bay region of Quebec.

In terms of the drilling results, the number of holes were increased from 44 to 50 following the encounter of a new lithium bearing zone. The aim of the drill programme was threefold, namely; to potentially convert the 4.69Mt of inferred resources into indicated resources, to confirm the continuity of the longitudinal zone of mineral resources to a depth of 500m and finally to increase the confidence of mineral resources between 0-to-200m.

The announcement on the 6th of September publishes the results of twelve holes which are showing good grades at a level of 0-to-200m that is consistent with the overall deposit. According to Guy Bourassa, President and CEO of Nemaska Lithium, the drilling programme is going better than expected and the results bode well for increasing the overall resource estimate which will eventually be followed by a reserve estimate.

As regards the update to the modular mills provided on the 16th of August, the mills have a capacity of 10 tonnes per hour and the Company has set a target to sample 60,000 tonnes of 6%  $\text{Li}_2\text{O}$  sulphate concentrate that will be further processed into lithium hydroxide through an electrolysis process at Nemaska Lithium's Phase 1 Plant which is under construction in Shawinigan.

If successful, the next phase would be to commission and install the DMS mill by the end of October and begin producing DMS concentrate over the next year or so.

Given that the company has already received a General Certificate of Authorisation for the Whabouchi Mine site, the process of commissioning the DMS plant and producing the concentrate ought to go relatively smoothly. Once this is in place, the company can begin supplying commercial samples of lithium hydroxide to customers, which is expected to commence by Q2 2017 if not before and begin establishing itself as a new lithium hydroxide supplier.

Whilst Nemaska competes with larger lithium hydroxide players, including FMC, which is the largest producer, the company is well positioned to take advantage of the lithium market. In particular, the deposit is regarded as one of the richest lithium hard rock deposits in the world and the assay results are proving to be testament to this claim. Furthermore, the company has the support of the Quebec Government and boasts major customers including Panasonic and Johnson Matthey. Finally, it is expected that if the Company's innovative electrolysis process of liberating the lithium from spodumene ores is successful, it means that Nemaska effectively eliminates the need for soda ash which could render them one of the lowest cost hydroxide producers.