# **Frontier Lithium**

**PAK Lithium Project** 

# The company trades as FL on the TSX Venture Exchange.



# FrontierLithium.com



Frontier is a wholly Canadian company with a tight share structure with management ownership exceeding over 30% of the company. The Company has adopted a staged growth approach to exploration and development in order to avoid unnecessary share dilution – a strategic imperative for the Company.



#### The PAK Lithium Project

The PAK Lithium Project lies close to the boundary between two geological sub-provinces of the western Superior geologic province in northwestern Ontario and hosts a rare metals pegmatite low-iron spodumene deposit that includes 10.4 million tonnes of high-grade lithium. The deposit is analogous to the rare deposits that have supplied over 90% of the world's mineral (hard rock concentrate) supply.

**Investment Highlights** 

- Potential low cost entry into lithium market.
- Total production of 1.14 million tonnes of technical grade concentrate 7.2% Li2O.
- Total production of 115,500 tonnes of chemical grade concentrate of 6.6% Li2O
- Lowest lithium acquisitions costs while still open in all directions with expenditures of CAD \$7 million on the project to date resulting in extremely low lithium acquisition costs of exploration at \$33.00/contained Li2O eq. tonne.
- Potential for near-term production of technical grade lithium for the ceramics and glass market and the future possibility to participate in the burgeoning lithium battery market.

## Staged Approach for Growth

Our planned path into the global lithium market realizes the best return on investment and involves scaleable operations.

Frontier's "First path" leads to a "Long Term path", believing that mines build chemical plants and not the other way around.

### First Path: Sell to industrial use market with option to sell to chemical plants.



#### Sell to Industrial Use Market (Ceramic Glass)

Begin to supply rare, low-iron premium spodumene concentrate for ceramic glass market. This means selling it immediately for industrial uses by targeting US and European industrial users of Lithium concentrate.

#### AND OPTION TO

Sell premium low iron spodumene to chemical plant Possibly selling it to a chemical plant for further upgrading to produce lithium compounds such as carbonate or hydroxide required for lithium batteries.

#### This first path satisfies the demands of the ceramics/glass market - representing 1/3 of the entire lithium market.

Ceramic/glass customers prefer to source technical-grade (low-iron) spodumene concentrate in excess of 7% lithium oxide (Li2O), if available, to avoid inferior lower grade petalite concentrates, or paying much higher prices for battery grade lithium compounds that require capital intensive chemical plants.

#### **Long Term Path:** Sell to industrial use market and sell to chemical plants. Become a global producer of compounds in Ontario.



Invest in a chemical plant in Ontario that takes the lithium out of the spodumene and Ontario becomes a global supplier of compounds for the lithium ion battery market. We would still reserve some of the concentrate output from the mine to industrial markets (eg. ceramic glass).