



TORGAT

A world class rare earth deposit with a new world class plan

OVERVIEW

- Strange Lake gadolinite NYF-REE (niobium, yttrium, fluorine, rare earth element) miarolitic pegmatite deposit is one of the world's largest with a 25+ year mine life and significant future expansion potential
- Will produce 11,500 tonnes per year of heavy and light rare earths, including separated, high purity oxides of Nd, Pr, Dy and Tb for the permanent magnet supply chain
- Environmental, social and economic sustainability built into approach and plans
- PEA will be ready in 2019
- Capital ~US\$600M
 - Open pit mine with on-site beneficiation operating year-round at Strange Lake
 - Refining and high purity separation at a new facility in Bécancour

MAJOR BREAKTHROUGHS

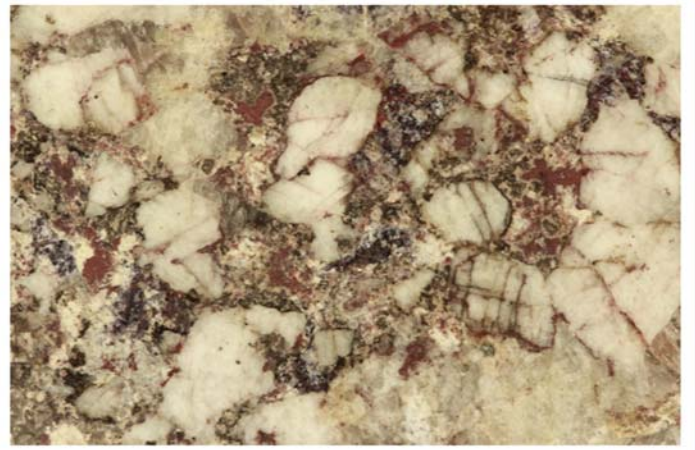
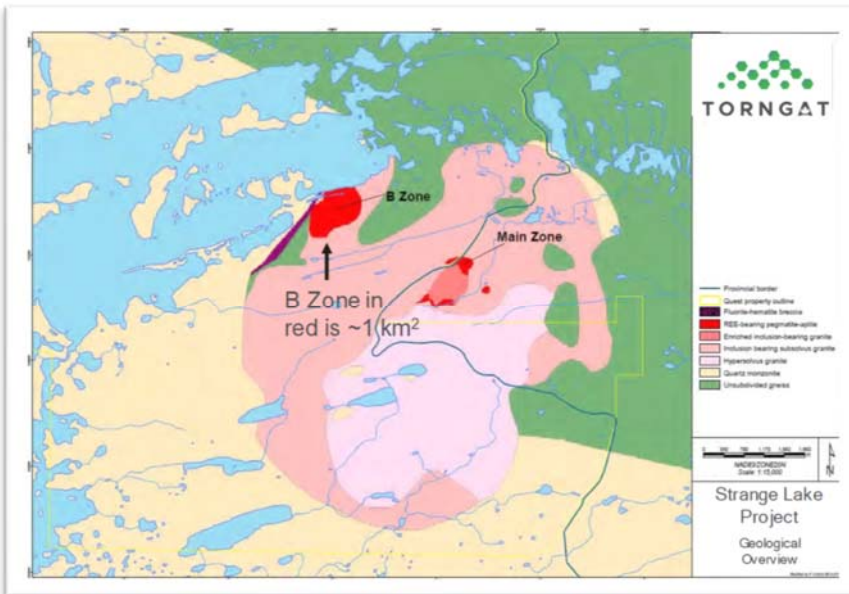
- Significantly lower capital and operating costs due to a new explicit geological model with high degree of confidence in ore grade control; model confirms that rare earths are easily liberated with substantially less grinding
- No new road to be built since Hybrid Airships will be commercially ready and are economic to transport a beneficiation concentrate from Strange Lake to Schefferville and then by existing transportation infrastructure to Bécancour



Area around Strange Lake deposit, view towards Torngat's mining camp



Lockheed Martin's Hybrid Airships will be used to transport ~100,000 tonnes per year of concentrate from Strange Lake



*Image of ore showing net texture with fine grain rare earth minerals and coarser host granite
40 mm field of view*

GEOLOGICAL MODEL AND PROCESSING

- B Zone has total rare earth oxide (TREO) concentration at 1-2%, some areas 3+% TREO
- B Zone has been drilled and sampled extensively, rare earths at or near surface
- New geological model based on 500,000 data points explicitly defines the rare earth mineralization
 - B-Zone contains an Enriched Domain with multiple subdomains identified with high concentrations of TREO
 - Subdomains have been characterized to enable selective mining, improved sorting and significantly smaller beneficiation plant, while producing the same amount of rare earths as the previous plan, and with a higher concentration of rare earths in the concentrate for shipment
- Rare earth minerals are relatively easily liberated during beneficiation
 - Rare earths in free and discrete minerals, dominantly Dy- or Nd- bearing minerals (F, Cl, OH or Si species)
 - Rare earths minerals are predominately in late stockwork, net texture, cavities and fractures between the host granite; this reflects a geological process where rare earth enrichment occurred at a late stage
 - Rare earths are not located within or close to zirconium containing crystals; while uranium and thorium are associated with zirconium crystals
- Beneficiation process plan has been significantly optimized based on the new geological model, significantly reducing capital and operating costs:

