

## **9.4 GEOLOGICAL MAPPING 2012**

In 2012, Quest conducted a property-wide bedrock mapping program to rule out any undiscovered REE or other types of mineralization on the Strange Lake Property. A total of 84 samples were collected during this program. The results do not affect the resource estimation.

### **9.4.1 Strange Lake B-Zone Prefeasibility Study Work**

A 1,000-m drilling program was planned by AMEC of Mississauga, Ontario, to drill geomechanical and geotechnical monitoring holes for the prefeasibility study. These holes were drilled within the proposed pit shell and along its northern edge. In addition, a 150 m condemnation drilling program was planned, south of the B Zone deposit, to assist with the location of the potential mine's infrastructure.

Prefeasibility field work on the B-Zone project commenced in July, 2012, with completion later in 2012. AECOM conducted environmental and off-site infrastructure surveys. All field work in the northern project area was completed in 2012.

### **9.4.2 Strange Lake B Zone PEA Study Work**

A PEA was completed in 2014 to evaluate the potential economic and technical benefits of significant changes to the mining and processing aspects of the Project originally outlined in the prefeasibility study, the results of which were published in a NI 43-101 Technical Report dated December 6, 2013 (Micon, 2013). By definition, the PEA can only indicate the potential viability of mineral resources and cannot be used to support mineral reserves.

The Project is based on the mining and beneficiation of a rare earth element (REE)-rich deposit at Strange Lake in northern Québec, and processing a flotation concentrate at a facility at Bécancour in southern Québec. Processing will recover the rare earths and yttrium contained in the Strange Lake deposit as separated oxides

## **9.5 2015 AND 2016, RENAUD GEOLOGICAL CONSULTING FIELDWORK**

In 2015, Renaud Geological Consulting Ltd. (RGC Ltd.) was retained to prepare a 100 t bulk sample and to conduct a preliminary review of the B-Zone drill core. The bulk sampling program included blasting and collecting a total of 94 t of blasted coarse boulder-sized rock from three surface pits. The breakdown of samples collected include 15.5 t from Pit 1N, 38.7 tonnes from Pit 1S and 11 t from Pit 2. The remainder of the sample was composed of 16.9 t of MET drill core and 11.8 t from a bulk sample previously collected by Quest personnel. The selected MET holes and older bulk sample were collected from a secure storage facility in Sept-Iles, QC. All samples were submitted to COREM, QC, for mineral processing and metallurgical testing. The results are pending. Figure 9.3 shows the location of the surface pits and MET holes.

ice at Lac Brisson to target the extension of pegmatite mineralization under the lake. Drilling at the B Zone successfully intersected pegmatite-hosted REE mineralization in all 22 holes. At the Alterra project, drilling intersected pegmatite in three of four holes drilled.

#### **10.4 DRILLING, SUMMER 2011**

During the 2011 summer program at the Strange Lake Project, drilling expanded beyond the B Zone. Drilling at the B Zone was focused on definition drilling, infilling areas between the 2009 and 2010 holes, and also following unconstrained mineralization in the southwest, east and north of the deposit. B Zone definition drilling totalled 17,257.0 m over 138 holes and 3,515.1 m over 29 additional holes for metallurgical purposes. Drilling at the B Zone was successful in further delineating the pegmatite continuity as well as determining the edges of the pegmatite system. Although not all holes intersected pegmatite mineralization, background TREO in the granites was consistent with results from the previous seasons. Drilling in 2011 was conducted at a high enough resolution to allow for generalized three-dimensional geological modelling of the pegmatites and alteration types.

Drilling at the FLBX target included three holes for a total of 360.0 m. The FLBX drilling was focused on intersecting the subsurface projection of REE-mineralized veins, fractures, aplite dikes and quartz-rich pegmatites, all of which cross-cut the Archean country rock augen gneisses. Drilling successfully intersected narrow REE-mineralized aplite dikes and pegmatites from the SLAC in all three holes.

Drilling at an area called “Proposed Airport 6”, or PA6, was planned to test for REE mineralization along the strike length of a proposed permanent airstrip required for future development. This condemnation drilling was planned for four holes but only a single hole was drilled in 2011, the remaining three being completed in 2012. Hole PA611002, 63.0 m deep, did not intersect any pegmatite, but pervasive hematite alteration similar to the B Zone occurred from top to bottom and average TREO grades for the granite were similar to those of the B Zone granites.

Condemnation and geotechnical drilling was undertaken in the summer of 2011. Condemnation drilling at an area named Proposed Tailings 1 was conducted to test for pegmatite-hosted REE mineralization in an area proposed for tailings storage and totalled 679.2 m over 10 holes. Geotechnical drilling was conducted at the B Zone. Groundwater monitoring wells were drilled west of the proposed tailings storage area and several condemnation holes in the Proposed Tailings 1 storage area were twinned for installation of monitoring wells. In total, geotechnical and groundwater drilling totalled 217 m in 17 holes. Groundwater monitoring holes did not penetrate bedrock and contribute zero metres to this total. It should be noted that the prefeasibility study did not envisage processing and tailings disposal at the mine site.

Winter drilling at the B Zone is presented in Figure 10.3 and summer drilling areas are shown in Figure 10.4.

In the summer of 2012, exploration drilling was expanded beyond the B Zone to follow up on previously identified surficial mineralization. Initially, drilling was conducted at the B Zone in the southwestern extension of the deposit. Here, 1,406.35 m was drilled over 10 holes. This drilling was a combination of step-out drilling and infill, where spacing in 2011 was 100 m rather than 50 m. Pegmatite mineralization was intersected where expected during infill, increasing the confidence levels in geological modelling. Step-out drilling also intersected new mineralization in the southwest, though not all holes successfully intersected pegmatites.

Outside the B Zone, drilling for REE exploration purposes was conducted at ALTW, FLBX and SLW. Geotechnical drilling was conducted in a number of additional areas nearby to the B Zone and also more distal, such as at PA6, the proposed airport site. ALTW is a geophysically anomalous area defined by a 2012 IP-resistivity survey conducted by Abitibi Geophysics. Results here were poor and no obvious cause for the conductivity and resistivity anomalies was defined. The FLBX area is immediately south of the B Zone and may be spatially related to the B Zone. Drilling was designed to test a number of surface features including mineralized pegmatites that breach the host augen gneiss. Drilling successfully intersected the expected targets, though thicknesses were less than expected and REE grades lower than expected. SLW is a zone approximately 1,500 m southwest of the furthest south drilled holes at the B Zone. This zone was drilled on the basis of two IOCC holes that intersected pegmatites but were never followed up. Quest drilling successfully intersected pegmatites in all three holes, ranging from a total of 1.33 m to 5.94 m of pegmatites. Table 10.4 summarizes the 2012 drilling.

**Table 10.4**  
**Summary of 2012 Drilling**

<b>Zone</b>	<b>Metreage</b>	<b>Number of Holes</b>
Alterra	1,089.9	11
ALTW	306.0	3
B East	452.0	3
B Zone	1,406.4	10
FLBX	348.0	3
Geotechnical	950.0	24
Proposed Airport 6	194.0	3
SLW	328.6	3
<b>Total</b>	<b>5,074.8</b>	<b>60</b>

### **10.5.1 Strange Lake B-Zone Prefeasibility Study Work**

A 1,000 m drilling program was planned by AMEC to drill geomechanical and geotechnical monitoring holes for the previous prefeasibility study. These holes were drilled within the proposed pit shell and along its northern edge. In addition, a 150 m condemnation drilling program was also planned, south of the B Zone Deposit, to assist with the location of the proposed mine infrastructure. This drilling did not affect the 2012 updated mineral resource estimate conducted by Micon.