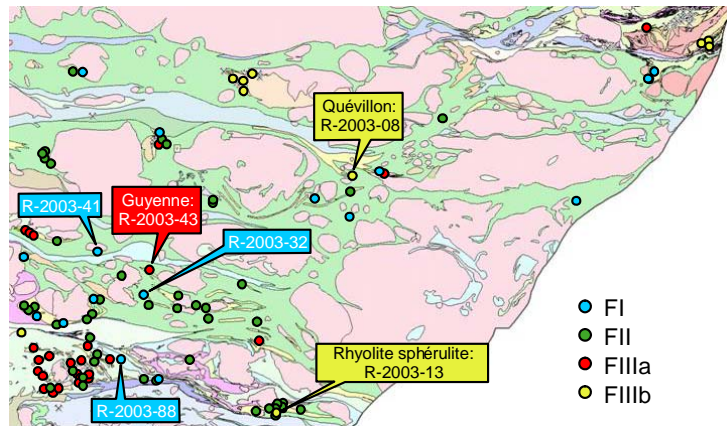


Project 2003-5A: Geochemical classification of favourable felsic volcanic environments

Major felsic centres of the Abitibi Subprovince were sampled to determine their potential for volcanogenic mineralisation. The purpose of the sampling was to compare the felsic centres using the Lesher et al. (1986) classification that uses trace elements Zr-Y and La-Yb. The sampled felsic centres include among others: Bousquet, Chibougamau, Hunter Mine, Joutel, Matagami, Noranda, Kinojévis, Normétal, Quévillon, Selbaie, Turgeon-Gemini, Val-d'Or and Lasarre-Senneterre. The felsic rocks of the Noranda camp show an FIIIa signature that is also recognised locally elsewhere in the northern part of the Abitibi. The Matagami felsites are characterised by their FIIIb-type tholeiitic signature, also found in a few places in the Abitibi, in particular from Lemoine to Chibougamau. Whereas the transitional FII-type rhyolites appear to be relatively neutral in terms of fertility, (with the exception of the Val-d'Or region), the FI-type rhyolites of calc-alkaline affinity appear to have a high potential for gold mineralisation.



Location of areas of interest determined using new lithogeochemical data from Abitibi rhyolites interpreted from rare-earth diagrams and fields defined by Lesher et al. (1986).

Summary: Project 2003-5A	
Objectives	<ul style="list-style-type: none"> • To classify felsic centres in the Abitibi Subprovince in terms of fertility. • To establish the lithogeochemical characteristics of felsic volcanic environments thought to be favourable. • To identify new favourable areas.
Results	<ul style="list-style-type: none"> • Sampling of the major felsic centres in the Abitibi; • Classification based on Lesher, Barrie, etc.; • Identification of sectors containing fertile samples in poorly explored areas.
Tools and Innovations	<ul style="list-style-type: none"> • Improvement of exploration guides based on the geochemical affinity of the felsic centres.