

terrane. The objectives of this study were to establish the detailed architecture across the shear zone, characterize the lithostratigraphic relationships of units and examine the kinematics of deformation. The methodology comprised detailed structural and lithological mapping in conjunction with microtextural analysis. Two primary exposures were studied, the northernmost being part of the Mirror Creek formation and the southernmost consisting of Triassic gabbros. The northern exposure consists mostly of quartz-muscovite schist, carbonate schist, quartzite and a mixed metasedimentary unit. The southern exposure is highly altered with two main lithologies, a chlorite schist and a fuchsite schist, plus a marble that does not seem to be depositionally related to the latter units. The deformation geometry is fairly consistent in both outcrops. F_1 and F_2 folding generations are nearly coaxial to each other and trend northwest-southeast. S_1 and S_2 commonly cannot be distinguished from each other on the regional scale and form a composite foliation. Transposition through isoclinal folding occurs for both generations. F_1 and F_2 fold axes form a small circle around the F_3 axis, which has a general orientation of 22° - 211° and is defined by crenulations as well as open folds. S_3 foliation is rare, and where found is a discrete, spaced cleavage. Microstructural work shows development of complex tectono-metamorphic fabrics that correlate with the macroscopic field observations.

Geology and architecture of deformation associated with the Scottie Creek fault, western Yukon

LISE ROBICHAUD

*Department of Geology, University of New Brunswick,
Fredericton, NB, E3B 5A3 Canada <f332m@unb.ca>*

The northwestern Canadian Cordillera is a complex assemblage of tectonic terranes defined on the basis of age, lithologies and metamorphic history. Within southwestern Yukon, the relationships of terrane boundaries remain ambiguous. The Scottie Creek fault and its associated shear zone marks the boundary between the newly defined Mirror Creek Formation and Triassic gabbro and Snowcap metasedimentary assemblage of the Yukon-Tanana terrane. Previously, the Mirror Creek Formation had been assigned to the Windy-McKinley