

Mineral deposit and glacial dispersal investigations, Willett Showing, northern New Brunswick

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A comprehensive project involving bedrock and surficial mapping, mineral deposit and glacial dispersal studies of the Willett massive sulphide showing, located 35 km southwest of Bathurst, New Brunswick began in 1994. High grade massive sulphide boulders were originally discovered by prospecting in 1975 by Claude Willett. Although a bedrock source was known for the boulders, several companies have worked the property over the years, with little success. Recently, Freewest Resources re-established old grids and trenched the area of the original discovery, uncovering a lens of massive sulphides (approximately 1 m thick and 10 m in length) with grades up to 13.17% Cu, 12.83% Pb, 9.78% Zn, 473.83 g/t Ag and 4.1g/t Au. The sulphide lens is hosted by a sedimentary melange that contains blocks of strongly sericitized and pyritized rhyolite (10 cm to 5 m in length) in a matrix of black slate and wacke. Within this unit an east-west trending horizon characterized by abundant rhyolite blocks can be traced for 700 m. The sulphide lens and host rocks have undergone at least three phases of deformation that are distinguished by three distinctive penetrative fabrics. The first and second deformational events resulted in the development of east-west and northwest trending fabrics respectively. These are offset by north-south striking sinistral faults

associated with the third deformation. Extensions of the lens have been found to the west and northeast. Outlining the sulphide zone at depth and along strike will be the focus of future exploration. A detailed structural interpretation and lithogeochemical survey is ongoing.

The property lies in an area of flat to gently rolling topography of the Eastern Miramichi Highlands. Regional surficial mapping indicates that ice movement affecting the area was eastward (080°-110°) followed by northeastward and southeastward flowing ice off the central Highlands. Detailed mapping of ice-flow indicators in the new trench supports this chronology. Fine-coarse, sandy-clayey-loamy basal till is very thin (generally <1 m), but several old trenches contain thicknesses exceeding 3 m. Regional till geochemistry and till pebble lithologies suggest glacial dispersal was very local (<500 m-1 km). Closely spaced sampling (45 samples [basal till and pebbles from till] on 250 m spacing) and detailed surficial mapping, is underway to firmly define the glacial dispersal of sulphide material and till geochemical anomalies down-ice from the Willett Showing. It should be noted that several boulder erratics from the Mount Elizabeth Intrusive Complex, located approximately 20 km up-ice, were found on surface in the area of the showing.