

## **William Lake Nickel Project, Manitoba Pure Nickel Inc., Toronto**

**LOCATION:** The William Lake Nickel Project is located in north-central Manitoba, Canada, 450 km NNW of the provincial capital Winnipeg and 230 km SSW of the city of Thompson.

**STORY:** The William Lake Property (WLP), was explored by Falconbridge (now Xstrata Nickel) from 1989 to 2002, including airborne and ground geophysical surveys and 260 diamond drill holes totaling 136,542 m (drill spacing varies greatly from 150 m to more than several km apart). Pure Nickel Inc. acquired the WLP from Xstrata in August 2007, and conducted a fall-winter program over 2007-2008 that included 7,525 m of diamond drilling (15 holes) and a VTEM 1159 line-km airborne geophysical survey.

During 2008, new drilling of the 56N Zone along the William Lake trend has, for the first time in the southern extension of the Thompson Nickel Belt (TNB), discovered nickel-enriched sulphidic iron formations comparable in thickness and grade to that found at Thompson.

**GEOLOGY:** The WLP is located along the southern extension of the TNB, which is part of the Paleoproterozoic Circum Superior Belt, a rifted cratonic margin. Along the TNB, nickel sulphide deposits are associated with ultramafic komatiite sills dated at 1,880 Ma that intrude Paleoproterozoic sedimentary rocks of the Opwagan Group. The Opwagan Group rocks consist of conglomerate, greywacke, iron formation, and pelitic to calcareous sediments capped by mafic and ultramafic volcanic rocks. The ultramafic bodies intrude the Archean basement gneisses and the Opwagan Group sedimentary rocks up to the level of the lower member of the Setting Formation, but are only significantly mineralized where they intrude the Pipe Formation.

**DEPOSITS:** The recent 2007-2008, fall-winter drill program, discovered a significant new mineralized zone and new type of nickel mineralization for the southern extension of the TNB. The most significant hole in the new zone (56 N), was drillhole WL-08-PNI-360b, which intersected a sulphidic iron formation having numerous massive sulphide intervals (greater than 75% sulphides) from the 402 m to 426 m interval. The massive sulphide intervals returned Ni grades, ranging from 0.87% to 1.62%, with an average Ni / Cu ratio of 11.8 (a unique geochemical signature to Thompson ore deposits). For the first time in the William Lake Trend, nickel mineralization was discovered comparable to the styles of mineralization and stratigraphic thicknesses typical to the Thompson Nickel Belt. This discovery has the potential to be sizeable as the recent VTEM survey indicates that there are over 700 m of strike length of this anomaly untested to the north of drillhole 360b. The Pure Nickel discovery is the first find of ore-grade and near ore-grade Ni-enriched intersections of sulphidic iron formations in the southern extension of the Thompson Nickel Belt.

**DISPLAY:** Two boxes of core displaying nickel-enriched sulphidic iron formation and its microscopically similar barren counterpart from zone N56 will be displayed. Cross-sections and maps to illustrate the deposits will also be displayed.