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Pierre Bussière's Claims, Lyndoch Township, Renfrew County Ontario

Members of the OLMC were invited to visit a number of claim/mining leases owned by fellow member Pierre Bussière. The field trip organizers for the two groups, Frank Stoyles, Lapidary Group, and Christian Rochefort (author), Mineralogy Group, accompanied by OLMC member, Dr. Santa Man Rai, Geologist, visited the site on Saturday May 28, 2016.

The claims are roughly centred around 45° 19' 03.2"N and 77° 17' 04.2W (red star on the following map) in Lyndoch Township, Renfrew County.

Pierre has also expressed the desire to get as much help as he can and we have decided to help him to the best of our ability and knowledge.

Bedrock geology (See Section of Map M2544 – Southern Sheet, page 3)

The claims are located in the Metasedimentary Belt of the Grenville geological province. The bedrock in the location of the claims are carbonate metasedimentary rocks composed of marble, calc-silicate rocks, skarns, and tectonic breccias (#43 on the map).

To the north and south-east, the bedrock consists of alkalic plutonic rocks: nephelinesyenite, alkali syenite, fenite, associated mafic, ultramafic and carbonatic rocks (#45).

To the west-south-west (Quadeville), there is a band of mafic to ultramafic plutonic rocks consisting of diorite, gabbro, peridotite, pyroxenite, anorthosite, derived metamorphic rocks (#46).

Surficial geology

The area is covered by unconsolidated glacial deposits of boulder, gravel and sands left when the glaciers melted and deposits of clay, sand and gravel from the Champlain Sea that existed 10000 years ago. The area is covered by soil and a semi-dense forest.

Minerals of interest (See Map from Memoir 195, page 4)

Gold and Platinum (Au and Pt) have been found by Pierre and his team, the most recent find was on May 28 and done by sluicing.

Because Au and Pt were found, this is very likely a placer deposit which is a concentration of high-density minerals in sand and gravel in streams, riverbeds, and beaches. Gold and to a lesser extent, platinum and diamonds are the most common types of placer deposits. Placer deposits can also be found in ancient, inactive river channels. Somewhere, there is a source magmatic deposit of nickel-copper and Platinum Group Elements (PGE) also known as Platinum Group Minerals (PGM), which include platinum and palladium plus 4 others.

Pierre Bussière's Claims, Lyndoch Township, Renfrew County Ontario

Χ. ..

A memoir titled "Mineral Deposits in Renfrew County and Vicinity", 1936, by B.C. Freenman, Canada Department of Mines, revealed that gold and platinum were found in other townships north of Lyndoch but not in Lyndoch: gold in Brudenell Township, adjacent to Lyndoch to the north, Radcliffe Township, which is adjacent to and to the west of Brudenell Township. Gold and platinum were reportedly found in McKay Township which is much further north, west of Petawawa on the east edge of Algonquin Park. The fact that gold and platinum are found in Lyndoch Township may support the hypothesis that glacial movement and ancient water flow may have carried the gold from the other townships.

According to the memoir, there were scattered prospect in Brudenell and Radcliffe townships but "In no place were large values obtained and none of the prospects is at all promising." The only thing that is said about McKay townships is "The gabbro mass in McKay Township contains a few veinlets consisting of quartz and feldspar which have yielded traces of platinum, gold, silver, copper and nickel."

In light of what has been found by the prospector and his team, I suggest that a sampling program be put in place on the claims to find the extent of mineralization and to try to find the source of the minerals. (See GoogleEarth view on page 5).

The sampling does not need to be that accurate at first. The idea is to try to determine the extent of mineralization. A very accurate sampling program can be done later if the prospector chooses to do so.

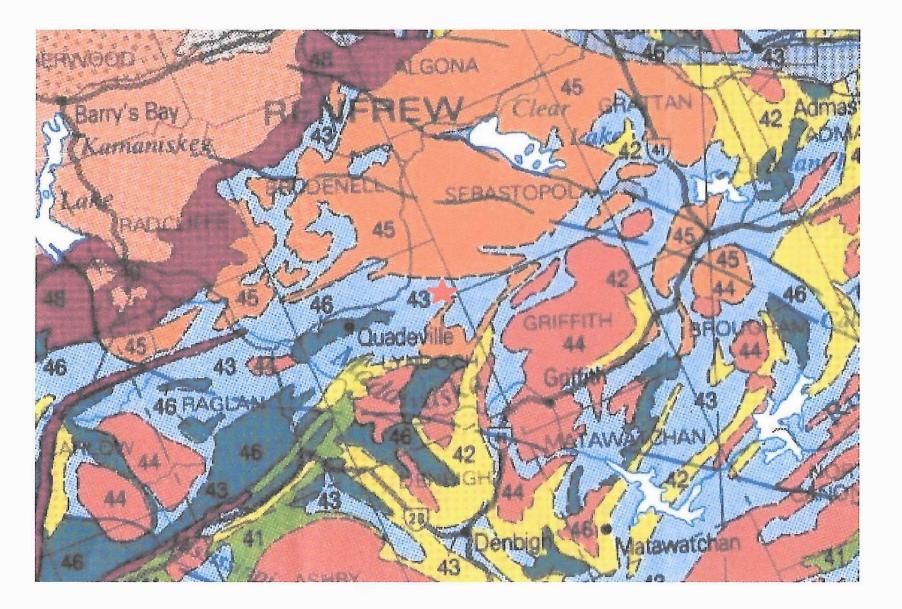
Each line intersection is a sampling point. The red lines are 200 metres apart and the yellow lines are 100 meters apart. Since this is a rather hilly terrain with dense bush/forest, this grid could suffice at this time.

At each point, a small bucket or bag of dirt would be taken up to 60cm deep and brought to the sluice. The points need to be identified on the map and on the samples in order to see where the major concentration of minerals is located.

By doing this with care, a fairly good picture of the mineralization of the area could be achieved.

Section of Map M2544 – Southern Sheet Bedrock Geology of Ontario Ministry of Northern Development and Mines (Ontario)

Published 1991



Map from Memoir 195 Mineral Deposits of Renfrew County and Vicinity

B.C. Freeman, 1936 Canada Department of Mines

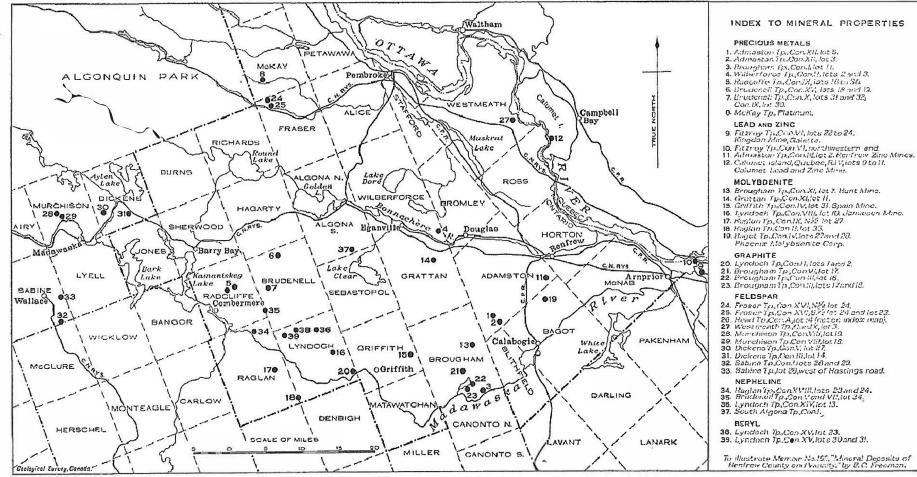
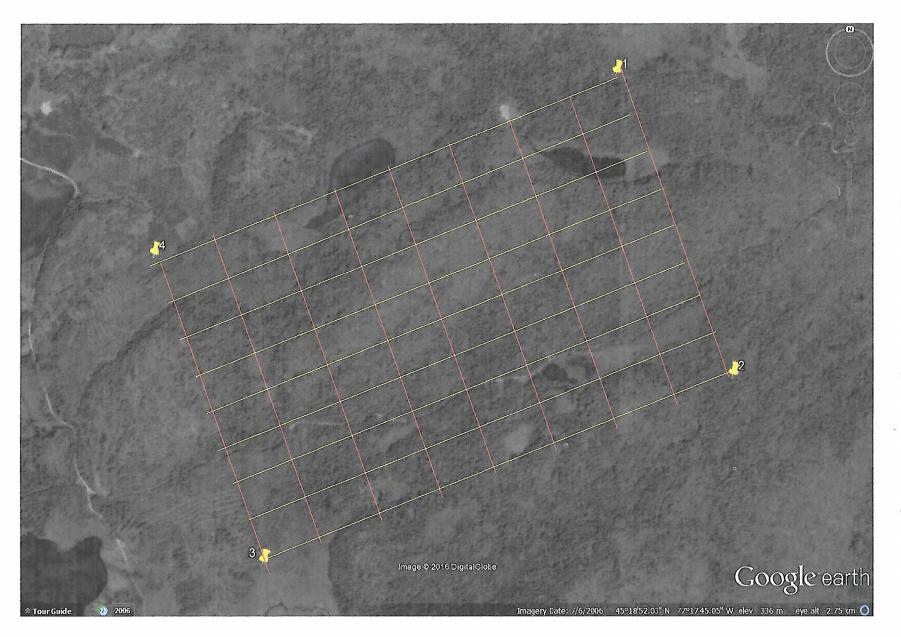
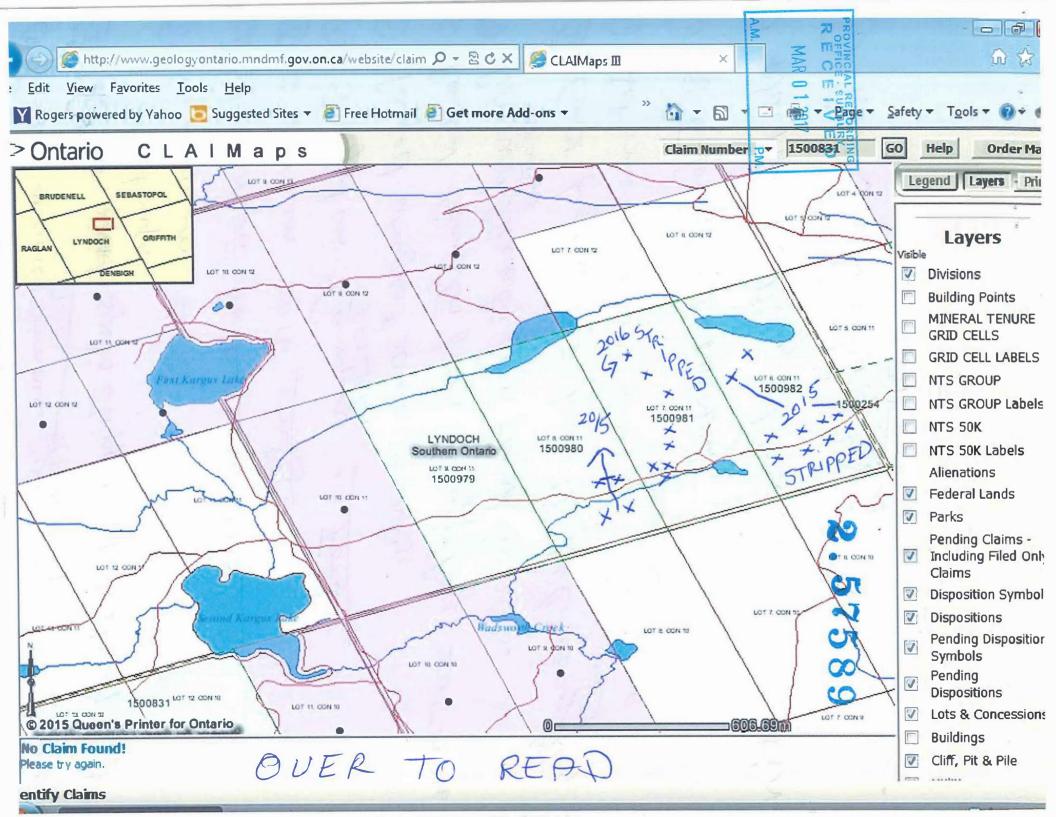


Figure 1. Index showing location of mineral deposits in Renfrew county, Ontario, and visinity.

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GoogleEarth view showing Area covered by claim numbers 1500979, 1500980, 1500981,, and 1500982 From west to east





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