11 – **Glomeroporphyritic Diabase**: This is another type of porphyry containing rounded masses of greenish feldspar.

12 - **Otto Stock Syenite** with mafic inclusions.

13 – **Mica Lamprophyre**: This rock type commonly occurs as a crack filling a few metres thick. The sparkly bits are fine flakes of mica. This rock type has been know to carry small diamonds and is a close cousin to Kimberlite.

14 – **Diorite**: This is a fine grained intrusive rock related to granite. The dark colour is due to the high iron and magnesium content.

15 – **Limestone**: This is a sedimentary rock formed in still water on the ocean floor. This is a soft rock high in calcium and is often made up of compressed fossil shells.

16 – **Granite**: This is a fine grained intrusive rock type that makes up most of the Canadian Shield. The light coloured minerals that form this rock are mostly feldspar and quartz.

17-18 – **Granite Gneiss**: This rock is highly metamorphosed granite that displays strong banding as a result of the metamorphic process. The rock was subjected to high heat and pressure that re-crystallized the original mineral grains.

19 – **Syenite:** This rock is mostly fine grained feldspar and is the main host rock for the gold deposits of Kirkland Lake – smaller piece has quartz veins.

20 – **Tuff:** This rock is made up of volcanic ash – note brown and grey layers containing fine pyrite (fool's gold) specks and streaks.

21—**Lava:** Basalt with Quartz/Calcite veins.

22—**Cobalt Silver:** The ore contains white Calcite vein, and the pink band is oxidized Cobalt.

23 — **Minto Mine gold ore** with quartz veins and pyrite. Note broken fragments of wall rock in quartz vein (breccia).

TOUGH / OAKES / BURNSIDE

TOBURN

GOLD MINE

Toburn Mine Site Self–Guided Tour

View of Hoistroom Interior

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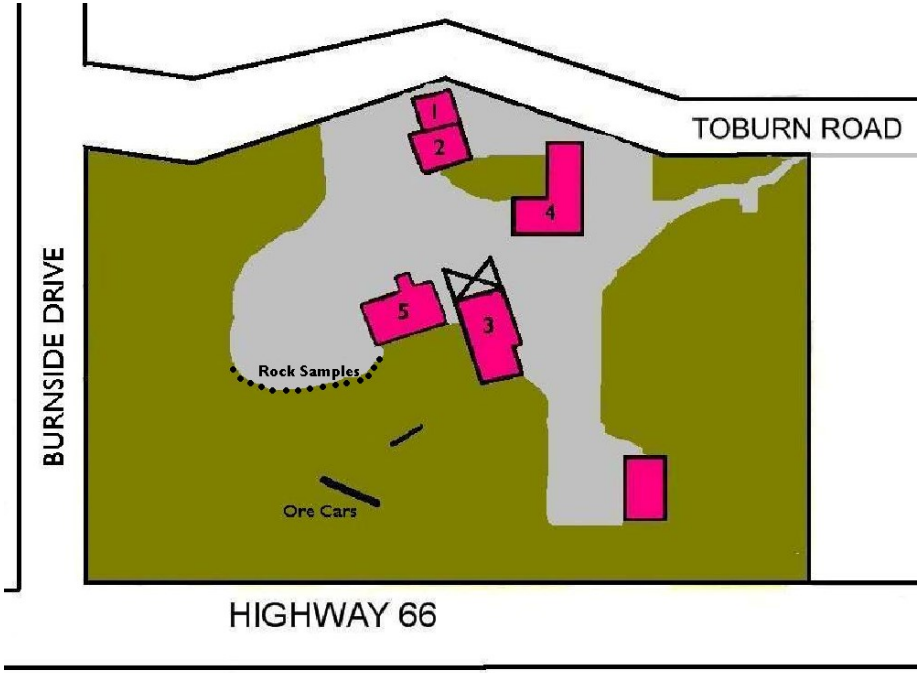
*The **Toburn Operating Authority** is a non-profit organization of volunteers from the community who have an interest in preserving the mining history and structures of Kirkland Lake's mining past.*



BUILDING DESCRIPTIONS

1 – **Office**: This building was originally the time office where miners punched in and out when they went underground and returned to surface.

2 – **Hoistroom**: This building houses the hoist which raised and lowered the cages in the two compartment shaft in the headframe. The interior can be viewed through the window – lights will come on automatically as you approach the window.

3 – **Headframe**: This building houses the shaft that accessed the underground workings as well as the ore bin where hoisted ore was dumped before going to the mill.

4 – **Dry**: This building was the change-room where miners changed from street clothes to work clothes. Wet work clothes were hung in baskets to dry between shifts.

5 – **Compressor House**: This building houses a compressor used to power pneumatic drills and mucking machines underground. Part of the building was also used as a workshop. The compressor can be viewed through the window – lights will come on automatically as you approach the window. A video display is also housed in this building and will start automatically as you approach the window.

ROCK DESCRIPTIONS

1 – **Timiskaming Conglomerate**: This is a sedimentary rock deposited by moving water in a river bed. The pebbly top and bottom layers were deposited during a period of rapid flow. The coarse sandy layer in the middle was deposited when the river was flowing more slowly.

2 – **Green Carbonate**: This is a local name for a metamorphosed lava. It was black when it flowed from the volcano but was subject to intense natural forces that caused a green chrome mica to form, imparting the green colour.

3 – **Pillow Lava**: This lava flowed under the ocean as small streams that sizzled when they came into contact with the cold water. The rims around the odd shapes are the result of the rapid chilling.

4 – **Feldspar Porphyry**: This rock came from magma that cooled very slowly deep inside a volcano, allowing time for both large and small crystals to grow.

5 – **Matachewan Porphyry**: This rock is a close cousin to the feldspar porphyry but the crystals are white due to their sodium content, whereas feldspar rich in potassium is pink.

6 – **Core Car**: Please feel free to take home a souvenir.

7 – **Gowganda Formation Conglomerate:** This rock is much younger than the Timiskaming conglomerate noted above and is a glacial, rather than river deposit.

8 – **Quartz**: This is a piece of a quartz vein and is almost all silica. Many gold deposits are found in Quartz veins.

9 – **Kirkland Lake Gold Ore:** Pink Syenite with quartz veins and gold-bearing Pyrite.

10 – **Iron Formation**: This rock is made up of sedimentary material that was deposited in a shallow marine environment. The reddish bands are layers of magnetite, an iron mineral.