

**UNPUBLISHED REPORT 1969/33**

**Description of a sand sample from a borehole at Bonneys Plains**

*by G. B. Everard*

The following is a description of a sand sample collected by Inspector H. Murchie at Bonneys Plains, west of Avoca.

The sample, which is said to be toxic to plant life, is a fine sand with grains averaging about 1 mm across. It is of a yellowish brown colour and contains numerous platelets and books of white mica visible to the eye. Dead organic matter, such as small vegetation fragments and parts of insects, are common. The sand shows a strong tendency to cake into small composite masses.

Under the microscope the sample consists of angular grains of feldspar, muscovite and quartz with smaller amounts of magnetite, pyrite, zircon, topaz and traces of cassiterite. The amount of fresh feldspar in sharp angular grains and splinters is unusual and indicates minimum weathering and stream abrasion, although there are also some opaque white grains and grains heavily stained with limonite. There is nothing in the mineral content of the sand to suggest why it should be toxic to plants.

*[11 December 1969]*