

## Facts Sheet 2: Moanataiari subdivision

# Soil testing and results

Waikato Regional Council has tested the soil, mainly from roadside verges, at Moanataiari. The results show arsenic levels that could affect health. People can reduce health risks by reducing the amount of soil they swallow or dust they breathe in.



### Part 1 - Soil sampling at Moanataiari

<b>Date</b>	26-28 October, 2011
<b>Number of sites</b>	28
<b>Depth</b>	10 centimetres approx, 0.5 metres, 1 metre and 1.5 metres (results from 1.5 metres not yet analysed)

All samples tested for antimony, arsenic, cadmium, chromium. Some samples were also tested for a wider suite of 32 trace elements, and petroleum hydrocarbons.

### Part 2 - Follow up across more sites

<b>Date</b>	15 November, 2011
<b>Number of sites</b>	Surface testing at 80 locations using a portable instrument called an X-Ray Fluorescence Spectrometer.

## Results

### Arsenic

- The National Soil Contaminant Standard (SCS) for arsenic of 20 mg/kg for residential soils exceeded in all locations except the school playing field, with the exceedance level ranging from marginal to substantial.
- The highest concentrations were in the part of the subdivision east of Kuranui Rd
- The top surface sample result was 350 mg/kg.
- Arsenic concentrations increase with depth – the two highest readings were 1020 mg/kg and 4700 mg/kg.
- This seems to confirm the presence of mine tailings at depth and the partial effectiveness of the cap in keeping arsenic from surface soils.
- At some locations, it is also likely that various excavation activities over the years have resulted in material containing arsenic being dug up and left on the surface.
- This suggests the need for testing of private properties to confirm the situation at each property.

### Other heavy metals or chemicals

There are also potential issues with other metals at a few locations.

Petroleum hydrocarbons were tested at 11 locations where the soil samples indicated a possibility for these, but were only detected at one of these locations, and at concentrations below levels which would cause concern.