

# IRON BACTERIA

in the Blue Mountains



## What is it?

There are several forms of natural bacteria that grow and multiply in water and use dissolved iron as part of their metabolism. They oxidise iron into its insoluble ferric state (RUST) and deposit it in the slimy gelatinous material that surrounds their cells.

By-products from this process form an oil-like sheen on top of the water.

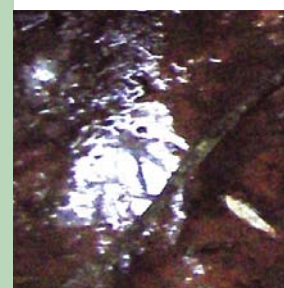


Have you ever been down to your local creek and seen a redish-brown slimy material on the rocks and reeds in the bottom of the creek?

You may also notice something that looks like oil on top of the water in the same location.

Sometimes you might see the same things where water is seeping out of the ground.

Well don't panic, the chances are that what you are seeing is NATURAL.



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## PLACES WHERE YOU ARE MOST LIKELY TO SEE IRON BACTERIA

- On the rocks near waterfalls.
- Where sandstone has been crushed and used as fill for roads, etc.
- On steep slopes where water seeps out of the ground.
- Creeks that are fed by groundwater (water flowing under the surface.)

## Checking that it is IRON BACTERIA

There are a couple of things that you can do to check whether the stuff you are looking at is iron bacteria.

### 1. It shouldn't SMELL TOXIC

It is possible that you might smell something that you might associate with decaying matter in a swamp. This is OK, as it is likely that the bacteria are dying (especially if they are being dried out by the sun). You shouldn't smell things like petrol, oil, chemicals or sewage.

### 2. The STICK TEST

Poke a stick into the material that looks like an oily film on top of the water. If it fractures like ice on a pond and doesn't join back together then it is probably associated with the iron bacteria. IF IT CLINGS TO YOUR STICK AND JOINS BACK TOGETHER THEN IT COULD BE OIL (call the Pollution Line).

## Why is it Happening?

Surface water and groundwater in the Blue Mountains is naturally high in dissolved iron because of the types of rocks found throughout the area in which we live (ie. IRONSTONE). Our waters are also generally high in dissolved oxygen - perfect conditions for the iron bacteria to thrive in!

**POLLUTION LINE 131 555**



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