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## 53 Nenthead

**Theme:** Heritage and mining

### Location

53 Nenthead — lead mining. There is a car park 250 metres north of the mines [NY 782 435].

### Description

Nenthead sits at 440 metres above sea level in the North Pennine hills. While it may be a quiet place now, 150 years ago it was the centre of lead and zinc mining in Cumbria.

The Victorian public buildings in this small, Quaker-built, mining town are clues to its heritage, as are the sparsely vegetated spoil heaps, the reservoirs and the mine entrances around it. Nenthead lies within the North Pennine Orefield, which was the most productive area of lead and zinc mining in Britain. Mineral veins cut across surrounding hills and valleys. Exactly why the mineral wealth occurs here is still debated. The fact that this part of the North Pennines conceals the 400-million-year-old Weardale Granite is one theory, another is linked to the magma that injected the Whin Sill 295 million years ago. The concept is that mineral-rich fluids permeated 330-million-year-old Carboniferous rocks via a rectangular pattern of faults and fractures and replaced some of the limestone layers they cut through. The ore was smelted in the valley and long stone-lined flues took the poisonous fumes away to chimneys on the hills. Other valuable minerals, like silver and cadmium, precipitated on the walls of these flues. Mining had its heyday here a century ago and eventually stopped altogether in 1961. But only ten years ago a Canadian company started prospecting for zinc. Several deep boreholes located mineral deposits and should the world price of zinc continue to rise then there may be an application to mine here again.

Meanwhile, Nenthead's mining heritage is there to experience, from the mines and smelting remains looked after and kept accessible by the Nenthead Mine Conservation Society to the many spoil heaps with their minerals and very special botany. Lead, zinc and cadmium may be toxic to most plants but some like spring sandwort, mountain pansy and Alpine penny cress have a genetic tolerance to the waste and thrive.

### Photographs

(Photo 53-1) 53 Lead and zinc ores (galena and sphalerite) from Nenthead mines.

(Photo 53-2) 53 Nenthead.



*(Photo 53-1) Lead and zinc ores (galena and sphalerite) from Nenthead mines.*



*(Photo 53-2) Nenthead.*