

Muirshiel Barytes Mine

The disused Barytes Mine is located 4 km (2.5 miles), from Muirshiel Visitor Centre, high in the moorlands of Clyde Muirshiel Regional Park. The mine closed on 5th September 1969 having been worked for about 200 years.

Recorded Ownership

Around **1918** the mine was being run by the Muirshiels Mineral Co. of Lochwinnoch. There was a break in production from 1920 until 1942.

In **1942** the mine was reopened by Messrs. Keir and Cawder Ltd. and Messrs. James Millar Son and Co. Ltd. In **1947** the Muirshiel Barytes Co. was formed and new shafts were sunk to work veins at depths of 210, 310, 410, 510, 600 and 660 feet (over 200m deep). In **1960** operations were taken over by Anglo Austral Mines Ltd. and in **1962** by **Rio Tinto** Zinc until closure.

Production

In the early years production was probably low and likely to have been mostly open cast along the general lines of the 3 gullies. These can be seen today running NE-SW. The older workings also included several adits or horizontal tunnels following the mineral veins. The total production for the period 1859 to 1920 was 17 678 tons. By the mid 1940's deeper shafts gave access to more veins and production increased to 1580 tons in

1944, 5970 tons in 1946 and 12 002 tons in 1949. The highest production in one year was 16 987 tons in 1964. Total production from 1943 to 1969 was 274,024 tons (Laurence).



*The dressing plant near the old bridge
1920's Photo: the Clark family*

Many local people from Lochwinnoch and Kilbirnie worked in the mine. The number of workers varied over the years, in the early 1960's up to 48 were employed, of these 11 were skilled miners and each had an assistant. There were also maintenance workers and



*Muirshiel mine No.5 shaft June 1967
Photo: D. Laurence*

In the early years the barytes was dressed, or processed, at a grinding mill close to Muirshiel Visitor Centre. The ruins of the mill, stables and workers homes can still be seen today near the collapsed bridge over the River Calder. After the mine reopened in 1942 the barytes being mined was of a purer grade and was sent directly to a dressing plant in Glasgow. In the 1960's production from an east/west vein was of lower quality and a new dressing plant was built near the mine, the settling pools for this can still be seen there at the bottom of the lower gully.

surface workers. There was no electricity until 1960 when electrical winding gear was installed to run the wagons and to lift the barytes to the surface to be loaded into lorries. Before the electricity arrived all the stone and mineral was moved to the surface in wagons, run on rails, using human or horse power. It was a dirty, wet and dangerous job; many men were killed or badly injured by rock falls or accidents with explosives. The worst accident at the mine happened above ground, in snowy weather, when the truck taking the men across the moorland came off the track and several lost their lives.

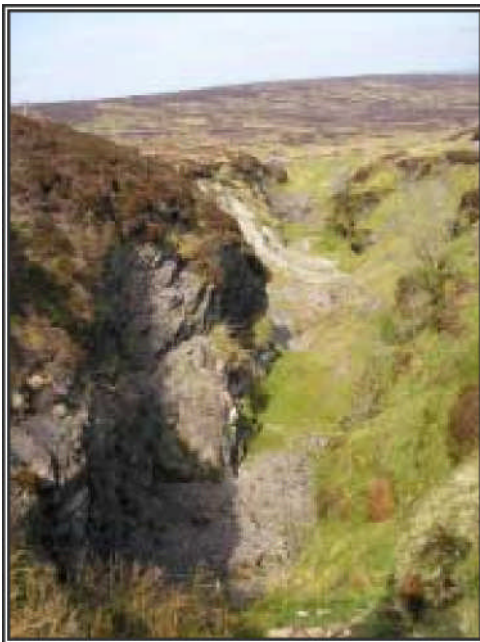
Use of Barytes

The barytes they were digging for is a naturally occurring mineral with the chemical name Barium Sulphate. The common name, barytes, comes from the Greek word barus meaning heavy, which it certainly is, being four and a half times denser than water.

Since the early **19th century** barytes has been used in the production of **paint, cosmetics, paper** and **porcelain** because of its value as a dense, white pigment. It was also used in the **India tyre factory** in **Inchinnan** where its lubricant properties assisted in releasing the tyres from their moulds.

Nowadays about 85% of the world production of barytes is used in the **oil drilling** industry where it is mixed into a heavy mud used to lubricate and cool the drill bit. Because of its heavy weight this 'Drilling mud' can help reduce the risk of blow-outs by containing any pressurised oil and gas.

Barytes is still used in the **paint industry**, in **good quality paper** production and also, in a very pure form, in **barium meals** where its dense structure shows up clearly in X-ray photography.



Muirshiel Mine 2006

Visiting the Mine

You can walk the four kilometres to the site of the old mine by following the hill track from Muirshiel Visitor Centre over the new river bridge and across the moor. Little remains on the surface but the gullies are visible where the rock has been cut away. There are many fragments of the heavy pink mineral which can be seen near the track. Part of the site is now used as a 4x4 driver training area, and an aerial transmits seismic readings to the British Geological Survey as part of their world earthquake monitoring network.

WARNING

DANGEROUS AREAS have been fenced off for safety. **Please do not climb over the fences.**

This article is based on the following publications:

David **Laurence** (1974). The Muirshiel Mine. *The Western Naturalist* **3**, 15-18

Gordon **Todd** and David **Laurence** (1989).Muirshiel Mine. *UK Journal of Mine and Minerals* **7**

James **Nicol** (1994). Buried Treasure. Greenock Writers Club article.

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Muirshiel Barytes Mine in Clyde Muirshiel Regional Park