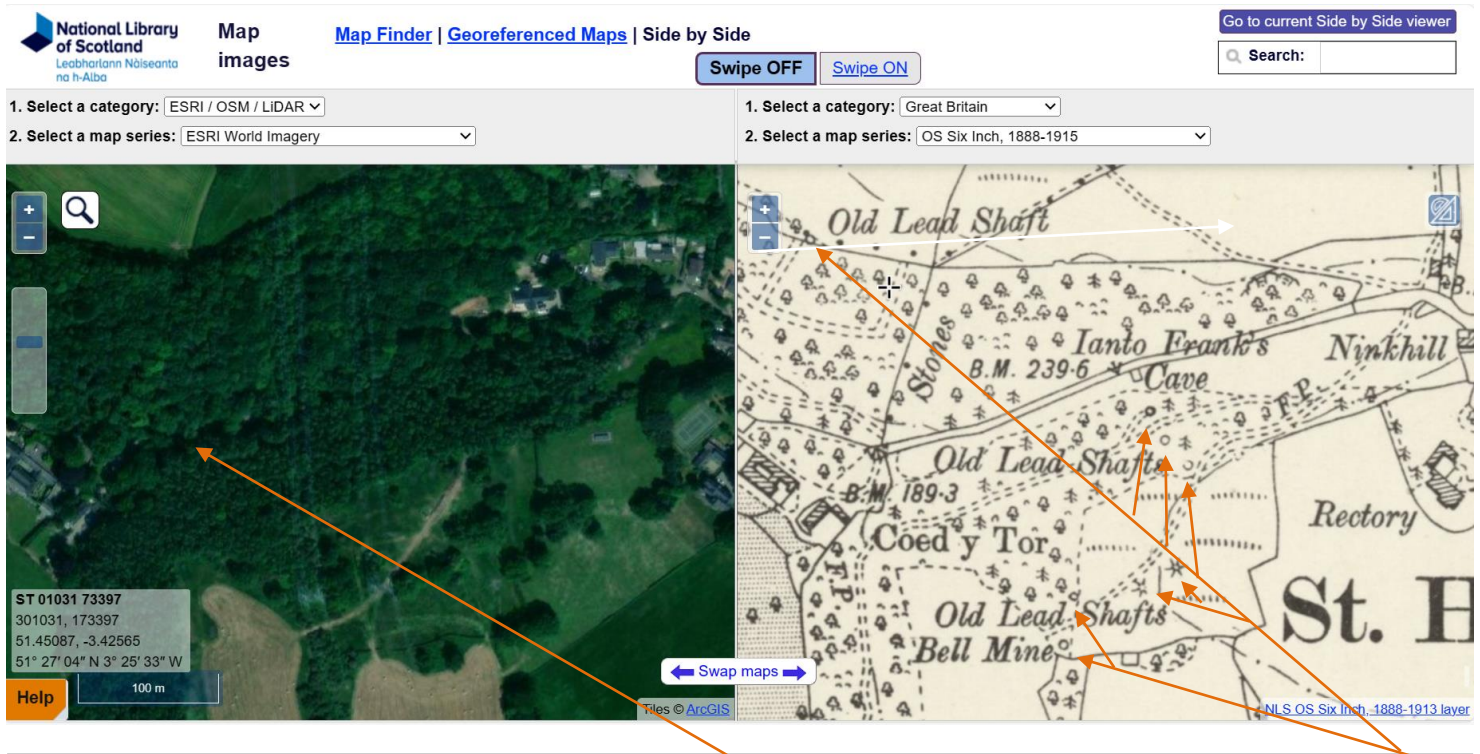


Abandoned Mine Case Study: Bell & New Beaupre Lead Mines

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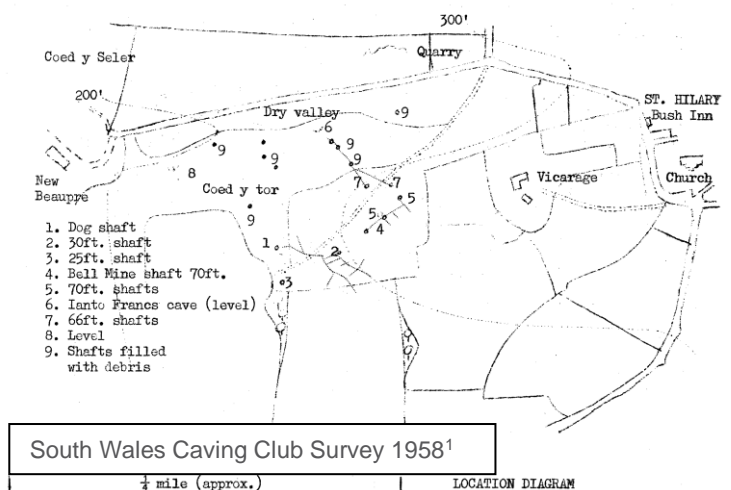


Mineral dressing is difficult to discern from aerial photographs. Below the adit is likely (South Wales Caving Club figure¹). The mine and the shafts are on private land with no public access. Extracted from side by side mapping, National Library of Scotland.

Bell Mine (NGR: 301151, 173137) and New Beaupre Mine (NGR: 301222 173294) are located at Coed-y-Tor, St. Hilary in the Vale of Glamorgan. The land sheds water west and south into the Afon Ddawen (Thaw) near Howe Mill and Old Beaupre at around 16m AOD.

The mines are sited on veins in the Carboniferous Limestone trending north east at Bell Mine and west north west at a depth of 21m for 180m (600') at New Beaupre². The site lies just south of the Cowbridge anticline axis and Carboniferous strata will dip gently in a southern direction. Foster-Smith² believed the mines were worked in the 18th century and reported the veins as principally calcite with some galena though Bevins & Mason³ outline mineralisation of reference grade galena associated with calcite, barite and traces of pyrite. Fieldwork acquiring specimens at the Glamorgan lead mines was considered difficult, but equivalent mineralisation is naturally exposed on the Geological Conservation Review site of Ogmore Coast i.e. the Triassic wadi.

Lewis⁴ records that much lead was shipped from Cardiff and Aberthaw in the 1660's though this may have arisen from Clun Park (Llantrisant) and Tewgoed (Penlline). Rees⁵ identified an application, suggested as the late 17th century, to the Society of Mines Royal for a lease to explore was rejected along with those in Llangan, St Brides, Colwinston and Coychurch. Little further is heard of ventures in these fields which had reputedly yielded lead and silver as early as the 13th century. Leases for mines following the Corporation of the Company of Mines Adventurers of London demise in c.1711 were typically a minimum of 41 years and held by the mineral rights owner or equally split between the finder and mineral rights owner. Colonel John Edmunds of Cowbridge held the lease from the Chapter of Llandaff to mine lead on the glebe lands of St. Hilary, which ceased on his death in 1771. It was taken up without success by a Mr Morgan. The most recent period for working the quite extensive workings¹ are considered between c.1760-1780.



Bevins & Mason⁶ noted in a later publication that veins follow fault controlled rifting along ENE-WSW extensional Mesozoic Bristol Channel Basin forming fractures along Dinantian topographic highs that host calcite-barite-galena veins or the MVT Pb-Zn-Ba mineralisation of the South Wales Orefield produced from exhalative warm brines into near surface marginal Liassic sediments in a marine environment. The principal trend of veins following the rifting is ENE-WSW, but a relatively minor vein striking NNW – SSE with minor sphalerite and rare chalcopyrite were recorded at Machen quarry indicating a conjugate system of mineralised fractures present. Further mineralisation of this type is recorded at the Draethen or Clive lead mines³.

South Wales Caving Club¹ visited the mines recording a couple of surveys and depths of some of the eighteen shafts others being filled with debris. They entered along a level in the hillside appearing to represent a natural fissure, widened for the purpose. Members noted the level extending 180m widening into a series of natural caves observing a resident similar to a Lesser Horseshoe bat. North⁷ concurred with this evidence noting the miners worked the stopes overhead using logs to extend the roof to 25 feet above the floor level.

Opportunities to enhance knowledge

- A walkover survey to identify potential mineral dressing floors/areas of higher metal concentrations, which would benefit reducing the spread of metal contamination (Pb, Cd, Zn).
- Habitat surveys for protected species, i.e. bats and phytotoxic calcaminarian grassland (lichens, mosses).

¹ South Wales Caving Club 1958 Newsletter Number 24 https://www.swcc.org.uk/aboutswcc/newslett/archive/No_24.pdf

² Foster-Smith JR. 1981 BM18. The Non-Ferrous Mines of the South Wales Area.

³ Bevins, RE. & Mason, JS., 2000. Welsh metallogeny and metallogenic evaluation project: Results of a Minesite Survey of Glamorgan and Gwent. National Museums & Galleries of Wales.

⁴ Lewis WJ. 1967 Lead Mining in Wales. p70

⁵ Rees W. 1968 Industry before the Industrial Revolution. p483

⁶ Bevins, RE., Young, B., Mason, JS., Manning, DAC. and Symes, RF. 2010 Mineralization of England and Wales, Geological Conservation Review Series, No. 36, Joint Nature Conservation Committee, Peterborough, 598 pp

⁷ North FJ. 1962 Mining for Metals in Wales. p84