

PARYS MOUNTAIN COPPER MINE

AMLWCH

NGR SH 4450 9050 Altitude 450 feet

Legend has it that Rowland Pugh, a local miner, was the first to strike copper on March 2nd 1768 and for this he was rewarded with a bottle of whiskey and a rent-free house for his lifetime. The mines, under the direction of Anglesey lawyer and entrepreneur Thomas Williams, better known to the miners as Twm Chwarau Teg (Fair Play Tom), became the world's most important producers of copper. (Harris). Not only was it in huge demand by the emerging industries of the early years of the Industrial Revolution, the mining companies also produced sheathing for Nelson's 'Men of War' as well as minting their own coinage.

By 1780 this was the largest copper mine in the world, producing 3000 tons of metallic ore a year. The workings on the western side of the mountain were operated by the Parys Mine Company and on the eastern side by the Mona Mine Company, but, after 1785, by the same management, employing over 1500 workers. The vertical range is 1010 feet, over half of which is below sea level. The ore was first worked from shafts and levels, of which there were many, but miners who had been refused renewal of their leases removed the supporting pillars of underground workings causing a collapse which resulted in opencast working.

The scene of devastation presented by the site in opencast working has been immortalised in a painting by J C Ibbeston dated 1785 now in the National Museum of Wales which gives a good impression of a scene resembling Dante's Inferno. The mines were drained by a series of pumps, at first operated by a five sail windmill and later assisted by a steam engine. Today, the remains of the windmill can still be seen on the summit. To the east, the ivy clad remains of an engine house mark the site of Pearl Shaft. Other remains include, a number of dressing floors, some precipitation pits and some very colourful spoil heaps. Bevins describes numerous minerals from Parys: pp 34 Anatase, 35 Anglesite, 37 Anhydrite, 39 Arsenopyrite, 42 Azurite, 45 Bismuth, 54 Chalcantite, 55 Chalcopyrite, 60 Copper, 61 Covellite, 62 Cuprite, 70 Galena, 71 Galenobismutite, 75 Gold, 77 Halotrichite, 80 Hydronium jarosite, 82 Jordanite, 86 Magnesite, 87 Malachite, 89 Melanterite, 98 Pickeringite, 100 Pyrite, 103 Pyrrhotite, 106 Römerite, 107 Rutile, 111 Sphalerite. Parys Mountain is the type locality for Anglesite $PbSO_4$. The name was coined by the French mineralogist Beudant in 1832 in his *Traité élémentaire de Minéralogie*, but Anglesite had been mentioned before. Monet, in 1779 in his *Nouveau Système de Minéralogie*, refers to it as "vitriol de plomb". Anglesite is a lead sulphate of the barite group which typically develops in oxidised zone of lead-bearing ore bodies. At Parys Mountain it occurs as discrete, euhedral, milky white to yellow crystals up to 10 mm in length on ferruginous gossan. The potential for discovering good mineral specimens in situ seems remote, but micromount material can be found with perseverance. Ref: Southwood & Bevins..

A Brief Outline of Recent Activities:

A Canadian based firm is drilling in the Morfa-Ddu area west of the main road and it appears a huge deposit of complex sulphides with a little gold has been proved at 1500 or 2000 foot depth. Underground mining is anticipated. The environmental impact on the historic Parys/Mona complex will need careful monitoring. The whole site really is of great importance.

Ref: WMS (14) item 14 June 1985

At Parys Mountain, Anglesey Mining Plc has erected a fine headframe 90 feet high that can be seen from half the island. By now the shaft has reached its limit of 499 m [1637 feet] with crosscuts driving to the vein. This is an exciting venture in which I [D Bick] have a stake. The company is also interested in the industrial heritage of the area and has waymarked paths over the mountain. A guide leaflet will shortly be published by Gwynedd County Council. Ref: WMS (21) item 12 Dec 1989

Anglesey Mining Plc. Shares rose sharply following the intersection of rich ore several months ago. In February the shaft was down to 280 m (153 f) [918 feet] level and a 400 m (219 f) [1312 feet] level is planned. Production is due to begin in 1992. Ref: WMS (22) item 5 June 1990

Parys Mountain, another mine which was thought to be completely worked out, is now coming back to life after a lapse of 35 year. The trial shaft and drift are completed and some stoping has taken place to evaluate the ore. Ref: WMS (23) item 16 Dec 1990

Morris Shaft. This is now 300 m deep and they are coring to 500 m. The question is not whether the ore is there, but whether in view of the very heavy capital outlay, the mine can ever pay a decent return. Ref: WMS (23) item 38 Dec 1990

Anglesey Mining, the company floated in 1988 to develop the Parys Mountain project, has debts in excess of £1.7m and shares are now at an all time low of 15p [4½p. November 1992]. In technical terms the company has lived up to its expectations, but the company has failed to raise sufficient funds to continue. Western Mail Feb 25, 1992; NMRS N/L May 1992.

Update October 1992: Pithead gear, winding gear, compressors, pumps, pipes, gelignite all abandoned. A 2 ton kibble now seals off the 1000 foot deep shaft. Log Vol 16 entry No 261092

Shares have collapsed! According to the 1993 Annual report, work is at a standstill, 9 staff are still employed, plus a director at £50,000! WMS (29) 17 Dec 1993

[D Bick] has a block of shares for sale. No unreasonable offer refused. [He probably bought them at £2.00 and now they are worth 4 p. Worth more as share certificates.] WMS (30) 5

Share deal to assist Anglesey. The Nottingham based Ennemix Holdings bought £600,000 worth of new shares at 5p each. Western Mail May 24, 1994

Ownership of Imperial Metals Corporation has changed hands. Five European investors have agreed to sell their 38% holding to Canadian tycoon Murray Edwards. Western Mail Aug 17, 1994

Hope for mountain mine. Imperial Metals, which held more than 41% of the shares, has sold 30% to Mid Ocean Investments, a privately held Bermuda based corporation. Western Mail Nov 25, 1994

Brighter Future for Mine. The Anglesey Mining project is to be reactivated amid an improving economic climate in the base metal industry. Western Mail Dec 7, 1994

Geologists hope Parys Mountain has silver lining. A research project is being carried out by Steve Tennant at University of Wales, Cardiff as an integral part of ongoing exploration for new reserves. Geological reserves are estimated at 6.5m tonnes with a combined base metal grade, zinc, copper and lead plus gold and silver. Western Mail Oct 3, 1995 and Personal Communication February 16, 1997.

Company faces court challenge for Parys Mine. Anglesey Mining is being sued in a Canadian court over ownership. Shares at 3.5p are described as a speculative buy. Western Mail Jan 23, 1996

Mining company back in action. Drilling to start in autumn as firm is in deal to buy into mountain by Leslie Able, London Editor. The Western Mail 28 August 1997 p 13.

Exploratory work is resumed and showing good results. Metal deposits could pay dividends by Leslie Able, London Editor. The Western Mail Business 12 November 1997 p 1 photo.

"it is hard to attribute its present existence to other than the rhetorical flourishes of its management and the sanguine reports of its officials".
WMS N/L (37) item 14. c1998

Anglesey Mining chairman John Kearney says his company need more money to drill for minerals on Parys Mountain. The company owns part of Parys Mountain which they bought from the Marquis of Anglesey. Western Mail 9 Jan 2001 p 6.

Share prices over the years

The shares were floated at 70p in 1988?

Share Price /Date

70 p	1988?
200 p	August 1989
45 p	February 1991
4½ p	November 1992
2½ p	August 1997
16½ p	November 1997
9½ p	January 1998
7½ p	August 1998
1¾ p	November 2000
2 p	December 2000
2 p	January 2001
2.6 p	November 2003
4 p	November 2004

2006 low 3.86 p high 15.25 p today [1/2/06] 14p

Useful website Anglesey Mining Plc <http://www.angleseymining.co.uk>

News from the Stock Exchange 1 February 2006

Anglesey Mining Plc owns the only major undeveloped base metal deposit in the UK and could have that mine in production within three years. The company has an option to earn a 70% stake in a second major metal project in Canada and this also has the potential to be a company maker. Pundits say that either of these two assets has the potential to more than justify the current share price.

The company was floated on the LSE in 1988, and at Parys Mountain on the island of Anglesey, off North Wales. At the moment geologists are working to confirm a 6.5 million tonne resource of which 2 million tonnes are in the indicated category with a combined 10% grading of copper, zinc and lead, with silver and gold. The company has been particularly active over the last six months, raising finance to launch a four-hole drill programme at Parys.

Anglesey needs to raise fresh equity in order to advance the Parys to the feasibility stage. However, in Parys alone, it is predicted that the property has a base case Net Present Value (NPV) of £20.3 million. Allowing for project and exploration risk, with a current market value of £13.74 million, Anglesey Mining is cheap. A share price of 14.625p does not reflect a very conservative valuation of 28.5p per share. The stance is speculative buy.

Is Parys Mountain Copper a Nuclear Waste Dump?

In 1990 Private Eye ran a story which suggested that the new Parys Mountain mine on Anglesey should be watched carefully. The contractors for the new development were none other than Cementation Mining Ltd, contractors for Nirex at Sellafield and Dounreay, and the unusual design of the mine was not entirely dissimilar to that of a nuclear waste dump. The story was vigorously denied and rapidly forgotten but in the light of recent developments (1988), it deserves a re-examination.

In 1986 the International Atomic Energy Agency (IAEA) published a report on the "Siting, Design and Construction of Underground Repositories for Radioactive Wastes". It considered the geological conditions necessary for the construction of a safe store for nuclear waste. Like Smythe and Haszledine's study it found that the largest areas of the best rock formations were in middle England but noted that these were politically impossible. In less populous areas it noted the possible suitability of northern Anglesey and Wales' Lleyn Peninsula, the only sites in the UK outside north-east Scotland to contain hard rocks in low relief areas - judged to be favourable conditions for waste storage.

It was a strange coincidence, then, when Anglesey Mining Plc appeared on the scene in June 1988 with a plan to build a mine on the old Parys Mountain site. Their designs showed a vertical shaft with side branching galleries.

The more conventional, and cheaper, practice would have been to dig in from the flanks of the mountain. More peculiar still was the enthusiasm with which Anglesey Mining's share issue was greeted in the City.

Although copper, zinc and lead, the products of the proposed venture, were in oversupply worldwide, Anglesey Mining showed the ninth highest percentage rise in value on the Stock Exchange that year and the firm raised its £5m funding in one day. After considerable hype in the

local papers, stockbrokers began to push the stock in Anglesey thus creating a local interest in the mine. No-one seemed to question the similarities between the mine and Nirex published drawings of a proposed repository, a shaft at least 600 ft deep with large side tunnels and galleries branching off where waste can be deposited. In its projected lifetime over 6.5 million tons of ore were to be extracted from Parys mountain - creating more than enough space for the tens of thousands of tons of intermediate level nuclear waste stockpiled in Britain.

Even after the publication of Private Eye's article no one seemed to ask some relevant questions. Why was no planning application for a zinc smelting works ever submitted? Why did Anglesey Mining seem to have such an unusual indifference to their profit margin? Why, in 1988, did Nirex refuse to give a definite assurance that Anglesey would not be used for a dump? No one even threatened to sue the Eye for such a damaging accusation.

No categorical evidence has ever reached the public arena that Parys Mountain is a planned Nirex dump but there are many features that might make it an attractive proposition. Transport to and from the site is amply served by the unusual deep water dock at nearby Wylfa PWR reactor and there is a rail terminus, conveniently close at Amlwch, which is overlooked by the mountain. Even the possibility of embarrassing leaks from such a repository might be masked by Wylfa and Sellafield's continual belching of waste into the Irish Sea.

In spite of all the talk of "commercially viable deposits of zinc" and a "golden future" for the mine it was soon closed, in 1992, after the completion of the shaft and major galleries. Unsurprisingly it was mothballed because of the still low price of zinc.

In 1995 a research project was established with Cardiff University and the University of British Columbia to carry out a very detailed geological survey of the mountain. The research includes analysis of volcanic activity and a computer model of the rocks - essential information in prospecting for a nuclear waste dump. The company is now hoping to raise funds to re-open the mine even though zinc prices remain depressed. New surveys have shown that there could be copper in there somewhere! So further drilling could begin this year [1997].

Reference: Prichard, Bill 1997 Corporate Watch (3) 1, Spring.

July 2006 update

Anglesey Mining plc reported that drillhole AMC19, which was completed in July, intersected both the Carreg-y-doll and the North Central zones, including a high grade intersection in the new Garth Daniel resource area approximately 100 metres further west.

Of significant interest was the intersection in the North Central zone, which assayed 11% combined base metals over 5.7 metres, including an impressive 31% combined base metals (with some gold and silver) over a width of 1.6 metres.