



## South Wales RIGS Group Site Record

### RIGS Description

**SECTION A**

General	South Wales
<b>Site Name:</b> Fforest Fawr	<b>File Number:</b> Site_SWGA_CCC_306
<b>RIGS Number:</b> 675	<b>Surveyed by:</b> South Wales Geologists' Association
<b>Grid Reference:</b> ST 1360 8360	<b>Date of Visit:</b> August 2007
<b>RIGS Category:</b> Historical, Scientific	<b>Date Registered:</b>
<b>Earth Science Category:</b> Mineralogical, industrial, historical	
<b>Site Nature:</b> Disused quarry/mine	<b>Owner:</b> ?Forestry Commission <b>Planning Authority:</b> Cardiff County Council
<b>Unitary Authority:</b> Cardiff County Council	<b>Documentation prepared by:</b> South Wales Geologists' Association
<b>OS 1:50,000 Sheet:</b> 171	<b>Documentation last revised:</b> 5 <sup>th</sup> November 2009
<b>OS 1:25,000 Explorer Sheet:</b> 151	<b>Photographic Record:</b> Attached
<b>BGS 1:50,000 Sheet:</b> 249	
<b>RIGS Statement of Interest:</b>	
<p>Tongwynlais and Pentyrch were once the setting for an early industrial landscape. This was a landscape of iron production, the two furnaces at Pentyrch and Tongwynlais in the 1560's being amongst the first in Wales. This area north of Cardiff was ideal as it had limestone, coal and iron all required for the process.</p> <p>This Fforest Fawr site forms part of an extensive area of workings east and west of the Taff which shows industrial, historical and geological features all in close proximity. Visually impressive, the site gives opportunity to see old haemaitite workings that would once have supplied iron to the industry.</p> <p>Site would make good teaching site for historical mining methods - providing certain safety issues were met.</p>	

**Geological setting/context:**

Fforest Fawr (Three Arches) is the location is an old haematite mine and one of a few sites in the Fforest Fawr woodlands that illustrate iron extraction in the area. It should be looked at in conjunction with the “Blue Pool Slide Pit” with can be found west of this location (details in the SINC section of this document). Very little is left to illustrate the area of workings east and west of the Taff and this site is a good reminder of the early industry of this area, arguably some of the earliest iron smelting works in the area.

The mine exposes well bedded, heamitised and dolomitised limestones of the Pembroke Limestone Group visible around the three adit entrances. The adits dip quite steeply to the NNW on a similar trend to the bedding. Most are quite short before becoming blocked although one is more extensive than the others.

Two of the adits end after approx 10m however the adit on the right leads in for approx 15m and ends in a pool. The pool descends to a depth of approx 20m, ending in a large, boulder filled chamber. (Breakspear)

Haematitic iron ore occurs along bedding planes and joint surfaces within the Main Limestone between Garth Hill and Rudry. At Fforest Fawr the limestone is dolomitic and haematite occurs in cavities. This particular site is one of these disused pits which leads to three caves which slant down to the bedding. (Squirrell and Downing 1969)

Minerals collected by the MineScan project from this site, include: Hematite, goethite, quartz, pyrite, calcite, baryte. Minescan ref: M1074 (Bevins, R.E and Mason)

**References:**

SQUIRRELL, H C, DOWNING, R A. 1969. Geology of the South Wales Coalfield Part 1. The Country around Newport. Memoirs of the Geological Survey of Great Britain.

SILBY, T F. 1927. Special Reports on the Mineral Resources of Great Britain Vol 10. Iron Ores – the haematites of the Forest of Dean and South Wales. Memoirs of the Geological Survey.

BEVINS, R E and MASON, J S. 2002. Welsh Metallophyte and Metallogenic Evaluation Project 'Results of a Minescan Survey of Glamorgan and Gwent compiled by the National Museums and Galleries of Wales. CCW Contract Science Report No. 386.

DAVIES, J B, OWEN, J G. 2003. Iron!. The Garth Domain No 20.

BREAKSPEAR. J. Remains of Old Mine Workings of the Taffs Well Area. Unpublished.

## SECTION B

### PRACTICAL CONSIDERATIONS:

Please score Accessibility and Safety Red Amber or Green

#### Accessibility:



Comment: Slope at edge of pit allows safe access down to mouth of underground workings. The site is fenced

#### Safety:



Comment: This site is fenced, short slope could be slippery in wet weather.

#### Conservation status:

There are no known conservation designations of this RIGS

### OWNERSHIP/PLANNING CONTROL:

**Owner/tenant:** ?Forestry Commission

**Planning Authority:** Cardiff County Council

#### Planning status/constraints/opportunities:

There are no known planning constraints or opportunities

### CONDITION, USE & MANAGEMENT:

**Present use:** None. Site is fenced off

**Site condition:** Good, although there are fallen trees. Adits could be dug out to expose more workings

**Potential threats:** None

**Site Management:** Periodically, the site should be cleared of fallen trees and dumped rubbish

### SITE DEVELOPMENT:

**Potential use (general):** This site is visually spectacular and would make a good site to illustrate the industrial heritage of the site, possibly as part of a set of sites in the area.

**Potential use (educational):** See above. Signs and leaflets could be created to help with interpretation.

### Other comments:

## Photographic Record



*Photograph by Andrew Haycock*



*Photograph by Lynda Garfield*