



## South Wales RIGS Group Site Record

### RIGS Description

**SECTION A**

General	South Wales
<b>Site Name:</b> Cwmcarn	<b>File Number:</b> Site_249_444
<b>RIGS Number:</b> 604	<b>Surveyed by:</b> Leanne Hughes
<b>Grid Reference:</b> ST 2200 9386	<b>Date of Visit:</b> 17 <sup>th</sup> September 2010
<b>RIGS Category:</b> Educational	<b>Date Registered:</b>
<b>Earth Science Category:</b> Stratigraphical, sedimentological	<b>Owner:</b> Unknown <b>Planning Authority:</b> Caerphilly County Borough Council
<b>Site Nature:</b> Disused quarry	<b>Documentation prepared by:</b> Leanne Hughes
<b>Unitary Authority:</b> Caerphilly County Borough Council	<b>Documentation last revised:</b> 17 <sup>th</sup> September 2010
<b>OS 1:50,000 Sheet:</b> 171	<b>Photographic Record:</b> Attached
<b>OS 1:25,000 Explorer Sheet:</b> 152	
<b>BGS 1:50,000 Sheet:</b> E249	
<p><b>RIGS Statement of Interest:</b> This working quarry to the north of Cwmcarn has been nominated as RIGS as it exposes a large continuous sequence through the Rhondda member of the Carboniferous Pennant Sandstone formation. The quarry shows a variety of sedimentological features within the sandstones such as cross stratification, channel fill and pinching out of units. The quarry is inactive and has a large clear easily accessible face.</p>	

**Geological setting/context:**

This quarry is located to the north of the village of Cwmcarn on the steep hillside and is of Pennant Sandstone which has been used locally for building.

The quarry is mainly south west facing and is possible to visit safely. It is located to the right of a very steep public footpath leading from the suburbs of Cwmcarn. The face is approximately 50m long and 30m high as shown in the attached sketch. It exposes the Rhondda group of the Pennant Sandstone formation and exhibits clear sedimentary features including cross stratification. The sandstone is pale yellowish brown and coarse grained which weathers to a mottled orange red. There is some minor faulting and jointing.







There are a few shale units towards the north of the sequence overlain by cross bedded more homogeneous sandstones. The whole sequence is of Westphalian age of the Lower Coal Measures group. The coal measures were formed in a large deltaic environment which experienced cycles of sudden subsidence causing marine flooding. Followed by a gradual 'muddying up' of the basin. These repeated cycles form different units with the sandstones being of fluvial origin.

**References:**

SQUIRRELL, H C and DWONING, R A (1969) Geology of the South Wales Coalfield, Part I, the country around Newport (Mon), Memoir IGS sheet 249 (third edition)

WATERS, C N, BROWNE, M A E, DEAN, M T and POWELL, J H (2007) Lithostratigraphical framework for Carboniferous successions of Great Britain (Onshore). BGS research report RR/07/01

## SECTION B

<b>PRACTICAL CONSIDERATIONS:</b> Please score Accessibility and Safety Red Amber or Green			
<b>Accessibility:</b>			X 
Comment: Walking up VERY steep path for about 200m			
<b>Safety:</b>			X 
Comment: Face appears stable, few fallen blocks, none fresh.			
<b>Conservation status:</b> There are no known conservation designations of this RIGS			

<b>OWNERSHIP/PLANNING CONTROL:</b> <b>Owner/tenant:</b> Unknown <b>Planning Authority:</b> Caerphilly County Borough Council <b>Planning status/constraints/opportunities:</b> There are no known planning constraints or opportunities
---

<b>CONDITION, USE &amp; MANAGEMENT:</b> <b>Present use:</b> Local woodland <b>Site condition:</b> Well exposed with one tree in front of the face <b>Potential threats:</b> Vandalism/spray painting  <b>Site Management:</b> Cleaning.
--

<b>SITE DEVELOPMENT:</b> <b>Potential use (general):</b>  <b>Potential use (educational):</b> This site would be good for teaching due to the ease of access and the scale of section available.
---

<b>Other comments:</b>
------------------------

## Photographic Record



Sedimentary structures in loose material

## Annotated Sketch

