



## South Wales RIGS Group Site Record RIGS Description

**SECTION A**

General	South Wales
<b>Site Name:</b> Cox's Quarry	<b>File Number:</b> Site_249_442
<b>RIGS Number:</b> 603	<b>Surveyed by:</b> Leanne Hughes
<b>Grid Reference:</b> ST 2160 9199	<b>Date of Visit:</b> 16 <sup>th</sup> September 2010
<b>RIGS Category:</b> Educational	<b>Date Registered:</b>
<b>Earth Science Category:</b> Stratigraphical, Palaeontological, sedimentological	<b>Owner:</b> Forestry Commission Wales <b>Planning Authority:</b> Caerphilly County Council
<b>Site Nature:</b> Old quarry	<b>Documentation prepared by:</b> Leanne Hughes
<b>Unitary Authority:</b> Caerphilly County Council	<b>Documentation last revised:</b> 16 <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 Newport	
<p><b>RIGS Statement of Interest:</b> This working quarry to the west of Crosskeys 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 the best example of the local Pennant quarries in the area.</p>	

**Geological setting/context:**

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

The quarry is mainly east facing and is possible to visit safely. It is located to the left of the main path when approached from the south. The face is approximately 250m long and 40m high as shown on 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 extensive minor faulting and jointing with the whole unit dipping gently to the south.







The number of fragmented shale units increases towards the base 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 DOWNING, 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 unused paths for 0.5km. Uneven ground			
<b>Safety:</b>		X 	
Comment: Face appears stable, uneven blocky ground.			
<b>Conservation status:</b> There are no known conservation designations of this RIGS			

<b>OWNERSHIP/PLANNING CONTROL:</b> <b>Owner/tenant:</b> Forestry Commission Wales <b>Planning Authority:</b> Caerphilly County Council <b>Planning status/constraints/opportunities:</b> There are no known planning constraints or opportunities
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<b>CONDITION, USE &amp; MANAGEMENT:</b> <b>Present use:</b> Forestry commission woodland <b>Site condition:</b> Well exposed with some trees encroaching into the quarry area. <b>Potential threats:</b> Tree coverage  <b>Site Management:</b> Monitor tree coverage.
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<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.
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<b>Other comments:</b>
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## Photographic Record



View of Cox's Quarry from the southern end.



View of the more overgrown northern end



Plant fossils in loose material

### Annotated Sketch

