

CORK CITY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	St Joseph's Section
Other names used for site	
IGH THEME	IGH 8 Lower Carboniferous, IGH 10 Devonian
TOWNLAND(S)	Mount Desert
NEAREST TOWN/VILLAGE	In Cork City
SIX INCH MAP NUMBER	74-3
ITM CO-ORDINATES	562911E 572119N
1:50,000 O.S. SHEET NUMBER	87
	GSi BEDROCK 1:100,000 SHEET NO: 25

Outline Site Description

A high and steep outcrop immediately within the entrance road to the Bon Secours Care Home Village, containing the Devonian-Carboniferous boundary.

Geological System/Age and Primary Rock Type

The Devonian Old Head Sandstone Formation is to the north of the boundary, and the Carboniferous Castle Slate Member of the Kinsale Formation is found to the south – the sub-vertical beds young with distance from the entrance gate. Sandstones and mudstones are the primary lithologies at this outcrop.

Main Geological or Geomorphological Interest

The occurrence of fossils of particular plant spores is used to recognise the boundary between the Devonian and Carboniferous in these sub-vertical beds, with the transition occurring at approximately the LN/VI miospore boundary. As the plant spores are microscopic, the boundary is not marked by a visible change in the grey mudstone when it outcrops ~17m above the base of the Cork Group, within the Kinsale formation. The Cork Group marks a marine transgression at the end of the Devonian. The bedding planes here exhibit palaeoenvironmental and tectonic features, including shrinkage cracks, closely spaced joints, branching faults, slickensides, and tension gashes.

Site Importance - County Geological Site

As well as demonstrating several interesting geological features, this outcrop is particularly important in containing the boundary between the Devonian and the Carboniferous in Cork, as identified through biostratigraphic markers. As such, this site may be recommended for Geological NHA status.

Management/promotion issues

The outcrop is at the side of an access road with a layby nearby, so is easy to visit but is on private land. In addition, the rock face is very steep, and the potential for falling rocks provide a serious concern. With the consent of the landowners this site could be promoted to a limited extent, though it should be noted the transition itself is not visible to the naked eye.



View of the 5 m stratigraphic succession exposed as St Joseph's Section, in the entrance to the Bon Secours Care Home Village.



View of the exposed bedding surfaces in the outcrop.

