

SOUTH DUBLN - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Liffey Valley Centre road sections
Other names used for site	Fonthill Road R113
IGH THEME	IGH8 Lower Carboniferous
TOWNLAND(S)	Yellow Walls, Irishtown, Quarryvale
NEAREST TOWN/VILLAGE	Lucan
SIX INCH MAP NUMBER	17
ITM CO-ORDINATES	706350E 735130N (centre of feature)
1:50,000 O.S. SHEET NUMBER	50 GSI BEDROCK 1:100,000 SHEET NO. 16

Outline Site Description

Roadside exposures of Calp limestones near the N4 junction to Liffey Valley Shopping Centre.

Geological System/Age and Primary Rock Type

Bedrock consists of Lower Carboniferous (Mississippian) 'Calp' (Lucan Formation). Mainly dark grey coloured limestones interbedded with shaly limestones, and shales.

Main Geological or Geomorphological Interest

The bedrock consists of beds of dark grey-black, fine-grained limestone with interbedded calcareous shale, local cherts and fossiliferous beds. Calp bedrock underlies most of Dublin City, from Jobstown north to Santry, and from Irishtown to the west of the city, and discontinuously as far west as Athenry, Co. Galway. The calp limestone is not susceptible to karstification and no major cavities occur in these rocks. The south dipping strata (10-15°S) are exposed on each side of the R113 roundabout on the south side of the N4 (junction 2). The best exposures are on the southeast side of the roundabout. The limestone strata are typically between 100mm and 300mm thick, with thinner interbedded shale beds.

Liffey Valley Shopping Centre occupies the site of a previous quarry (known as Cursis-stream), which was in operation in the late eighteenth century, and is noted on early OSI maps (Quarryvale). According to an essay penned in 1772 by Dr. John Rutt (*Essay towards a Natural History of the County Dublin*), Cursis-stream quarry "supplied black flags for flooring, hearthstones, headstones and tombstones...[the] stones were smoothed with Wicklow sand and water". The dark-coloured calp was a traditional building stone in the Dublin area.

Site Importance: County Geological Site

This site is of special geological and historical interest. It is much more accessible than similar cuttings into the same rocks on the M50 where roads such as the N7 intersect it.

Management/promotion issues

Owing to the high-level of traffic at this roundabout and stretch of road (R134) by the Liffey Valley Shopping Centre, this is one of the most recognised sites exposing a section through the limestone strata that underlies much of this part of County Dublin. The site is ideally suited for inclusion in any promotional and education material relating to the geological history and heritage of Dublin.



View eastwards to N4 (west) down-ramp from Fonthill Road. Calp outcrops on both sides of down-ramp.



South dipping calp on west side of Fonthill Road viewed from Clarion Hotel/Liffey Valley Shopping Centre side of road.



Calp outcrop on west side of Fonthill Road R113 - looking towards N4 (bridge).



View of calp strata on east (Clarion Hotel & Liffey Valley Shopping Centre) side of Fonthill Road.



