

FINGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Bottle Quay
Other names used for site	
IGH THEME:	IGH 4, 7 (Cambrian-Silurian, Quaternary)
TOWNLAND(S)	Sutton South
NEAREST TOWN	Sutton
SIX INCH MAP NUMBER	19
NATIONAL GRID REFERENCE	326600 237470 = O 2660 3747
1:50,000 O.S. SHEET NUMBER	50 1/2 inch Sheet No. 16

Outline Site Description

Coastal cliffs and foreshore section.

Geological System/Age and Primary Rock Type

Cambrian quartzite and mudstone of the Drumleck Formation with overlying Quaternary sediments.

Main Geological or Geomorphological Interest

Along the southern shores of Howth Head at Bottle Quay are excellent exposures of both Cambrian rocks and Quaternary sediments. The Cambrian Drumleck Formation is made up of quartzite and mudstone and displays tectonic structures along with soft sediment deformation. To the north of the site there is a fault, which displaces the Cambrian rocks alongside much younger Lower Carboniferous Waulsortian Limestone.

The southern section of this site is dominated by 10m high cliffs composed of Quaternary material. These cliffs represent deposits of glacial till, mainly sand, gravel and clay overlying glacially sheared beds of the Cambrian Drumleck Formation. These sheared quartzite and mudstone beds illustrate the extent to which glacial ice can dramatically mould the landscape beneath them.

Site Importance

This is an excellent example of both Cambrian and Quaternary features along the same short stretch of shoreline. This site is a fine teaching locality and is proposed as a County Geological Site.

Management/promotion issues

As an existing pNHA (Howth Head 202) this site should not have any foreseeable management issues. This area is well used for recreation by local people. Most of the site can be accessed from the cliff walk although most if not all of the features are better observed from the rocky beach below.



Left: Glacial material composed of clay, sand, gravel and boulders from the Quaternary Period deposited on top of older Cambrian rocks.
Right: Unconformable contact between glacially sheared Cambrian mudstone of the Drumleck Formation and much younger Quaternary sediments.

Bottle Quay

