

WATERFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Whiting Bay – Goat Island Cove
Other names used for site	
IGH THEME	IGH8 Lower Carboniferous, IGH7 Quaternary IGH15 Economic Geology
TOWNLAND(S)	Ballysallagh, Clashanahy, Cappagh, Ardoginna
NEAREST TOWN	Ardmore
SIX INCH MAP NUMBER	Waterford 40
NATIONAL GRID REFERENCE	216000 77600 (entry to beach)
1:50,000 O.S. SHEET NUMBER	82 1/2 inch Sheet No. 22

Outline Site Description

Around Whiting Bay and as far east as Goat Island Cove, approximately 2km of coastal cliffs, beach and foreshore occur, displaying a variety of rocks and unconsolidated glacial sediments.

Geological System/Age and Primary Rock Type

A varied sequence of early Carboniferous aged sedimentary rocks, including sandstones, mudstones and limestones occurs along the eastern end of the section. The site also includes a long section of Quaternary (Ice Age) tills at the western half.

Main Geological or Geomorphological Interest

A varied sequence of early Carboniferous aged sedimentary rocks at Whiting Bay provide a link for geologists in correlating the Carboniferous rocks between the larger areas of similar aged rocks in the Cork Syncline to the southwest and the Lismore and Tallow Syncline to the north. Whiting Bay itself occurs on the edge of the smaller Ardmore Syncline.

There are rapid transitions between rock types along the beach and a varied range of sedimentary features and structures which, in detail, provide a lot of evidence for the changes of environment, both across the geographical spread of the Carboniferous seas and through time as the marine basins changed and evolved.

The site includes a minor example of mineralisation associated with faults, easily visible in the cliffs of Goat Island Cove at the eastern end. There is also a minor example of a raised beach deposit here, where beach gravels have been cemented together across the top of steeply dipping Carboniferous rocks. A disused limekiln in reasonable repair is found on the access track at Goat Island Cove, adding some extra interest.

The western half of the site has a sandy beach backed with cliffs of glacial till, which was deposited by ice streaming down the Irish Sea and pushing onshore across south Waterford. These show a long section in till of several hundred metres length, although the cliffs are quite slumped.

Site Importance

Cumulatively, the site has a wide range of features of interest, such that it has national importance for the Lower Carboniferous geology and may be considered for geological NHA status as the GSI's work on Irish Geological Heritage progresses to that theme.

Management/promotion issues

There are two public beach car parks for access to the site and road access at Goat Island Cove. Consideration could be given to providing geological information on a signboard at any or all of these places. Access to the rocks around the headland is probably tidally controlled and caution must be advised in any promotional effort.



Whiting Bay, viewed from the eastern end.



Goat Island Cove, exposing Carboniferous rocks along its extent.



Raised beach deposit of cemented gravels.



A fault with minor mineralisation at Goat Island Cove.



Profile of muddy Irish Sea till exposed along the rest of Whiting Bay.



View eastwards to rocks at end of Whiting Bay.



