

WICKLOW - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Athdown Moraine
Other names used for site	Athdown Delta Moraine
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Athdown, Ballynabrocky, Ballynatona, Ballylow
NEAREST TOWN/VILLAGE	Blessington
SIX INCH MAP NUMBER	6
ITM CO-ORDINATE	706490E 731780N (centre of feature)
1:50,000 O.S. SHEET NUMBER	56
GSi BEDROCK 1:100,000 SHEET NO.	16

Outline Site Description

The Athdown Moraine includes a large accumulation of sands and gravels deposited at the edge of an ice margin and into a proglacial lake, at the end of the last Ice Age.

Geological System/Age and Primary Rock Type

The 'moraine' rests on bedrock of granite, but the features comprising the moraine itself are Quaternary in age.

Main Geological or Geomorphological Interest

The Athdown Moraine includes a distinctive hummocky topography at Athdown, where the River Liffey, Srahoe Brook and Ballydonnell Brook now meet.

The feature is poorly exposed today as most of it has been quarried away, but in the 1950s Anthony Farrington of the Geological Survey of Ireland logged many gravel pits from the area in detail, as well as mapping the topography of the area. The sediments and topography reflect the deposition of the feature by meltwater flowing from the mountain ice cap whose margin lay immediately to the east. The feature itself actually comprises a small delta built in front of an earlier-deposited moraine.

The surface of the feature (before it was removed by quarrying) was close to the level of the main deltas at Blessington, and the two deltas clearly formed in the same lake at around the same time. The surface of this lake was at about 275m above modern day sea level.

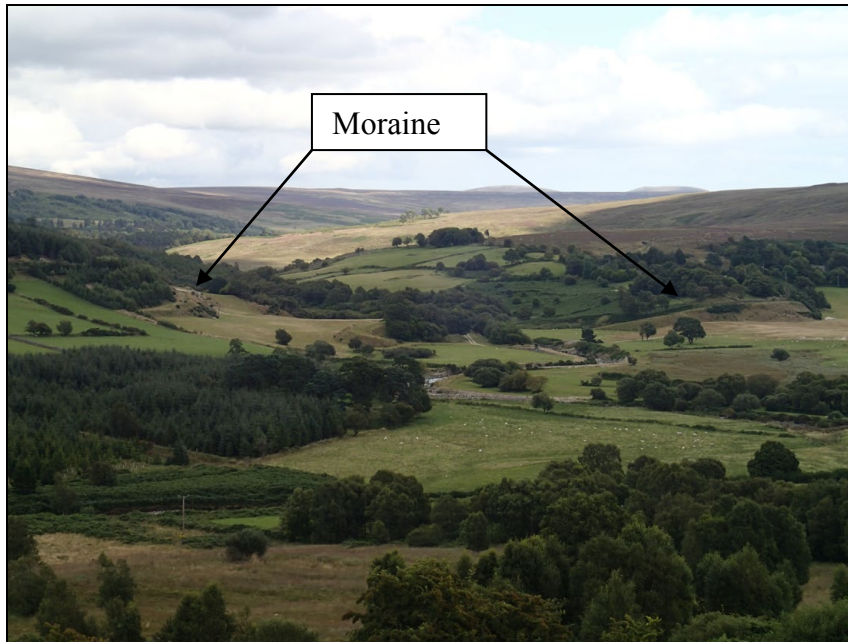
The sediments forming the delta are all derived from granite, and this is not surprising as the ice cap to the east lay on granite bedrock also. In the remaining pit exposures, delta topsets and foresets are visible, which are well bedded sands and fine gravels.

Site Importance – County Geological Site

The feature is a good example of the type of topography which forms at the retreating margin of a melting ice sheet at the edge of an upland area. Though most of the feature has been removed, this is an important site in terms of our understanding of the glaciation of the Wicklow Mountains and still warrants inclusion as a CGS.

Management/promotion issues

This system comprises a fine landform sequence and should be listed as a County Geological Site. The hummocks and related features are best seen on a drive from Sally Gap to Kilbride, along the R759 road, about 1 kilometre southeast of the junction for Ballysmuttan Bridge and Blessington. Access to the pits themselves is by arrangement with the owner/operator.



The Athdown Moraine, viewed from the west at Ballynatona.



Part of the remaining moraine hummocks, among a reclaimed gravel pit at Ballynabrocky.



A view of the pits in the moraine, active from 1995.



Reworked gravels in the modern Ballydonnell Brook at Ballynabrocky.

