

MEATH - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Rathkenny
Other names used for site	Rathkenny subaerial fan, Rathkenny sandur
IGH THEME:	IGH 7 (Quaternary)
TOWNLAND(S)	Rathkenny, Horistown, Tankardstown
NEAREST TOWN	Slane
SIX INCH MAP NUMBER	12
NATIONAL GRID REFERENCE	289388 278600 = N 289 786 (fan)
1:50,000 O.S. SHEET NUMBER	42 1/2 inch Sheet No. 13

Outline Site Description

Hummocky topography with gravel pit.

Geological System/Age and Primary Rock Type

Ice contact sub-aerial fan and glacial outwash deposits.

Main Geological or Geomorphological Interest

The site comprises a subaerial fan with a northwest ice contact face, deposited at the edge of a sandur feature that fills a deep glacial valley. This glacial feature is produced by the concentrated flow of meltwater from the edge of an ice sheet. The meltwater carries a variety of glacially derived material such as sand and gravel. As this water moves away from the glacier and into areas of relatively low gradient it slows and drops its material as a fan shaped deposit. The fan spreads out from its point of origin, away from the glacier. A disused sand and gravel pit (near where the ice front would have been) shows excellent cross sectional views of foreset sediments. The sandur itself extends out to the southeast from the fan, forming a feature almost 4 kilometres long and up to 800m wide. The sandur has a hummocky (bumpy) topography and is comprised of deep, well drained sands and gravels.

Site Importance

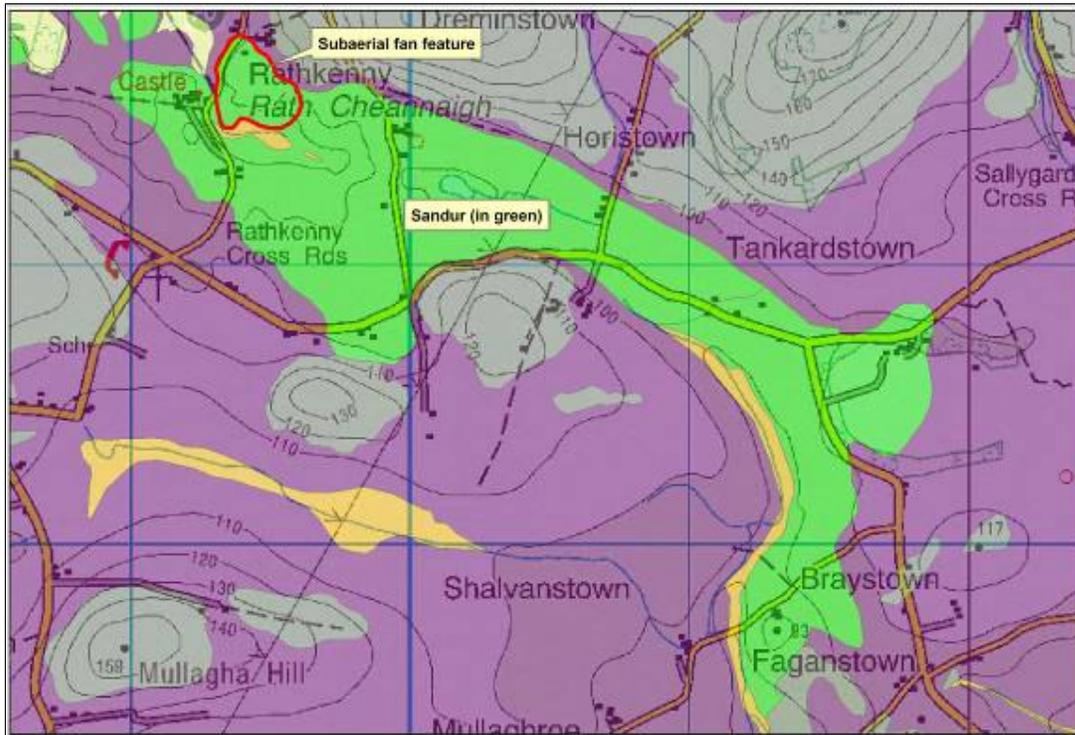
This is an excellent example of a subaerial fan deposited at an ice margin at the edge of a proglacial sandur feature and is recommended as a County Geological Site. It is one of the best examples countrywide of an exposed ice contact fan with associated foreset beds and collapse structures.

Management/promotion issues

This fine example of an exposed ice contact subaerial fan feature is particularly useful for teaching purposes, especially as the site is so close to an adjacent road. General promotion of the sand and gravel pit is not advised without first contacting the owners. Quarrying and infill form the major threat to the survival of this feature.



Left: Bedded layers of sand and gravel seen in the pit in the Rathkenny Fan. These layers represent different stages in meltwater flow.
Right: A boulder found within the same pit displaying striations (shown by white scrares on the boulder surface) caused by glacial transportation and abrasion against other boulders at the base of the ice sheet.



Top: Subaerial fan and associated sandur at Rathkenny. The sandur (green, sands and gravels) fills a deep valley between ridges with rock outcrop on crests (grey) and a veneer of till derived from Lower Palaeozoic rocks (purple).
 Bottom: The morphology of the Rathkenny sandur, comprising flat-topped hillocks and hummocks.

Rathkenny

