

TIPPERARY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Kilmastulla Meltwater Channels
Other names used for site	Birdhill Channels
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Kilnacrana, Curraheen, Gortnaskehy, Greenhall, Killalane, Ballinteenoe, Cappadine, Boher, Lackanavea, Kilmastulla, Rossfinch, Shanbally, Greenhills, Knockadromin, Gortybrigane, Coolnadorory, Ballyea South
NEAREST TOWN/VILLAGE	Ballinahinch, Birdhill (Limerick)
SIX INCH MAP NUMBER	25, 26, 31
ITM CO-ORDINATES	574000E 670450N (deepest portion of main channel)
1:50,000 O.S. SHEET NUMBER	58, 59
GSI BEDROCK 1:100,000 SHEET NO.	18

Outline Site Description

The Kilmastulla Meltwater Channels comprise a series of deep channels that were formed by meltwater erosion in the wide valley between the Arra and Silvermines Mountains. The channels extend for a distance of approx. 7 kilometres, and into County Limerick, where further channels are recognised around Birdhill.

Geological System/Age and Primary Rock Type,

The features were etched out by meltwater during deglaciation at the end of the last Ice Age, about 14,000 years ago.

Main Geological or Geomorphological Interest

The Kilmastulla channels include a main channel along the Kilmastulla River, oriented northeast-southwest, and a number of tributary channels, oriented generally north-south. The channels are up to 20 m deep and have a U-shaped profile, typical of meltwater channels. Relatively small, 'misfit' streams today flow along the bases of all the channels. The main Kilmastulla River channel has partially formed along fault weaknesses in the underlying bedrock. The channels are considered to have formed completely in the late-glacial period. They have not been studied in any great detail, and their relationship with nearby fan and delta features at Doonan's Hill and Birdhill, respectively, being poorly understood. Much of the sides of the channels are very steep, and are partially covered with coniferous forestry today.

Site Importance – County Geological Site

This is an area with good teaching potential on glacial meltwater erosion, as the features are accessible, quite spectacular, and easily viewed from roads.

Management/promotion issues

The location of the channels just off the M8 Motorway means they are relatively easily accessible, although the flanks are presumably privately owned. In places, there is a lack of good parking spots, and along stretches it is difficult to stop safely on the road. There should be no stopping along motorways, and the channels are probably best viewed from the picnic spot near Kilmastulla Bridge; a signboard here, explaining that the locality sits in one of the features, and how they were formed, might prove a worthy addition to the site. The westernmost portion of the main Kilmastulla Channel forms part of the Lower River Shannon SAC (sitecode 002165).



Doonan's Hill, which is flanked by two deep channels, at Gortnaskehy.



The main Kilmastulla Meltwater Channel at Boher.



The Kilmastulla Channel at Cappadine.



The Kilmastulla Channel at Ballinteenoe.

