

CAVAN - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Cuilcagh Meltwater Channels
Other names used for site	Blackrock's Cross channels (southwestern feature only)
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Altateskin, Altnadarragh, Legnaderk, Altachullion Upper, Altachullion Lower, Altbrean, Srahlahan, Drumcask, Knockroe, Knockranny, Gubbrimmaddera, Cornalon, Gorteennaglogh, Furnaceland, Hawkswood, Aghaboy, Buinkeeragh
NEAREST TOWN/VILLAGE	Swanlinbar
SIX INCH MAP NUMBER	6, 7, 8, 9
ITM CO-ORDINATES	614200E 823230N (centre of largest channel at Altachullion)
1:50,000 O.S. SHEET NUMBER	26 GSI BEDROCK 1:100,000 SHEET NO. 7

Outline Site Description

The Cuilcagh Meltwater Channels comprise three deep gullies that were formed by meltwater erosion on the southeastern flank of Cuilcagh Mountain.

The gullies are oriented generally northwest–southeast, with several localised variations. They extend for distances of 1 km to just over 3 km. The channels are named the Altachullion Channel, the Tullydermot Channel and the Gubbrimmaddera Channel.

Geological System/Age and Primary Rock Type

The features are formed in an area of glacial till of varying thickness and bedrock crops out in some parts of the gullies. The till forms a field of ribbed moraines and drumlins in this area flanking Cuilcagh and was deposited at the maximum of the last Ice Age. The channels themselves date from deglaciation at the end of the last Ice Age.

The bedrock in the locality is varied, with Upper Carboniferous (Namurian) shales on the higher ground to the west, and Lower Carboniferous limestones on the lower ground to the east.

Main Geological or Geomorphological Interest

The channels are up to 35m deep and all have a U-shaped profile, typical of meltwater channels. All host misfit streams, which are watercourses that are much smaller than the channel hosting the watercourse.

Though no dating or detailed study has been completed on the features, they are considered to have formed completely in the late-glacial Period. The deepest channel at Altachullion (adjacent to Blackrock's Cross) may have been formed by the bursting of a glacial lake, given its unusual depth and size.

Site Importance – County Geological Site

This is a site with good teaching potential on glacial meltwater erosion, as the features are all accessible and easily viewed from roads. The site is definitely of County Geological Site importance but the channel at Altachullion may be considered to be of national importance when further work on the glacial history of the area is completed.

Management/promotion issues

The roadside location of the channels means they are easily accessible, although they are presumably either privately owned or in commonage. However, there is no parking nearby and it is difficult to stop safely on the road. Some wide gates are present at the edge of the Altachullion channel, but no more than two cars may stop and park at any one time.



Steep 'U' shaped profile along a stretch of the Altachullion channel, etched into bedrock along this portion.



The deep Tullydermot meltwater channel southeast of Tullydermot Falls, also etched into bedrock along this stretch.



