OFFALY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Kilcormac Esker
Other names used for site	The Killimor-Birr-Fivealley-Kilcormac Esker, The
	Fivealley Esker, The Lusmagh-Birr-Tullamore Esker,
	The Geashill Esker, The Ross and Glenns Eskers
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Too many to list this esker system covers over 50
	individual townlands, along a linear extent of over
	45 km
NEAREST TOWN/VILLAGE	Birr, Fivealley, Kilcormac, Tullamore, Geashill
SIX INCH MAP NUMBER	17, 18, 21, 23, 24, 25, 26, 29, 30, 35
ITM CO-ORDINATES	616500E 714700N (centre of main esker segment,
	near Kilcormac)
1:50,000 O.S. SHEET NUMBER	48, 53, 54 GSÍ BEDROCK 1:100,000 SHEET NO. 15
Outline Site Description	

The Kilcormac Esker and surrounding sands and gravels include an exceptionally large accumulation of sands and gravels deposited both under the ice sheet and at its margin as the ice withdrew westwards across Offaly at the end of the last Ice Age. The esker forms part of the much larger Killimor-Birr-Fivealley-Kilcormac Esker System, which extends across the Midlands for over 70 km linear extent.

Geological System/Age and Primary Rock Type

The Kilcormac Esker and surrounding sands and gravels are formed entirely on Lower Carboniferous limestone rocks, across the lowlands of Central Offaly. The eskers themselves are Quaternary in age, having been deposited either under or at the edge of the westward-retreating ice sheet in deglaciation, approximately 14,000 years ago.

Main Geological or Geomorphological Interest

Where present the esker ridges are striking features, standing proud of the flat landscape of till (boulder clay) upon which they were deposited. In many places the eskers have been surrounded by post-glacial alluvium or peat deposits in the Holocene, following the Ice Age. Intact portions along the N52 between Tullamore and Birr, and well exposed along the roadside, are especially impressive. Here, the eskers are comprised of a singular ridge of coarse gravels; near Fiveally and Birr the arrangement is more haphazard. Some of the hollows between the ridges in this zone are remarkably deep and wide.

The esker feature is important in that it records faithfully the ice movement across this area of Offaly during the final phase of deglaciation. Wide belts of associated sands and gravels near Fivealley and north of Birr, flanking the esker beads themselves, are probably part of associated ice marginal fans. The sands and gravels within the feature are comprised chiefly of limestone clasts.

Site Importance – County Geological Site; may be recommended for Geological NHA

The features are haphazardly arranged, high, striking examples of dry sand and gravel ridges, that stand proud of the surrounding landscape. These eskers and their associated sands and gravels in the locality are a good example of a deglacial, meltwater-deposited complex, with portions deposited under the ice, and portions at the ice margin, and are recommended as a County Geological Site.

Management/promotion issues

A number of pNHA and SACs straddles the esker (000564 Little Brosna Callows, 000920 Ross and Glenns Eskers, 000919 Ridge Road SW of Rapemills, 000566 All Saints Bog, 000927 Woodville Wood, 000909 Lough Coura, 000906 Kilcormac Esker, 000571 Charleville Wood) and all of these areas, as well as many adjacent, are proposed here as the County Geological Site. Many of the esker ridge segments themselves are worthy of pNHA status geologically and geomorphologically.



The main segment of the Kilcormac Esker just southeast of Geashill.



An exposure into the esker along the N52 at Brackagh.



Cross section through the esker just north of Kilcormac.



The view from the first tee at Tullamore Golf Club, where the fairway follows the esker.







A portion of the Kilcormac Esker as depicted on the original six inch field sheets of the Geological Survey of Ireland (1865).