

CORK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Ballyknock		
Other names used for site	Cotters Point, Gyleen		
IGH THEME	IGH10 Devonian		
TOWNLAND(S)	Finure, Ballyknock, Trabolgan		
NEAREST TOWN/VILLAGE	Gyleen		
SIX INCH MAP NUMBER	100		
ITM CO-ORDINATES	584620E 560340N		
1:50,000 O.S. SHEET NUMBER	81	GSI BEDROCK 1:100,000 SHEET NO.	25
GIS CODE	CK015		

Outline Site Description

Extensive rock outcrops on foreshore rock platform and near-vertical cliffs.

Geological System/Age and Primary Rock Type

Upper Devonian sandstone and mudstone of the Gyleen Formation, overlying sandstone and siltstone of the Ballytrasna Formation.

Main Geological or Geomorphological Interest

This site includes the type locality for the Gyleen Formation, including its constituent Ballyknock Member, which marks the onset of marine sedimentation following the subaerial conditions that prevailed during deposition of the Old Red Sandstone rocks of the Ballytrasna Formation. The type section is referred to in the literature as being “northwest of Cotters Point” and the available grid coordinates places it at the eastern end of the site as defined here. This part of the site is only accessible at very low tide and could not be reached during the visit for this audit. The site is here referred to as “Ballyknock”, the townland in which the central part of the site is located.

Both the Gyleen and Ballytrasna Formations contain purple-red sandstone and siltstone and the transition between the two is marked by the appearance of a thick (1.5 m+) grey marine sandstone bed, which is then followed by red sandstone and siltstone. This can be observed in the rock platform at the western end of the site. The Gyleen Formation is described in its type section as comprising “about 20 % medium-grained sandstone with large- and small-scale cross-lamination and 80 % mudstone”. The rock platform forming the point at the western end of the site provides an excellent section through this formation.

Site Importance – County Geological Site

This site contains the type locality for the Upper Devonian Gyleen Formation, which marks the onset of marine conditions in the south of Ireland following the terrestrial conditions that prevailed during deposition of the Old Red Sandstone strata that form the bedrock to much of the southwest region. The contact between it and the underlying Ballytrasna Formation is well exposed at the western end of the site.

Management/promotion issues

Access to the site is across private land, with the easiest approach being via the Trabolgan holiday park (permission required). Access via the coastal rock platform from Gyleen is possible only at the lowest tide levels and should not be attempted for safety reasons. Parts of the Gyleen Formation are well exposed elsewhere along the coast on both sides of Cork Harbour. While this site contains its type locality, it is most likely to be of interest to researchers and professional geologists only, and does not require further promotion.



General view of presumed type section for Gyleen Formation northwest of Cotters Point (not shown, to right of photo) at eastern end of site, viewed eastwards from the west.



Contact between grey-green sandstone at base of the Gyleen Formation (left of hammer) and red siltstone of the Ballytrasna Formation at west end of beach, southeast of Trabolgan holiday park.



Cliff face with folded and cleaved sandstone and siltstone layers of Ballytrasna Formation below contact with Gyleen Formation, at east end of beach southeast of Trabolgan holiday park.



View east towards presumed type section for Gyleen Formation, northwest of Cotters Point. Ballytrasna Formation (red-purple colour) to left, Gyleen Formation to right in the mid-distance.

