

CORK CITY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Blackrock Diamond Quarry
Other names used for site	
IGH THEME	IGH 6 Mineralogy, IGH 1 Karst, IGH 7 Quaternary
TOWNLAND(S)	
NEAREST TOWN/VILLAGE	In Cork City
SIX INCH MAP NUMBER	74-4
ITM CO-ORDINATES	569376E 571532N
1:50,000 O.S. SHEET NUMBER	87
	GS1 BEDROCK 1:100,000 SHEET NO: 25

Outline Site Description

A disused quarry, now tarmacked over and in use as an industrial park, with some quarry faces still visible. Following amethyst finds in the 1970s, the site also includes a stretch of land to the west of the original quarry.

Geological System/Age and Primary Rock Type

The quarry processed fossiliferous Waulsortian limestones, from the Dinantian of the Carboniferous, and included impressive samples of amethyst.

Main Geological or Geomorphological Interest

Blackrock Diamond Quarry was a limestone quarry on the Beamish Estate, thought to have supplied the stone for Cork's City Hall, and possibly St Fin Barre's Cathedral. This quarry, which occupied the eastern portion of the site, was the source of excellent specimens of amethyst, known as "Blackrock Diamond," in the late 18th and early 19th centuries. Croker's 1823 "Researches in the South of Ireland" describes how a local child sold "sugar – candy" disguised as topaz following the amethyst finds. Specimens of amethyst labelled as "Cork" or "Blackrock" are likely to have been sourced from this quarry during early excavations, including two well-known examples now housed at UCC and TCD. Excavation ceased soon after the initial amethyst finds and the quarry was infilled due to ownership disputes. Further crystals were found within sediments in the western portion of this site in the mid 1970s; one large specimen, still showing the relationship between the amethyst and Carboniferous limestone bedrock, can be found in UCC's Cork Enterprise Centre.

This outcrop exhibits stromatactoid features, crinoids and shell material, as well as multiple karst features, some of which have been completely infilled with a diamict. The glacial deposits are subangular, pebble-sized clasts, primarily of red sandstone, set within a silt and clay matrix. It has been proposed that the amethyst crystals may have grown into a hollow formed by karstification.

Site Importance - County Geological Site

This site has historically been the source of impressive specimens of amethyst, and is important as an historic source of building materials for Cork City. Further excavation of the exposed rock faces could reveal new specimens of amethyst. Due to its unique significance in the field of Irish mineralogy, this site may be recommended for Geological NHA status. Although seen at other localities in the city, the relationship between the limestone's karst features and subsequent partial infilling with glacial deposits is particularly striking at this site.

Management/promotion issues

The original site of the Blackrock Diamond Quarry is now an industrial park with reduced accessibility, although quarry faces are visible from a distance on the road. The site of amethyst finds in the 1970s is also on private land. There are no examples of amethyst visible in-situ currently, and the site would not benefit from further promotion.



Left and Middle: Amethyst specimens found in the western part of site in the 1970s. (Left: the largest collection of crystals found at the time, showing the relationship with the limestone bedrock. Photos from Prof. D MacHale.) Right: Amethyst specimen donated to University College Cork, and found when the site was initially active. (Photo from Dr R. Unitt.)



Left: western part of site, where amethyst samples were found in the 1970s during construction work. Right: entrance to eastern part of site, historically known as Blackrock Diamond Quarry, now the site of a business park. Limestone quarry faces are still accessible at the edge of the site.



There are several karst pipes and other karst features on the site. The pipe on the left has been infilled by diamict, while the pipe on the right remains clear of sediment.



Location of CGS boundaries overlain on excerpt of map showing location of the "Diamond Quarry" in the eastern half of the site, OSI 1870, map digitised by UCD Library.

