

## CAVAN - COUNTY GEOLOGICAL SITE REPORT

|  |                           |
|--|---------------------------|
| <b>NAME OF SITE</b>                    | Carrickallen Quarry       |
| Other names used for site              |                           |
| <b>IGH THEME</b>                       | IGH4 Cambrian to Silurian |
| <b>TOWNLAND(S)</b>                     | Carrickallen              |
| <b>NEAREST TOWN/VILLAGE</b>            | Stradone                  |
| <b>SIX INCH MAP NUMBER</b>             | 22, 27                    |
| <b>ITM CO-ORDINATES</b>                | 656450E 804110N           |
| <b>1:50,000 O.S. SHEET NUMBER</b>      | 35                        |
| <b>GSi BEDROCK 1:100,000 SHEET NO.</b> | 8                         |

### Outline Site Description

This site is an abandoned quarry.

### Geological System/Age and Primary Rock Type

The rocks here are defined as part of the Carrickatee Formation, and are mostly volcanic tuffs locally exposed and exploited in the quarry, although the formation as a whole comprises mostly mudstones. They are of Middle Ordovician to early Silurian age, based on graptolite fossils.

### Main Geological or Geomorphological Interest

These rocks are representative of the Moffat Shale horizons at the base of a major Tract (numbered 4b by geologists) of rocks in the Central Belt of the Longford – Down inlier (extending and correlating with the Southern Uplands of Scotland). These Tracts are slices of the ocean floor that once separated northwestern Ireland from southeastern Ireland. The ocean is called the Iapetus Ocean, and is a major element of the geological history of Ireland. Sections of ocean floor were squeezed and stacked up as vertical slivers of rock (now called Tracts) adjacent to the subduction zone that consumed the Iapetus Ocean. The ocean closed over a long period through the Ordovician and early Silurian. The Iapetus Ocean floor rocks are poorly exposed in general and so quarries such as this are important reference sections.

In the eastern end of the quarry there are several well displayed faults that show the style of faulting in these rocks.

### Site Importance – County Geological Site

This is a good representative site of rocks that typically underlie the Lough Acanon district, demonstrating the broader geological history of much of Cavan.

### Management/promotion issues

The quarry was abandoned (in 2013) and is private property, unsuitable for general promotion.



A view of the eastern end of the quarry at Carrickallen.



A view of the western extension of the quarry, now flooded.



Left: Thin beds of greywacke sandstones showing complex extensional faulting.  
Right: Thick bedded greywacke sandstones in the main quarry face.





