

TIPPERARY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Carrigatogher M7 Road Cut
Other names used for site	
IGH THEME	IGH4 Cambrian-Silurian
TOWNLAND(S)	Carrigatogher
NEAREST TOWN/VILLAGE	Nenagh
SIX INCH MAP NUMBER	20
ITM CO-ORDINATES	581275E 676750N (centre of section)
1:50,000 O.S. SHEET NUMBER 59	GS1 BEDROCK 1:100,000 SHEET NO. 18

Outline Site Description

This site is the northern side of a major road cutting on the M7 Motorway, adjacent to a parking area on the eastbound carriageway, set back from the roadway itself.

Geological System/Age and Primary Rock Type

The rocks exposed here are Silurian in age, and are mapped as part of the Broadford Formation by Geological Survey Ireland. They are turbiditic greywackes, which means that they were deposited in a deep ocean basin by episodic currents, perhaps caused by storms or by earthquakes, dumping sediments into the basin from shallow areas. These settled out in thin layers with characteristic patterns. They are mostly finer grained greywackes.

Main Geological or Geomorphological Interest

The turbidite greywackes that comprise many of the Silurian inliers (older rocks surrounded by younger rocks, such as Slieve Bernagh, Arra Mountains, Slieve Felim) are not well exposed in the Arra Mountains except where very coarse layers form mountain exposures, or where the finest mudstone beds have been quarried as slates (such as at Portroe). Consequently a large road cutting such as at Carrigatogher is very valuable for geologists to see the broader or gross character of the formation and better understand the structural geology on the area. In this case it shows how broadly uniform the nature of the rock is through the section exposed, without significant variations and with very few mineral veins, faults or other features.

Site Importance – County Geological Site

The Carrigatogher M7 Cutting is a very useful representative site exposing otherwise poorly seen rocks, and is a new landmark for motorists on the M7 and deserves County Geological Site status to recognise that.

Management/promotion issues

The cutting has the advantage that motorists can legitimately pull in to the parking rest area on the M7 alongside the cutting and appreciate a view of it, since it is set well back. It is likely that the rock was quarried back in order to provide embankment material along an adjacent section of the M7, thus avoiding the need for a separate quarry elsewhere.

As with many such road cuttings, with thin bedded or well fractured rocks nature quickly endeavours to take over, with trees and shrubs getting a foothold. In the period since it was created the tree growth has already obscured much of the rock faces. Ideally, to maintain the geological exposure and the interest of the cutting, tree growth on the faces should be managed with regular removal, most easily done when they are small saplings.



A view of Carrigatogher M7 Cutting from the western end of the lay-by parking area.



The benched cutting faces.



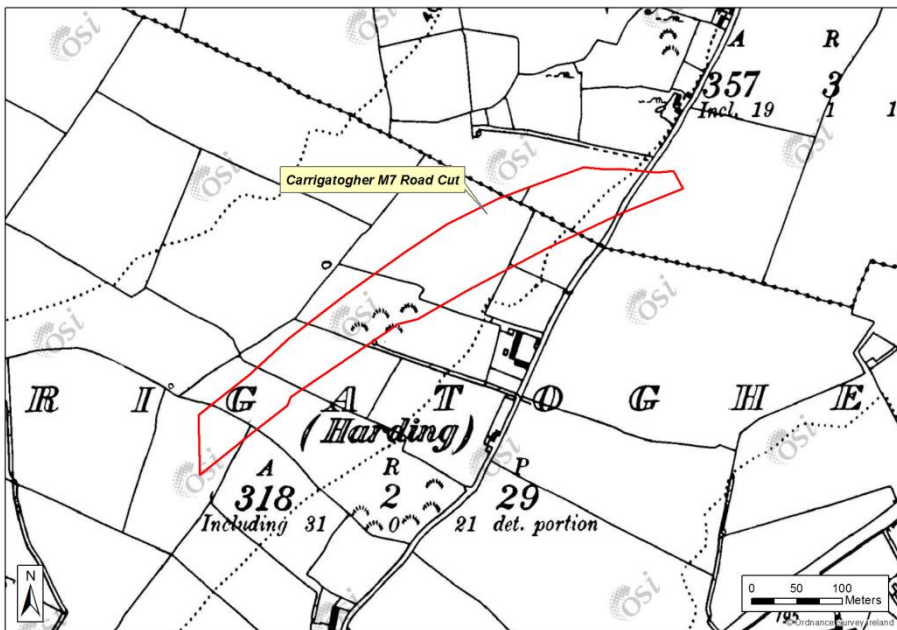
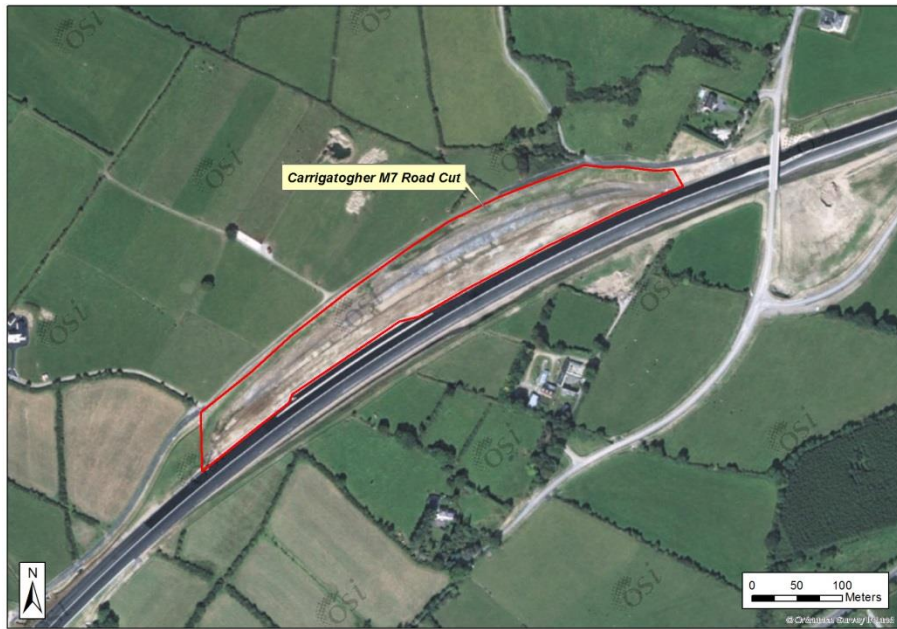
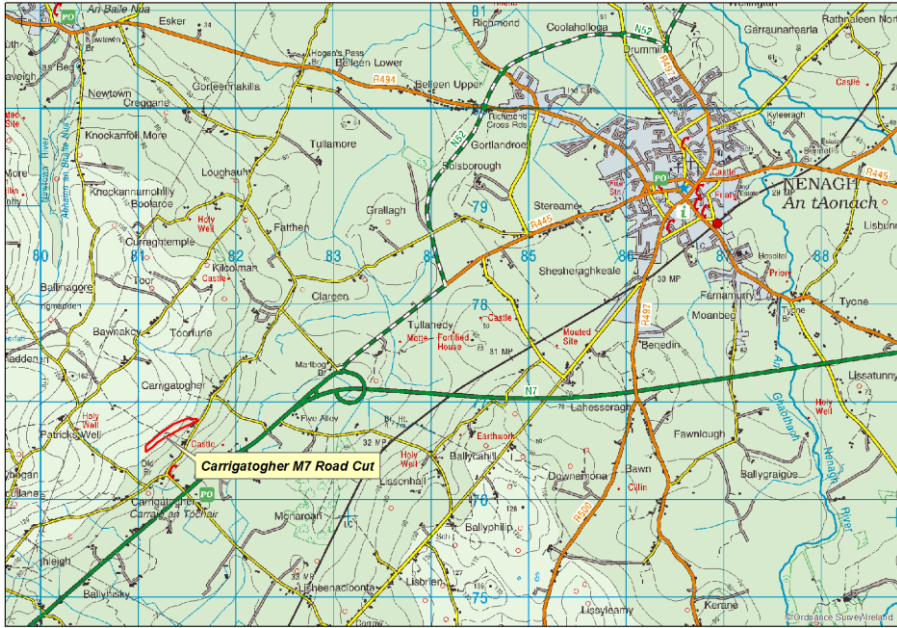
Close-up of the fractured Silurian greywacke.



The cutting face close-up.



The eastern half of the cutting.



Gallagher et al. 2019. Geological Survey Ireland.