

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Lackavrea
Other names used for site	Maam Gap, Leckavrea, Maumwee
IGH THEME	IGH5 Precambrian, IGH6 Mineralogy
TOWNLAND(S)	Leic Aimhréidh (Lackavrea)
NEAREST TOWN/VILLAGE	An Mam (Maam Village)
SIX INCH MAP NUMBER	39
ITM CO-ORDINATES	496800E 750030N
1:50,000 O.S. SHEET No. 45	GSI BEDROCK 1:100,000 SHEET NOs. 10, 11

Outline Site Description

Boggy terrain and rocky outcrops at the foot of Lackavrea Mountain, at Maam Gap at the southern end of the Maam Valley.

Geological System/Age and Primary Rock Type

Dalradian bedrock comprising Neoproterozoic age Cleggan Boulder Bed Formation, Bennabeola Quartzite Formation and Oughterard Granite (Ordovician). Garnet-epidote skarns have been described here.

Main Geological or Geomorphological Interest

The Cleggan Boulder Bed Formation is interpreted as a diamictite - a series of alternating marine sediment layers interbedded with glacio-marine sediments deposited beneath floating sea-ice. Some of the beds contain stones that 'rained out' from rafts of surface sea-ice and sank to the seafloor – called dropstones. Clasts identified in the formation include dolomite, granite, psammitic schist, vein quartz, quartzite, quartz porphyry, and amphibolite. Research suggests the sediments were deposited in southern, polar latitudes. The Cleggan Boulder Bed stratigraphically overlies the serpentine-rich Connemara Marble Formation. Fluids originated in and driven out of Dalradian schists are understood to have formed the serpentine marbles. The fluids formed the skarn which cross-cuts Cleggan Boulder Bed Formation at this site. Skarn deposits have been described a location at Maumwee-2 (NW Lackavrea), where coarse-grained garnet-epidote skarns replace the Cleggan Boulder Bed along fracture zones. Less intensive alteration between massive skarn and unaltered Cleggan Boulder Bed has resulted in finely banded epidote rock. Some 200 m east of Maumwee-2 is Maumwee-1, where Cleggan Boulder Bed Formation is surrounded by the Bennabeola Quartzite Formation; both are cut by a small incision of Oughterard Granite. Sheet 94 memoirs record a lode containing pyrrhotite, pyrite and minor chalcopyrite at Maumwee-1. Skarn has also been described at Lackavrea-1 (SE Lackavrea), where skarn developed in Lakes Marble Formation.

Site Importance – County Geological Site

An important County Geological Site, the Cleggan Boulder Bed Formation provides a correlation with similar glacio-marine beds in the Dalradian rocks in NW Ireland and Scotland. The site is located in the Maamturk Mountains SAC (Site code 002008). The granite-associated skarn and vein type mineralization, and a mobilised skarn gap in the Cleggan Boulder Bed Formation is also of interest. Throughout Connemara, granite-associated skarn and vein type mineralization occurs in association with all the Connemara granites.

Management/promotion issues

This site is relatively easily accessible across flat boggy and outcropping terrain. The land is grazed by sheep. Primarily of importance as a teaching and research site, the features do not lend themselves as suitable for public promotion.



View of the Cleggan Boulder Bed and Oughterard Granite outcrops at the NW foot of Leckavrea (summit in background).



Oughterard Granite cross-cutting Cleggan Boulder Bed rocks. Viewed looking north up Maam Valley. Cur Hill is distance.



Quartz clast (right) in Cleggan Boulder Bed outcrop.



Open pit at Maumwee site. Corcogmore visible to the west.

