GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Other names used for site IGH THEME

TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET No. 37 Sellerna Bay Rossadillisk IGH6 Mineralogy, IGH11 Igneous intrusions, IGH15 Economic Geology Rossadillisk Cleggan 21 458210E 758950N GSI BEDROCK 1:100,000 SHEET NO. 10

Outline Site Description

Coastal outcrop, less than 10m wide, backed by low cliffs of till.

Geological System/Age and Primary Rock Type

Dalradian Lakes Marble Formation limestones and pelites intruded by Caledonian Omey Granite.

Main Geological or Geomorphological Interest

The calcareous rocks of the Lakes Marble Formation have undergone contact metamorphism here, following intrusion of the Omey Granite. The development of calc-silicate skarns composed of, among other minerals, calcite, diopside, grossular garnet, wollastonite and feldspar, has been accompanied by deposition of minerals of economic interest. Exploration in the 1970s led to the discovery of scheelite (calcium tungsten mineral, CaWO₄) and minor sulphide mineralization, including pyrite (FeS₂), pyrrhotite (FeS) and molybdenite (MoS₂). Over 1 % tungsten was recorded from some samples but mineralization is not persistent and the site is not considered to have economic potential.

The contact between the Omey Granite and the Lakes Marble Formation is well exposed on the beach at Carrickbreedia on the northwestern end of the bay. Coarse grossular-diopside-wollastonite skarns are found close to the contact.

Site Importance – County Geological Site

This is one of a number of sites in Galway where exploration in the 1970s demonstrated the presence of tungsten mineralization in skarns formed by contact metamorphism of calcareous rocks within the aureole of granitic intrusions. Apart from the presence of tungsten, a commodity with very limited distribution in Ireland, the site is of interest for the occurrence of skarns and the excellent exposure of the Omey Granite contact.

Management/promotion issues

The site is not part of any designated protection zone, although the adjacent marine area is part of the West Connacht Coast SAC. The coastal exposures on the west of the bay are, in places, liable to cut-off at high tide, and should be approached with caution. Scheelite can be difficult to identify without specialist equipment, e.g. ultraviolet light, and as a mineral site (IGH6) Sellerna Bay is thus likely to be of interest mainly to specialist researchers, requiring no promotion. The outcrop of the granite contact at the western end of the bay may be of more general interest as it is located on a beach.



View of coastal exposure, northwest from beach at Sellerna Bay.



View of coastal exposure of Lakes Marble Formation, looking north.



Contact between Omey Granite (left of line) and Lakes Marble Formation near Rossadillisk



Mineralization in skarn, including calcite, feldspar and, at bottom left, pyrrhotite.



Coarse grossular garnet (red) in skarn (end of hammer head for scale).

Meehan et al. 2019. Geological Survey Ireland.



Meehan et al. 2019. Geological Survey Ireland.