

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Murvey
Other names used for site	Murvey Roadside Quarry
IGH THEME	IGH11 Igneous intrusions, IGH6 Mineralogy
TOWNLAND(S)	Murvey
NEAREST TOWN/VILLAGE	Roundstone
SIX INCH MAP NUMBER	62
ITM CO-ORDINATES	468230E 739780N (quarry)
1:50,000 O.S. SHEET No. 44	GSI BEDROCK 1:100,000 SHEET NO. 10

Outline Site Description

This site includes low-lying rocky and boggy terrain with abundant granite outcrops, and a disused granite quarry.

Geological System/Age and Primary Rock Type

Bedrock is Roundstone Murvey Granite, a non-porphyritic alkali leucogranite and one of the granite varieties of the late-Caledonian Galway Batholith. The granite has been radiometrically dated to 410 Ma, and is among the first Galway Batholith granites to have been emplaced during late-Caledonian times. Molybdenite is contained mainly in quartz veinlets and fracture coatings.

Main Geological or Geomorphological Interest

The site is immediately west of the Cleggan-Clifden-Murvey Fault, a major NNW-SSE trending sinistral fault. A fine-grained, pink weathering granite, the Roundstone Murvey granite contains fine-grained (~5 mm) disseminated and quartz vein hosted molybdenite. Soil geochemical surveys and diamond drilling revealed an estimated 240,000 tons at 0.13% molybdenite in this low-grade section in the main Murvey molybdenite zone. Geochemical, fluid inclusion and stable isotope studies indicate that molybdenite mineralization was magmatic in origin. Molybdenite mineralization appears to be associated with north-northeast faulting and fracturing in the area.

The light pink Murvey Granite exposed in the roadside quarry contains notable cherry red and brown garnets (1-2 mm in size). These minerals can be seen with the naked eye. Chalcopyrite and scheelite have been identified in quartz veins at a coastal location to the south of the site. Autunite has also been described in this area.

Site Importance – County Geological Site

This County Geological Site is significant in that radiometric dating of molybdenite here has contributed to the constraining of the geochronology of the Southern Uplands–Skird Rocks Fault System and the associated period of late-Caledonian magmatic activity that led to the emplacement of the Galway Batholith between 410 Ma and 380 Ma.

Management/promotion issues

The disused granite quarry is wire-fenced, and not openly accessible. The disposal of rubble in the quarry is identifiable and should be discouraged. The quarry has good potential as a geology field-teaching site, however the site is not of suitable interest for public promotion. The Roundstone-Errisbeg area has more accessible and scenic sites for the promotion of geological heritage, such as the Dog's Bay beach parking area. The main Murvey molybdenite zone is ~2 km west of this County Geological Site. A report for Highbank Resources Ltd compiled in 2008 provides a detailed summary of the Murvey Prospect .



The roadside quarry at Murvey.



Garnets (rust coloured) visible on outcrop in the quarry.



Pink coloured Murvey Granite. Dogs Bay and Illaunacroagh More area in the far distance, to the south.



