GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Clements Mine**
Other names used for site	
IGH THEME	**IGH15 Economic Geology, IGH6 Mineralogy**
TOWNLAND(S)	**An Cheathrú Gharbh (Carrowgarriff)**
NEAREST TOWN/VILLAGE	**An Mám (Maam)**
SIX INCH MAP NUMBER	**39**
ITM CO-ORDINATES	**499360E 751830N**
1:50,000 O.S. SHEET No. 38	**GSI BEDROCK 1:100,000 SHEET NO. 10**

Outline Site Description
Extensive abandoned mine site of 5 ha on steep hillside of mixed grassland, heathland and exposed bedrock, overlooking Lough Corrib.

Geological System/Age and Primary Rock Type
Graphitic pelites, semi-pelite and psammites of the Dalradian Cornamona Formation.

Main Geological or Geomorphological Interest
It has been suggested that Clements Mine may have been worked early in the 19th century but it is not shown on the six-inch maps published subsequently. The site as it is now dates from 1907–1908 and was developed by Glasgow-based Clements Lead Mines Ltd. It was the last mine developed in Connemara and one of the most substantial. Argentiferous galena was mined from a 1.2–4.5 m-wide lode, developed along a shear zone in which impure marble was replaced by massive sulphide. The average ore grade was 44 % Pb and 176 g/tonne Ag. Apart from galena, pyrite and lesser amounts of sphalerite and chalcopyrite are also present in the mineralization.

The lode was excavated via a 140 m-long northwest-southeast-trending opencast. This opencast, up to 7 m deep and 5 m wide, is still present and accessible. Two adits on the site, one to the west of the opencast and the other 50 m south of it, are in fact either end of a single cross-cut adit that was driven but failed to intersect the main Pb-Ag lode, although it did intersect a 1.2 m-wide Cu-Pb lode. A large crusher house, largely intact, was constructed downhill from the opencast and it was powered by water from the mountain stream that incises the site. From the crusher house the trace of a tramway can be followed 250 m uphill via several waste heaps to the opencast area. The waste heaps have a varied composition but include fine-grained and oxidized material that appears to have undergone crushing. Waste heaps have been reported to contain in excess of 5 % Pb. Ore was transported down the hillside via the tramway, which operated on an endless ropeway, and shipped to Galway from a pier in the lake.

Site Importance – County Geological Site
Although it had a very short lifespan, Clements is one of the most substantial historic mine sites in the Connemara Dalradian. It has well-preserved mine features, including the main opencast excavation, and the most impressive extant mine building in the region, along with traces of various other features that allow an appreciation of the site as it existed when in operation. Several substantial waste heaps contain specimens of the mineralization.

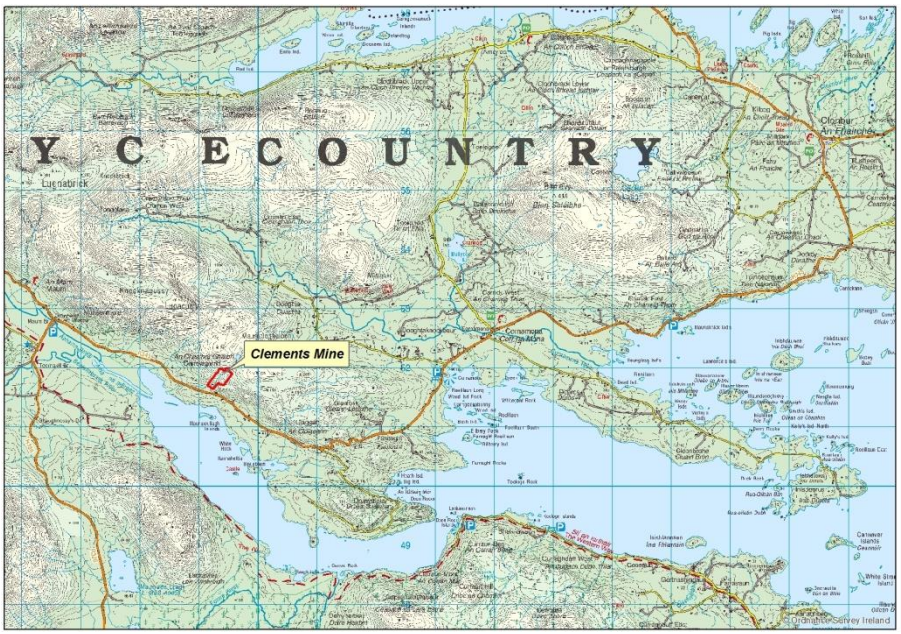
Management/promotion issues
Part of the site, including most of the opencast area, lies within the Maumtrasna Mountain Complex proposed NHA. There are no evident threats to the site and it does not appear to require active management. It is likely to be mainly of interest to those with an active interest in historic mine sites and scientific research into mineralization. The lower part of the site, including the crusher house, is in private ownership but the upper part, including most of the opencast area, is commonage.

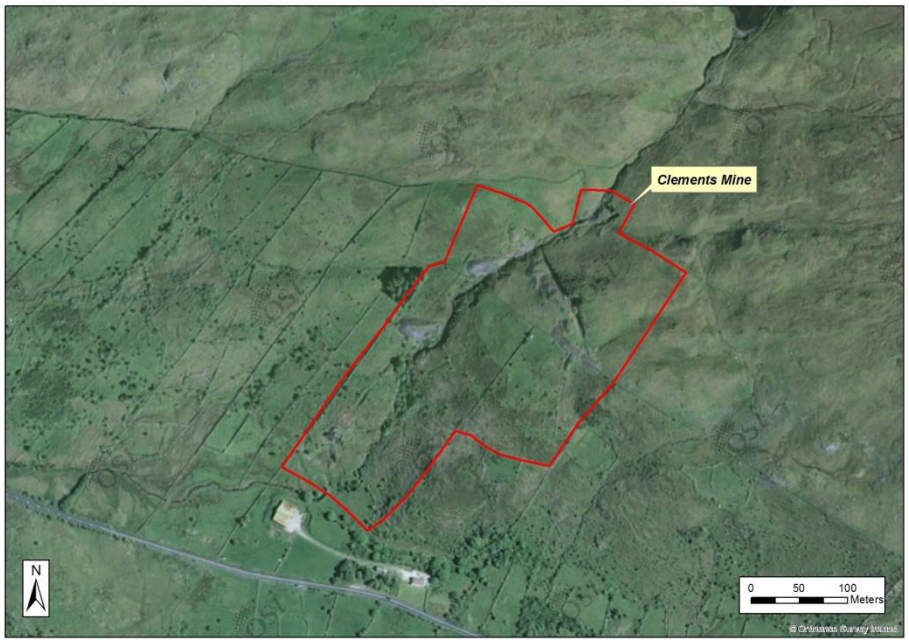
View south from above crusher house towards Lough Corrib. Waste heap with crushed, oxidized spoil in foreground.

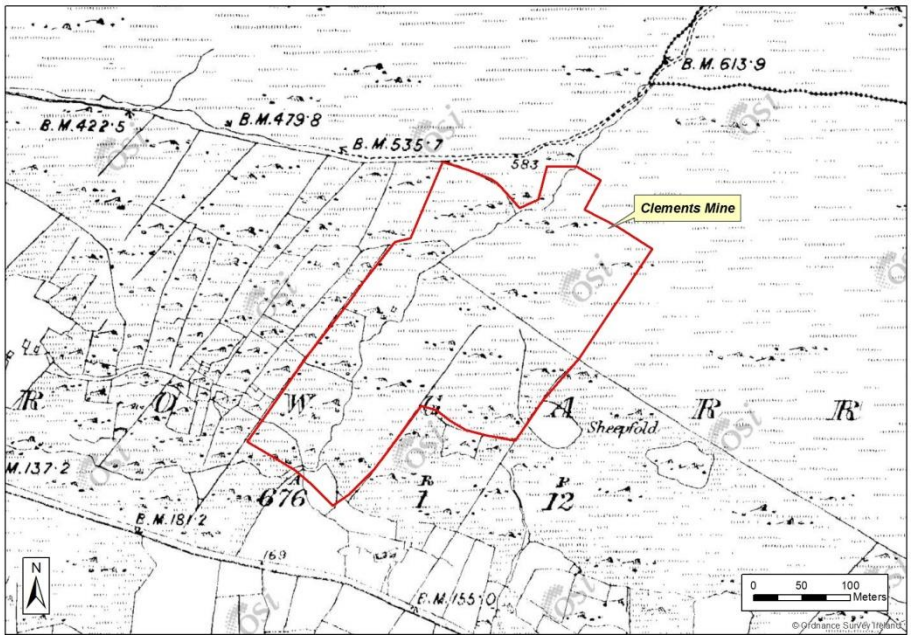
Crusher house.

View southeast along opencast. Opening of cross-cut adit is visible below excavation.

View towards northern extension of mine site where several waste heaps were produced by unsuccessful trials.







Meehan et al. 2019. Geological Survey Ireland.