WATERFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Copper Coast – Tankardstown**		
Other names used for site			
IGH THEME	**IGH6 Mineralogy**		
TOWNLAND(S)	**Knockmahon, Tankardstown**		
NEAREST TOWN	**Tramore**		
SIX INCH MAP NUMBER	**Waterford 25**		
NATIONAL GRID REFERENCE	**245040 98727**		
1:50,000 O.S. SHEET NUMBER	82	**1/2 inch Sheet No.**	22

Outline Site Description
Tankardstown is one of the main complexes on the Copper Coast of mineralised rock that has been mined in the 19th century for copper ores. The site includes the industrial heritage buildings as well as the mineral veins and old mine workings.

Geological System/Age and Primary Rock Type
The great diversity of minerals recorded here are hosted in Ordovician volcanic rocks, but the minerals are a mixture of different ages. The primary ores, probably of Devonian age, occur in veins, which cut across and through the volcanics. There may be some minerals associated with the volcanic eruptions themselves too. However, the most spectacular minerals in Tankardstown mine are secondary minerals derived from oxidation or weathering of the primary ores, and are therefore quite recent, developing since mining ceased.

Main Geological or Geomorphological Interest
Tankardstown is of particular interest for the diversity of minerals it has, some of which are rare. There are at least 36 different minerals recorded from Waterford Copper Coast mines, such as arsenopyrite, azurite, barite, bornite, botallackite, brochantite, chalcopyrite, chrysocolla, cobalt arsenides, connellite, copper, cuprite, dolomite, epidote, erythrite, galena, langite, malachite, pyrite, siderite, sphalerite, tennantite and tetrahedrite, many of which are found at Tankardstown. The finest examples at Tankardstown are of brochantite and the flowstones of langite/brochantite. The minerals are contained in primary veins, secondary weathered zones called gossans and as spectacular flowstone type deposits in the abandoned mine workings.

Of considerable value to the Copper Coast Geopark is the iconic remains of an engine house on the northern side of the road. These have been conserved and interpreted with the aid of the Mining Heritage Trust of Ireland and are safe for visitors to explore and enjoy.

Site Importance
The site is of national importance for its mineralogy. The site is part of the complex of sites along the Copper Coast, which collectively are of national importance and which are already part of a proposed NHA (Ballyvoyle Head to Tramore No 1693).

Management/promotion issues
The disused mine workings are not suitable for general promotion as they presently exist. A major investment costing perhaps millions of euros would be required to make them publicly accessible as a showmine, meeting all safety requirements and regulations. It could be done with adequate funding though, and they are sufficiently interesting to be a tourism attraction that could potentially be quite successful. At present the Tankardstown Mine workings are inaccessible without specialist equipment. Collapsed shafts have blocked access to inner sections for mine heritage specialists. A fenced off open shaft from the clifftop intersects the horizontal adits underground in the mine. Underground mine workings such as these are the responsibility of the Minister for Communications, Energy and Natural Resources and permission must be sought for entry or any intervention.

Tankardstown section and engine house viewed from the east.

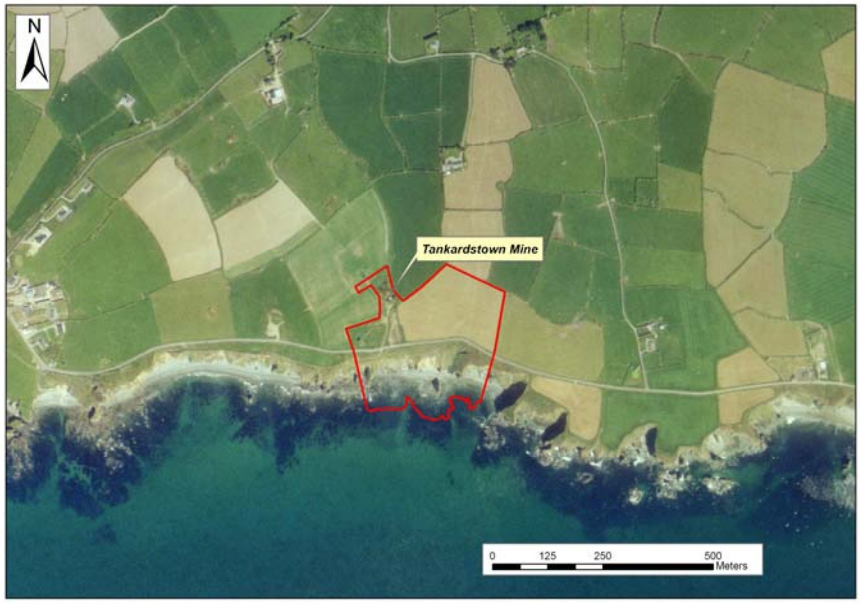
Secondary copper minerals in Tankardstown.

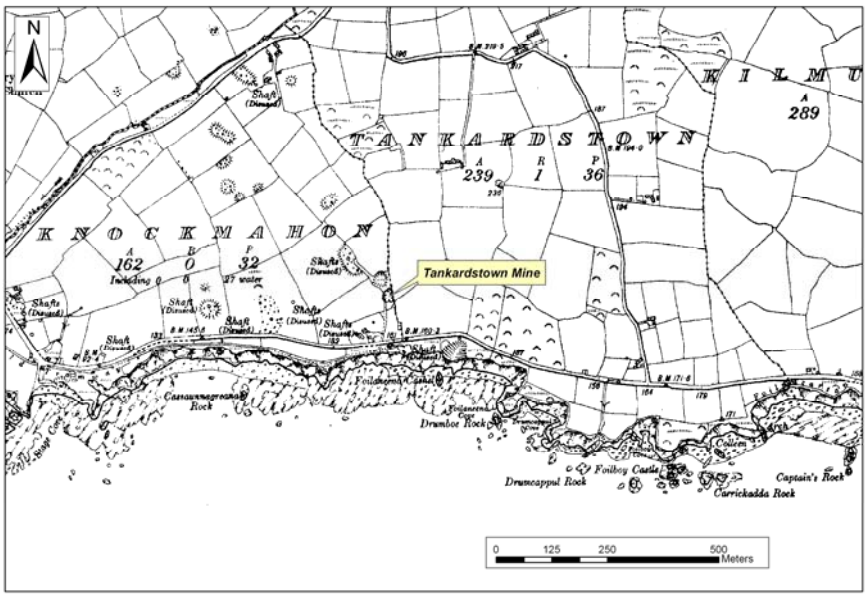
Tankardstown conserved mine buildings.

Clifftop open shaft at Tankardstown.

Dumped mattress in the mineral tramway.


Ballyna-
gigla
Cap's
Cr. Rds.
Bedparka
Cr. Rds.
Glannagair
Cr. Rds.
Knockane
Ballynasissala
R675
Kilduane
Bohernamuck
Cr. Rds.
Kilmurrin
Dunabrattin
Tankardstown
Sch
99
Knockmahon
Tankardstown Mine
PO
P
Coast and
Cliff Rescue
Slip
Bunmahon
Bun Machan
Promontory
Fort
Cassaunnagreana
Rock
Foilboy
Castle
Coheen
Drumboe
Rock
Drumcappul
Rock
Captain's
Rock
Carrickadda
Rock
Kilmurrin
Cove
Trabeg
R675
Gull Isd
98
Bunmahon Bay
Cuan Bhunmachan


N
Tankardstown Mine
0
125
250
500
Meters


N
KNOCKMAHON
A 162
B 0
P 32
TANKARDSTOWN
A 239
R 1
P 36
KILMU
A 289
Tankardstown Mine
Cassaunnagreana
Rock
Drumboe Rock
Foilboy Castle
Drumcappul Rock
Captain's Rock
Carrickadda Rock
0
125
250
500
Meters