MAP 33: BATHINGHOUSE BAY TO MULLOCK BAY

Hinterland Geology and Coastal Geomorphology: Part of this coastline forms the lower estuary of Kirkudbright Bay. The region eastwards from Port Muddle has an exposed southerly aspect. The hinterland geomorphology over this region contains fluvioglacial drift.. This breaks at Torrs Point where till covers visible rock to Port Muddle. Here marine deposits give way to glacial sands and gravels probably of Devensian age. At the head of Mullock Bay raised beach forms a steep cliff-edge. In general the cliff-edge is higher than 10m throughout this region. This overlooks wide rock platform, off-shore stacks and wide gullies. Both Port Mudle and Port Mullock lie on major fault lines dividing and a enclosing differing geological units (Stone *et.al.*1996).

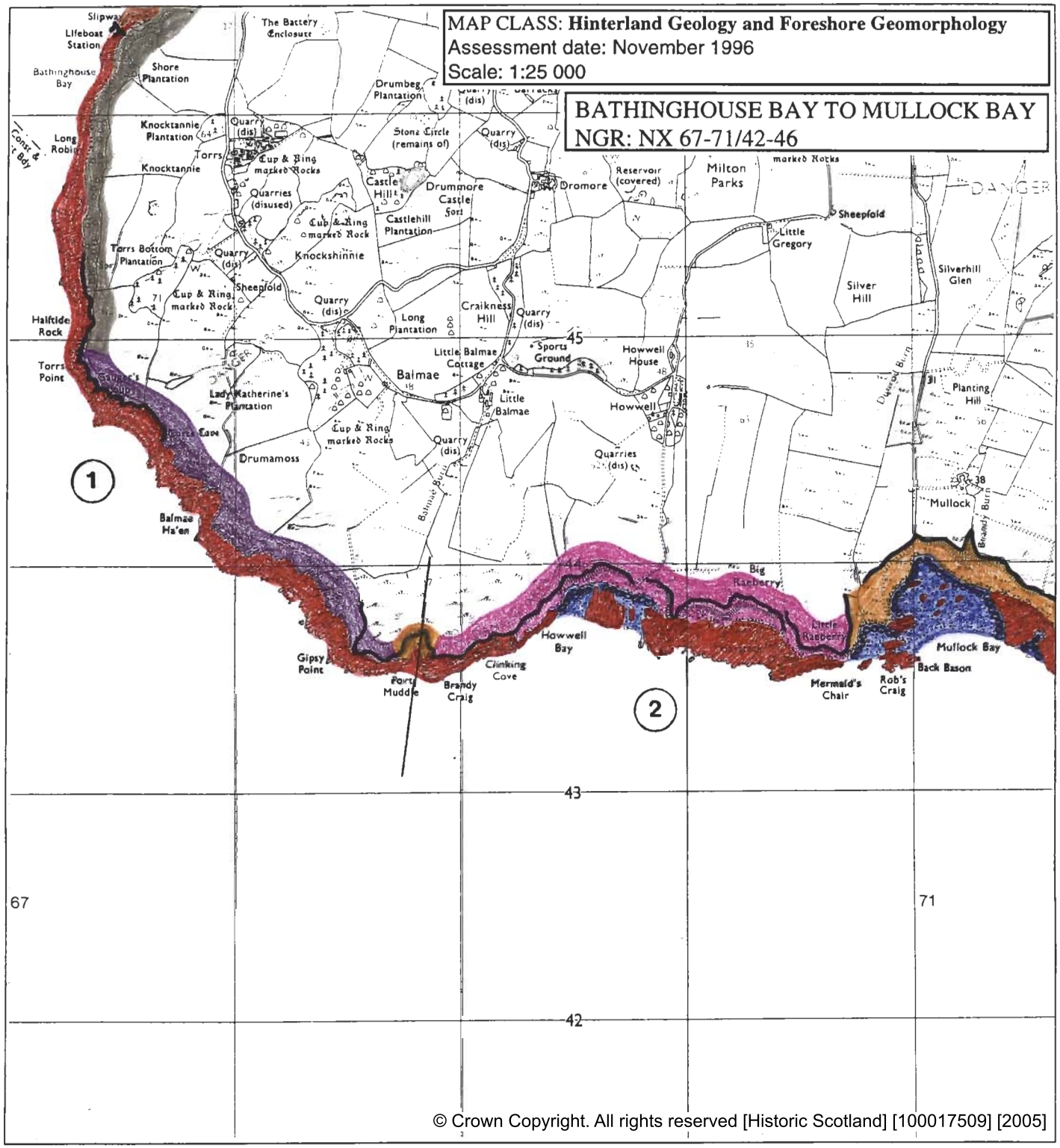
Erosion Class: Owing to the very exposed position of this coastline and the formation of deep gullies and wide wave cut platforms it is classified as definitely eroding. The rate of erosion is considered to be slow. Sub-aerial weathering of the softer glacial deposits at the head of Mullock Bay gives rise to a series of terraced slopes.

Built Heritage & Archaeology: A range of sites, dating from the third millennium BC to the medieval period, comprising cup markings, an earthwork, a cave, a castle and a spring form the majority in this section of the coast. Although most are situated on the coastal edge none are visibly suffering from coastal erosion. Torrs Cave (Graham & Truckell, 1977, 141), however, could not be located in the rapid survey and doubts are raised as to its condition. The majority of the sites are also located within the Dundrennan Army Range and therefore little animal impact affects their condition.

Map 33: Hinterland Geology and Coastal Geomorphology

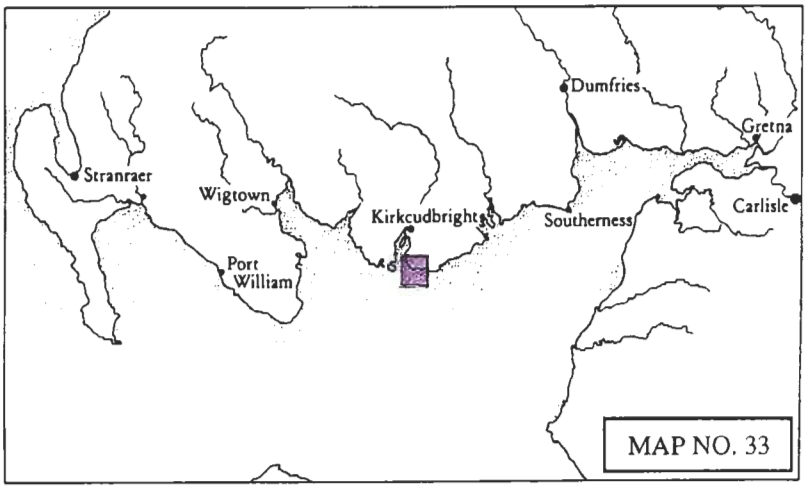
1. North of SHORE PLANTATION to PORT MUDDLE
NX 673 450
4km Cliff (< 10m)
Glacial drift and till over rock
This unit has a very irregular cliff-edge that becomes deeply incised towards the south. Rock platforms occur the length of this unit. Glacial drift contain facies of brecciated clay and greywackee. From Torrs Point the overlying hinterland geology is till .

2. PORT MUDDLE to NETHERLAW POINT
NX 705 436
3km
Cliff (> 10m)
Glacial sands and gravels, raised beach
Port muddle is a small bay indented along a major fault line. The Hinterland geology is glacial sands and gravels overlying a high cliff-edge. Marine sands and gravels outcrop above Mullock Bay and overlie thinly bedded sandstones and mud stones. The cliff-edge gradient is steep. The foreshore consists of greywackee platforms exposed down to the MHWM with boulders and sand at Mullock Bay.



KEY

Hinterland Geology	Derwent Code	Colour
Drift, boulder clay	French Grey	
Drift, boulder clay over visible rock	Dark Violet	
Raised beach and marine deposits	Golden Brown	
Blown sand	Pink Madder Lake	
Glacial sand and gravel	Magenta	
Alluvium	Emerald Green	
Coastal Geomorphology		
Mainly rock platform	Deep vermilion	
Mainly sand	Ultramarine	
Mainly alluvial/marine mud	Venetian Red	
Marsh	May Green	
Coast Edge		
Low edge (<5m)	Thin black line	
Cliff (>5m)	Solid black line	
Man made barrier	Black line with spines	
Shingle beach	Small circles	oooooo
Human disturbance	Black carats	^^^^^^



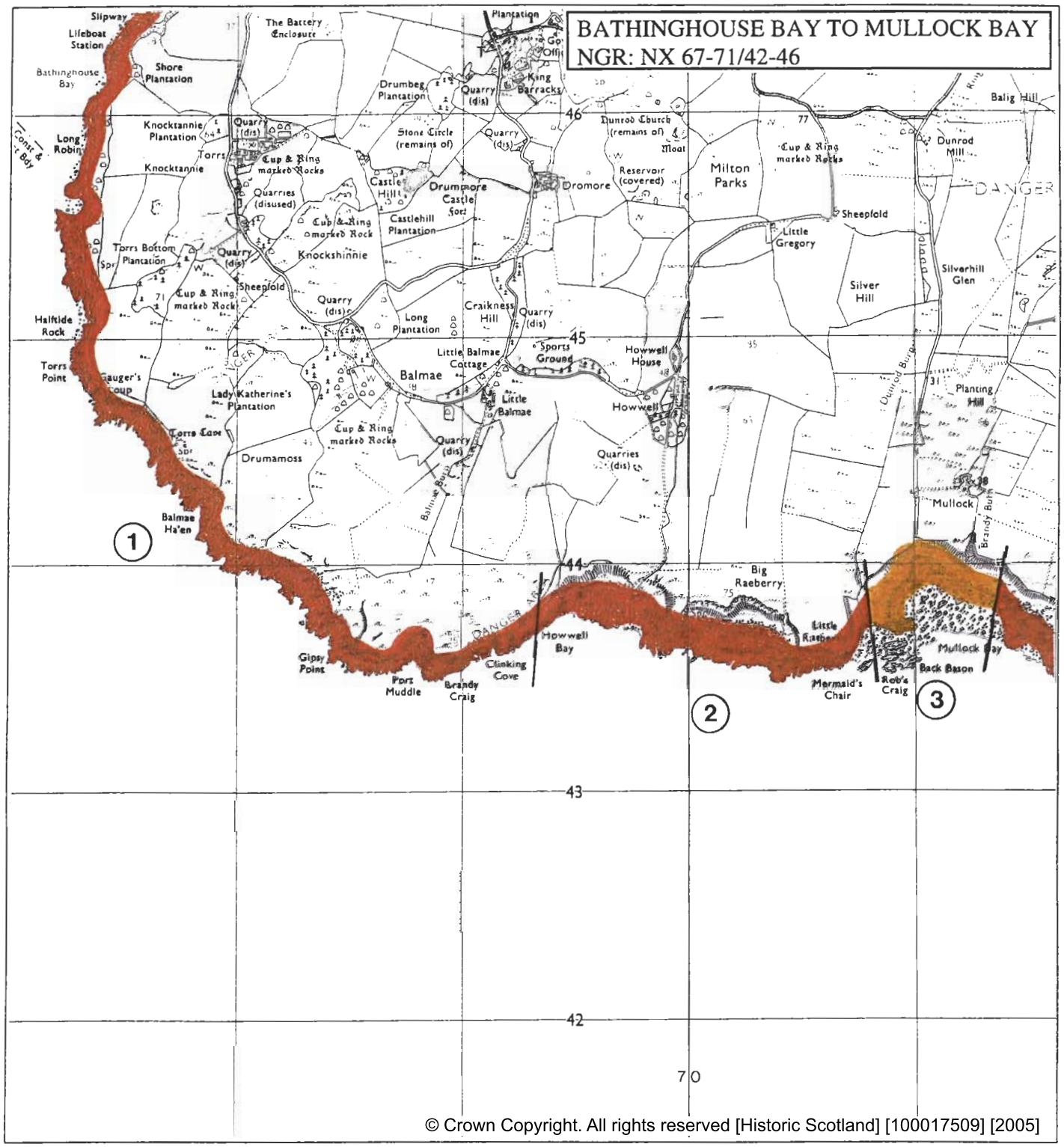
MAP 33: EROSION

1. South of TORRS MOOR to HOWWELL BAY
NX 673 450
4km
Definitely eroding
This region of coastline is exposed to south westerly gales. The cliff-edge is very irregular and deeply incised. Rock platform is exposed at the MHWM and is scoured by the effects of wave action. Cliff retreat is slow owing to the resilience of the underlying geology.

2. HOWELL BAY east to ROBS CRAIG
NX 270 436
1.5km
Definitely eroding
This unit has a very irregular cliff-edge. High rock platforms have been cut into deep gullies. The cliff is slowly eroding.

3. MULLOCH BAY
NX 702 483
0.4km
Eroding or stable
This unit contains Mullock Bay. Large boulders intermixed with shingle occur within the bay. At the MHWM cliff material of fluvioglacial origin is slowly eroding out.

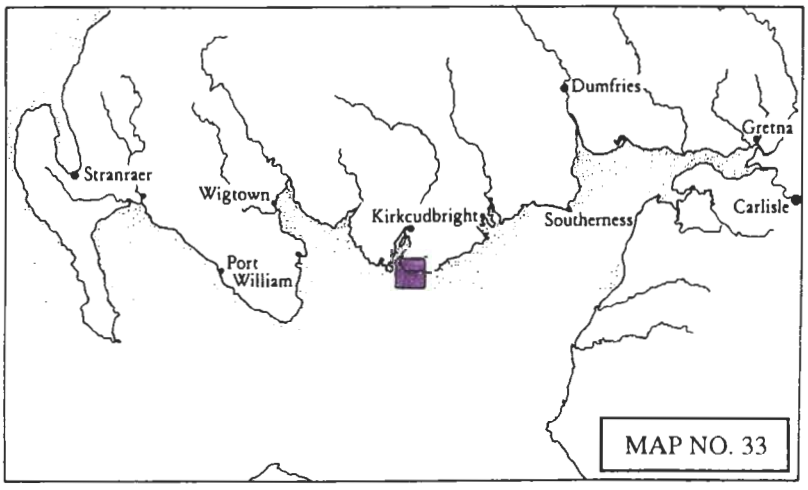
BATHINGHOUSE BAY TO MULLOCK BAY
NGR: NX 67-71/42-46



KEY

Erosion class	Derwent Code	Colour
Definitely accreting	Prussian Blue	
Accreting/stable	Light Blue	
Stable	Grass Green	
Stable/eroding	Deep Chrome	
Definitely eroding	Deep Vermilion	
Both accreting and eroding	Imperial Purple	
No access	Blank	
Land below 10m	Straw Yellow	

MAP CLASS: **EROSION**
Assessment date: 15.10.96
Scale 1:25 000



MAP 33: BUILT HERITAGE AND ARCHAEOLOGY

Sites on the Coast Edge & Foreshore

NX64SE 31
NX 6738 4490
TORRS POINT
Cup Markings
3rd/2nd Mill BC
Uncertain; not located
Nil

NX64SE 30
NX 6739 4485
TORRS POINT
Cup Markings
2nd/3rd Mill BC
Uncertain; not located
Nil

NX64SE 5
NX 6767 4459
TORRS CAVE
Cave
1st Mill BC/AD
Uncertain; not located
Nil

NX64SE 16
NX 6768 4452
TORRS COVE BAY
Landing Place
Uncertain
Uncertain; not located
Nil

NX64SE 6
NX 6990 4373
RAEBERRY CASTLE
Castle
Uncertain
Good
Nil

NX64SE 14
NX 6999 4378
ST MARGARET'S WELL
Spring
Uncertain
Uncertain; not located
Nil

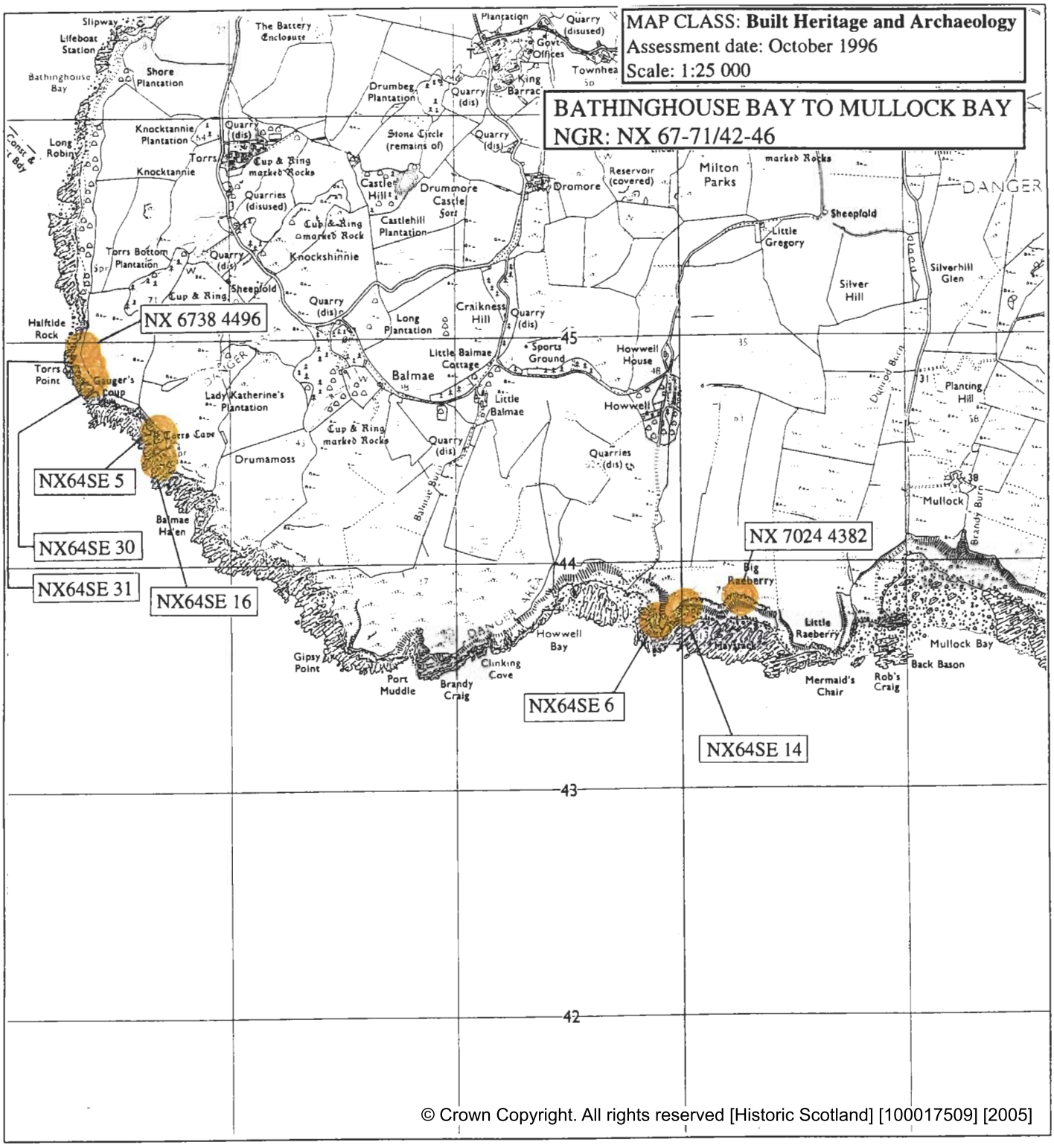
Sites in the Hinterland

NX 6738 4496
KING WILLIAM'S BATTERY
Earthwork
Uncertain
Uncertain; not located
Nil

NX 7024 4382
WALLACE'S PUTTING STONE
Inscribed Rock Outcrop
Uncertain
Good
Nil

MAP CLASS: **Built Heritage and Archaeology**
Assessment date: October 1996
Scale: 1:25 000

BATHINGHOUSE BAY TO MULLOCK BAY
NGR: NX 67-71/42-46



KEY

Site location	Symbol	Colour	Significance
NGR ref. - eg. NX 143 368	Roundel - Solid, (or area)	Red	Protected Ancient Monument
	Cross	Red	Listed Historic Building
	Roundel - Open, (or area)	Red	Monument formally proposed by Historic Scotland for designation
	Roundel - Solid, (or area)	Yellow	Other known Ancient Monument
NMRS ref. - eg. NX13 SW17	Dashed outline	Yellow	Gardens/Designed landscape
	Roundel - Solid, (or area)	Yellow	Undesignated wreck
	Area	Green	Insufficient information; more work needed
	Area	Blue	Probably archaeologically sterile