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# APPLIED GEOLOGICAL MAPPING SOUTHAMPTON AREA



BRITISH GEOLOGICAL SURVEY



**Cover photograph**

We see Southampton city centre from the air, looking northwards over the Royal Pier and Mayflower Park (where a Boat show is taking place) in the foreground. The low-lying area in the left centre, occupied mainly by industrial buildings, is formed of reclaimed land over Estuarine Alluvium deposits. Most of the rest of the city is built on River Terrace Deposits overlying formations of the Bracklesham Group.

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**MAPS OF  
WORKED GROUND  
(G 1-G 6)**

**VOLUME 7**

**BGS Research Report ICSO/87/2**

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Natural Environment Research Council  
BRITISH GEOLOGICAL SURVEY

**APPLIED GEOLOGICAL MAPPING  
SOUTHAMPTON AREA**

Area covered by  
1:50 000 Geological sheet No. 315 (Southampton)  
Parts of OS 1:10 000 sheets SU20, SU21, SU22, SU30, SU31,  
SU32, SU40, SU41, SU42, SU50, SU51 and SU52

**VOLUME 7: MAPS OF WORKED GROUND**

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## Notes to the user

There is considerable variation in the quality and reliability of the source data used to compile this report and the accompanying set of applied geology maps, as well as a great disparity in the density of site investigation data within the study area. Therefore, the accuracy and reliability of the interpreted information reflects that of the source data. However, emphasis has been placed throughout on the most reliable data, particularly those derived from authoritative sources such as geotechnical engineers and geologists.

Thus the report and maps are to be regarded as the *best interpretation of the information available at the time of compilation. They should be used for preliminary studies only and are not intended as a substitute for on-site investigations or detailed local searches.* The responsibility for assuring that geological, geotechnical and mineral and water resource data for any given site are as indicated in the maps and in the figures and text of this report must remain solely that of the user.

The possible occurrence of undetected anomalous site conditions should always be anticipated. The indicated occurrences of mineral deposits do not necessarily imply an economic resource. The possible presence of unmapped variable thicknesses of superficial deposits and Made Ground, particularly within the urban area of Southampton, should also be taken into account in any planning procedures.

There is no substitute for the knowledge provided by a detailed site investigation that takes into consideration the extent, nature and location of a proposed development. Therefore the report and maps are intended a) to give guidance on when to seek specialist advice and b) to aid developers in formulating effective investigations.

No information made available after the end of 1986 has been taken into account in this report.

All National Grid references in the report lie within the 100km square SU. Grid references are given to either eight figures (accurate to within 10m), or six figures for more extensive locations.

Data used in preparing this report and associated maps is lodged at the Exeter office of the British Geological Survey. Any enquiries concerning these documents should be directed to that office. Enquiries concerning the computer techniques or methodology should be directed to the Edinburgh or Keyworth office of the Survey. Enquiries about purchase of the report or maps should be

directed to the National Geosciences Data Centre, British Geological Survey, Keyworth, Nottingham NG12 5GG.

## **DESCRIPTION OF THE APPLIED GEOLOGY MAPS**

### **Distribution of worked ground (Maps G1-G6)**

The 1:25 000 scale maps of mineral workings are based on the 1:10 000 geological survey of 1973-80 with supplementary information from local government and industrial sources, together with limited site inspections carried out for the present study. The location of certain sites that are no longer evident were obtained from the 1:10 560 geological maps surveyed in 1866-76. While every effort has been made to achieve a complete record, the infilling of sites, particularly in the urban areas will undoubtedly have obscured many former workings.

The classification of workings is based on the nature of their production and the following types are shown on the face of the maps.

1. Chalk - worked mainly for agricultural use within the study area.
2. Clay - mostly brickclay workings
3. Gravel - flint gravels have been extensively worked from River Terrace Deposits and alluvial tracts for use in the construction industry.
4. Sand - worked mainly for building purposes but there are limited workings for foundry (moulding) sand.
5. Sand and gravel - most gravel workings wash a small proportion of their production as sand but in certain cases, for example where a gravel deposit (Drift) overlies a sand deposit (Solid), both sand and gravel may achieve equal importance. Such workings are given a distinctive ornament.