

w0/87/2 [1]

APPLIED GEOLOGICAL MAPPING SOUTHAMPTON AREA



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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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 2: MAPS OF SOLID GEOLOGY

R. A. Edwards, R. C. Scrivener and A. Forster

*Production of this report was supported by
the Department of the Environment but the views
expressed in it are not necessarily those of
the Department*

Bibliographic reference

EDWARDS, R.A., SCRIVENER, R.C. and FORSTER, A. 1987.
Applied geological mapping: Southampton area.
Research Report of the British Geological Survey, No ICSO/87/2, vol 2.

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**MAPS OF
SOLID GEOLOGY
(A1-A6)**

VOLUME 2

BGS Research Report ICSO/87/2

DESCRIPTION OF THE APPLIED GEOLOGY MAPS

GEOLOGY

Solid geology (Maps A1-A6)

This set of maps consists of six sheets at the 1:25 000 scale showing the solid (pre-Quaternary) geology over the study area. The maps are derived directly from 1:10 000 scale geological maps produced during the most recent (1973-80) survey of the area, by digitising the solid geological lines and transferring them, with the appropriate scale-change, onto the 1:25 000 base maps.

Descriptions of the solid formations shown on the maps are given in the Appendix.

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.

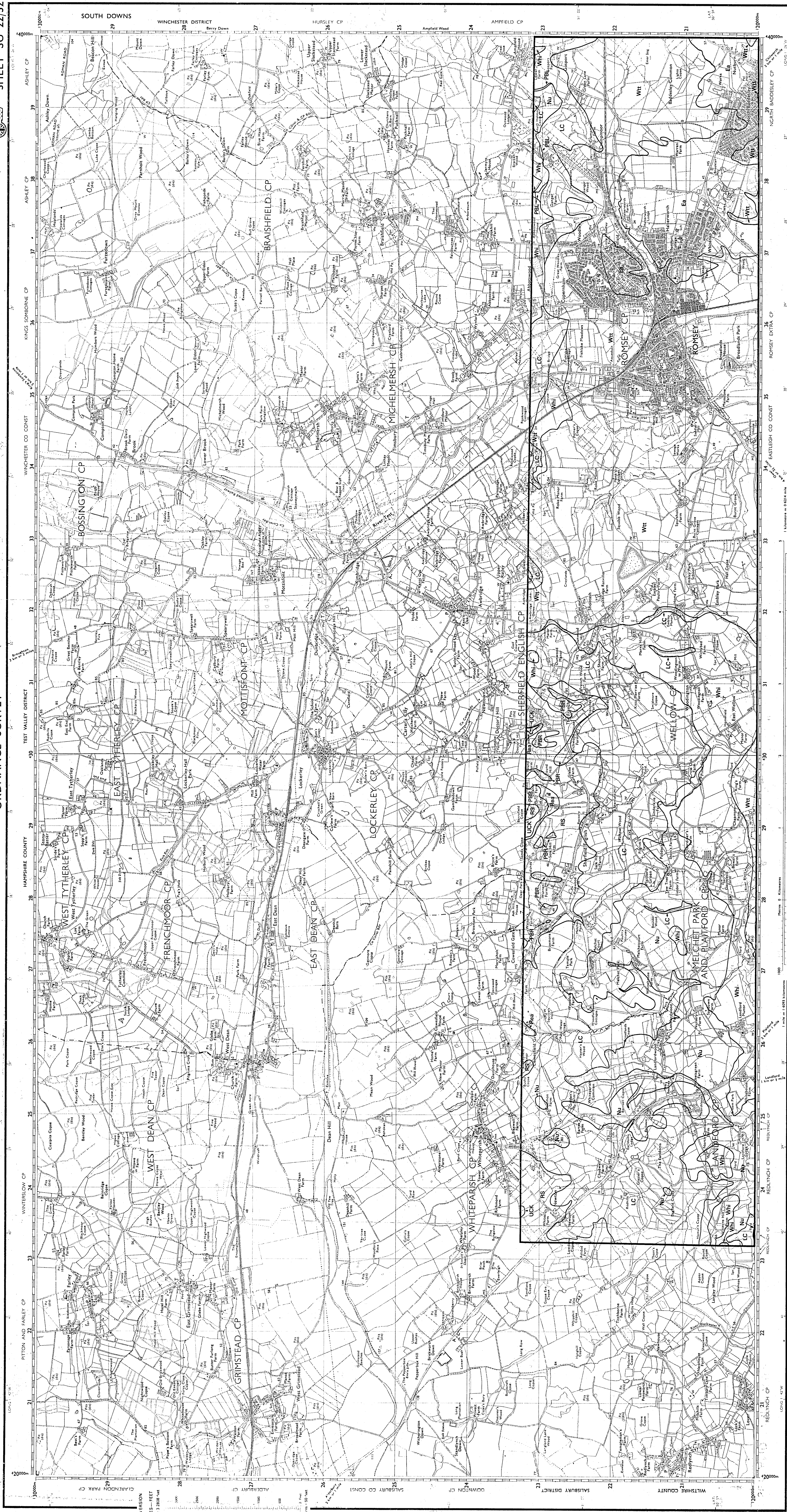
No information made available after the end of 1986 has been taken into account in this report.

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.

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THEMATIC GEOLOGY MAP SOUTHAMPTON (SU 22/32)

SOLID GEOLOGY

EXPLANATION

Es	Earley Sand Formation	Bracklesham Group
Wit	Wittering Formation	
PBL	Pebble beds in Whitecliff Sand Member	London Clay Formation
Whi	Whitecliff Sand Member	
Nu	Nursling Sand Member	
LC	London Clay Formation, mainly clay	
PBR	Pebble beds in Reading Formation	Reading Formation
Rea	Reading Formation, mainly clay	
RS	Reading Formation, mainly sand	
UCK	Upper Chalk	

Based on geological survey at 1:10 000 scale by W. Whitaker and C. Reid from 1889 to 1899. Revised at 1:25 000 scale by R. A. Edwards from 1977 to 1980.

Compiled by J. L. Laxton and K. C. Menhin. BGS Edinburgh, June 1987.

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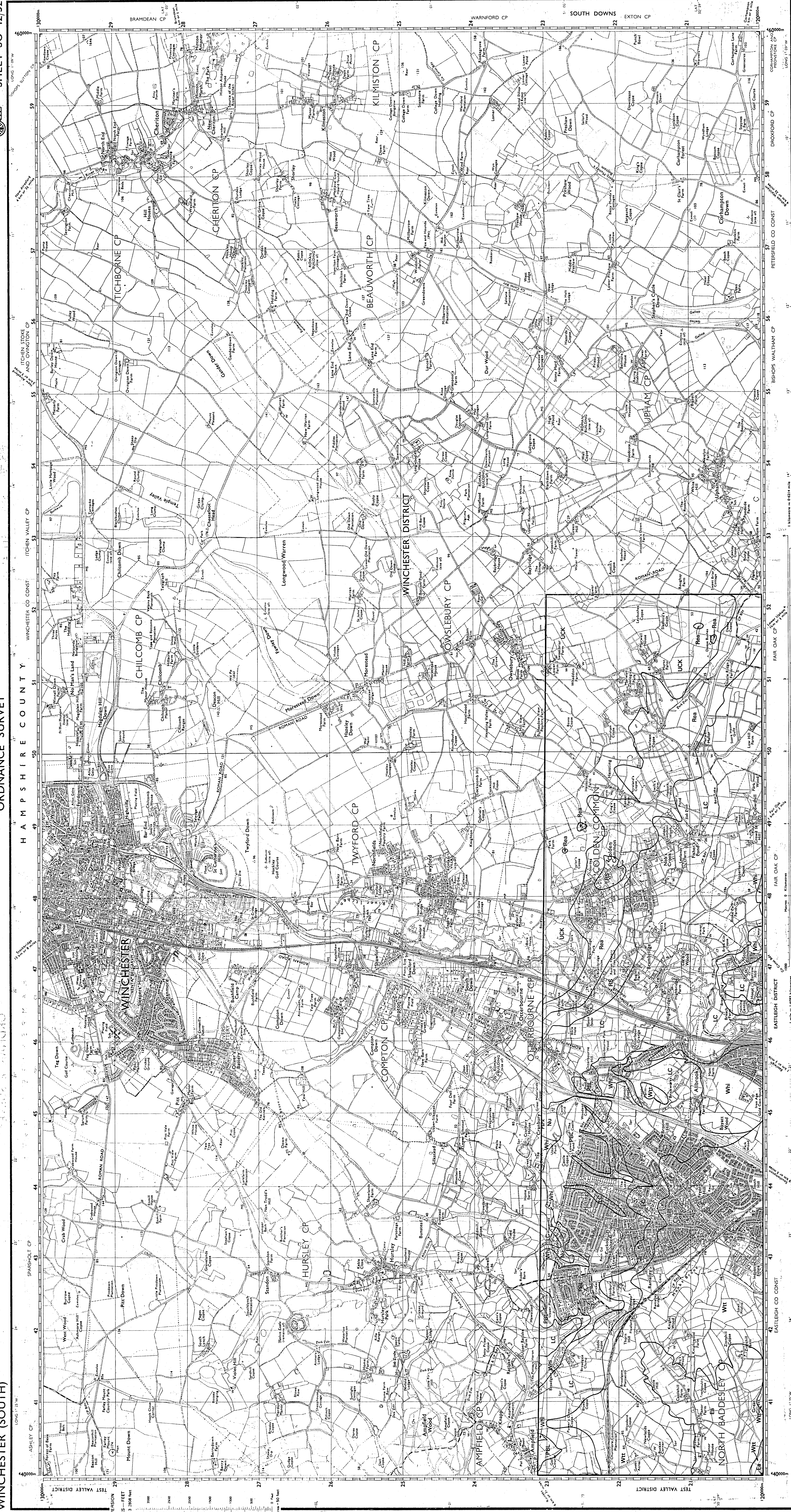
This map and the accompanying report were commissioned and financed by the Department of the Environment.

Topography, Ordnance Survey 1:25 000 Series
Thematic geology overlaid, British Geological Survey

This map provides only general indications of ground conditions and must not be relied upon as a source of detailed information about specific areas, or as a substitute for site investigations or ground surveys. Users must satisfy themselves, by seeking appropriate professional advice and carrying out ground surveys and site investigations if necessary, that ground conditions are suitable for any particular land use or development.

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THEMATIC GEOLOGY MAP SOUTHAMPTON

(SU 42/52)

SOLID GEOLOGY

EXPLANATION

Es	Sankey Sand Formation	Brocklesham Group
Wtt	Wittering Formation	
PBL	Pebble beds in Whiteliff Sand Member	
Whi	Whiteliff Sand Member	London Clay Formation
Nu	Nursling Sand Member	
LC	London Clay Formation, mainly clay	Reading Formation
RS	Reading Formation, mainly sand	
Rsa	Reading Formation, mainly clay	
UCK	Upper Chalk	

Based on geological survey at 1:10 560 scale by
W. Whitaker and C.E. Hawkins from 1889 to 1895.
Resurveyed at 1:10 000 scale by R. A. Edwards,
M.T. Holder and R.C. Scrivener from 1979 to 1980.
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THEMATIC GEOLOGY MAP
SOUTHAMPTON

(SU 21/31)

SOLID GEOLOGY

EXPLANATION

BacS	Barton Sand Formation
ChmS	Chama Sand Formation
BaC	Barton Clay Formation
BS	Sands in Barton Clay Formation
Slsy	Selsey Sand Formation
MfF	Marsh Farm Formation
Ea	Earley Sand Formation
Wrt	Wittering Formation
Whi	Whiteliff Sand Member
Hu	Nursling Sand Member
LC	London Clay Formation, mainly clay.

Barton Group

Bracklesham Group

London Clay Formation

Based on geological survey at 1:10 000 scale by C. Reid
1:10 000 scale by R.A. Edwards and E.C. Frabney from
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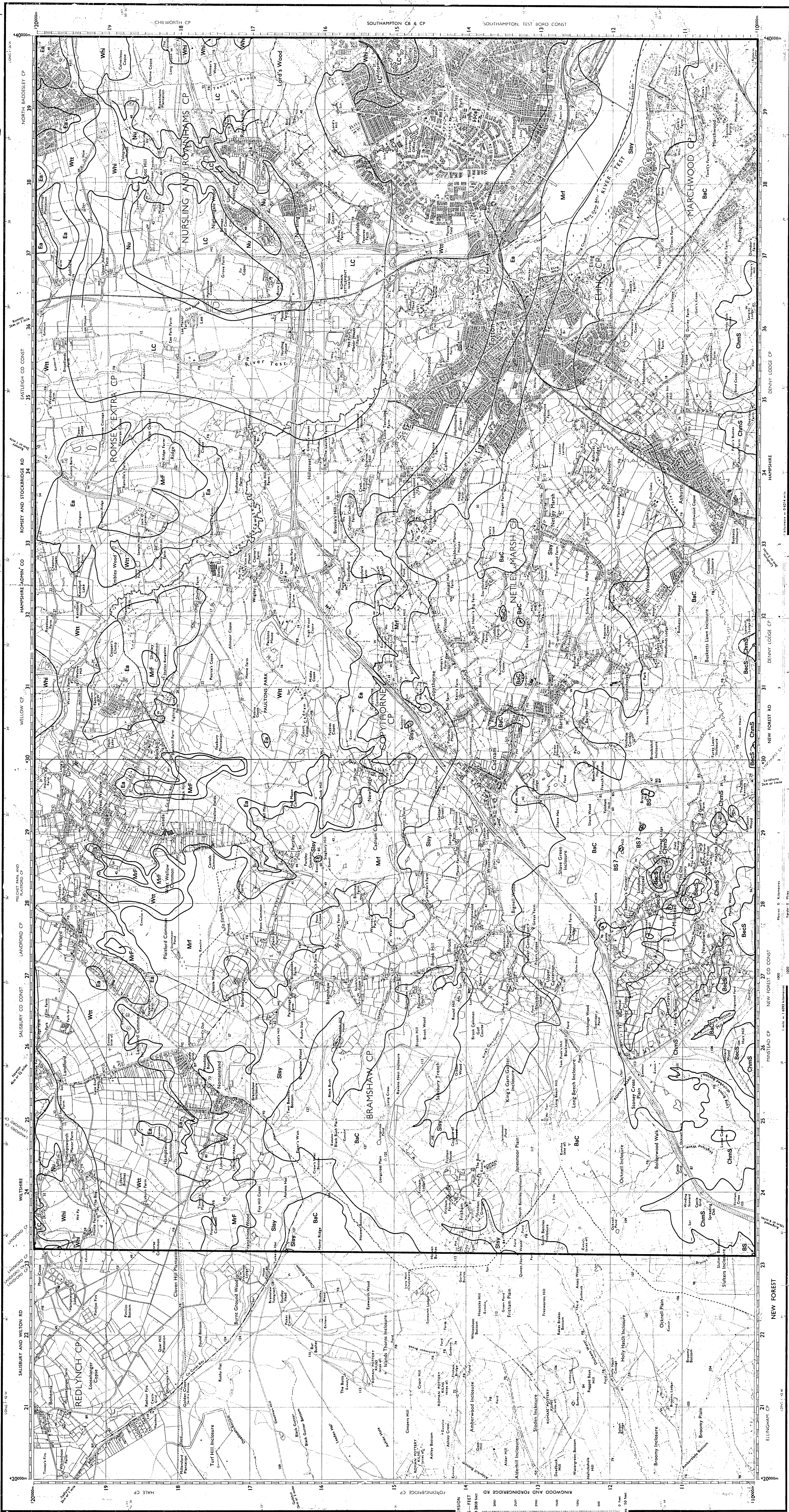
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SHEET SU 21/31

ORDNANCE SURVEY

TOTTEN AND PART OF NEW FOREST



Scale 1:25 000

SHEET SU 21/31

THEMATIC GEOLOGY MAP
SOUTHAMPTON
(SU 20/30)

SOLID GEOLOGY

EXPLANATION

He	Headdon Formation, undifferentiated	Headdon Formation
Ly	Lyndhurst Member	
BecS	Becton Sand Formation	
BnB	Becton Bumpy Bed	
ChmS	Chama Sand Formation	Barton Group
BaC	Barton Clay Formation	
BS	Sands in Barton Clay Formation	

— Fault, crossmark indicates downthrow side

Based on geological survey at 1:10 560 scale by
C. R. 699, 1967
Resurveyed at 1:10 000 scale by E.C. Freshney
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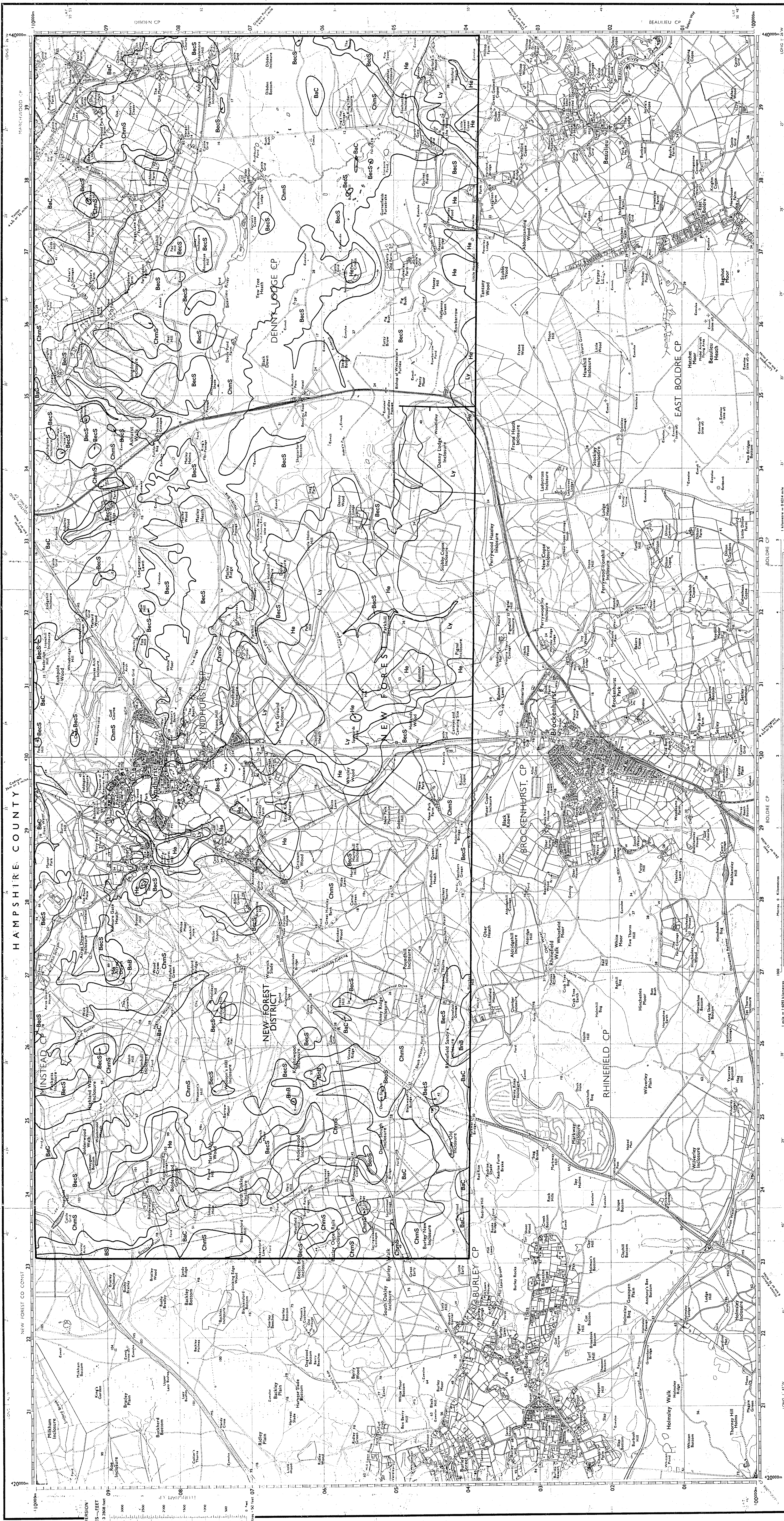
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THEMATIC GEOLOGY MAP
SOUTHAMPTON

(SU 40/50)

SOLID GEOLOGY

EXPLANATION

He	Headon Formation, undifferentiated	Headon Formation
Ly	Lyndhurst Member	
BecS	Becton Sand Formation	
ChmS	Chama Sand Formation	Barton Group
BaC	Barton Clay Formation	
Slsy	Selsey Sand Formation	
Mrf	Marsh Farm Formation	
Ea	Easley Sand Formation	Brocklesham Group
Wit	Wittering Formation	
WhS	Sands in Wittering Formation	
LC	London Clay Formation, mainly clay	London Clay Formation
LCS	Sands in London Clay Formation	

Based on geological survey at 1:10 560 scale by C. Reid and W. Whitaker from 1891 to 1898. Resurveyed at 1:10 000 scale by E. C. Freshney from 1978 to 1980.

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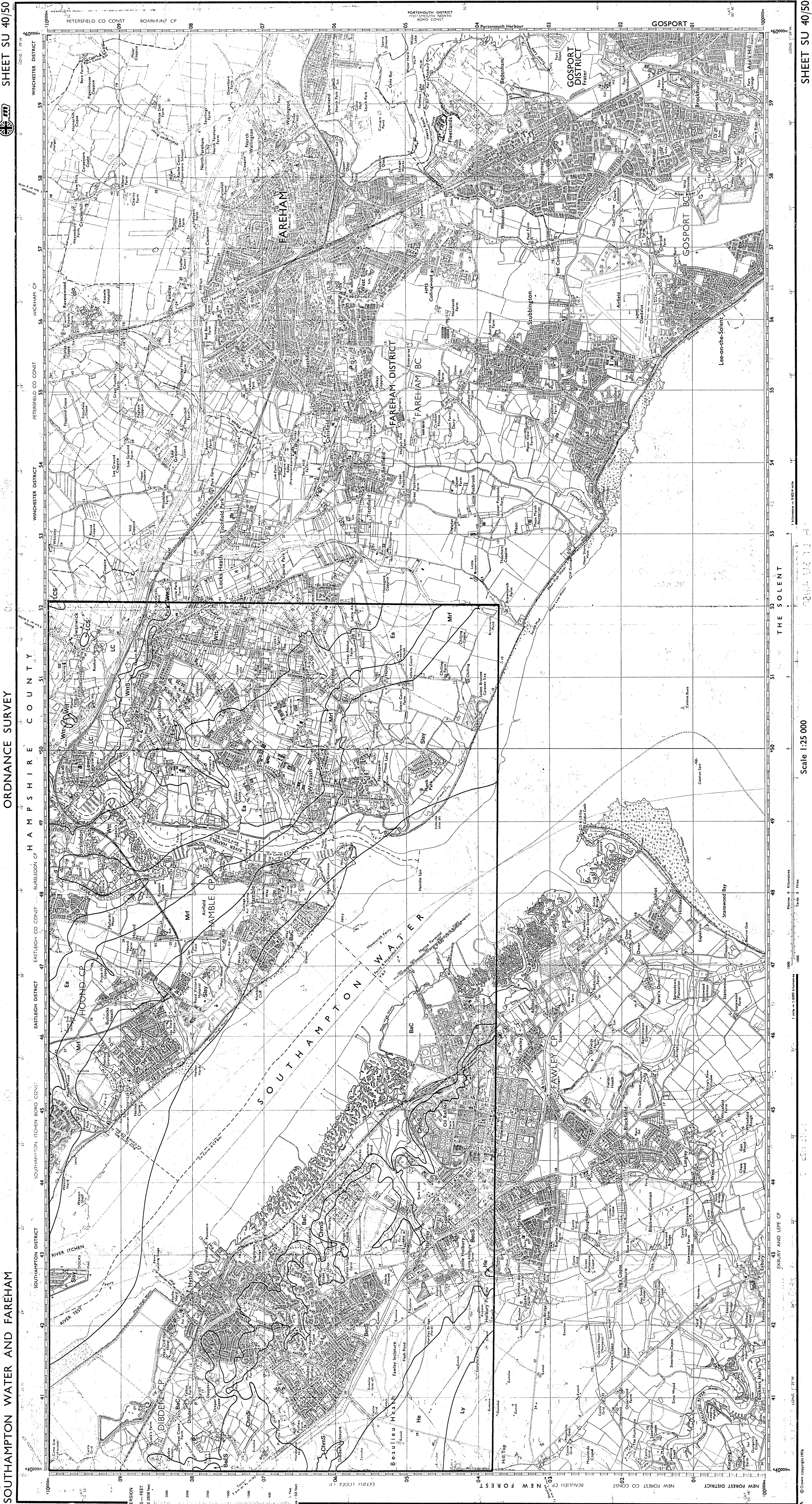
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Scale 1:25 000

SHEET SU 40/50

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