

# Quarterly Journal of Engineering Geology and Hydrogeology

The journal is abstracted and/or indexed in Current Contents, ASCA, Science Citation Index, Groundwater On-Line, Geological Abstracts, International Civil Engineering Abstracts, Petroleum Abstracts, Geotechnical Abstracts, GeoArchive, GeoRef and Geobase.

Advertising sales: Please contact DP Media, Suite 201, QC30, 30 Queen Charlotte Street, Bristol BS1 4HJ, UK (tel: +44(0)117 904 1283; fax: +44(0)117 904 0085; e-mail: [sales@dpmedia.co.uk](mailto:sales@dpmedia.co.uk))

Scientific Editor: **M. Packman**, Southern Water, UK

Assistant Scientific Editor (engineering geology):  
**M. S. Rosenbaum**, Engineering Geologist, UK

Assistant Scientific Editor (geomaterials):  
**M. G. Winter**, TRL Limited (formerly Transport Research Laboratory), UK

Assistant Scientific Editor (hydrogeology):  
**J. Dottridge**, Komex Clarke Bond, UK

Production Editor: **Helen Floyd-Walker**, Geological Society Publishing House, Bath, UK  
(e-mail: [helen.floyd-walker@geolsoc.org.uk](mailto:helen.floyd-walker@geolsoc.org.uk))

## CONTENTS - Volume 39, Part 2, May 2006

<b>Rapid block glides: slide-surface fragmentation in New Zealand's Waikaremoana landslide</b> T. R. Davies, M. J. McSaveney & R. D. Beetham	115
<b>Case study of a loess collapse field trial in Kent, SE England</b> A. Zourmpakis, D. I. Boardman, C. D. F. Rogers, I. Jefferson, D. A. Gunn, P. D. Jackson, K. J. Northmore, D. C. Entwisle, L. M. Nelder & N. Dixon	131
<b>Electrical resistivity monitoring of a collapsing meta-stable soil</b> P. D. Jackson, K. J. Northmore, D. C. Entwisle, D. A. Gunn, A. E. Milodowski, D. I. Boardman, A. Zourmpakis, C. D. F. Rogers, I. Jefferson & N. Dixon	151
<b>Shear wave velocity monitoring of collapsible loessic brickearth soil</b> D. A. Gunn, L. M. Nelder, P. D. Jackson, K. J. Northmore, D. C. Entwisle, A. E. Milodowski, D. I. Boardman, A. Zourmpakis, C. D. Rogers, I. Jefferson & N. Dixon	173
<b>The use of the Mackintosh Probe for site investigation in soft soils</b> A. Fakher, M. Khodaparast & C. J. F. P. Jones	189
<b>The effect of broadleaved woodland on Chalk groundwater resources</b> J. Roberts & P. Rosier	197
<b>Selection of potential reactive materials for a permeable reactive barrier for remediating acidic groundwater in acid sulphate soil terrains</b> A. N. Golab, M. A. Peterson & B. Indraratna	209
<b>Book reviews</b>	224

*Quarterly Journal of Engineering Geology and Hydrogeology* (ISSN 1470-9236) is published in February, May, August and November by the Geological Society Publishing House for the Geological Society, London.

**Subscription rates 2006 (volume 39, 4 parts).** The subscription rate is £285 (UK) and £325/US\$600 (rest of world) per volume, including postage and air-speeded delivery. Single issue price is £79 (UK) and £90/US\$165 (rest of world). Trade subscriptions should be addressed to Journals Subscription Dept, Geological Society Publishing House, Unit 7, Brassmill Enterprise Centre, Bath BA1 3JN, UK (tel: +44(0)1225 445046; fax: +44(0)1225 442836). Back issues of this journal are available in microform from UMI, 300 North Zeeb Road, Ann Arbor, Michigan 48106-1346, USA. Outside Europe, the journal is despatched by various forms of airspeeded delivery. Second class postage paid at Rahway, NJ, USA. Postmaster: send address corrections to *The Quarterly Journal of Engineering Geology and Hydrogeology*, c/o Mercury Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001, USA. Back numbers are normally despatched by surface mail.

© 2006 The Geological Society of London. Except as otherwise permitted under the Copyright, Designs and Patents Acts, 1988, this publication may only be reproduced, stored or transmitted, in any form or by any means, with the prior permission in writing of the Publishers or in the case of reprographic reproduction in accordance with the terms of licences issued by the Copyright Licensing Agency, 90 Tottenham Court Road, London W1P 9HE, UK. Enquiries concerning reproduction outside these terms should be sent to the Publishers at the Bath address. Users registered with the Copyright Clearance Center, 27 Congress Street, Salem, MA 01970, USA: the item-fee code for this journal is 1470-9236/06/\$15.00. The Geological Society makes no representation, express or implied, with regard to the accuracy of the information contained in this publication and cannot accept any legal responsibility for any errors or omissions that may be made. No responsibility is assumed by the publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. Inclusion of advertising in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

**Cover Photograph.** Damage to Tumbledown Terrace, Ferniehill, Gilmerton, Edinburgh following the partial collapse of limestone mine workings between November 2000 and March 2001. The Carboniferous Gilmerton Limestone was quarried and mined at Ferniehill from time immemorial until about 1829. (BGS Photograph P100363). [Reproduced by permission of the British Geological Survey. © NERC. All rights reserved. IPR/73-14C].