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Assistant Director awarded the CBE

Professor Jane Plant has been awarded the CBE* in the 1997 Queen's Birthday Honours List in recognition of her contribution to science and industry. Professor Plant is Assistant Director of the BGS in charge of the Minerals, Environment and Geochemical Surveys Division which works with a budget of £7.5 million and employs about 150 people. She is a fellow of the Institution of Mining and Metallurgy and the Geological Society and serves with the Government's Technology Foresight panels. She has published more than 150 scientific papers and books during her career which has taken her to many parts of the world.

In response to news of the award, Professor Plant said "I am delighted to have received this award. It is a great honour. I see it as a recognition of the excellence of the work of my team at the BGS in dealing with problems related to the sustainable use of natural resources and environmental problems worldwide. These issues are fundamental to the health, wealth and well-being of everyone on the planet".

**Commander of the Order of the British Empire*



Professor Jane Plant.



photo: courtesy of Newark Advertiser.

The links between geochemistry and health being demonstrated to the Princess Royal when she visited the Keyworth site in January this year.

Royal visitor to BGS

The Princess Royal paid a visit to the BGS's Keyworth headquarters on 22 January 1997. This was a return visit to the site as the offices now occupied by the Kingsley Dunham Centre were originally opened, as the Mary Ward College of Education, in June 1970 by HRH the Princess Royal, then Princess Anne. The Princess was shown examples of the BGS's work in developing countries such as remote sensing techniques for mapping geohazards, work in Africa to improve water supplies in rural areas and investigations into the links between the geochemistry of the environment and certain endemic diseases. The Survey's digital map production techniques were also demonstrated.

The BGS takes part in the Seabed project

The BGS has recently been working as a subcontractor to Britsurvey of Great Yarmouth, interpreting seismic data from the Norwegian margin. The

contract was awarded by Norsk Hydro, who are acting as the managers of the Seabed project on behalf of a consortium of eight companies who have been awarded hydrocarbon exploration licenses in the area.

The Seabed project is designed to improve knowledge of a range of hazard issues that might affect deep water exploration and development on the Norwegian Margin. These include major and minor instability, gas hydrates, and shallow gas and associated features. Improving the stratigraphic framework for the region has also been an important aspect of the work. The BGS was well placed to carry out this work in view of its extensive experience on the UK continental shelf and margin and work carried out off Norway as part of the European Community MAST (Marine Science and Technology) project ENAM (European North Atlantic Margin).

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BGS at Hillhead '97

The MINGOL Minerals Information GIS was demonstrated at Hillhead '97, the UK's major biennial quarry exhibition. The range of BGS digital data available to the minerals industry was demonstrated, including mine and quarry information, geology, boreholes and geochemistry, with Ordnance Survey topography. It also included selected mineral resource and planning constraint data which has been collected for the Department of the Environment (DoE) Research Programme 'Mineral Resource Information for Development Plans' and will be available in GIS form on the MINGOL system. Data was displayed both as hard copy and in digital form. MINGOL can run on a wide variety of platforms including desktop PCs and can be readily adapted to customers' requirements.

For more information contact:

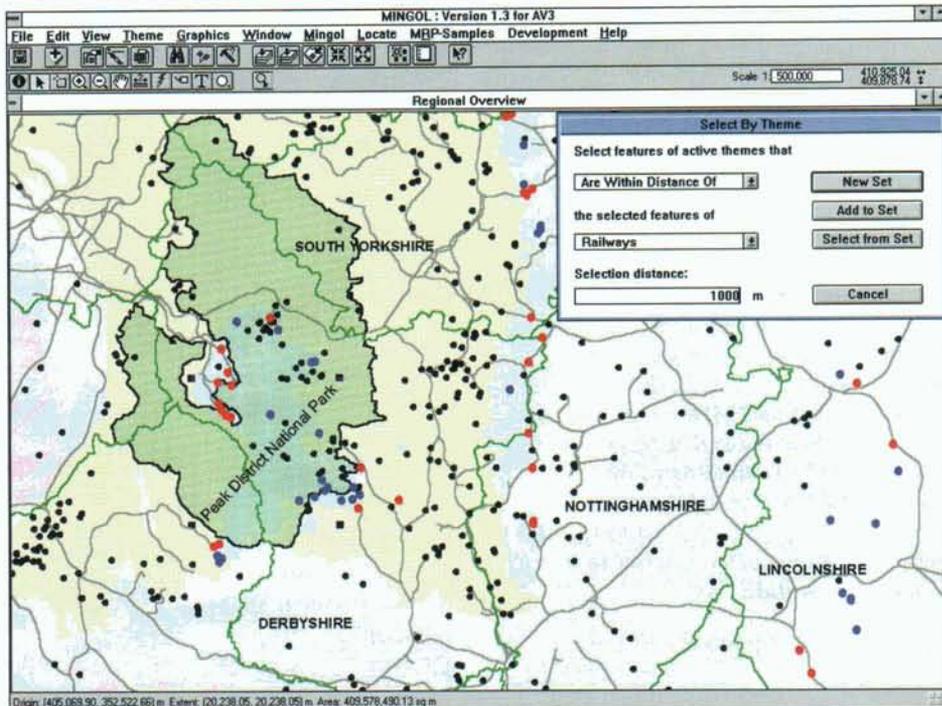
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Mineral resources for development plans

Increasing competition between different users of the land, and the need for planned and responsible management of mineral resources to ensure sustainable development is unquestionable. To help achieve the right balance, it is important that planning authorities and industry have access to comprehensive data on the distribution, quality and economic importance of indigenous mineral resources. The BGS, under a Department of the Environment research contract, has developed a methodology for the collection and display of data, in a consistent format, showing the distribution of those minerals likely to be of importance to future supply in relation to nationally-designated planning constraints. The information gathered in this research project is displayed in the form of 1:100 000 Mineral Resource maps and reports and will also be incorporated in the MINGOL system.

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The illustration shows a typical enquiry using the MINGOL system. All limestone quarries (red) within 1 km of a railway have been selected from all other limestone quarries (blue). All other mines and quarries from the BRITPITS database are shown in black. The Peak District National Park and county boundaries are also shown on a base geology from the Industrial Minerals map.

Advanced scanning electron microscope facility at the BGS

In 1996 the BGS installed a state of the art scanning electron microscope facility at its Keyworth headquarters. The LEO 435LV variable pressure scanning electron microscope with fully-quantitative X-ray microanalysis (Oxford Instruments ISIS300), cathodoluminescence (CL) spectroscopy and image analysis also has a fully integrated cryogenic SEM preparation unit and cryogenic sample transfer unit. Wet and beam sensitive samples can be quick frozen, prepared, coated and observed directly thus limiting the development of artifacts caused by standard SEM sample drying techniques. In addition the instrument can work at low vacuum as well as conventional high vacuum so material can be examined rapidly without the need for carbon or gold coating. This allows very fibrous and friable materials such as pore-bridging clays to be studied without problems associated with specimen charging.

The new SEM considerably enhances the BGS's high quality petrographic services and facilities for application to the hydrocarbons industry. In particular, the integrated low-vacuum SEM-cryogenic-x-ray microanalysis-computer image analysis, together with CL imaging with full CL spectral analysis for both IR and visible light wavelengths are a unique combination in UK earth sciences. Machine time with operator is also available for use by industry and academia, for geological and non-geological applications.

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Bristol Channel and Severn Estuary maps

Two new geological maps have been issued by the BGS for the Inner Bristol Channel and Severn Estuary area. The offshore areas of these sheets has been the focus of much investigation over the past 25 years as they cover the site of the once-proposed Severn Barrage from

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Lavernock Point to Brean Down. The onshore geology shown is simplified from the relevant 1:50 000 maps published in the last 20 years. The offshore parts are a synthesis of information collected as part of the Severn Barrage Pre-feasibility study and the work of the Severn Tidal Power Group. In addition, use has been made of a detailed bathymetric and side-scan sonar survey carried out by the Hydrographic Office in 1989.

The maps are at a scale of 1:50 000 and part of the Coastal Geology Series, sheets 263,279 and part of 295. They are available in hard copy or computerised form from BGS sales desks and Stationery Office outlets.

For more information contact:

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Information Office refurbished

The BGS has refurbished its London Information Office (LIO) in the Natural History Museum to provide a more efficient, expanded service to users. It was formally reopened by James Smith, Chairman NERC, on Wednesday 26 February 1997. The office provides access to all BGS publications and services, through sales, reference collections and on-line databases. Users of the office include civil engineers, members of the construction, mineral and water industries, planners, academics, journalists and members of the public. BGS publications including maps, memoirs, popular publications and technical reports are available over the counter or by mail order.

For more information contact:

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**Alan Dobinson, Information Services
Manager**
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GeoMedia Services™ and the BGS

An on-line service has been developed by GeoMedia Services in partnership with

the BGS. The service is designed to improve the information available to anybody involved in land use planning, civil engineering, risk assessment, environmental activities, building and property development. The GeoMedia Services British Borehole Catalogue will supply you with copies of the original borehole records held by the BGS. The copy may be supplied in paper, fax or electronic image format depending on the requirement. A user can access the service using a Standard Internet Browser at

www.geomediaserv.co.uk

For more information or a demonstration contact:

**Intergraph UK Ltd
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Comets, craters and catastrophes

The 1997 British Geological Survey Distinguished Lecture was given by Dr Gene Shoemaker of the United States Geological Survey at the headquarters of the BGS in Keyworth on 20 February and on the following day at the BGS in Edinburgh.

Dr Shoemaker, after whom the Shoemaker-Levy comet is named, researches impact craters on the Earth and other planets and satellites in the solar system. He began his research by studying nuclear craters at the Nevada Test Site, followed by geological mapping at Meteor Crater in Arizona. He extended his work to lunar cratering problems and lunar geology in the Ranger, Surveyor and Apollo missions and went on to research cratering on the moons of the outer planets during the Voyager missions. Together with Carolyn Shoemaker and David Levy he began a long term telescopic survey at the Palomar Observatory in California, investigating planet-crossing asteroids and comets. Dr Shoemaker's talk encompassed this work and the possible risk to Earth from wayward comets and asteroids.

BGS hosts international scientific forum

The British Geological Survey is to host the 1997 annual meeting of the Forum of European Geological Surveys (FOREGS). The five day meeting starts on 1 September and brings together the heads of national Geological Surveys representing over thirty European countries.

In addition to representation from all western European countries, scientists from former Eastern Bloc countries including Russia, Ukraina, Estonia, Latvia, Romania, Bulgaria, Albania, Hungary, and the Czech and Slovak Republics will be attending. Several of these countries will be participating for the first time and will join scientists from the rest of Europe to share their knowledge and experience of topics ranging from mineral exploration to water pollution and earthquake hazards. The object of the Forum is to present scientific ideas and foster international collaboration and information exchange.

The meeting will commence at the British Geological Survey headquarters at Nottingham before moving on to York and Edinburgh where foreign delegates will be shown world famous examples of British geology and scenery.

Award for the BGS

The British Geological Survey has been accredited to the 'Investors in People' national standard, designed to help companies achieve their business objectives by training and career development of staff.

'Our staff are our greatest resource,' said Director Dr Peter Cook. 'Our business depends upon our ability to attract and retain the highest calibre of people at all levels.'

All staff at the BGS headquarters and regional offices throughout the UK, from the international experts among the 550 scientists to the newest recruits, are encouraged and supported by the organisation to improve their professional qualifications.

'We have always aimed to make it possible for every staff member to reach the highest level of their chosen profession,' says Dr Cook.