

HolyMoor

Holymoer Consultancy Ltd.
Registered in England & Wales 06747725
Registered office: 8 Heaton Street
Chesterfield, Derbyshire, S40 3AQ, UK
david@holymoer.co.uk
www.holymoer.co.uk



David Banks, sole trader, trading as
HolyMoor GeoEnvironmental Services
8 Heaton Street, Chesterfield,
Derbyshire, S40 3AQ, UK
www.holymoer.co.uk/hges.htm

HolyMoor

David Banks, sole trader, trading as "Holymoer Consultancy"

Recent / Ongoing

- **Bucharest, Romania.** Assistance to [Geological Survey of Norway](#) and Technical University of Bucharest to develop a major demonstration project proposal for the demonstration of ground source heating and cooling in Bucharest. Sept.-Nov. 2008.
- **London, UK.** Assessment and refinement of the performance of two major open loop ground source heating and cooling schemes in Central London. Modflow / Modpath modelling. November 2008, for [Carbon Zero Consulting](#).
- **near Cowbridge, Wales.** Ground loop design for 60 kW borehole based ground source heating scheme. For [Carbon Zero Consulting](#). 2008
- **near Chemsford, UK.** Ground loop design for major horizontal slinky-based ground source heating scheme for a nursing home. For [Carbon Zero Consulting](#). 2008
- **Dublin, Éire.** Delivery of short course "An Introduction to Ground Source Heating and Cooling" as internal training to [AWN Consulting](#). 2008.
- **Various sites, UK.** Input to development of the [Kensa Heat Pumps](#) thermal response test rig. Analysis of test results from Cornwall, Merseyside, Huddersfield, Birmingham. 2008 onwards.
- **Easington, Co. Durham, UK.** Feasibility study for the proposed GREAT (Geothermal Research Education and Training) Institute at the site of the former Hawthorne Colliery. For [Carbon Zero Consulting](#) and [Entec Ltd.](#)
- **Merseyside, UK.** Ground loop design for major vertical, borehole-based closed loop ground source heating scheme at a sixth-form college. For [Encompas Ltd.](#)
- **Worcester, UK.** Delivery of short course "An Introduction to Ground Source Heating and Cooling" as internal training to [Bosch Thermotechnology](#). 2008.
- **Birmingham and Coventry, UK.** Delivery of training module on "Borehole Construction" to the [Environment Agency](#). January and August 2008, via [Water Management Consultants](#).
- **York and Peterborough, UK.** Delivery of short course "An Introduction to Ground Source Heating and Cooling" as internal training to the [Environment Agency](#). 2006 and 2008.
- **Various sites, UK.** Input to development of the GeoWarmth thermal response test rig. Trialling of rig at Annfield Plain, Co. Durham. Implementation of rig and analysis of test results from Airedale, Glasgow, Manchester, Birmingham, Isle of Wight, London, Ramsgate, Gateshead, Ballymena, Sunderland, Stoke-on-Trent, Oxford, Burnley, Blyth and Sheffield. Development of operators' manual for TRT rig. For [Geowarmth Heat Pumps Ltd.](#), 2005 onwards.
- **Various sites, UK.** Design input to closed loop Ground Source Heating and Cooling borehole arrays at commercial / public sector projects in Rotherham, Wensleydale, Airedale, Ayrshire, London, Thorganby, Sunderland, Prudhoe and Cumbria, using the Swedish Earth Energy Designer (EED) software approach. For [Geowarmth Heat Pumps Ltd.](#), 2005-2008.
- **Cotswolds, UK.** Hydrogeological assessment of Inferior Oolite aquifer to provide advice on pump selection in a ground source heating/cooling scheme. For Groundwater & Geothermal Services, January 2008.
- **Anglesey, Wales, UK.** Interpretation of regional groundwater chemical data set from wells and springs in (a) the Gwna Group aquifer and (b) the Carboniferous Limestone. For Water Management Consultants and the Environment Agency. 2006-08.
- **Birmingham, UK.** Delivery of training to Environment Agency on Borehole Construction. In association with Water Management Consultants and University of the West of England. 2007 - ongoing
- **Tomsk, Russia.** Lecturing on passive treatment of mine water. For [Tomsk State University](#). August 2007.
- **Nyala, Sudan.** Review of water supply and sanitation provision to refugee camps and villages in Darfur. For DERO / [Norwegian Church Aid](#) / Caritas. September 2007.
- **Zambezi, Zambia.** Assessment of flooding on upper Zambezi River and recommendations for emergency response. For [Norwegian Church Aid](#). February 2007.

- **Caphouse, Yorkshire, UK.** Advice to National Museum of Mining on extraction of heat from mine water. 2007-2008
- **London, UK.** Advice on simulation of performance of closed loop ground source heat scheme based on energy piles. For [Faber Maunsell](#). 2007.
- **Cotswolds, UK.** Feasibility studies for ground source heating schemes at two rural properties. Risk assessment of groundwater thermal breakthrough. For Property Pathfinder Services.
- **Near Warrington, Cheshire, UK.** Involvement in feasibility study for 3 MW groundwater cooling scheme based on the Sherwood Sandstone at a major research facility. With [JDIH](#) and the [University of Newcastle's IRES group](#). 2007.
- **Milano, Italy.** Delivery of short course "Corso Breve di Termogeologia" at the Biblioteca Nazionale Braidense for [ESI Italia srl](#). December 2006.
- **York, UK.** Feasibility study, thermogeological risk assessment, groundwater sampling and hydrochemical risk assessment in conjunction with a proposed new major groundwater cooling scheme based on the Sherwood Sandstone aquifer. For [JDIH](#). 2006-2007.
- **Southern Siberia, Russia.** Joint project with [Tomsk State University](#) and [Geological Survey of Norway](#) to carry out hydrochemical sampling at (a) mineral water sources in the Shira region of the Republic of Khakassia; (b) gold mining sites at Malii Anzas and Tysul', and (c) coal mining sites in the Kuzbas coal field near Kemerovo.
- **London, UK.** Feasibility study of open loop well doublet ground source heating and cooling scheme in the Chalk aquifer. 2006.
- **Merseyside, UK.** Groundwater risk assessment, using CONSIM software, of the migration of chlorinated hydrocarbons from a contaminated industrial site. For [Roundhay Environment Consultants Ltd.](#)
- **York, UK.** Delivery of short courses "An Introduction to Ground Source Heating and Cooling" as internal training to the [Environment Agency](#).
- **Southern Mudug, Somalia.** Member of multidisciplinary assessment team, examining security, water supply, sanitation and food security situation in southern Mudug region (southern Galkayo, Budbud, Hobyo, Wisil, Elgula), central Somalia. This was performed with the intention of a possible program in the region funded by the Norwegian Ministry of Foreign Affairs / [Norwegian Church Aid](#). February 2006
- **Chesterfield / Alton / Hebburn, UK.** Professional short courses "An Introduction to Ground Source Heating and Cooling" held for c. 30 participants. Arranged by Holymoore in collaboration with JDIH and Geowarmth Ltd. 21st October 2005 (Chesterfield), 10th March 2006 (Alton, Hampshire), 20th October 2006 (Hebburn, Tyneside), 11th May 2007, 2nd November 2007 (Chesterfield).
- **Mansfield, UK.** Delivery of 1 day internal training course to the Coal Authority on the topic of "Mine Water Chemistry and Treatment". For [JMC Engineering](#) and [the Coal Authority](#). January 2006.
- **Mansfield and Houghton-le-Spring (Sunderland), UK.** Teaching of short courses to Coal Authority staff on Mine Water Sampling. For [JMC Engineering](#) and [the Coal Authority](#). August-September 2005 onwards.
- **Katowice, Poland.** Assessment of hydrogeological and hydrochemical impacts of mine closure and pumping cessation at Siersza mine, Upper Silesian Coalfield. Seconded to [Główny Instytut Górnictwa](#) (Polish Central Mining Institute), with assistance from the EU Marie Curie transfer of knowledge program. September 2005.
- **Rochdale, UK.** Hydrochemical assessment of Jowkins Wood (Rochdale) coal mine water discharge. Hydrogeological impact assessment of consequences of raising coal mine water levels in Jowkins Wood adit.. For [Scott Wilson](#). 2005/2006.
- **London, UK.** Feasibility study and outline design of open loop ground source/sink heating and cooling system in Central London, based on abstraction of water from the Chalk aquifer. For [JDIH \(Water and Environment\) Ltd.](#) August-September 2005 onwards.
- **Various sites, UK.** Consultancy support in the field of groundwater resources and contaminated land. Included: risk assessment reviews of contaminated land and landfills, performance evaluation of permeable reactive barriers to treat organic contamination, hydrogeochemical review of data from a landfill. For [ESI](#). June 2005 onwards.
- **Various sites, UK.** Advice to the Coal Authority on the interpretation of water analyses of suspected new coal mine water discharges. Via [JMC Engineering](#) for [the Coal Authority](#). 2003 onwards.
- **Anfield Plain, Co. Durham, UK.** Feasibility study for an open loop ground source heat system, intended to be based on mine water from abandoned underground mine workings. Hydrochemical assessment of water compatibility. Energetic assessment of pumping costs. For [GeoWarmth Ltd.](#), 2005.
- **Hawarden, North Wales, UK.** Hydrogeological impact assessment of consequences of raising coal mine water levels in Boughton Brook adit. For [Scott Wilson](#). May - September 2005.
- **Leeds, UK.** Teaching of MSc classes on well construction and testing, hard rock hydrogeology and ground source heat. For [University of Leeds](#). Spring 2005 and 2006.
- **Newcastle-upon-Tyne, UK.** Teaching of MSc module in "Groundwater Assessment". For [University of Newcastle](#). February 2005 and 2006.

2003-2005

- **UK.** Review of, and contributions to, Environment Agency guidance document on hydrogeological impact assessment of dewatering activities. For [Water Management Consultants](#). May 2005.
- **Medan, Banda Aceh, Nias, Meulaboh; Sumatera, Indonesia.** Initial assessment of water, sanitation and hygiene intervention following the December 2004 tsunami, in Banda Aceh, Meulaboh and Nias. Assistance

with logistics of equipment positioning. Initial contact with partner organisations on Nias and design of response program. Initiation of solid waste collection routines at camps for displaced persons, Banda Aceh. Borehole-based water storage, distribution and sanitation development at refugee camp near Meulaboh. Coordination with UNICEF and Oxfam, especially regarding water treatment and drilling. For [Norwegian Church Aid](#). January 2005.

- **Oslo area, Norway.** Phase I desk study of contaminated sites. For [Komex Europe](#). December 2004.
- **Burundi.** Field assessment of water supply and sanitation possibilities at a potential site for a refugee camp for Congolese Banyamulenge refugees, on the Tanzania / Burundi border. For [Norwegian Church Aid](#). August 2004.
- **Western India.** Design of sampling and field analysis protocols for injection water at an oilfield operation. Desk study from UK. For [Water Management Consultants](#). July 2004.
- **Tajikistan and Kyrgyz Republic.** Team leader for assessment mission to Dushanbe, Kurgan-Tyube, Kolyab (Tajikistan) and Bishkek (Kyrgyz Republic) to identify program opportunities in the fields of water, sanitation, hygiene, HIV/AIDS and human trafficking. For [Norwegian Church Aid](#). May 2004 and February 2005.
- **Exeter and Shrewsbury, UK.** 3 to 5 day training courses on the hydrogeology of hard rock aquifers and on the use of ground source heat pumps. For the [Environment Agency](#). Spring 2004 (for South-West Region in Exeter); Spring 2005 (for national staff in Shrewsbury).
- **Iriba, Gereda and Abeche, Eastern Chad,** . Assessment of groundwater resources for potential refugee camps at Touloum and Milé, near the Sudanese border in Eastern Chad. Supervision of tankering operation to Touloum camp. For [UNHCR](#) and [Norwegian Church Aid](#). March 2004.
- **nr. Huddersfield, West Yorkshire, UK.** Consultancy services on groundwater quality and quantity at a mineral and spring water bottling plant. For [Earthtech Ltd](#). December 2003.
- **Near Edinburgh, Scotland.** Advice on groundwater inflow to a dolerite quarry. For Tarmac (Northern) Ltd., Dec.2003 – Jan. 2004.
- **Trondheim, Norway.** Supervision of doctoral student on topic of microbiological contamination of hard rock aquifer sources. For [Geological Survey of Norway](#).
- **Burundi, Rwanda, Congo (Goma, Bukavu, Kaziba, Uvira).** Assessment of completed and planned water and sanitation projects in villages and IDP camps in Burundi (Makamba, Matana, Bujumbura), Rwanda (Ruhengeri) and Congo (Goma, Bukavu, Kaziba, Uvira) for [Norwegian Church Aid](#), Great Lakes Region, Kigali. Autumn 2003 - Spring 2004.
- **Addis Ababa, Harar, Dire Dawa, Somali, Oromiya and SNNPRS Regions, Ethiopia.** Field visits, organisational assessments, workshop, proposal of project to NORAD on the topic of groundwater management in Ethiopia. For Geological Surveys of [Norway](#) and Ethiopia, Autumn 2003.
- **UK.** Advice on groundwater occurrence in fractured aquifer systems, Whitewater Systems Ltd., Northumberland, Autumn 2003.
- **Iraq: May 2003.** Assessment of needs in the water supply and sanitation sectors of the southern Governorates of post-war Iraq. Field visits in Basrah and Al Amarah areas. For [Norwegian Church Aid](#) and [Folkekirkens Nødhjælp](#) and [ACT](#).
- **Pécs, Hungary: June 2003.** Course preparation and lecturing on the 2nd [IMAGE-TRAIN](#) Advanced Study Course (EU Funded) on "Groundwater Management in Mining Areas".
- **Near Rotherham, UK: 2003.** Hydrogeological assessment of groundwater and mine water conditions beneath a reclaimed opencast site, for [White Young Green Environmental](#) (Leeds).
- **Avoca, Ireland: 2002-2003.** Project review of treatment options for minewater from Avoca mining area. Review of treatment of Cu/Zn-containing minewater in Scandinavia. For Eastern Region Fisheries Board (Ireland) and [University of Newcastle](#).
- **Ethiopia: 2002-2003.** Feasibility study for federal Emergency Water Supply Unit, for [Disaster Prevention and Preparedness Commission \(DPPC\)](#), Ethiopia. Field assessments in Somali, SNNPRS, Oromiya and Afar regions. Contracted by [Norwegian Church Aid](#).

2000-2002

- Member of GATER (Groundwater as a Thermal Energy Resource) team, co-ordinated by [Building Research Establishment](#), Watford.
- **Argentina: April-May 2002.** Surface and groundwater hydrochemical baseline report for the Veladero mining prospect, for [Water Management Consultants \(Chile\) Ltda.](#) and Barrick.
- **Trondheim, Norway.** Supervision of two doctoral students at [Norwegian University of Science and Technology](#) in the fields of hydrogeochemistry and microbiology / source protection of Norwegian bedrock groundwaters.
- **Morlais, Wales: 2002-2003.** Project hydrogeologist for Coal Authority (UK) project, " Management of Historic Liabilities and Surface Hazards - South Region", contracted to [JMC Mining Services Ltd.](#) (term contract). Assessment and field analysis of possible uncontrolled minewater discharge near Morlais Colliery, Wales
- **Afghanistan: Jan.-Feb. 2002.** Development of program for [Norwegian Church Aid](#) in the field of urban water supply. Assessments in Kabul, Mazar-e-Sharif and Charikar.
- **Afghanistan: Jun.-Jul. 2001.** Field assessment and planning of drought response: Wardak, Ghazni, Zabul, Kandahar, Herat, Badghis and Ghor Provinces. Clarification of a policy for sustainable use of groundwater in Afghanistan for irrigation purposes. For [Norwegian Church Aid](#).

- **Azerbaijan: 2001-2003.** Hydrogeological environmental impact assessment, generic modelling of potential contaminant transport, design of monitoring network, field visits: oil pipeline, western Azerbaijan.
- **Doncaster / Selby area, UK: 2001-2002.** Environmental hydrogeological assessment of the Triassic Sherwood Sandstone aquifer of the Doncaster / Selby area of Yorkshire UK, and potential impacts on wetland sites. For [Scott Wilson / Yorkshire Water Services](#).
- **Mitrovica, Kosovo: Nov. 2000.** Field assessment of water supply and sanitation status in 15 villages in Vushtrri and Skenderaj municipalities. Recommendations for future improvement. For [Norwegian Church Aid / Action by Churches Together](#).
- **Göttingen, Germany (July 2000) / Kjeøy, Lofoten, Norway (July 2001).** Contract teaching on course "Environmental Geochemistry of Ore Deposits and Mining Activities" at University of Göttingen and Kjeøy Course Centre for [SARB Consulting](#).
- **Bolivia: 2000-2001.** Interpretation and reporting of surface water, ground water and stream sediment geochemical mapping data from the Salar de Uyuni and Salar de Coipasa, Bolivia, with a view to identifying possible impacts from mining activity. Subconsultant to [Norwegian Geological Survey](#) and [Dames & Moore](#). Project COMIBOL 4. Client COMIBOL (Bolivia) with funding from World Bank / Nordic Development Fund.
- **Mozambique: Spring 2000.** Water and sanitation co-ordinator for emergency assistance to Maputo and Gaza provinces, following catastrophic flooding. Implementation of emergency pumping, water treatment, storage and distribution systems at Moamba and Sabie, rehabilitation of waterworks at Moamba, borehole drilling programs at Congolote resettlement area and Chiaquelane camp. For [Action by Churches Together \(ACT\)](#).
- **Chile: 2000-2002.** Hydrogeochemical and hydrogeological risk assessment of vulnerability of spring areas on the margins of the Salar de Punta Negra, Chile. For [Water Management Consultants Ltd](#).
- **Oruro, Bolivia: 1999-2000.** Technical Director: Risk assessment of mine water pollution potential of San José mine for groundwater supplies in the Oruro Region. Subconsultant to [Norwegian Geological Survey](#) and [Dames & Moore](#). SubProject 7. Client COMIBOL (Bolivia) with funding from World Bank / Nordic Development Fund.
- **Oruro, Bolivia: 1999-2000.** Remedial design for spoil tips and mine water drainage, San José mine (see above). SubProject 6.

1998-2000

- **Khakassia, Russian Federation: 1996-2000.** Hydrogeochemical sampling of lakes, springs, rivers and wells in the southern Siberian steppes of the Abakan region and the Western Sayan and Kuznetsk Alatau mountains of Khakassia. A collaborative project with the University of Tomsk / Dames & Moore UK / University of Trondheim and funded by the State Committee for Ecology of Khakassia and the British Council.
- **Albania: 1999.** Construction of water supply and sanitation for Kosovan refugee camps at Ndroq and Hamallaj, Albania. Assessments of sites at Lac and near Kavaje and Tirana. For [Norwegian Church Aid](#).
- **Derbyshire, UK.** Walkover survey, design of contamination site investigation, limestone quarry, Derbyshire, UK
- Hydrogeological / geochemical advice on data review and site investigation of possible contamination at a Dockyard site, UK
- **Derbyshire, UK.** Review of contamination potential and site history of a Coal Disposal Point, South Derbyshire.
- **Yorkshire, UK.** Review of risk assessment, Yorkshire opencast colliery site
- **West Yorkshire, UK.** Hydrogeochemical appraisal of potential mineral water borehole.
- **South Derbyshire, UK.** Hydrogeological advice and data review for remedial options / disposal of acid tar wastes.
- Authorship of topic on Monitoring of Fresh and Brackish Waters for UNESCO [Encyclopaedia of Life Support Systems](#)
- Authorship of guide to prospecting water resources in crystalline bedrock to be jointly published by the Geological Surveys of Norway and Britain in Norwegian and English.

October 1995-May 1996

- **Humberside, UK.** Site investigation of a contaminated factory site on Humberside
- **Stamford, UK.** Assessment and interpretation of data for the National Rivers Authority from two hydrocarbon contamination incidents, Lincolnshire Limestone
- **Northern England / Scotland, UK.** Survey, assessment and preliminary remedial design for 30 abandoned coal minewater discharges for the Coal Authority
- Assistance in preparing tenders for investigations at civilian and military airports, UK
- **Bradford, UK.** Additionally, employed by [University of Bradford](#) to prepare a short course on Minewater Pollution.

David Banks is registered with the Inland Revenue as a self-employed sole trader, trading as "Holymoor Consultancy" from 1/8/98 to 30/11/08 and as "Holymoor GeoEnvironmental Services" from 1/12/08.

David Banks is also a Director of Holymoor Consultancy Ltd., Registered as a limited company from 12/11/2008,

*Company registration number 067477725,
Registered office: 8 Heaton Street, Chesterfield, Derbyshire, S40 3AQ, UK.*