

Clicando no International Mine Water Association Symposium



INTERNATIONAL MINE WATER ASSOCIATION SYMPOSIUM BRAZIL 2001



General Secretaries Note

Dear colleagues and friends of IMWA, this year's IMWA symposium is our first meeting in Latin America. In the name of the Executive Council I would like to thank our Brazilian friend Carlos Bertachini for his offer to host this symposium in Belo Horizonte. Also, I would like to express my gratitude to IBRAM, Instituto Brasileiro de Mineração to promote our meeting in a close co-operation.

Unfortunately, the preparations for our meeting were overshadowed by the sudden and unexpected death of our Vice President and long time Treasurer Vladimir Straskraba. Hearing that the meeting in Poland was the last time, we all were together with Vladimir, caused a shock to all of us! Vladimir had offered to take over an active part in this year's meeting – we will keep his warmth and hospitality in mind during the whole duration of this meeting.

Brazil currently belongs to the most important mining countries in the world with a last year's growth rate of 12 % in the oil and mining industry. Therefore, the 9th Brazilian Mining Congress and EXPOSIBRAM are an outstanding platform to exchange the knowledge gathered under the IMWA members with that of our Brazilian colleagues and friends. Especially in the last decade, Brazilian authorities and mining companies became aware of the huge environmental problems of mining and ore processing. Everybody knows, that especially in remote areas, which are numerous in Brazil, water treatment and environmental protection sometimes could become difficult. Energy and construction costs are enormous, and especially there, innovative and clever techniques may be applied to. Due to the large ore deposits that can be found in Brazil, mines are becoming deeper and more space is used by them. Not only are the treatment or drainage of mine water of importance, but the safety of workers and material. Therefore, hydrogeological exploitation and exploration are a great concern of today's mining companies.

We think, that the co-organised IMWA symposium and Brazilian Mining Congress are an excellent opportunity to get into contact and to get to know each other. The problems that have to be solved, can be solved, and will be solved in the future will be discussed together on a broad basis.

As in the past, I hope, that this meeting and these proceedings will become a valuable tool in the mine water field. And in the case you, as a first time participant in an IMWA meeting, enjoyed our association's mood, we would be happy to have you as a new IMWA member! Enjoy your time at the meeting and also enjoy the presentations given herein!
Glückauf

Dr. Christian Wolkersdorfer
General Secretary

ORGANIZING COMMITTEE

LECTURES

TECHNICAL SESSION

INTERNATIONAL MINE WATER ASSOCIATION - IMWA

EXECUTIVE COUNCIL OF IMWA

Clicando em Organizing Committee

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Rafael Fernandez-Rubio (Spain)
Richard Cornelli (UK)
Robert L.P. Kleinmann (USA)
Vladimir Straskraba (USA)

Clicando em Lectures

LECTURES:

Predicting Mine Water Quality at Surface (Opencast) Coal Mines

Robert L.P. Kleinmann, National Energy Technology Laboratory, U.S. Department of Energy, USA

Reactive Transport Modeling for Flooding an Abandoned in Situ Leaching-Uranium Mine

Broder J. Merkel, Institute for Geology Chair of Hydrogeology Head of Institute Gustav Zeuner, Germany

Studies of Pit Lake Formation - After the Completion of Mining

Vladimir Straskraba and *David Hay*, TRC Hidro-Geo Consultants, USA

Uranium Mining and Rehabilitation in Germany

Broder J. Merkel, Institute for Geology Chair of Hydrogeology Head of Institute Gustav Zeuner, Germany

Clicando em Technical Session:

TECHNICAL SESSION

SESSION: ACID ROCK DRAINAGE AND MINE WATER QUALITY

Characterizing the Evolution of Acid Rock Drainage Within an Overburden Dump: Loy Yang, Australia

Julie Elders, Monash University - Earth Sciences Department, Australia

Dewatering in the Hot Groundwater Conditions at Lihir Gold

Stephanie Williamson, Lihir Management Company, Placer (Granny Smith) Pty Ltd, Indonesia

Richard I. J. Vogwill, URS Corporation, Australia

Mine Water Quality Prediction at Surface Coal Mines in the United States

Robert L.P. Kleinmann, National Energy Technology Laboratory, U.S. Department of Energy, USA

Remediation of Acid Rock Drainage at the Poços de Caldas Uranium Mining Site – Brazil

Horst Monken Fernandes, IRD/CNEN, Brazil

Mariza Ramalho Franklin, IRD/CNEN, Brazil

Surface Water Quality Parameters in an Iron Mine Region, Quadrilátero Ferrífero, Minas Gerais, Brazil

Adivane Teresinha Costa, Universidade Federal de Ouro Preto - UFOP, Departamento de Geologia, Brazil

Hermínio Arias Nalini Jr., Universidade Federal de Ouro Preto - UFOP, Departamento de Geologia, Brazil

Jorge Carvalho de Lena, Universidade Federal de Ouro Preto - UFOP, Instituto de Ciências Exatas e Biológicas, Brazil

Margarete Mages, UFZ - Centre for Environmental Research, Department for Inland Water Research, Brückstr, Germany

Kurt Friese, Universidade Federal de Ouro Preto - UFOP, Departamento de Geologia, Brazil

Tracer Test in the Abandoned Fluorspar Mine Strassberg/Harz Mountains, Germany

Christian Wolkersdorfer and Andrea Hasche, TU Bergakademie Freiberg, Lehrstuhl für Hydrogeologie, Germany

Water Control in Metals Mining

Ernest J. Kipko, Spetstamponazhgeologia (STG), Ukraine

Yuriy N. Spychak, STG, Ukraine

Yuriy A. Polozov, STG, Ukraine

SESSION: MINE WATER HYDROGEOLOGY

Águas Claras Mine – A Successful Dewatering Story

Cesar Augusto Paulino Grandchamp, Minerações Brasileiras Reunidas S/A MBR, Brazil

Antônio Carlos Bertachini, MSc, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Eduardo von Sperling, Federal University of Minas Gerais, Department of Sanitary and Environmental Engineering, Brazil

Danilo Carvalho de Almeida, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Dewatering of Iron Ore Mines and Capability to Predict Environmental Impacts – The Experience of MBR

Leandro Quadros Amorim, M.Sc., Minerações Brasileiras Reunidas S/A – MBR, Brazil

Cesar Augusto Paulino Grandchamp, Minerações Brasileiras Reunidas S/A – MBR, Brazil

Antônio Carlos Bertachini, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Hydrogeological Aspects of the Shutdown of the Idrija Mercury Mine

Bojan Rezun, Rudnik Zivega Srebra Idrija v Zapiranju d.o.o., Slovenija

Joze Janez, Geologija d.o.o., Slovenija

Tatjana Dizdarevic, Rudnik Zivega Srebra Idrija v Zapiranju d.o.o., Slovenija

Hydrogeological Model of the Itabira Iron Ore District

Agostinho Fernandez Sobreiro Neto, Cia. Vale do Rio Doce - CVRD, Brazil

Antônio Carlos Bertachini, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Antônio Carlos Girodo, Mineralium Deposita, Brazil

Danilo Carvalho de Almeida, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Hydrogeology of the Proposed Crown Jewel Open Pit Gold Mine, Okanogan County, Washington, USA

David Banton, Golder Associates Inc., USA

Mark Birch, Golder Associates Inc., USA

Jeff White, Battle Mountain Gold, USA

Underground Waste Repositories in Exhausted Coal Mines a Review

Edson Wendland, CEPETRO, DEP, UNICAMP, Brazil

Thomas Himmelsbach, BGR, Germany

SESSION: MINE WATER TREATMENT

Mining Waters Treatment at Pin Lin Project in Taiwan

Yuriy N. Spychak, Spetstamponazhgeologia (STG), Taiwan

Yang Pinjeng, Diffisoiil Geotechnical Engineering Inc., Taiwan

Passive Treatment of European Mine Waters: The European Commission's 'Pyramid' Project

P L Younger, University of Newcastle, UK

Recycling of Process Water Containing Amines in the Reverse Flotation of Iron Ores

Frank Stapelfeldt, DEMIN/UFOP, Brazil

Rosa Malena Fernandes Lima, DEMIN/UFOP, Brazil

Sediment Control in a Tropical, High Rainfall Environment

Michael L. Jacobs, Golder Associates Inc., USA

Todd White, PT Newmont Nusa Tenggara, USA

Standards for Mining Activities and Environment

Hélio Takara, CMM, Brazil

Geraldo Rattón Mascarenhas, Engenheiro de Minas, Brazil

Olívia Maria de Sousa Ribeiro Vasconcelos, UFMG, Brazil

Haroldo José da Silva, Anglo Gold Brasil, Brazil

Dinésio Franco, D.F. Consultoria Ltda, Brazil

Stormwater Management and the Limited Discharge System of the Batu Hijau Mine

Michael L. Jacobs, Golder Associates Inc., USA

Robert Denham, PT Newmont Nusa Tenggara, USA

Use of Paste Technology for Tailings Disposal: Potential Environmental Benefits and Requirements for Geochemical Characterization

Rens B.M. Verburg, Golder Associates, USA

Clicando em International Mine Water Association - IMWA

INTERNATIONAL MINE WATER ASSOCIATION – IMWA



International Mine Water Association

founded in 1979

Objectives and Aims

Objectives

- Increased protection of the environment against the impact of mine drainage and related activities
- Improved utilisation of mine waters
- Improved technology and economy of mine drainage operations
- Improved exploitation of mineral deposits consistent with the desirable standards of safety against water hazards

Aims

- To promote the development of science and technology concerned with water in mining
- To promote, develop and co-ordinate co-operation among persons and organisations of different countries, engaged in scientific or engineering work in the field of mine water problems and related sciences
- To encourage and facilitate research, education and training related to all scientific and practical problems of water in mining and allied operations
- To promote implementation of improved technology to mine drainage practice

- To promote exchange of scientific and engineering information
- To encourage the exchange of visits of persons between the countries, either as individuals or teams
- To organise international meetings and to promote regional and national conferences and symposia with international participation
- To promote publication and distribution of papers and discussions relating to the objectives of IMWA

IMWA – What for and for what?

The International Mine Water Association (IMWA) is a multidisciplinary expert organisation which links up experts of various branches of natural sciences and technology.

IMWA was founded 1979 in Granada/Spain as a result of interest shown in the increasing problems associated with water in the mining industry at the “First International Mine Drainage Symposium”. Since then we have organised a congress every three years. IMWA also holds annual symposia and workshops on topical subjects which have included: Hydrogeology of Coal Basins; Mine Water and Pumping; Acid Mine Water; First African Mine Water Symposium; Water Resources at Risk; Engineering in Karst; Mine Water and Environment.

Membership of IMWA is open to everyone with an interest in mine water and we also distribute to members a quarterly journal of “Mine Water and the Environment” for which relevant papers are invited for publication.

Concerning mining, mine water, and the environment, there are still many open issues. If this is true on the theoretical level, it is even more true on the performance level. Precisely due to these facts an international debate and exchange of expertise and of ideas is worth its effort.

Dear professional and expert, do not hesitate to take an active part at this debate. With a membership IMWA is offering you the opportunity to do so. You are most warmly invited to contribute and to profit from it as much as you can.

Clicando em Executive Council of IMWA

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