



The International Network for Acid Prevention

An organization of international mining companies dedicated to a reduction in the liability associated with sulphide mine materials

Sept 2003

NEWSLETTER

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If you would rather not receive this newsletter, please contact the INAP administrator [Amber Young](#).

1. Global Alliance with Regional Organizations

The INAP Operating Committee (OpCom) is pleased to announce a Global Alliance with the Australian Centre for Mining Environmental Research (ACMER), the Acid Drainage Technology Initiative from the United States (ADTI), and the Mine Environment Neutral Drainage programme from Canada (MEND). The alliance was officially confirmed with the signing of a Statement of Mutual Intent (SMI) and publicly launched at the 6th International Conference on Acid Rock Drainage (ICARD) on July 14th, 2003.

The signatories of the SMI agree to cooperate through an international partnership to help develop cost-effective controls for acid drainage from coal and metal mining operations and measures to protect and restore terrestrial and marine environments.

The Global Alliance will continually seek to engage with key organizations in other regions that:

- Have good contacts with the important research providers, academics, governments, and non-government organizations in their region;
- Have an ability to carry out research projects and technical transfer workshops;
- Are willing to share information and work on a co-operative basis.

The 6th ICARD provided insight into important groups operating in Europe and Southern Africa and preliminary discussions are underway to explore new partnerships.

Please contact the Technical Manger, or any of the partner representatives with questions regarding the Global Alliance:

INAP – **Anne-Marie Fleury**
ACMER – **Clive Bell**
ADTI – **Charles Bucknam**
MEND – **Gilles Tremblay**

2. IMWA

The **International Mine Water Association**, a multidisciplinary expert organisation group in Europe, has expressed an interest in developing an Acid Drainage (AD) branch that would engage with the Global Alliance. Discussions were held with Dr. Christian Wolkersdorfer, the IMWA General Secretary, and Paul Younger, from the University of Newcastle upon Tyne, who is involved in a number of Mine Water initiatives in Europe including PIRAMID (Passive In-situ Remediation of Acidic Mine / Industrial Drainage), ERMITE (Environmental Regulation of Mine Waters in the European Union), and the recent European Commission funded **CoSTaR** project (Coal Mine Sites for Targeted Remediation Research). Both agreed to attend the next INAP and Regional Partners meeting to be held in Vancouver, in early December 2003 to discuss opportunities.

IMWA was founded in 1979 in Granada, Spain. Membership is open to everyone with an interest in mine water. IMWA's aims are to

- Promote the development of mine water science and technology;
- Help develop co-operation and information exchange on an international level;
- Facilitate research, education, and training;
- Promote implementation of improved mine drainage practices.

IMWA activities include organizing a congress on mine water every three years. The group also holds annual symposia and workshops on topical subjects that have included acid mine water, and mine water and the environment. IMWA also distributes a quarterly peer-reviewed journal to members - Mine Water and the Environment.

3. The 6th ICARD

Over 250 delegates from 19 countries attended the 6th ICARD held in Cairns Australia from July 14th-17th. Feedback from participants was very positive and INAP would like to congratulate the organizers, the Australasian Institute for Mining and Metallurgy (**AusIMM**) and ACMER, for a very successful ICARD. The proceedings are available from **AusIMM** (+61 3 9662 3166) and a summary of the conference will shortly be published by ACMER and MEND.

INAP and partner regional organizations participated widely throughout the conference. Robin Batterham, Chair of the INAP Board, gave the opening address, INAP OpCom members, representatives from the partner regional organizations, and the technical manager were available at a booth, and several INAP projects were presented during the technical sessions.

4. Future ICARDs

INAP has committed to ensuring the longevity of ICARDs and as such is noting the following comments for future conferences:

- ICARDs should continue to be held in different countries in order to engage with a wider global audience, particularly in Southern Africa, Europe, Asia, and South America.
- A concerted effort should be made to engage a wider group of stakeholders, particularly regulators.
- A focus on AD risk assessment would be valuable particularly at an industry management level.
- Host cities with tourist attractions should be selected in order to help maximize participation.

The closing session was chaired by Bruce Kelley from the INAP OpCom to discuss bids for the next ICARD in 2006. The US-based Society for Mining, Metallurgy, and Exploration (SME) was the only group to put forward a bid. A proposal was given to hold the 7th ICARD in St. Louis, Missouri, United States, in collaboration with ADTI and the Geological Society of America. SME has a good track record organizing ICARDs and in the absence of other bids since July, the proposal has been accepted.

5. New INAP Projects

There was an excellent response to the public Call for Proposals made by the INAP Operating Committee (OpCom) in February 2003. INAP was delighted

at the high level of interest and quality of the proposals that were received and would like to thank all proponents.

Selection criterion were developed to rank and select projects based on:

- Significance
- Innovation
- Approach and method
- Qualifications of researchers
- Leveraging
- Willingness to collaborate with INAP
- Regional Organization involvement

The difficult task of 'shortlisting' the projects and making the final selection was finalized in Cairns on July 18th. The OpCom is happy to announce the following INAP projects for 2003:

INAP Projects

Title	Proponent	Description
Designing Effective Store-release Covers for the Long-term Containment of Mine Waste	ACMER	Tools for modelling and designing store and release cover systems
Waste Rock Model Benchmarking	P Younger University Newcastle	Benchmarking international codes and modelling to simulate reactive transport and contaminant release.
Diavik - Scale-up work	Diavik Rio Tinto	Test pile work (scaled-up) to determine appropriate cover design.
10 th BCMEND ML/ARD Workshop	MEND	Key AD event in Vancouver, Canada.
Workbook- Predicting AD using Geochemical Mathematical Models	E Trujillo ADTI	Part of a workbook series for US federal and state agencies.
Workbook - Pit Lake Characterization, Modelling, and Remediation Approaches	J Jonas ADTI	Workbook compiling all facets of pit lakes for those responsible for pit lake management.
Add South African experience to Sulphate Reduction report	Pulles, Howard &deLange	Addition to existing INAP project.

INAP also supports several strategic projects that the OpCom hopes to help develop as long-term projects.

Strategic Long-term Selected Projects

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#	Title	Author
21	Kinetic Development of Oxidation Zones of Tailings Dam - Witwatersrand Gold Tailings Dams	Pulles, Howard & de Lange
29	A Scale-up study based on the previously developed project design and business plan.	ANSTO,
48	Mitigation of Metal Levels in Pit Lakes through Whole Lake Manipulation	Lorax

6. Partner Regional Organization News

ACMER NEWS

- AngloGold Australia Limited has formally applied to become a Participating member of ACMER with a position on the Board. The company already sponsor a number of ACMER research projects, and are participating in the regional cyanide management workshops.
- The final report for the "Determination of the Reasons for Deterioration of the Rum Jungle Waste Rock Cover" undertaken by ANSTO and CSIRO is now available on the ACMER website. The report identifies the importance of considering biotic factors in the design of covers for sulphide wastes.
- The ACMER Guide to the Application of the ANZECC/ARMCANZ Water Quality Guidelines in the Minerals Industry produced by CSIRO and Environment Australia will be available in hard copy and CD-ROM in September 2003.
- In May and July 2003, ACMER conducted workshops on Water Quality Issues in Final Voids and Temporary Waters in Perth and Brisbane. Main findings with respect to voids include:
 - The need for extensive consultation and planning well before mine closure;
 - The need to involve regulators at an early stage;
 - The need for a framework for final void.
 As a result of these workshops, ACMER is also exploring the possibility of extending the Lorax proposal on "Mitigation of Metal Levels in Pit Lakes through Whole-Lake Manipulation" to include sites in Australia.
- ACMER has been working with a group of key industry and government personnel to develop a workshop program focusing on

Sustainable Mine Closure. The workshop to be held 23-24 October 2003 in Adelaide will address project management issues for mine closure, regulator requirements for sign-off, and completion criteria.

- As part of the Mineral Council of Australia (MCA) Sustainable Development Conference in Brisbane, ACMER is organizing a one-day workshop on "Management and Remediation of Abandoned Mines" on 14 November 2003.
- For more information see the August 2003 edition of "ACMER News" available on the [ACMER website](#).

ADTI news

- The American Society of Mining and Reclamation ([ASMR](#)) is issuing a call for papers for an acid drainage session during their meeting April 18-22, 2004 in Morgantown, West Virginia. Abstracts are requested for September 30th, 2003. Contact [Virginia McLemore](#) for more information.
- The US Department of Interior met with the ADTI Coal Mining Sector (ADTI CMS) in May 2003. Fred Block from the Office of Surface Mining (ADTI prediction committee) gave a presentation on ADTI to the department staff at their internal annual meeting. ADTI CMS were delighted with the positive reception and look forward to further co-operating with the department. The presentation will be made available on the [ADTI Metal Mining Sector web site](#).
- The New Mexico USACE RAMS database project is currently loading published and unpublished data on the deposits, mines, and mills in Sierra and Otero counties, New Mexico into a database that is GIS compatible. The project will be completed by September 2003.
- The Molycorp Project at the Questa mine, New Mexico has awarded a research project on the "Effects of Weathering on the Long-term Stability of Rock Piles" to the University of Utah. At least one geotechnical expert will be added to the independent ADTI review team.
- The Society for Mining Metallurgy and Exploration (SME) is considering holding a joint conference with ASMR at their annual meetings in St. Louis. This event in 2006 will also be the venue for the 7th ICARD. The SME Environmental Division will discuss options at their mid-year meeting in Englewood, Colorado on September 6, 2003.

MEND News

- MEND is currently in the process of organizing the 10th Annual British Columbia/MEND ML/ARD Workshop planned for December 2 - 3, 2003 in Vancouver, Canada. Presentations will address the characterization of wastes, changes in acid drainage generating wastes and recent MEND3 projects.
- The MEND team was recently the recipient of one of this year's Canadian "Federal Partners in Technology Transfer Awards. The award was given for the successful transfer of knowledge and technology with a significant impact on the socio-economic well being of Canadians. Recipients of the award included Gilles Tremblay (present manager), Charlene Hogan (MEND), Janice Zinck (NRCan), Marcia Blanchette (NRCan), Carl Weatherell (Carleton University), and Grant Feasby (Cambior Inc.).
- The MEND web site has undergone recent changes to conform to the requirements of the Canadian government policy and can be accessed through several addresses. The most direct route is:
<http://mend.nrcan.gc.ca>
The site can also be reached through:
<http://mend2000.nrcan.gc.ca>
<http://www.nrcan.gc.ca/mms/canmet-mtb/mmsl-lmsm/mend>
- Newsletters are regularly published by MEND and are available on the web site. They include information on projects, workshops, and other happenings relevant to the mining industry. To receive the newsletter please send your postal and electronic addresses to **Gilles Tremblay**.
- For more information on the Canadian National Orphaned/Abandoned Mines Initiative (**NOAMI**), visit their new web site.

7. INAP Meetings

INAP is seeking to hold meetings in conjunction with important regional AD events. Venues for 2004 are yet to be decided, and the OpCom would like to invite interested groups to signal events, which may benefit from an INAP presence. Future INAP meeting venues will be discussed at the next OpCom December 1-3, 2003. Please contact the **Technical Manager** well before this date.

8. Upcoming Meetings

Upcoming meetings that may be of interest to INAP members are listed below. Note INAP and Regional Organization meetings highlighted within boxes.

- **ADTI Coal Mining Sector** – Steering Committee Meeting
Oct, 2003 National Mine Land Reclamation Center, West Virginia University, USA
- **Tailings and Mine Waste '03**, Colorado State University
Oct 12-15, 2003, Vail, Colorado
- **ICMM Annual Meetings**
Oct 13-16, 2003, London, UK
- **ACMER Workshop – Sustainable Mine Closure Mine Closure**
Oct 23-24, 2003, Adelaide, Australia
- **International Mine Water Association (IMWA) 8th Congress**
Oct 20-25, 2003, Johannesburg, Gauteng, South Africa
- **ADTI Metal Mining Sector** General Membership Meeting
Oct 31, 2003 Colorado Department of Natural Resources in Denver, USA
- **Symposium on Mine Pit Lakes - Geological Society of America**
Nov 2-5, 2003, Seattle
- **Implementing Sustainable Development in Mining: From Talk to Action** Chamber of Mines of South Africa
Nov 3-5, 2003, Johannesburg, South Africa
- **Minerals Council of Australia Sustainable Development Conference**
Nov 10-14, 2003, Brisbane, Australia
ACMER Workshop 'Management and Remediation of Abandoned Mines'

- **10th Annual BC MEND Metal Leaching/Acid Rock Drainage Workshop**
INAP meetings to be held in conjunction with this event
Dec 2-3, 2003, SFU Harbour Centre, Vancouver, Canada

- **8th International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production (SWEMP)**
May 17-20, 2004, Antalya, Turkey
- **SME Annual Meeting – Symposium on Sustainable Development from the Ground Up**

February 2004, Denver, Colorado, USA

ADTI-MMS members to co-chair several sessions.

- **21st Annual Meeting of the American Society of Mining and Reclamation (ASMR)**
April 18 - 22, 2004, Morgantown, West Virginia, U.S.A.
Contact **Jeff Skousen** for more information.
- **IMWA Symposium**
Sept 20-24, 2004, Newcastle upon Tyne, UK