

The International Network for Acid Prevention



www.inap.com.au

Content

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- Current research and other activities



Who is INAP?

Since 1998 - a network of international mining companies dedicated to reducing liabilities associated with sulphide mine materials.





INAP Activities

- Information sharing and networking – eg. website and Global Alliance
- Technology Transfer – support for regional workshops, eg ACMER, MEND, UNR
- Research – eg. Scale-up, co-disposal, water treatment, etc



Work plans 2005 and beyond – a new focus

- Focus on networking and sharing:
 - Updating and expanding the web page – INAP project results and information links
 - Member and public newsletters
 - Regional workshops for members and wider audiences
- Focus on select number of key projects

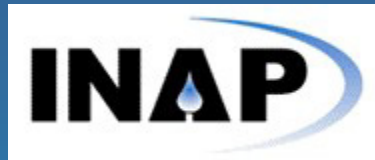


How can we best address the liability of ARD?

- Recognizing that ARD is not only an ‘acid drainage’ issue but is also importantly about metals and salinity in the environment
- ARD is not an individual Company issue it is an Industry issue with negative connotations
- ARD legacies are influencing closure policy and security bonding despite improved modern practices
- It is unlikely that the next big break-through will occur independently
- More participation, sharing, networking and collaboration is required.

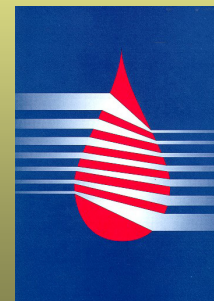
Global Alliance

- Regional organizations seen as ‘centres of excellence’
 - Many achievements but increasing difficulty in addressing the scope of ARD issues with regional resources alone
- Benefits of greater global coordination, communication and information sharing



Global Alliance

Acid Drainage Technology Initiative



MEND



The Partnership for Acid Drainage Remediation in Europe (PADRE) joined in September 2004 ⁸

Benefits from the Global Alliance



- Increased momentum for ARD solutions
- Industry partnerships with key groups (including government and NGOs) that set the ARD agenda
- Leveraging partner funds for projects
- Reduction in potential research duplication – a wiser investment of scarce capital
- INAP reputation for energy, openness and influence on ARD



Current INAP Projects

- Global Acid Rock Drainage Guide – GARD Guide
- Scale Up
- Sulphate removal technologies
 - 2nd stage recently completed
- ARD Prediction Workbook (ADTI)
- Pit Lakes Workbook (ADTI)

Proposals are currently under consideration for further research such as store and release cover systems and pit lake prediction and management

Global ARD Guide

- Scoping activities have been undertaken during 2005
- Global Alliance and representatives from other countries involved from the beginning
- Workshop to refine scope to be held in Vancouver at the end of this week
- Wider range of stakeholders to be involved in the next phase
- Very strong Board support



Scale-Up Project

Need for the Project

Previous reviews failed to identify a case where the approaches used to assess ARD potential had been supported by subsequent confirmatory data at mine scale

Objective:

Gain a better understanding of the relationships between current techniques at various scales used to predict poor quality drainage from waste rock in different geographical regions

Expected Outcome:

Improved confidence in waste rock prediction and management



Why is this Project Unique?

- First time to develop a statistical database of testing that can be used to address scale-up
- Multi-stakeholder involvement and input
- Integrated study of:
 - Hydrology
 - Geochemistry
 - Mineralogy
 - Microbiology
 - Permafrost engineering (at Diavik)
 - Climate change

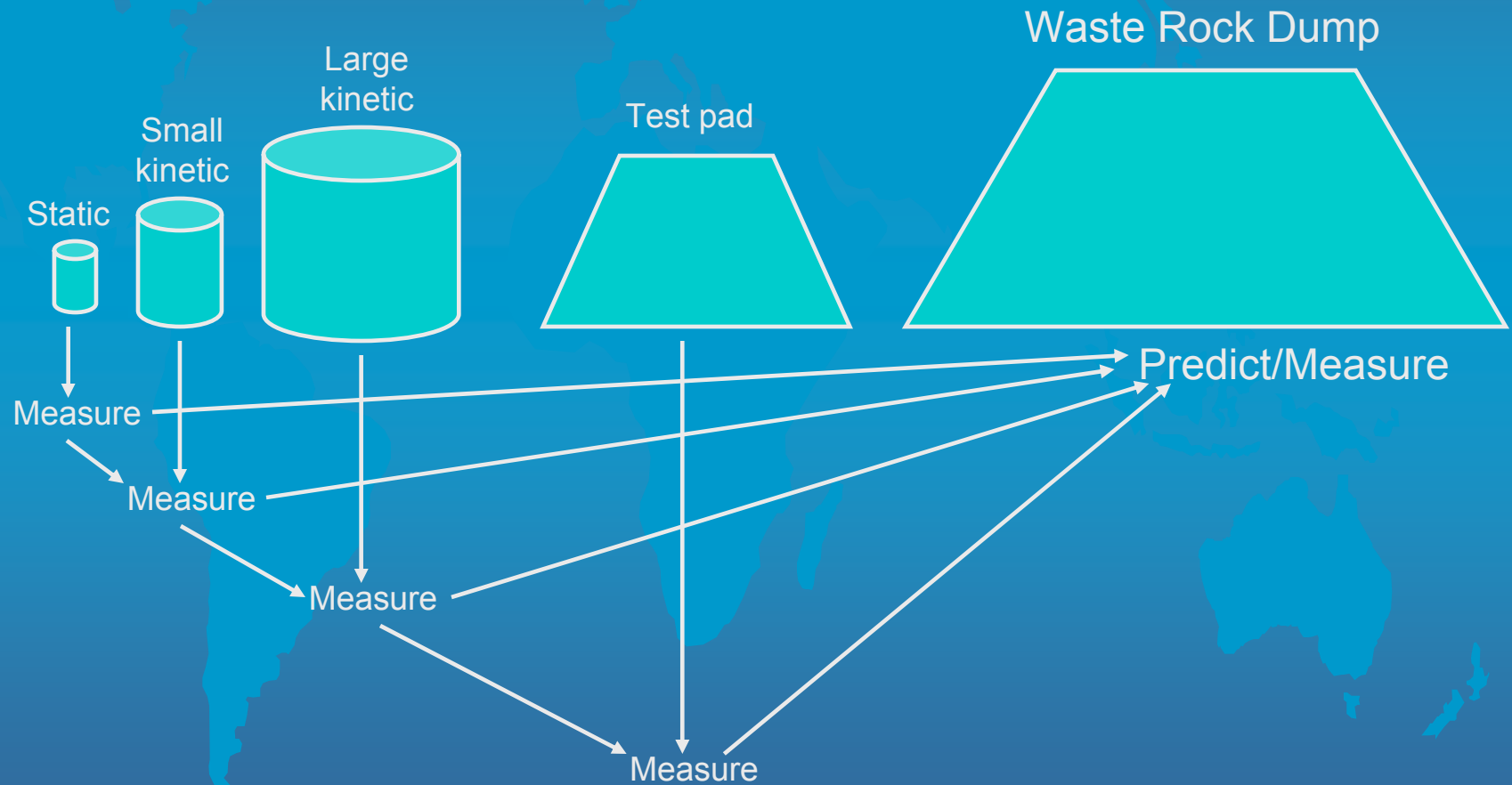


Project Evolution

- INAP developed the scope and concept in partnership with researchers
- Considerable time and effort devoted to scope, content and costs
- Price tag for project estimated \$2-3M per site
- Diavik needed to carry out similar work – synergy and mutual benefit to both organisations



Scale-up Methodology





Diavik Project Support

Sponsor	Diavik	INAP+ MEND	CFI	NSERC	Total
Cash	496	525	474	908	2403
In Kind	682				682
Total	1178	525	474	908	3085




Project Status

- Diavik, INAP, MEND, NSERC and CFI funding
- Construction in progress
- Graduate students actively involved in project
- Pile construction: commenced 2004
- Test pad construction and instrumentation progressing through 2005-06
- Challenges are
 - Instrumentation
 - Climate



INAP Priorities

- Promote sharing in collaborative research and best management practices.
- Contribute to long-term improvements in acid prevention through global cooperation and information exchange.
- Continue to seek linkages with regional organizations.
- Maintain the leadership role of INAP in global ARD networking.

The logo for INAP features the letters 'INAP' in a bold, black, sans-serif font. A blue water droplet is positioned inside the letter 'A'. To the right of the text is a blue, curved swoosh that resembles a stylized 'P' or a drop. The entire logo is set against a white rectangular background.

INAP

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Partnering for Global Solutions to
ARD and Metal Mobilisation