

INAP OpCom Meeting
December 2, 2014
Vancouver, BC, Canada

Participants: Stephen Foot – Antofagasta (via phone), Bill Upton – Barrick, Claudio Andrade – Barrick, Dan Ramey – Freeport, Dean Williams – Kinross, Charles Bucknam – Newmont, Cynthia Parnow – Newmont, Stephanie Stoerberl – Newmont (via phone), Rich Borden – Rio Tinto, Terry Chatwin – INAP, Andrea Chatwin – INAP. **Presenter – AM:** Dirk van Zyl. **Presenters - PM:** Gilles Tremblay and Bill Price – MEND, Adam Jarvis – PADRE, David Blowes, Richard Amos, Dave Segó, Leslie Smith and Gord McDonald (Rio Tinto – via phone) for Diavik, Mike O’Kane and Andrew Beasley – O’Kane Consulting

Welcome: Dean Williams welcomed all participants to the meeting and each participant introduced him/ or herself

INAP Budget: Terry Chatwin

- INAP is solvent with enough funds to cover our outstanding expenses
- All invoices due to INAP have been paid except for \$15,000 from one member. Terry will discuss this issue with the member’s representative before the end of the year.
- Terry made some changes to the first budget you received. These changes reflect suggestions made by Stephen Foot.
- The Sulfate Workshop held in SLC showed a profit of \$7,500 due to the sponsorship of Veolia, Golder and Arcadis

2014 Activities Update: Terry Chatwin

- Soil Cover Design Guidance document
 - The draft document is scheduled for INAP review during January of 2015.
 - O’Kane consultants will update the INAP OpCom on this project this afternoon.
- The Sulfate Treatment Workshop held in SLC in February 2014 was very successful.
- Tucson OpCom Meeting and Site Tours – April 2014
 - Tours to the Sierrita pilot plants and the reclamation work at the Bisbee site were very worthwhile and informative.
- Animas River Stakeholders Group (ARSG)
 - Met with ARSG and about 40 ARD practitioners at CH2MHill offices in Denver on 1 April 2014.
 - 58 potential InnoCentive solutions were submitted to the ARSG from which four proposed solutions were selected.
 - As INAP’S representative, I still converse with ARSG as a technical support and suggest technical resources that would be useful to them.
- Partnering with ICMM, IFC, US EPA and others
 - ICMM
 - Met with President Tony Hodge and discussed partnering on projects of common interest. He suggested contact with William Adams.
 - Contacted William Adams (Rio Tinto and ICMM’s chair of Minerals and Metals Technical Working Group)
 - Contacted Ross Hamilton (ICMM director of Environment and Climate Change) who will be speaking at the 10th ICARD. He agreed to meet in Santiago
 - US EPA
 - Spoke at the August 2014 US EPA conference on Mining Impacted Waters in New Mexico.
 - Met with four US EPA technical managers (Stephen Hoffman, Shahid Mahmud, Elaine Suriano and John Hillenbrand) in Washington, DC

- USGS
 - Spoke with Michael Jarvis while in Washington DC but was unable to meet. We agreed to talk further
- IFC
 - Made contact with John Middleton
 - IFC will be updating their Mining Guidance document and will reference the GARD Guide as a best-practice document for review and implementation
 - IFC requested that INAP to review and comment on the Mining Guidance document
- CRC Care
 - Associated with the University of South Australia (Bruce Kelley is on their board)
 - Met with them in Adelaide – they are doing great technical and analytical work and are just moving into mining
 - Possible new GA member – their focus is different than SMIKT’s

Path Forward: Terry Chatwin and Dean Williams

- Report to GA and Path Forward Symposium attendees on what we’ve done since 10th ICARD
 - INAP has had queries especially about biogeochemical issues
 - Claudio Andrade (INAP’s Biogeochemical champion) would like guidance to focus this initiative.
 - He has a list of leading people in the field
 - Some of these people are looking at genomics
 - SRK is looking at gaps analysis – biology, economics
- INAP should develop a new project for 2015
 - INAP does not have a lot of money in terms of research – what is the best bang for our buck?
 - What should be our **FOCUS** – where can INAP be most effective?
 - INAP has been most effective in the past with guidance documents and information transfer.
 - We should be careful not to produce a biased product, which will reduce the value of our prior work including the GARD Guide
 - Suggested Projects
 - How about a guidance document on the biochemical use of plants for remediation?
 - Freeport has people working on this at their Bisbee reclamation project
 - Another world –wide standards like the soil cover document
 - Let’s make sure they meet the needs of the industry
 - How do we impact international standards?
 - Collaborate with IFC on water standards as well as mining?
 - ✓ Is money better spent on infrastructure vs “pure water”
 - Work with ICMM’s technical arm (Bill Adams – Rio Tinto?)
 - Frame global standards on science and technology
 - A document on concurrent reclamation
 - Develop a GARD Guide for communities
- Updates and improvements to the GARD Guide
 - Printable version of the GARD Guide on PDF
 - Adding case studies Global Alliance Case Study project
 - Focus on sites which already have case studies published on their operations
 - Several professors are willing to work with students to prepare and submit a case study to be presented as a poster at the ICARD in April
 - Argo Tunnel study
 - Mike O’Kane is preparing several hypothetical case studies for the Soil Covers Guidance Document as well as 5-10 actual case studies.
 - INAP companies and others are hesitant to point to successes because it creates a target for opponents of mining to attack.

- Dean's presentation at ICARD could possibly be used.
- Carlos Tamayo's presentation on Pueblo Viejo.

Tailings Failures and Lessons Learned: Dirk van Zyl

Global Alliance: Charles Bucknam, Gilles Tremblay, Adam Jarvis, Bill Price

- Charles – ADTI:
 - Workbooks are completed – INAP is planning to purchase books for the authors and editors
 - Focus on building technical groups – coal sector is not functioning now since it is no longer funded
 - Looking for opportunities to review guidance documents including OKC's Soil Cover Guidance
- Bill – MEND:
 - MEND has many presentations of case studies and tech transfer
 - Could 1 or 2 of the best be selected for presentation at other Global Alliance conferences so that information could be shared among groups
 - Could INAP help fund travel something like this
 - Travelling papers could present an overview and then focus on one or two things in depth
 - BC MEND Conference has many case studies both on CD's and paper
 - Could they be researched for key words and concepts so that they are more searchable and useful?
 - Bill will send INAP an email or develop a proposal for both of these ideas
- Adam Jarvis – PADRE:
 - It is being discussed to have IMWA be the European GA member replacing PADRE
 - Many IMWA members are from Europe anyway
 - IMWA is a vibrant group with a monthly publication with Springer
 - There are case studies in the journal; however, they are probably copyrighted by Springer
 - IMWA has an annual meeting of its own
 - IMWA is joining with INAP for the 10th ICARD in Santiago

Canadian BATEA Document: Gilles Tremblay

- Presentation will be forth coming in separate e-mail.

Diavik Country Rock Pile Study Update: David Blowes, Richard Amos, Dave Segó, Leslie Smith, Gord McDonald

- Presentation will be forth coming in separate e-mail.

Soil Covers Guidance Document Update: Mike O'Kane and Andrew Beasley

- Presentation will be forth coming in separate e-mail.

Next OpCom Meeting

- April of 2015 at the 10th ICARD in Santiago, Chile

ACTION ITEMS

1. Terry Chatwin will work to assure all of the INAP dues are paid.
2. Bill Price will develop a proposal on case studies from MEND.
3. Bill Price will develop a proposal for funding GA members to share presentations.

4. Terry Chatwin will work with Claudio on getting the Biogeochemical advisory group operational
5. Terry Chatwin will continue to interface with the Animus River Stakeholders Group