

## INAP Op Com Meeting

May 11, 2017

Denver, CO, USA

**Participants:** Claudio Andrade – Barrick, John Mudge – Kinross, Dean Williams – Kinross (Retired), Cynthia Parnow – Newmont, Michael Davies – Teck (go-to-meeting), Rich Borden – Rio Tinto, Ros Green – Rio Tinto (go-to-meeting), Bruce Kelley – INAP (go-to-meeting), Scott Miller – Newmont, Gilles Tremblay - INAP

**Presenters:** Mike O’Kane (go-to-meeting) - OKC (Waste Rock Pile Construction to Control ARD), Jake Croall – Newmont (Cyanide Analyses), Devin Castendyk – Hatch (Aerial Drones to Sample Pit Lakes).

**Welcome:** Dean Williams welcomed all participants to the meeting. He then read the following anti-trust statement.

“As a reminder, it is the responsibility of our members to comply in all respects with federal and State antitrust laws. As such, discussion for the purpose of bringing about any understanding or agreement among members to (a) raise, lower, or stabilize prices; (b) regulate production; (c) allocate markets; (d) encourage boycotts; (e) foster unfair trade practices; (f) assist monopolization, or (g) in any way violate federal or State antitrust laws is unacceptable and will not be tolerated.

Any questions regarding the meaning or applicability of this policy, as well as any concerns regarding activities or discussions at INAP meetings, should be promptly brought to the attention of the INAP Chairman.”

### **Technical Manager’s Report:** Gilles Tremblay

- Emphasized increased communications to the member companies for the reporting period by providing information on relevant technologies, monthly highlights, populating the website and the new INAP Newsletter. The Monthly Highlights were well liked by the members and positive comments were received from members and others on the new format used for the Newsletter.
- Key highlights from the report included:
  - INAP Australia: Gilles and Bruce participated in the Derelict Mines Summit in Singleton in December. A paper on Canada’s National Orphaned/Abandoned Mines Initiative was recently completed and will be distributed to the members for their information. He also mentioned that the long-awaited national inventory of orphaned and abandoned mines has finally been released ([www.noami.org](http://www.noami.org)). Meetings were also held with the Sustainable Mining Institute (SMI) in Brisbane confirming SMI as INAP’s new Global Alliance member for Australia and possibly South America via their International Centre of Excellence in Santiago. **ACTION:** Gilles to follow-up with SMI who mentioned the possibility of helping with translation services of INAP documents to Spanish via SMI-Chile office. Meetings with INAP member companies and a broader INAP network followed in Perth and Melbourne.
  - Global Alliance Activities
    - ADTI – MMS: The release of the Modelling Workbook is imminent. ADTI-MMS and INAP hosted sessions at SME-2017 in Denver this year. ADTI-MMS is already planning sessions for 2018 in Minneapolis. Also mentioned was the possibility of having ICARD 2021 in Mexico. Meetings were set up at SME between ADTI-MMS and representatives from AIMMGM (the Mexican equivalent of SME) and they were very interested and would get back to us.
    - IMWA-PADRE: Annual conference in Rauha-Lappenrante, Finland in June. Also, ICARD 2018/IMWA 2018.
    - MEND: Latest draft of the Study on alternate tailings management technologies report under review. Some concerns expressed by industry members that dry stack is

- the only technology suggested as acceptable in the report. This maybe an earlier version but needs to be followed-up with MEND. **ACTION:** Gilles to contact Charles Dumaresq, MEND Chairman to mention the concerns expressed by during the meeting and to obtain the latest version from MEND for possible reviews by INAP members. Of interest to the members is that all BC/MEND presentations from the past meetings, 2016 was the 23<sup>rd</sup> Annual BC/MEND, will soon be made available via a website. Details to be shared once it is released.
- SMI: Organizing the 9th Australian Workshop on Acid and Metalliferous Drainage “Leading edge practice across resource cycles” in Burnie, Tasmania November 19-23, 2017. A GARD Guide/ Global Cover Guidance Document short course is a possibility. Also following-up with regards to being INAP’s hub for hosting seminars.
  - WRC: South Africa has launched a national mine water atlas that can be found at <http://www.wrc.org.za/Pages/MineWaterAtlas.aspx>. And they are also involved in the planning of ICARD 2018/IMWA 2018.
- A discussion ensued on the participation of Global Alliance members. Gilles noted that direct contact with China and Indonesia was non-existent. Committee members agreed that Gilles should concentrate his efforts to those Global Alliance partners who show an interest in participating. Gilles also mentioned that he would distribute the Global Alliance updates from the TM report to GA members. He stressed the importance of partners knowing what the others GA members are involved with.
  - Global Cover Guidance Document – O’Kane: The latest draft of the report was received May 11. A path forward for the review was established. **ACTION:**
    - Gilles to contact Rens Verburg to request his participation with the review.
    - Report to be distributed to members. Comments requested by end of May.
    - Teleconference between INAP members to discuss comments in early June
    - INAP response to OKC to be prepared by Rens.
- *Technical Manager’s note: Rens agreed to help out. Because of Rens schedule, the INAP call will be the week of June 19<sup>th</sup>. And, Mike O’Kane is not available until after June 20<sup>th</sup>.*
    - ARD Best Practice Award: Two are expected - Rio Tinto Iron Ores Pilbara already received and Kinross’ Paracatu. Submission date had been extended until May 31<sup>st</sup>. Several others showed interest in submitting but later decided not to because of time constraints or there was insufficient information to be considered as a candidate site.
    - GARD Guide update. Have started making contact with potential reviewers.
    - 11<sup>th</sup> ICARD – 2018: Call for abstract out due August 15, 2017.
    - INAP Web site: Good progress made on updating and populating the site. A work in progress.
    - Membership: Excellent start for 2017 with Teck rejoining INAP. INAP has also received interest from Detour Gold to join as member in the tiered membership category once the details are finalized by Op Com and approved by the Board.
    - 2016 / 2017 Budget update and discussion
      - New budget format developed by Gilles and Graeme Dunn much easier to understand.
      - Estimated retained funds at March 31, 2017 \$395,763 USD.
    - A discussion on the use of three different currencies and accounts was had and members wondered if it would benefit INAP to consolidate into one account, say USD. **ACTION:** Question about three different currencies to be raised with Graeme during the Board meeting.
    - INAP Board and Op Com members: John Mudge accepted the position of Vice Chair for the Operations Committee.

### Chairmen's Discussion: Claudio Andrade / Dean Williams

- Value of INAP
  - It was pointed out that one of the questions that INAP is always faced with is its value to members and to be able to communicate this could well translate into additional memberships. There is a lack of perceived value of INAP by senior executives.
  - Need to show and reinforce how member companies are gaining benefits as a member of a leadership group setting out best practices as outlined in the GARD Guide, and through INAP's involvement in the ICARDs resulting in technology transfer.
  - **ACTION:** Members are to provide a set of talking points (five from each member was suggested) for internal and external use to communicate the value of INAP. These are due end of May. Gilles will then consolidate the list and distribute for comments. These could then be used in communications with potential members.
  
- Project Presentation - Mike O'Kane (O'Kane Consultants), via go-to-meeting, presented "An Opportunity to Collaborate – Reducing Long-Term Reliance for Managing Waste Rock ML/ARD using Cover Systems and/or Collective Treatment. Is there a Practical Approach / Tool to Quantify the Benefits?"
  - Presentation was for information only at this time. He has already presented the concept to several of the INAP member companies.
  - Several members expressed interest in the concept of the evaluation of existing waste rock sites that have a history of collected data. Modelling could be used to predict the performance of the waste rock piles if built differently. Mike to follow-up.
  - Presentation will be forth coming in separate e-mail.

During lunch, Jacob Croall ([Jacob.Croall@newmont.com](mailto:Jacob.Croall@newmont.com)) joined the group to discuss the methodology developed at Newmont for cyanide analyses. He discussed the methods that have been or are in the process of being developed and the on-line analyzer that was produced and available commercially. He talked about the gas diffusion membrane approach versus the distillation method for detecting cyanide. Members were very interested in his work and he was asked to provide some general information with highlights and plan forward on the methods for distribution to the members. Members could then contact Jake directly for more detailed information.

### Chairmen's Discussion: Claudio Andrade / Dean Williams (continued)

- Review of 2017 Technical Manager's Duties and Progress
  - Members pleased on progress to date but concerned on the number of activities in the work plan considering that the position is "part-time".
  - After some discussions, it was agreed that the priorities for 2017 should be
    - Finalizing the Cover's Guidance Document
    - GARD Guide Review
      - Scheduling reviews of Chapters, noting tight deadlines
      - Comments to be presented at November meeting
  - Other activities are all "nice-to-have" and should be pursued when time is available
  
- Outreach Activities
  - PDAC 2018
    - One of the action items from Vancouver meeting, was for Gilles to reach out to PDAC 2018 organizers to explore the possibility of an INAP session presenting the value of INAP including best practices to smaller mining and exploration companies that may not place much interest in ARD issues.

- Four different platforms available at PDAC. Sustainability, Technical, and Training sessions, and holding your own workshop. Details of the four platforms are provided at the end of these Minutes.
    - No decision on the steps forward for PDAC 2018 was made at this time.
  - Recruitment of Companies
    - Discussion centered on the development of the five key points mentioned above on the value of INAP, the return on investment (ROI).
    - A letter can be generated that talks about the key points and follow-up can be done by TM and members using personal mining company contacts and cold calling others.
    - The possibility of targeting the ICMM closure group which consist of 23 mining companies was mentioned.
- Tiered Membership
  - Approach for a tiered membership for smaller/junior mining companies was discussed at Vancouver meeting but, a final decision never taken nor proposed to the Board.
  - Discussion within the group centered on what is a smaller company and / or junior to be considered for acceptance to tiered membership.
  - It was agreed that:
    - Acceptance of companies applying for tiered membership will be determined on a case-by-case basis meaning that any company could apply and be considered.
    - Membership dues will be \$5000 USD for the first two years and the full amount beginning in Year 3.
    - They would have no voting rights in the first two years, would be expected to participate in Op Com meetings and could sit-in on the Board meetings.
    - Tiered membership would be given a “test-drive” before expanding
    - **ACTION:** Tiered membership approach to be proposed to the Board of Directors.
  - It was also mentioned that Jenni had already been approached by Bruce and Gilles about the changes to the Constitution and Participant Agreement. Minor changes only would be required according to Jenni.
  - Gilles mentioned the interest from Detour Gold. Jim Robertson called in early May to say that a letter to this effect had been prepared for Ruben Wallin signature at Detour. It has not been received to date. Detour would become INAP’s first official tiered member once the letter is received. **ACTION:** Gilles to follow-up with Detour regarding tiered membership.
- Continuity of Management
  - As noted earlier, John Mudge has accepted the position of Vice Chair of the Operations Committee. The Op Com Vice Chair would succeed the Op Com Chair.
  - Cynthia Parnow, has received her Manager’s approval to accept the position of Chair of INAP’s Board of Directors taking over from Dean who has graciously stayed on as Board Chair until a replacement could be found. **ACTION:** Cynthia to be nominated as the new Chairperson of the Board at the Board of Directors’ meeting that follows the Op Com.
  - Members were asked to identify key alternate representatives from their respective companies that could/should participate in future meetings. In some cases, INAP is represented by a single person from a member company.
- Path Forward – Projects
  - Towards Environmentally Responsible Resource Extraction Network – NSERC -TERRE-NET

- Most of work to date has been focused on identifying students to carry-out the projects
  - Claudio and Gilles have participated in Board of Director's teleconference calls. Some confusion with regards to participation of alternates for Board of Directors' meetings. From the NSERC perspective, voting responsibility resides with the individual members, rather than with the organization that the person represents.
  - First Annual General Meeting planned for Rouyn-Noranda week of June 26. Gilles to attend Director's meeting for Claudio. Even though he will not be allowed to vote, forward motions or second motions, it is important that INAP be represented at these meetings.
- INAP Webinar Series
    - Bruce has recently been in contact with SMI and this will be further discussed during the Australian INAP report.
    - Rens Verburg and Devin Castendyk have both expressed interest in providing presentations for the webinars.
- Liaison with other stakeholders
    - The importance of liaising with other groups was noted (EPA, ECC, ICMM)
    - IFC was specifically mentioned. The next version of the Environmental Guidance documents will be on Funding Mining Projects. **ACTION:** Reach out to IFC to interface with them on their updates to the standards.

**Australian INAP Report:** Bruce Kelley (via go-to-meeting)

- Bruce provided some notes prior to the meeting and these are available on request. Key highlights included:
  - Trip to Australia by Gilles in December 2016
    - Summarized the workshop and the various meetings and how these further raised the profile of INAP in Australia and helped to extend its outreach
    - Helped to consolidate the GA role of SMI and map out some actions for them.
  - SMI and Chile Status
    - SMI-ICE-Chile is up and running as a Centre and currently operates through UQ's legal entity in Chile, JKTech South America SpA.
    - The Centre has a formal partner in the Universidad de Concepcion, but network reach and relationships across the major universities, government departments and agencies, other research organizations (including other government-funded centres and CSIRO Chile), the companies directly, industry associations, and a wide range of relevant consultants (both the global majors and the local specialists).
    - The establishment of SMI-ICE-Chile as the INAP Global Alliance member for Latin America will be presented to CORFO (the Chilean government agency co-funding the Centre with UQ) as a part of its next 3-month planning and forecasting documentation
  - Webinars
    - SMI are in a position to host INAP webinars using Adobe Connect at the University of Queensland
    - Adobe Connect allows multi-point online collaboration between meeting participants, with voice, text chat, desktop / application sharing and video collaboration. With Adobe connect INAP should be able to easily host a webinar for up to 100 people from anywhere. There is also a system bookable for up to 200 people.

- SMI is ready for a trial run. INAP needs to finalize a topic and presenter, timing, identify the audience, date and times.
- A question was raised regarding cost. Is there a cost to INAP for these services or is SMI, as GA member, covering these costs?
- Audience to start webinar series – mentioned that it should be INAP members only and the same webinar could be given at 2 or 3 different times.
- One-hour time slot suggested comprised of a 40-minute presentation followed by a 20-minute question period.
- Initial topic could be the GARD Guide. Would have a general INAP presentation followed by GARD Guide plus specific chapters. The key here being capacity building, educating people on acidic drainage.
- Presenters could include Golder (intro to GARD Guide) plus technical experts.
- Discussions was had on how to advertise for the webinars
- Q2 for the first webinar was mentioned and contact should be made with Rens Verburg regarding the GARD Guide.
- Australian AMD Workshop
  - Planned for Burnie, Tasmania, from 20-23 November 2017. Short courses planned for 19 November. Bruce on the Organizing Committee.
  - Half-day/full-day short course on INAP's Cover Guidance Document proposed. This would be preceded with an intro to INAP and the GARD Guide. A full-day course could also include some examples on how members use the GARD Guide in their organizations.
  - SMI intend to invite Gilles to give a keynote or plenary presentation on INAP
  - Bruce also mentioned the possibility of providing some sponsorship for the workshop, continuing the tradition started for previous workshops. \$3000 AUS was proposed.
  - After further discussion, a motion was proposed to approve Gilles' participation in the AMD Workshop including other INAP meetings in Australia and \$3000 AUS sponsorship for the workshop. **APPROVED.**
- Proposal for an Australian Op Com and Board Meeting around the AMD Workshop
  - Bruce mentioned that over the last 18 months or so, INAP's profile in Australia has started to rise and to further consolidate this, consideration should be given to hosting the next Op Com and Board meetings in conjunction with the AMD Workshop.
  - This point has been raised on a few occasions by INAP company members in Australia.
  - The members agreed that a meeting in Australia would be beneficial and would consider early 2018 as a possibility. Unfortunately, November 2017 was not possible for several members because of other commitments.

**Presentation: Revisions to the Mining Association of Canada's (MAC's) Guide to the Management of Tailings Facilities (Mike Davies, Chair, MAC's Tailings Working Group – via Go-To-Meeting)**

- Update presentation on the status of MAC's tailings guide
- Presentation will be forthcoming in separate email.

Devin Castendyk, Hatch joined the meeting at this time.

**Presentation: Status of the INAP Pit Lake Database / Aerial Drones used to Sample Pit Lake Water, Reduce Monitoring Costs and Improve Safety (Devin Castendyk, Hatch)**

- INAP had asked Devin to include a few slides on the status of the pit lake database.

- He mentioned that about \$20K in funds would be required to complete the needs identified database. **ACTION:** Devin to provide brief proposal to carry out the work identified as “needs”.
- This was followed by a presentation on the use of aerial drones to sample pit lakes, which generated a lot of interest.
- Presentation will be forthcoming in separate emails.

### **Next Op Com Meeting**

- Q4 at a location to be determined.

*Technical Manager’s note: During the Board meeting it was proposed and accepted that the next Op Com and Board meetings be held in Banff, Alberta, November 8 and 9, following the 2017 Tailings and Mine Waste conference.*

Dean Williams thanked all in attendance, formally closed the OP Com meeting and moved on to the Board /AGM Meeting.

### **ACTION ITEMS**

1. Gilles Tremblay to follow-up with SMI on the possibility of SMI-Chile providing translation services of INAP documents to Spanish.
2. Gilles to contact Charles Dumaresq, MEND Chairman to mention the concerns expressed by during the meeting about the MEND Alternative Tailings Study Report and to obtain the latest version from MEND for possible reviews by INAP members.
3. A schedule for review of the Global Cover Guidance Document – O’Kane was established.
  - a. Gilles to contact Rens Verburg to request his participation with the review.
  - b. Report to be distributed to members. Comments requested by end of May.
  - c. Teleconference between INAP members to discuss comments in early June
  - d. INAP response to OKC to be prepared by Rens.
4. Op Com to question Graeme during the Board meeting on the benefits of having three different currencies/accounts and whether it would be better to consolidate into one currency, say USD.
5. Members to provide a set of talking points (five from each was suggested) for internal and external use to communicate the value of INAP.
6. Tiered membership approach to be proposed to the Board of Directors.
7. Gilles to follow-up with Detour confirming their interest in joining as the first member of the tiered approach once approved by the Board.
8. Cynthia to be nominated as the new Chairperson of the Board at the Board of Directors’ meeting.
9. Reach out to IFC to interface with them on their updates to the standards. Cynthia to provide contact name.
10. Devin to provide brief proposal on funding needs to carry out the work identified as “needs” for the pit lake database.

# PDAC 2018

4 different platforms available

## **Sustainability**

2-day program

Thematic issues

Requests for proposals sent out in September

Can be for one, two, or more sessions (in other words half day or full day)

Free for organizer of session, others including speakers pay registration (arrangements can be made for them to attend for presentation only)

AV covered?

In September need only identify area – no details. Have timeline to meet if selected. If you do not meet you lose your place.

CSR Committee select from proposals

## **Technical Sessions**

Most locked down already

Proposal for 2018 went out September 2016

Free for speakers

## **Training**

Short Course (free for organizers)

## **Rent Room**

Information included with marketing material that is handed out

Promotional type event

Full autonomy (2h or 4h or full day rentals)

Marketing session