



# MINING ASSOCIATION OF CANADA

**MINING.CA**

## 2016 Annual Report



The Mining Association of Canada  
ADVOCACY STEWARDSHIP COLLABORATION



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## ABOUT THE MINING ASSOCIATION OF CANADA (MAC)

The Mining Association of Canada (MAC) is the national organization of the Canadian mining industry. It comprises companies engaged in mineral exploration, mining, smelting, refining and semi-fabrication. Member companies account for the majority of Canada's output of metals and major industrial materials.

MAC promotes the interests of the industry nationally and internationally, works with governments on policies affecting minerals, informs the public, and promotes collaboration to solve common issues and foster progress. MAC works closely with provincial and territorial mining associations and other industries, as well as with environmental and community groups across Canada.

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**LET'S CELEBRATE**

Ti  
Titanium

Fe  
Iron

Zn  
Zinc

Cu  
Copper

The 560,000 people that work indirectly and directly in mining. The local and Indigenous communities that we partner with. The people who develop sensible public policy that promotes and regulates our activities. Thank you for making Canada a global leader in mining.

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**CANADIAN MINING**





## MESSAGE FROM THE CHAIR AND THE PRESIDENT AND CEO

Bob Steane, Chair of the Board of Directors, and Pierre Gratton, President and CEO

Cautious optimism is returning to the global mining industry, which could spur mining companies to make new and significant investments. In fact, MAC estimates that potential mining investments of upwards of \$145 billion could be made in Canada within the next decade.

The challenge is turning opportunity into reality, recognizing that Canada is competing against scores of countries for investments. There are many factors that come into play when companies decide where to invest, and the domestic investment and regulatory environments of a jurisdiction are critical considerations.

From reviews of federal environmental legislation, to the pan-Canadian climate change policy, to transportation and infrastructure developments, 2016 saw the new Liberal government undertake significant actions that will impact our industry's competitiveness, positively or negatively depending on how they are implemented.

These policy developments were top-of-mind as we developed MAC's new five-year Strategic Plan. The plan will guide MAC and our members' activities from 2017-2021 as we work towards achieving our vision of a strong, responsible and globally-competitive Canadian mining industry that creates wealth and opportunity for all Canadians. The Strategic Plan includes four pillars that serve as strategic goals: Mining in Society, Regulatory Confidence, Economic Competitiveness, and Leading Voice. These goals outline the industry's opportunities and challenges, and include commitments to build on the many achievements we have made in recent years.

Looking back at 2016, MAC's work was primarily focused on communicating the elements that are integral to our current and future success to the new Liberal government and other key federal decision makers. These elements happen to be shared priorities with the federal government, including the regulatory environment, Indigenous reconciliation, climate change, innovation and infrastructure. The following are highlights of our work in 2016 related to these areas.

Fulfilling an election promise, the Liberal government launched the review of federal environmental and regulatory processes for natural resource projects. MAC welcomed the announcement as the review presents an opportunity to address significant challenges stemming from the 2012 package of regulatory reforms. Throughout the year, MAC engaged in the reviews and participated in various stakeholder forums, including the CEAA 2012 Multi-Interest Advisory Committee that was formed to assist in the review. Drawing from the expertise of our members, MAC developed positions and made formal submissions to present the industry's experience with federal environmental assessment processes, and to identify opportunities to strengthen the system.

In the area of Indigenous affairs, MAC and its members communicated support for a principled, open and transparent approach to government resource revenue sharing between the Crown and Indigenous communities that are primarily affected by a specific resource project. This is reflective of our broader and steadfast commitment to increase the participation of Indigenous peoples in our sector. As an industry that has made significant progress over the past two decades in developing meaningful partnerships with Indigenous communities, MAC and its members are well positioned to be constructive partners to government as it works towards achieving its Indigenous reconciliation goals.

On climate change, MAC and its members released *Principles for Climate Change Policy Design*, notable for its inclusion of support for a broad-based price on carbon. The Principles were developed to inform the government as it drafted the pan-Canadian climate change framework. The document outlines elements of a successful carbon price regime: one that leads to meaningful emissions reductions while simultaneously protecting emissions-intensive and trade-exposed sectors, like mining, and being sensitive to the unique circumstances faced by Canada's remote and northern regions. MAC will remain highly engaged in future developments to the pan-Canadian plan to help ensure that it achieves environmental outcomes while protecting Canadian industries like ours.

On innovation, MAC partnered with the Canada Mining Innovation Council (CMIC) to advocate for federal government support for the Towards Zero Waste Mining innovation strategy.







Bob Steane, Chair of the Board of Directors

MAC and its members have identified CMIC as an important vehicle to drive the development and adoption of technologies that will help the industry reduce emissions, manage risks and improve productivity. We remain hopeful that government will support the mining industry's investments in CMIC to help expedite innovation in our sector.

Last year, significant steps were taken that could potentially address the infrastructure deficit in Canada's North, something MAC has been recommending for many years. In November, the government announced the creation of the Canada Infrastructure Bank and a specific fund for remote and northern communities, which signaled the government's recognition of the challenges faced by remote and northern communities and operations, and the need for strategic investments to address them. The roll-out of infrastructure plans is still to come, but MAC is hopeful that, for the first time, meaningful investments in northern infrastructure may materialize.

Related to infrastructure, of course, is Canada's regulatory regime that governs the country's transportation system. Again, last year saw some positive developments to improve Canada's transportation network—another key element of our competitiveness. The Minister of Transport released the federal government's Transportation 2030 Strategic Plan, which includes a commitment to introduce legislation to address long-standing rail freight policy issues in 2017. As the largest rail freight customer, the mining industry is hopeful that this legislation addresses our sector's top concerns and recommendations. The 2030 Strategic Plan also includes provisions to expand trade-enabling infrastructure investment across Canada.

On marine shipping, MAC worked closely with Transport Canada on global policy developments from the International Maritime Organization (IMO) that have domestic implications. Recent successes in our work with the IMO has resulted in Canada's approval of an improved coal moisture testing method.

In short, 2016 was a very busy year, with a new government bringing forward an ambitious agenda highly relevant to many aspects of Canada's mining sector. As written, many of the recommendations to Government from the various review panels, taken in totality, will result in an unworkable system. The year ahead promises to be at least as demanding – and even more critical – as many of these initiatives move from concept to implementation.

Despite a very busy year on the policy front, MAC did not lose focus on other critical aspects of our business. We are particularly proud of our *Towards Sustainable Mining*® (*TSM*®) initiative, which has now expanded to four countries on four continents. Following the Finnish Mining Association's adoption of *TSM* in 2015, the Argentinean Chamber of Mining Entrepreneurs became the first Latin American jurisdiction to adopt the program in 2016. Early in 2017, the Botswana Chamber of Mines followed suit, becoming the first mining association in Africa to adopt *TSM*. MAC freely shares our *TSM* program with countries seeking tools to improve the environmental and social performance of their domestic mining industries. This sharing of expertise in sustainable mining practices is a powerful way that MAC is helping build capacity within the global mining industry. Global recognition of *TSM* continues to grow, and the program recently caught the attention of Apple and other companies that have identified it as an industry standard that generates robust environmental and social performance information for companies to demonstrate responsible sourcing.





Pierre Gratton, President and CEO

In 2016, MAC completed internal and external reviews of its tailings management requirements and guidance to ensure they continued to contain leading practices and to incorporate lessons learned from the Mount Polley tailings incident.

Throughout the year, MAC's Tailings Working Group and TSM Initiative Leaders, in consultation with the Community of Interest Advisory Panel, identified how to implement the 29 recommendations of the Independent Tailings Review Task Force. As a result, the *TSM Tailings Management Protocol* has been strengthened with new amendments, and a more technical, comprehensive *Guide to the Management of Tailings Facilities* is slated to be finalized in 2017.

MAC also explored new avenues to expand its work in the area of human rights. Following a significant amount of work undertaken last year, in February 2017, MAC and its members announced a new membership commitment consistent with the Voluntary Principles on Security and Human Rights.

This membership commitment, a global first for a national mining association, was announced at the conclusion of Canada's Chairmanship of the Voluntary Principles on Security and Human Rights Initiative. Canada's Ministers of International Trade and Natural Resources commended MAC and its members, noting our leadership and commitments to sustainable and responsible mining practices.

MAC's membership also grew in 2016 with the addition of Victoria Gold, Alexco Resources and Pan American Silver as full members. MAC also welcomed 14 associate members: Quadra Chemicals; SMS Equipment Inc.; CanNorth; Fasken Martineau; SNC Lavalin; McCarthy Tetrault; Borden Ladner Gervais; AECOM; Maxxam Analytics International Corporation; Willis Towers Watson; Des Nedhe Development; NEAS Group; Advisian Worley Parsons Group; and Boart Longyear. MAC's membership is at the highest level in its history, which is indicative of the importance of engaging with federal decision makers to ensure the industry remains competitive on the world stage. It also underscores the important work MAC does, and how more and more mining companies want to be a part of it.

MAC's achievements in 2016 were due to the collective efforts of many people. These individuals include our Board of Directors, Executive Committee and TSM Governance Team, and the committed industry experts who give their time and lend their expertise to MAC committees, task forces and working groups. We also boast one of the strongest association staffs in Ottawa, composed of individuals who are recognized for their expertise and professionalism by government and other associations. With their mix of skills and experience, they deliver tangible outcomes that benefit the entire industry. Their work is much appreciated by the Board and members of MAC.

As a testament to the work of our staff and membership, MAC's records show that 2016 was the most active year on record in terms of advocacy and outreach with government, with more than 200 communications and meetings held with senior federal officials, and Parliamentarians and their staff. MAC's President and CEO, Pierre Gratton, was also once again listed by the *Hill Times* and the *Lobby Monitor* in their 2016 Top 100 Lobbyists List.

For more details on the topics discussed here, and on other aspects of MAC's work, we encourage you to read the *Annual Report* in full. ■





## HIGHLIGHTS

- MAC's TSM initiative expanded to four countries on four continents.
- The *TSM Tailings Management Protocol* was strengthened to ensure it continued to reflect leading practices.
- Working alongside the Community of Interest Advisory Panel, MAC looked for ways to build upon its efforts to address climate change through TSM and beyond.

## REPORT FROM THE CHAIR OF THE TSM GOVERNANCE TEAM

Peter Read, Vice President, Strategic Planning, Syncrude Canada Ltd.

*The Towards Sustainable Mining® (TSM®) Governance Team examines opportunities for improving the mining industry's performance and reputation with key communities of interest.*

### GLOBAL UPTAKE OF TSM

MAC continues to help build capacity within the global mining industry by sharing its expertise in sustainable mining practices. One of the most effective ways MAC and its members have been doing this is by freely sharing the TSM initiative with mining associations in other countries that are seeking tools to improve the environmental and social performance of their mining industries.

In 2015, MAC achieved an important milestone with the Finnish Mining Association's adoption of TSM—the first time a mining association outside of Canada officially signed on to the program. In 2016, the Argentinean Chamber of Mining Entrepreneurs followed suit and became the first Latin American jurisdiction to adopt TSM. Argentina's adoption of TSM represents a significant step forward in cooperation on responsible mining standards between Canada and a very significant mining jurisdiction in Latin America. In February 2017, the Botswana Chamber of Mines became the first mining association in Africa to adopt TSM.

International interest in TSM continues to grow, and MAC is currently engaging with other governments and associations across the globe.

### IMPROVING PERFORMANCE

The 2016 TSM Progress Report shows steady improvement in company results for 2015.

Notable highlights include:

- 85% of facilities have a comprehensive management system for energy use and greenhouse gas (GHG) emissions, compared to 75% in 2014.
- 86% have a robust crisis management plan in place at both the facility and corporate levels, compared to 83% in 2014.
- 95% of facilities engaged in effective and meaningful two-way dialogue with communities of interest, including local Aboriginal communities.
- 100% of facilities implemented a safety and health management system.

### CELEBRATING OUTSTANDING PERFORMANCE

#### TSM Excellence Awards

The TSM Excellence Awards recognize innovative projects that raise the bar for corporate responsibility in the Canadian mining sector and, in 2016, Glencore impressively swept both awards.





Peter Read, Chair of the TSM Governance Team

highest score possible. This incredible achievement is a first in TSM's history as no other mining facility has done this before.

## TSM DEVELOPMENTS AND TRAINING

### ***Tailings Management***

Progress has been made to strengthen the tailings management components under TSM. Over the course of 2016, several amendments to the *TSM Tailings Management Protocol* were approved by the MAC Board of Directors based on recommendations that resulted from internal and external reviews of MAC's tailings management requirements and guidance.

The *Guide to the Management of Tailings Facilities*, which facilities must conform to in order to meet the requirements of the protocol, is also in the process of being revised and is expected to be finalized in the summer of 2017.

Detailed information about changes to MAC's tailings management requirements and guidance is provided in the report of the Tailings Working Group (page 21).

### ***Crisis Management***

In 2016, MAC updated the *TSM Crisis Management Planning and Communications Protocol* and the associated reference guide to ensure they reflected current leading practices in this area. Revisions were also made to provide clarity to companies and verifiers.

### ***Safety and Health***

The review of the *TSM Safety and Health Protocol* was also completed in 2016. The review focused on incorporating lessons learned from the first few years of implementation of the protocol. This review resulted in several enhancements to the protocol.

### ***Water Stewardship***

Throughout the year, MAC and the TSM Governance Team explored the possibility of developing a new protocol on water stewardship.

Glencore's Kidd Operations was recognized with the 2016 *TSM Community Engagement Excellence Award* for helping local non-profits secure long-term sustainability through its Community Partnerships program in Timmins, Ontario. Glencore's Raglan Mine was awarded the 2016 *TSM Environmental Excellence Award* for its successful use of renewable energy with its wind turbine and accompanying storage facility in northern Quebec, the largest in the province.

### ***TSM Leadership Awards***

In 2016, six mining facilities operated by Hudbay Minerals, New Gold, Teck Resources and Vale were recognized with *TSM Leadership Awards*. The award is granted only when a facility meets or exceeds a Level A ranking for all indicators under TSM's six protocols. To be eligible for a *TSM Leadership Award*, a facility's results must have been externally verified.

In 2016, Teck's Elkview Operations not only achieved a *TSM Leadership Award* for a second time, but it did so by achieving Level AAA performance for all indicators—the highest score possible. This incredible achievement is a first in TSM's history as no other mining facility has done this before.







In 2017, MAC will work with the Community of Interest Advisory Panel and water experts to develop a potential *TSM Water Stewardship Protocol*.

### *Training Workshops*

In 2016, MAC continued to provide *TSM* training for its members. This included workshops for Goldcorp's Eleonore mine in Quebec, Goldcorp's Red Lake mine in Ontario, Vale's Voisey's Bay mine in Newfoundland and Labrador and Vale's Long Harbour Processing Plant. MAC also organized a Verification Service Providers' training workshop in September.

### WORK OF THE COMMUNITY OF INTEREST ADVISORY PANEL

The Community of Interest (COI) Advisory Panel played a key role in *TSM*'s design from the very beginning, and continues to be integral to its evolution and implementation. The COI Panel is an independent, multi-interest group that advises MAC on the *TSM* initiative and identifies emerging issues or concerns relevant to the mining sector.

The Panel meets regularly throughout the year, including two in-person meetings annually. These meetings are an opportunity for the Panel to provide input into *TSM* developments, to conduct its annual review of a sample of companies' verified *TSM* performance results and to discuss topics of shared interest with members of the MAC Board. In 2016, the Panel chose to focus on three main priorities: tailings management, climate change and community engagement.

On tailings management, the COI Panel reviewed the recommendations of MAC's Tailings Working Group and the Independent Tailings Review Task Force. The Panel provided valuable input on how to address the recommendations, especially as they related to community engagement.

With the Liberal government's renewed focus on climate change and the launch of its pan-Canadian framework, the Panel agreed it was an opportune time to examine how MAC and its members have been addressing climate change. The Panel's meetings included sessions on climate change featuring experts in the field and within the federal government. The Panel's work in this area culminated into an advisory statement to MAC on climate change, released in November. The statement recommends several actions that the Panel would like MAC and its members to take to build upon the industry's efforts and commitments in this space over the past two decades. The statement also acknowledged MAC's recent *Principles for Climate Change Policy Design* as a demonstration of MAC and its members' commitment to being constructive partners to government in the fight against climate change. Throughout 2017, MAC has been consulting experts within its membership on each of the Panel's recommendations and will be updating the Panel on next steps as developments are made.

Over the past two years, the COI Panel has taken an increased interest in what makes community engagement mechanisms effective. In 2016, the Panel established a Task Force to initiate work in this area. During the March meeting, the Task Force presented on examples of effectiveness indicators that companies could use to evaluate their systems. Working with the *TSM* Initiative Leaders, the Task Force conducted a detailed review of the *TSM Aboriginal and Community Outreach Protocol* and developed a set of recommendations for MAC to consider when the protocol is due for its scheduled review, likely in 2018.

Each year, the COI Panel conducts a review of a sample of companies' verified results to analyze company systems and practices. At the October meeting, the Panel reviewed the 2015 results of Hudbay Minerals and Suncor Energy. ■

→ For more information about *TSM* and to download the latest edition of the *TSM Progress Report*, visit: [www.mining.ca/tsm](http://www.mining.ca/tsm)





## HIGHLIGHTS

- Committee work focused on the reviews of federal legislation, including the *Canadian Environmental Assessment Act*, the *Fisheries Act*, the *Navigation Protection Act* and the *Canadian Environmental Protection Act*.
- A MAC Reviews Task Force was formed to support and coordinate MAC engagement in all the legislative reviews.
- MAC advocacy to revive effective multi-stakeholder forums was successful, resulting in the announcement of the Species at Risk Advisory Committee and the Multi-Interest Advisory Committee.

## ENVIRONMENT COMMITTEE

Chair: Mark Freberg, Director, Permitting & Closure, Teck Resources Limited

*The Environment Committee addresses general environmental issues and legislation affecting the industry.*

In 2016, the Environment Committee met jointly with the MAC Science Committee in Ottawa in February, May and October. Committee meetings were augmented with informational webinars and by work through task forces.

The Committee's work in 2016 focused on engaging in the suite of federal legislative reviews initiated in mid-year, all of them critical to the future of the industry. The Committee continued its work related to the *Species at Risk Act* and also worked on air pollution, climate change, the Chemicals Management Plan, Federal Environmental Quality Guidelines, *Environmental Emergency Regulations* and the National Pollutant Release Inventory. The Committee engaged with officials of Environment and Climate Change Canada, Fisheries and Oceans Canada, the Canadian Environmental Assessment Agency and Health Canada, as well as with Indigenous and environmental non-government organizations and developers of promising technology.

### SPECIES AT RISK ACT

Throughout 2016, MAC's SARA Task Force on the *Species At Risk Act* (SARA) remained active and focused on monitoring issues related to both Southern Mountain Caribou and Boreal Woodland Caribou, responding to the suite of seven draft SARA policies released for consultation in September 2016, and monitoring the release of proposed SARA Recovery Strategies and Management Plans.

The SARA Task Force also provided guidance to a co-op student who was hired to work with NatureServe Canada and its network of Conservation Data Centres to better understand how companies can add wildlife data generated through baseline studies and environmental assessments to its database, and how the database can help MAC understand the state of data for relevant SARA-listed species. The student worked with the Conservation Data Centres to gain access to the data for 33 priority species on Environment and Climate Change Canada's three-year Recovery Strategy Posing Plan and mapped the data using GIS software. Not only did this project help MAC better understand the state of data for this sub-set of species, it also helped the association establish relationships with each of the Conservation Data Centres.

Throughout 2016, MAC continued to advocate for the revival of the Species At Risk Advisory Committee (SARAC) and welcomed Environment and Climate Change Canada's decision to renew it. MAC is an active member of the SARAC, which is providing a forum to explore solutions to our concerns and contribute to improved implementation of the Act.

### CANADIAN ENVIRONMENTAL ASSESSMENT ACT

In 2016, the federal government announced an Expert Panel to review federal environmental assessment processes, and announced the formation of a Multi-Interest Advisory Committee (MIAC), which MAC had been advocating for and was invited to participate in.





The MAC Reviews Task Force developed comments on the terms of reference for the Expert Panel, and developed a comprehensive submission to the Panel based on the mining industry's extensive experience with the *Canadian Environmental Assessment Act* (CEAA) as well as provincial project assessment processes.

Along with substantive recommendations and analysis of problems experienced by the mining industry with the current federal process, MAC advocacy continued to stress in all the legislative reviews the need for transition planning, and adequate capacity for implementation of any legislative changes.

Throughout the year, MAC assisted members with projects undergoing assessments under the current Act, sought clarification of interim changes announced early in the year and submitted comments on draft conditions.

### FISHERIES ACT

The government requested the House of Commons Standing Committee on Fisheries and Oceans to review the habitat provisions of the *Fisheries Act* amended in 2012. The MAC Reviews Task Force developed a presentation for MAC's appearance before the House Committee, which explained the industry's experience with the 2012 amendments, emphasizing that application to the mining industry had not been reduced. The presentation also noted the difficulties and delays caused by inadequate transition provisions and departmental capacity in the implementation of those amendments.

### AIR POLLUTION

The MAC Environment Committee is monitoring the work of the Canadian Council of Ministers of the Environment (CCME) on air quality. MAC shares with other associations a representative on a CCME expert advisory group for the development of Canadian Ambient Air Quality Standards (CAAQS). CCME work in 2016 focused on NO<sub>2</sub>, and new SO<sub>2</sub> CAAQS were adopted. Along with other industries, MAC conveyed to the CCME concerns about inadequacy of information sharing as well as inappropriate application of CAAQS by some provinces.

### CANADIAN ENVIRONMENTAL PROTECTION ACT

The House of Commons Committee on Environment and Sustainable Development initiated a review of the *Canadian Environmental Protection Act* (CEPA). The MAC CEPA Task Force prepared a presentation for MAC's appearance before the House Committee, describing the special characteristics of metals as ubiquitous natural substances, many of which are essential to life.

The Committee also initiated work with the National Pollutant Release Inventory (NPRI) secretariat on quality assurance of data submitted by the mining sector. The cooperation resulted in more entry errors being caught and corrected before the annual inventory was finalized.

The Committee continued dialogue with Environment and Climate Change Canada officials about the process for developing Federal Environmental Quality Guidelines. Late in the year, the government announced that it would publish draft Guidelines for public comment.

As well, the Committee continued discussion with officials in preparation for the third phase of the Chemicals Management Plan (CMP), developed comments on the CMP draft assessment of boric acid, and cooperated with officials in the gathering of information for the CMP assessment of complex mixtures that arise during smelting and refining.

### OTHER ACTIVITIES

To boost its effectiveness, MAC belongs to several formal and informal industry and multi-stakeholder groups. Lyle Safronetz (Vale) represented MAC on the Workplace Hazardous Materials Information System Current Issues Committee. Justyna Laurie-Lean (MAC) was the representative on the Industry Coordinating Group on CEPA, the Environmental Health Industry Coordinating Group, the Industry Steering Committee on Clean Air and Climate Change, the North American Metals Council, and multi-stakeholder National Pollutant Release Inventory Work Group. ■

→ For more information on MAC's environmental initiatives and the reduction of releases from member facilities, please see the latest TSM Progress Report, available at [www.mining.ca/tsm](http://www.mining.ca/tsm)





## HIGHLIGHTS

- Targeted outreach and relationship building with newly-appointed decision makers with responsibility for Indigenous issues under the new government.
- Enhanced monitoring and engagement in the implementation of the extensive Liberal policy agenda relating to Indigenous peoples.
- Continued partnership with the Macdonald-Laurier Institute on its research project, *Aboriginal People and the Natural Resource Economy in Canada*.
- Participation in several Aboriginal business development fora to promote increased Aboriginal inclusion and opportunities in the mining sector.

## ABORIGINAL AFFAIRS COMMITTEE

Chair: Kara Flynn, Vice President, Government and Public Affairs, Syncrude Canada Ltd.

*The Aboriginal Affairs Committee (AAC) works to identify, evaluate and offer informed advice to the MAC Board of Directors on strategies to foster and strengthen the relationship between Aboriginal people and the mining industry in Canada.*

The Liberal government was elected on a platform that included ambitious pledges to “complete the unfinished work of Confederation”, through a “renewed, nation-to-nation relationship with Aboriginal communities”, and the acceptance and enactment of all recommendations of the Truth and Reconciliation Commission, including the implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

The potentially far-reaching implications of these pledges on federal policy that intersects with mining sector activities and interests cannot be understated. Foremost among them are federal environmental assessment processes that the Liberals also pledged to review and amend. The AAC worked closely with MAC’s Reviews Task Force to ensure the significant expertise and experience of AAC members supported the development of MAC’s positions and responses to consultations on key Acts and subsequent touchpoints.

The AAC and MAC continued to engage with the Macdonald-Laurier Institute (MLI) on its multi-year research project, *Aboriginal People and the Natural Resource Economy in Canada*. MLI’s most recent paper, *How to Reignite the Ring of Fire and Mining in Northern Ontario*, provides an overview of ongoing challenges and opportunities for First Nations, businesses and government in Northern Ontario’s mining sectors.

## ADVOCACY ACTIVITIES

In 2016, MAC advocacy activities relating to Aboriginal affairs focused on the roll-out of individual Liberal election pledges and their potential impacts on Crown consultation policies, guidelines and consultation in practice, and coordination between provincial/territorial and federal governments. The AAC also renewed focus on the Truth and Reconciliation Commission’s Call to Action to Corporate Canada (#92), and implications relating to the operationalization of UNDRIP and its definition of Free, Prior and Informed Consent (FPIC).

Throughout the year, MAC undertook advocacy to raise awareness of the AAC-developed policy statement on Government Resource Revenue Sharing (GRRS), released publicly in February 2016. The statement communicated MAC members’ support for a principled, open and transparent approach to GRRS between the Crown and Aboriginal communities. It also underscored that GRRS is the sharing of resource royalties paid by industry to governments with Aboriginal communities, and not an additional tax or royalty imposed on the industry.







MAC continued to advocate for clarity with respect to industry reporting requirements under the *Extractive Sector Transparency Measures Act* (ESTMA), which requires mining companies to disclose payments made to Aboriginal governments and entities in Canada and around the world.

Given that the mining industry is, proportionally, the largest private sector employer of Aboriginal people in Canada, MAC continued to advocate for enhanced government support for Aboriginal skills training initiatives, including the Aboriginal Skills and Employment Strategy and other programs. The potential for a significant increase in Aboriginal employment remains strong, but essential skills training and education investments are required.

In light of the Canadian mining industry's commitment to increasing Aboriginal participation in our sector, MAC also lent its support to the National Indigenous Guardians Network, which was seeking federal government support to launch Indigenous Guardians programs in Canada. The Guardians are trained Aboriginal environmental monitors, and there have been successful programs within the mining sector, including at several of Rio Tinto's operations in Australia and at Vale's Voisey's Bay Mine in Canada. In Budget 2017, the federal government committed \$25 million to support the Network, which will hopefully provide the foundation for hundreds of future Guardian programs that can be deployed across Canada and more broadly within the mining sector.

### OUTREACH ACTIVITIES

Throughout 2016, MAC participated in targeted outreach activities and events with the objective of enhancing relationships with key Aboriginal organizations, communities and leaders, including the Canadian Council of Aboriginal Business, the Aboriginal Human Resource Council, and the Canadian Aboriginal Minerals Association.

MAC continues to support Indspire, an Indigenous-led charity that is improving educational opportunities for First Nation, Inuit and Métis students through various initiatives. MAC was a sponsor of the 2017 Indspire Awards, an annual event broadcasted nationally that celebrates accomplished Indigenous individuals. ■





## HIGHLIGHTS

- MAC's government relations and public affairs strategy was focused on communicating the Canadian mining industry's challenges, opportunities and contributions to the new federal government.
- 2016 was the most active year for MAC's advocacy and outreach with government, with more than 200 communications and meetings with senior federal officials, and Parliamentarians and their staff.
- Successful *Mining Day on the Hill* lobby day, through which MAC members met directly with Parliamentarians and senior government officials from a wide range of federal government departments relevant to the mining industry.

## PUBLIC AFFAIRS COMMITTEE

Chair: Tom Ormsby, Head of External and Corporate Affairs, De Beers Canada

*The Public Affairs Committee provides advice and guidance on MAC's public affairs and communications programming.*

### FEDERAL ADVOCACY

The Public Affairs Committee (PAC) was instrumental in the development of MAC's pre- and post-election government relations strategy, which focused on activities and priorities leading up to, during and after the October 2015 election. The strategy supported enhanced early engagement of key players in the newly-elected Liberal government, a top priority throughout 2016.

A significant amount of the committee's work focused on developing materials to educate the new government on the Canadian mining industry's opportunities and challenges. The Committee closely monitored policy developments and identified areas of industry alignment with government policy objectives, including climate change, sustainable development, reconciliation with Canada's Indigenous Peoples and innovation.

MAC made several announcements in 2016 that aligned with the new government's priorities. In February, MAC and its members issued a position statement communicating support for a principled, open and transparent approach to government resource revenue sharing between the Crown and Aboriginal communities that are primarily affected by a specific resource project.

In April, MAC and its members released *Principles for Climate Change Policy Design*, notable for its inclusion of support for a broad-based price on carbon. The *Principles* were developed to inform the government as it drafted the pan-Canadian climate change framework. The *Principles* document outlines elements of a successful carbon price regime: one that leads to meaningful emissions reductions while simultaneously protecting emissions-intensive and trade-exposed sectors, like mining, and being sensitive to the unique circumstances faced by Canada's remote and northern regions.

On innovation, MAC partnered with the Canada Mining Innovation Council (CMIC) to advocate for federal government support for the Towards Zero Waste Mining innovation strategy. MAC and its members have identified CMIC as an important vehicle to drive the development and adoption of technologies that will help the industry reduce emissions, manage risks and improve productivity.

In 2016, following through on an election promise, the Liberal government announced a review of federal environmental and regulatory processes for natural resource projects. MAC welcomed the announcement as the review presents an opportunity to address significant challenges stemming from the 2012 package of regulatory reforms. Throughout the year, MAC engaged in the reviews and participated in various stakeholder forums, including the CEAA 2012 Multi-Interest Advisory Committee that was formed to assist in the review.





Drawing from the expertise of our members, including the PAC and other committees, MAC developed positions and made formal submissions to present the industry's experience with federal environmental assessment processes, and to identify opportunities to strengthen the system.

MAC's lobbying records show that 2016 was the most active year on record in terms of advocacy and outreach with government, with more than 200 communications and meetings held with senior federal officials, and Parliamentarians and their staff. MAC's President and CEO, Pierre Gratton, was also once again listed by the *Hill Times* and the *Lobby Monitor* in their 2016 *Top 100 Lobbyists List*.

### COMMUNICATING THE INDUSTRY'S CHALLENGES AND OPPORTUNITIES

By the end of 2016, cautious optimism was beginning to return to the global mining industry brought on by an uptick in prices for some commodities. Despite this welcome news, MAC continued to underscore the importance of the domestic regulatory and fiscal environment to Canada's ability to attract new mineral investment.

From reviews of federal environmental legislation, to the pan-Canadian climate change policy, to transportation and infrastructure developments, 2016 was an active year for federal policy developments relevant to mining. The government's actions and decisions in these areas continue to be a top concern and will impact the sector's competitiveness, positively or negatively depending on how they are implemented. As such, MAC and its members have been urging the federal government to:

- **Improve the federal project review process:** *The process should be effective and timely, from pre-environmental assessment (EA) to post-EA permitting, with meaningful consultation with Indigenous communities.*
- **Invest in critical infrastructure in remote and northern regions:** *Introduce strategic tax measures and ensure the new Canada Infrastructure Bank, announced in 2016, has a strong economic development focus for northern Canada.*
- **Improve Canada's Transportation Network:** *Improvements should be made to more efficiently move mineral and metal products to market, by enhancing data transparency in the rail freight market and addressing key policy challenges in upcoming legislation.*
- **Address climate change while protecting Canadian businesses:** *Adopt policies that lead to meaningful greenhouse gas emissions reductions while protecting emissions-intensive and trade-exposed industries.*
- **Improve access to trade:** *Defend Canadian trade interests and expand access to new and important markets, such as China, India, Japan and the TPP jurisdictions.*
- **Help expedite industry innovation:** *Make funds available for mining innovation investments that support the transition to a lower carbon future. This includes funding for CMIC's Towards Zero Waste Mining™ innovation strategy.*
- **Support mining's contributions to Indigenous reconciliation:** *All of the above will determine whether and the extent to which the mining industry can continue to grow its contributions to Indigenous communities through economic reconciliation.*

### MAC EVENTS

#### National Mining Week

To introduce MAC and its members to the new government, MAC held a lobby day during the 20<sup>th</sup> annual National Mining Week in May 2016. MAC members participated in 25 meetings with Ministers and MPs and their staff to introduce them to MAC and the industry, and to discuss current challenges and opportunities.

MAC also partnered with Natural Resources Canada and the Prospectors & Developers Association of Canada on the third annual Mineral Outlook Dialogue Conference, also held during National Mining Week. The event brought together senior government officials and industry representatives to discuss key policy areas related to innovation, the regulatory environment, Aboriginal participation in mining, and international trade and development.





### ***Mining Day on the Hill and Annual Reception***

MAC's flagship *Mining Day on the Hill* event, held in November 2016, involved approximately 50 MAC delegates from across the country. Together, 12 delegate teams participated in approximately 50 meetings with federal government officials, Parliamentarians and Ministerial staff across the National Capital Region.

This theme for the 2016 Mining Day was *The Foundation of Canada's Future*. It acknowledged the mining industry's role as a bedrock of the Canadian economy, and the powerful role it can play in Canada's future and in the transition to a low-carbon economy.

The Mining Day program concluded with MAC's annual reception, which was well attended by industry representatives, stakeholders, government officials and Parliamentarians. Parliamentary Secretary to the Minister of Natural Resources, MP Kim Rudd, shared congratulatory remarks and highlighted the importance of mining to the government's mandate.

### **SPEAKING EVENTS**

The PAC helps identify speaking opportunities at key mining events and functions and supports MAC events through their attendance, promotion and, at times, sponsorship. Throughout the year, MAC participated in several mining conferences across Canada, including the PDAC Convention, CIM Convention, Nunavut Symposium, AME BC's Mineral Exploration Roundup, the Energy and Mines Ministers' Conference, and the South Africa Indaba Mining Conference. MAC's President and CEO, Pierre Gratton, delivered several keynote speeches at regional chambers of commerce and conferences, including the Canada Aboriginal Minerals Association Conference.

### **CANADIAN MINING CAMPAIGN**

MAC's 2016 campaign achieved more than 28 million impressions and showcased the Canadian mining industry's connection to green technologies and modern products, direct and indirect mining careers, the industry's strong employment record of Aboriginal peoples, and our members' commitments to reclamation and environmental stewardship.

### **ANNUAL OPINION POLLING ON CANADIAN ATTITUDES ON MINING**

To understand how Canadians view our sector, MAC conducted its fifth annual national public opinion poll in 2016. The PAC assisted MAC in updating the questions, and assessing the findings to inform MAC's activities and priorities in the year ahead. Results continued to indicate that Canadians have a favourable view of the industry, its vast economic and societal contributions to Canada, and its role in providing the building blocks of useful, modern products.

Canadians expressed support for a healthy and growing mining industry, and one that is adopting best practices in protecting the environment, engaging with communities and operating under a robust regulatory system.

### **PUBLICATIONS**

Throughout the year, MAC issued seasonal newsletters to communicate new developments in the industry and positive news from MAC and its member companies. The newsletter is circulated to Ottawa-based decision-makers in a high-quality print format, and electronically to industry stakeholders across the country.

The 2016 edition of MAC's flagship publication, *Facts and Figures*, was launched in February 2017. All publications are available at [www.mining.ca/reports](http://www.mining.ca/reports).

### ***Paul Stothart Memorial Scholarship in Mineral Economics***

In 2016, Alexander Pritchard (University of Ottawa) was selected as the recipient of the Paul Stothart Memorial Scholarship in Mineral Economics (\$3,500 value).

The scholarship was established in 2012 from the generosity of MAC member companies in memory of the late Paul Stothart, MAC's former Vice President of Economic Affairs, and is awarded annually. For eligibility and application requirements, please visit [www.mining.ca/scholarship](http://www.mining.ca/scholarship). ■







## HIGHLIGHTS

- MAC engaged with Environment and Climate Change Canada (ECCC) on proposed amendments to the *Metal Mining Effluent Regulations* (MMER). MAC also advocated for flexibility in meeting the MMER requirement in cases where saline effluent is discharged to a saline environment, resulting in ECCC proposing a potential path forward to address the matter.
- MAC engaged with government regarding concerns about the delays in the regulatory process used to add water bodies to Schedule 2 of the MMER.
- MAC supported the Canada Mining Innovation Council's request for Government of Canada funding for the Towards Zero Waste Mining™ innovation strategy.
- MAC is an active supporter of key environmental initiatives, including the National Orphaned and Abandoned Mines Initiative, Canadian Ecotoxicology Workshop, and the Mine Environment Neutral Drainage program.

## SCIENCE COMMITTEE

**Chair: Kent England, Manager, Environment and Licensing, Cameco Corporation**

*The primary focus of the Science Committee is the application of sound science and technology towards mitigating and/or minimizing the impacts of mining on aquatic and terrestrial ecosystems.*

During 2016, the MAC Science Committee met jointly with the MAC Environment Committee in February, May and October to collaborate on issues related to the *Fisheries Act*, the *Metal Mining Effluent Regulations* (MMER) and the Environmental Effects Monitoring (EEM) Program.

### METAL MINING EFFLUENT REGULATIONS

The multi-stakeholder consultation process for the 10-year review of the MMER, initiated by Environment Canada in 2012, concluded in April 2015. The review considered whether diamond and coal mines should also be regulated, whether new parameters should be added to the MMER, whether to make the limits for currently regulated parameters more stringent, and how to improve the EEM program that is required by the MMER.

MAC was highly engaged with ECCC officials and Ministerial staff on this file throughout 2016. In May, ECCC officials provided an update on the expected MMER amendments to the MAC Environment and Science Committees. During that briefing, ECCC officials indicated that they planned to release a more detailed document describing the proposed amendments in the summer of 2016, and that they expected to pre-publish the proposed amendments in the *Canada Gazette*, Part I, in fall 2016.

Throughout the year, MAC engaged with ECCC on issues of concern related to the proposed amendments, most notably on:

- *ECCC's proposal for a new effluent discharge limit for un-ionized ammonia, which would be lower than the limit in the existing Wastewater Systems Effluent Regulations. MAC expressed concern about the lack of demonstrated evidence from ECCC of environmental benefit, and the questionable technical merit of such a limit.*
- *The proposed requirement that effluent be non-acutely lethal to *Daphnia magna*. Many members have experienced random test failures that are related to laboratory issues and not effluent quality. MAC's efforts were focused on achieving some compliance flexibility so that enforcement action would not be taken on the basis of test failures not attributable to the effluent.*





- *ECCC informed MAC that they are proposing to add a requirement to measure selenium in fish tissue if selenium in effluent is above a specified concentration. Such a proposal was not part of the suite of recommendations that MAC understood had been agreed to at the conclusion of the MMER Review. MAC expressed this concern, and pressed ECCC for details regarding this proposed requirement.*

The detailed document describing the proposed MMER amendments was not released by ECCC until late December 2016. Initial analysis identified some potential areas of concern, and more detailed analysis and response will be undertaken in 2017. As of late 2016, ECCC expected to pre-publish the proposed amendments in the *Canada Gazette*, Part I, in spring 2017.

A new issue emerged that was not addressed as part of the MMER Review, and impacts two proposed projects in Nunavut. Both companies are proposing to discharge saline mine water into nearby marine environments, but due to the salinity, their effluent would fail acute lethal tests on rainbow trout, a freshwater species.

There is no regulatory flexibility in the MMER to use an alternate species appropriate for testing of saline waters being discharged into saline environments, although the Reference Method for conducting acute lethality tests on rainbow trout allows for the use of an alternative in such circumstances.

MAC worked closely with both companies to seek a resolution to this issue. ECCC officials proposed a path forward to address this matter in the context of the proposed MMER amendments related to the MMER Review. However, addressing this matter is very time sensitive for both companies, and concern was expressed about the potential impact on their proposed operations if the amendments are delayed.

#### METAL MINING EFFLUENT REGULATIONS - SCHEDULE 2

The MMER include a mechanism to allow water bodies that are frequented by fish to be used for the management of mine tailings and waste rock. Since 2002, the legal mechanism to do this has been to amend the Regulations to add the water body to Schedule 2 of the Regulations. Under the previous 1977 *Metal Mining Liquid Effluent Regulations* (MMLER), Ministerial approval was required.

The vast majority of water bodies added to Schedule 2 since 2002 have been small ponds or creeks, or portions of creeks. At many proposed Canadian mines, the size of planned tailings facilities is such that it would not be possible to find a suitable location for a tailings facility that would not impact a fish-frequented water body.

The current legal mechanism is very cumbersome, and has been taking longer and longer to complete. In 2011, amendments associated with a proposed mine in British Columbia were completed in 11 months, but since that time, the process has taken much longer, with three more recent amendments taking between 27 and 37 months.

MAC members with projects in the Schedule 2 “pipeline” are very concerned about these timelines and the associated regulatory uncertainty.

In 2016, MAC engaged with ECCC officials and Ministerial staff, as well as the Major Projects Management Office on this matter, and voiced concern about delays impacting the Schedule 2 projects. MAC has emphasized that we fully support the need to adequately address technical and consultation elements critical to the Schedule 2 decision. Specifically, the project proponent must rigorously assess alternatives for mine waste disposal; a proposed fish habitat compensation plan must be developed; and the Crown must hold consultations on the proposed MMER amendments.

MAC emphasized that our concern is with the amendments process that comes after these technical and consultation elements have been addressed. In a letter to Minister McKenna, MAC advocated for consideration of alternatives or modifications to the current Schedule 2 regulatory framework that would:

- *Examine ways to improve the current process for application to projects with higher risk or impacts; and*





→ Consider alternative legal mechanisms to allow the use of water bodies for mine waste management for projects with lower risks and impacts.

Any such changes would take time to develop and implement. In the interim, MAC stressed to officials that it is imperative that timelines for the current regulatory process be reduced. The current situation is untenable, and will have significant economic impacts on the mining industry and those Indigenous and non-Indigenous communities that depend on the mining industry.

#### CANADA MINING INNOVATION COUNCIL

The Canada Mining Innovation Council (CMIC) is a national non-profit organization that is working to develop and implement strategies for investment in mining research, development and innovation (RDI) in Canada. One of CMIC's key programs is Towards Zero Waste Mining™, aimed at stimulating technology innovation in Canada to achieve zero waste in the industry within 10 to 20 years, with an integrated focus on productivity, energy and the environment. The approach will foster a gradual progression and adoption of innovative technologies, promoting more efficient and sustainable operations and reducing the environmental impact of mining projects.

As a supporting member of CMIC, MAC is represented on the CMIC Board of Directors and the CMIC Environment Committee. MAC works with CMIC to facilitate advocacy meetings with senior levels of government.

MAC is supporting CMIC's bid for funding through the Government of Canada's commitment to investing \$200 million annually to create sector-specific strategies that support innovation clusters and clean technologies.



Glencore's wind turbine and energy storage facility at the Raglan Mine in northern Quebec.



### NATIONAL ORPHANED AND ABANDONED MINES INITIATIVE

The National Orphaned and Abandoned Mines Initiative (NOAMI) works towards supporting policy development to eliminate future mine abandonment, and improved mine closure and remediation. NOAMI also provides education and engagement opportunities for Aboriginal communities. MAC supports NOAMI as a member of its Advisory Committee, and provides administration and financial support.

A major focus of NOAMI is on relinquishment, or the return of mined lands to the Crown. Since 2013, NOAMI has published three reports on the topic. The first presented case studies, the second presented criteria to assess the condition of sites, and the third evaluated needs for long-term monitoring and maintenance of sites, and the associated costs. These reports can be found on NOAMI's website at [www.abandoned-mines.org](http://www.abandoned-mines.org).

NOAMI has also been working to finalize a national inventory of active and inactive mine sites. The inventory will provide an overview and a portal to existing provincial and territorial databases. Such an inventory is important to the development of sound policy, and cost-effective planning for clean-up. The inventory was released publicly in early 2017.

### CANADIAN ECOTOXICOLOGY WORKSHOP

MAC is represented on the Advisory Committee of the Canadian Ecotoxicology Workshop (CEW), and in 2016, MAC co-chaired a technical session on mining at the annual workshop, which took place in Edmonton, Alberta. There were nine presentations given in the session, and several other mining-related presentations in other technical sessions.

The technical session was well received, and MAC plans to co-chair a similar technical session at CEW 2017 in Guelph, Ontario.

### MINE ENVIRONMENT NEUTRAL DRAINAGE PROGRAM

Since its establishment in 1989, the Mine Environment Neutral Drainage (MEND) program has served as a credible driver of research to enhance understanding of acidic drainage and its prevention. It has accomplished this through a strong focus on innovative, peer-reviewed research driven by a multi-stakeholder steering committee that has maintained two objectives: increasing information and technology transfer. MEND has made great progress in addressing research priorities identified by the Canadian mining industry, civil society, and federal, provincial and territorial governments.

MAC chairs the multi-stakeholder MEND Steering Committee and is the sole source of funding for MEND. These funds act as seed capital to fund research proposals, and for many MEND projects. Funds contributed by MAC are matched or exceeded by monies and/or in-kind contributions from other organizations, including companies, consultants, universities and government departments.

In 2015, MEND initiated a study of tailings management practices. This project will conduct a detailed examination of alternatives to conventional slurry for the management of tailings (i.e., thickened, paste and filtered tailings) and will document the strengths, limitations and risks of these alternative technologies, as compared to conventional slurry. By the end of 2016, the report was nearing completion.

MEND is supporting a University of Toronto led genomics study to increase the understanding of the degradation of thiosalts in treatment systems at the microbial level. This project, with funding from Genome Canada, is also supported by Glencore and Hudbay, and the research is being conducted at Glencore's Sudbury operations. ■





## HIGHLIGHTS

- The TWG worked to strengthen MAC's tailings management requirements and guidance based on the recommendations identified during internal and external reviews.
- Reflective of MAC's global reputation as a leading expert and contributor to tailings management, MAC was invited to present at several mining conferences and tailings fora in Canada and internationally.

## TAILINGS WORKING GROUP

Chair: Mike Davies, Vice President, Environment, Teck Resources Limited

*The Tailings Working Group (TWG) reviews the management of tailings and mine waste to allow the identification of best practices that can then be used to develop industry guidelines for the safe and environmentally-responsible operation of tailings and water management facilities. The TWG also promotes effective facility management and risk assessment at MAC member facilities and throughout the broader mining industry. The TWG contributes to MAC's Towards Sustainable Mining® (TSM®) initiative, specifically with the development and implementation of the TSM Tailings Management Protocol, and with joint delivery of tailings management workshops.*

### TAILINGS MANAGEMENT REVIEWS AND REVISIONS

In 2016, MAC's Tailings Working Group (TWG) undertook revisions to MAC's *Guide to the Management of Tailings Facilities*. These revisions were based on the results and recommendations of internal and external reviews of MAC's tailings management requirements and guidance. These reviews were undertaken by the TWG and an Independent Tailings Review Task Force, which was commissioned by the MAC Board of Directors shortly after the tailings dam foundation failure at the Mount Polley Mine in 2014. The tailings management component of TSM is comprised of the *TSM Tailings Management Protocol* and MAC's three tailings guides:

- *A Guide to the Management of Tailings Facilities;*
- *Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities; and*
- *A Guide to the Audit and Assessment of Tailings Facility Management.*

Revisions to the *Guide to the Management of Tailings Facilities* (Tailings Guide) were undertaken in collaboration with the TSM Governance Team and the TSM Initiative Leaders, and were concurrent with revisions to the *TSM Tailings Management Protocol*, which were undertaken by the TSM Initiative Leaders. The amendments to the protocol address the priority recommendations of the independent Task Force and additional areas of strengthening identified by the TWG and TSM Initiative Leaders.

#### Highlights of changes include:

- *Stronger audit requirements;*
- *Action plans that outline how mines will achieve the minimum good practice performance level, which will be published in the annual TSM Progress Report;*
- *Ensuring that tailings management policy and commitments are communicated effectively and are well understood by employees with direct and indirect responsibility for the safety of tailings facilities;*
- *Elevating responsibility for tailings management to the highest level of the company (i.e. Board of Directors);*





- *A new application process that requires new members to conduct a gap analysis of their tailings management system against the TSM Tailings Management Protocol upon joining the association; and*
- *Criteria related to community of interest engagement on tailings-related issues have been incorporated into the TSM Aboriginal and Community Outreach Protocol. The requirements have also been expanded to include engagement on all identified risks to the community.*

Revisions to the Tailings Guide took into consideration available materials related to both the tailings facility incidents at the Mount Polley Mine in British Columbia and the Samarco Mine in Brazil to allow inclusion of any key learnings from these events. Further, MAC and the TWG engaged with the International Council on Mining and Metals' (ICMM) Tailings Working Group to help ensure alignment as ICMM developed its *Position Statement on Preventing Catastrophic Failure of Tailings Storage Facilities*.

In 2017, the TWG will finalize revisions to the Tailings Guide, which will be presented for approval by the MAC Board of Directors.

#### The revised Tailings Guide will:

- *Retain a strong focus on management systems, while strengthening technical components;*
- *Integrate a risk-based approach into the tailings management framework, with tailings facilities managed commensurate with risks (physical and chemical) that they pose;*
- *Emphasize the importance of selection and implementation of site-specific best available technologies (BAT) and best available/applicable practices (BAP) for tailings management;*
- *Place greater emphasis on designing and operating for closure;*
- *Stress the need for independent review and provide guidance as to what forms this should take, dependent upon the risk profile for the given facility;*
- *Improve alignment with the ISO 14001 standard for Environmental Management Certification; and*
- *Strengthen key management components, including change management; critical controls for risk management; and performance evaluation.*

The revised Tailings Guide will also include several technical appendices that will provide additional guidance on other important considerations and technical elements for the management of tailings facilities across their life cycle.

In 2017, the TWG will also identify possible revisions to the *Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities* (OMS Guide) to align with the changes made to the Tailings Guide and to incorporate the recommendations from the Independent Tailings Review Task Force and from the TWG.

#### SHARING OUR TAILINGS MANAGEMENT EXPERTISE

Since the first tailings guide was published in 1998, MAC has become a recognized leader in tailings management. As a result, MAC and its members are sought-after speakers at conferences and tailings fora in Canada and across the globe.

During 2016, MAC gave presentations on its tailings management initiatives at a variety of Canadian and international events, including:

- *CIM Annual Convention and workshop on "State of Practice in Tailings Management", in Vancouver, BC;*



- *Minerals North Symposium in Smithers, BC;*
- *European Union conference on “Exchange of best practices on mining policies and technologies: challenges in the current state of the global economy”, in Brussels, Belgium;*
- *Swedish Mining Association workshop and symposium on tailings management, in Gällivare and Stockholm, Sweden;*
- *World Mining Congress in Rio de Janeiro, Brazil; and*
- *Joint British Columbia/Mine Environment Neutral Drainage program annual workshop on Acid Rock Drainage and Metal Leaching, Vancouver, BC. ■*



The fen reclamation research area at Syncrude's oil sands facility near Fort McMurray, Alberta.





## HIGHLIGHTS

- Engaged with the federal government to underscore the importance of the fiscal environment to Canada's competitiveness for new mineral investment, and areas where government support is needed, including infrastructure investments in Canada's remote and northern regions.
- Actively participated in consultations with the federal government on the budget and the review of federal tax expenditures through MAC's pre-budget submission, engagement with mines ministers and government officials, and other activities.
- Resolved a tax deductibility issue with Finance Canada and the Canada Revenue Agency.

## TAXATION COMMITTEE

Chair: Jocelin Paradis, Vice President, Tax, Rio Tinto Canada

*The Taxation Committee monitors finance-related issues of national importance, advocates for tax changes to enhance industry competitiveness, and serves as a useful network for members to exchange information on tax and fiscal issues.*

### KEY INFRASTRUCTURE ANNOUNCEMENTS

The future of Canada's mineral industry lies increasingly in remote and northern regions, and the current infrastructure deficit acts as a major barrier to opportunities for greater wealth discovery and production. Exacerbating this is the historic under-eligibility of the territories to access federal infrastructure programs due to "public use" program criteria and "per-capita" funding formulas.

Characterized by disparate communities, extreme temperatures, and virtually no infrastructure or people for hundreds of kilometres, Canada's remote and northern regions have some of the highest per-capita living costs in the country. Similarly, industry research has identified it costs upwards of six times more to explore and 2 to 2.5 times more to build new mines in northern regions compared to their southern counterparts.

In November 2016, Minister Morneau announced significant infrastructure investments, including the creation of the Canada Infrastructure Bank and a specific fund for remote and northern communities. The announcement signaled the government's recognition of the challenges faced by remote and northern communities and operations, and the need for strategic investments to address them. MAC communicated its support for these commitments, viewing them as important steps in the right direction, and consistent with the asks that we and our industry partners have been advancing, and being consistent with our advocacy efforts in this space.

### FEDERAL BUDGET ENGAGEMENT

Finance Minister Bill Morneau tabled the Liberal government's first Budget on March 23, 2016. Budget 2016 proposed significant and bold investments and policies in the areas of Indigenous reconciliation, innovation and infrastructure, with the theme of transitioning to a lower-carbon economy. It also included several commitments that MAC had been advocating for, including:

- *The one-year renewal of the 15% Mineral Exploration Tax Credit – an important tax incentive for the junior exploration sector.*
- *Recognition of the mining industry's innovation needs in the context of the government's broader Innovation Agenda.*

Consultation for Budget 2017 began in June 2016, and MAC participated in it through a formal pre-budget submission. MAC's submission identified key areas where government support could enhance the Canadian mining industry's competitiveness:

- *Ensure adequate departmental resources to support a coordinated and efficient federal project permitting regime.*





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→ Recognize the infrastructure needs of remote and northern regions, and advance strategic investments to support economic development.

→ Make capacity-building investments to better enable Indigenous communities to fully participate in the opportunities generated by the mining industry.

→ Fund the Canada Mining Innovation Council, which is driving innovation in the mining industry as it works to reduce emissions, improve productivity and contribute to the transition to a low-carbon economy.

### TAX DEDUCTIBILITY

Throughout 2016, MAC engaged with the federal government on a tax deductibility issue that, as structured, presented considerable challenges to mining companies that were required to pay additional mining tax retroactively for the previous tax year. MAC's engagements with Finance Canada and the Canada Revenue Agency resulted in the development of regulatory amendments that addressed the issue. MAC expects that the amendments will be tabled in 2017.

### REVIEW OF TAX EXPENDITURE

In 2016, MAC put forward a submission for Finance Canada's review of federal tax expenditure, which communicated the following points:

- The mining industry's tax expenditure profile, with several credits having been reduced or eliminated in Budgets 2012 and 2013, is relatively basic, and is less competitive compared to other industrial sectors.
- Canada's attractiveness as a destination for mineral investment has slipped in recent years, which could result in more mineral investments flowing offshore to other countries.
- The regulatory reforms of 2012 introduced uncertainties and delays in the environmental assessment process. As the regulatory environment plays an influential role in attracting new mineral investment, it is critical that the current regulatory reviews result in a timely, coordinated and effective environmental assessment process.
- Beyond the submission, MAC engaged key federal government departments on the issues of mining taxation, the review of tax expenditure, and concrete actions that should be taken to boost Canada's competitiveness. ■







## HIGHLIGHTS

- MAC engaged in government consultations to address key rail freight policy issues.
- The government's Transportation 2030 Strategic Plan was announced, which included provisions to expand trade-enabling infrastructure investment across Canada.
- MAC actively engaged with Transport Canada and the International Maritime Organization on marine shipping developments that impact the Canadian mining industry.

## TRANSPORTATION COMMITTEE

### Chair: Vacant

*The Transportation Committee contributes to the federal policy, legislative and regulatory environment for the transport of minerals and metals to enhance the competitiveness of Canada's mining industry.*

Each year, Canada's exports of minerals and metals amount to tens of billions of dollars. In 2015, Canada's mineral export value exceeded \$90 billion, representing 19% of Canada's total goods exports. These mineral and metal products account for much of the volume handled at Canadian ports, and over half of the revenue generated (and comparable volume of traffic shipped) by Canadian railways.

A low-cost, effective and reliable system of marine, rail and truck transportation is essential to the Canadian mining industry's international competitiveness. This is especially important as Canada must compete against other countries that have significantly shorter logistical supply chains. Given that trade starts at home, it is also key to enabling the industry to take advantage of current and future trade agreements.

### RAIL

Rail freight transportation has been challenging on several fronts. In recent years, rail service, safety and liability challenges and events have been the subject of significant national media attention and the object of public concern. This has included the Lac-Mégantic disaster in July 2013, the back-log of shipments throughout the winter of 2014, and other long-standing rail service issues faced by many sectors, including the mining industry. These challenges have led the federal government to undertake large-scale reforms through legislation and associated regulations. MAC is monitoring any policy developments relevant to the mining industry and is engaging with government to address the sector's ongoing challenges.

#### *Transportation 2030 - A Strategic Plan for the Future of Transportation in Canada*

Following the tabling of the Final Report of the 2015 Statutory Review of the *Canada Transportation Act* in the House of Commons in February 2016, the Minister of Transport, the Hon. Marc Garneau, launched a consultation to collect stakeholder input on the pathway forward on key transportation issues across all modes in Canada, to which MAC prepared a submission. These consultations led to the Minister's November announcement of Transportation 2030, A Strategic Plan for the Future of Transportation in Canada. Included in this plan are commitments to address key rail freight policy issues, several of which were long-standing issues raised by MAC and its members.

An important component of the Transportation 2030 plan was the recognition and allocation of significant funds to further develop Canada's trade-enabling infrastructure. The Minister committed to tabling a bill to address the rail freight policy issues in 2017.

Following the announcement, a subsequent consultation was launched. MAC contributed a submission and has been engaging with government decision makers.





## MARINE

MAC's engagement on marine shipping issues focuses on international policy and regulatory developments from the International Maritime Organization (IMO), and the subsequent implementation of these measures domestically into Canadian laws and regulations. Working in partnership with the International Council on Mining and Metals, international commodity associations and key domestic stakeholders, 2016 saw MAC focus on amendments to the International Maritime Solid Bulk Cargoes Code (IMSBC Code), and new requirements with respect to product moisture testing and management procedures.

The IMO is the United Nations' special agency responsible for the global safety and security of shipping and the prevention of marine pollution by ships. Recent changes to MARPOL Annex V, which aim to prevent pollution in the marine environment, have raised important questions about impacts to the trade and shipment of certain mining products. As ores and concentrates were largely exempt from earlier programs such as the European Union's REACH (Restriction, Evaluation, Authorisation and Restriction of Chemicals), the IMO has emerged as the global regulator for chemical management of mining products. The mining industry has worked hard to develop a common voice to ensure proportional regulations are based on sound science.

### *Moisture Management Certification and Testing*

Since September 2014, MAC and several of its members have been engaged with Transport Canada on the issue of complying with enhanced IMO moisture management certification requirements. This engagement led to several member companies receiving their full five-year approvals late in 2015.

MAC and its members also advocated for Canada's approval of an improved method to assess the moisture level and transportable moisture limit for coal. The Modified Proctor Fagerberg Method for Coal Moisture Testing, which was developed by the Australian mining industry and implemented domestically in Australia, was identified as a more reliable and accurate test. After significant engagement in this space, Transport Canada approved the method for use domestically in Canada in November 2016.

### *Corrosivity Testing*

A recent amendment to the IMSBC Code introduced criteria for identifying materials that are hazardous only in bulk. One of these criteria, corrosivity, requires the use of the C.1 test that was developed for liquids and solids that may become liquid. However, it has never been validated for solids, such as mineral concentrates.

The mining and metals concentrate industry has been assessing the properties of several solid bulk cargoes using this test and experienced a number of issues. As such, the industry supports developing a new or modified test that would be fully relevant and reliable for solid materials that may not become liquid during transport. To support this effort, MAC is working with member companies and other mining organizations and technical groups to engage regulators on this issue. To date, efforts have been successful in obtaining recognition from both the IMO and Transport Canada regulators on the inadequacy of the test for use on mineral cargoes.

Most recently, to proactively support the development of a workable test in this space, MAC has organized a highly collaborative cost and in-kind research project that will be carried out throughout 2017, and likely beyond. ■





## HIGHLIGHTS

- Developed a new MAC membership commitment on human rights, consistent with the Voluntary Principles on Security and Human Rights.
- Met with the UN Special Rapporteur on the Situation of Human Rights Defenders regarding MAC and its members' work in this space.
- Continued engagement with Global Affairs Canada on developments related to Canada's Extractive Sector CSR Strategy.

## INTERNATIONAL SOCIAL RESPONSIBILITY COMMITTEE

Chair: Christian Del Valle, Manager, Corporate Affairs, Goldcorp Inc.

*The International Social Responsibility Committee's mandate is to review international issues that affect the interests of the members, as well as identify emerging issues, set priorities, and develop policy advice and strategies for the MAC Board of Directors.*

In 2016, the International Social Responsibility (ISR) Committee's work was aligned with the strategic plan it developed in 2014 to help guide its activities in the areas below. This plan will be reviewed in 2017.

1. Leadership in human rights
2. Monitoring and exploring emerging issues
3. Government engagement
4. Strategic civil society engagement
5. Improved international social responsibility performance

### COMMITMENT TO THE VOLUNTARY PRINCIPLES ON SECURITY AND HUMAN RIGHTS

Over the course of 2016, the ISR Committee focused on developing a new membership commitment to implement the Voluntary Principles on Security and Human Rights (VPs), which would be a global first for a national mining association. Created in 2000, the VPs are standards to help extractive sector companies fulfil the obligation to respect human rights while protecting the assets and people at their operations. This commitment was approved by the MAC Board of Directors in February 2017.

*"This is the right step in a positive direction for the mining industry and I applaud MAC's leadership to place human rights principles at the forefront of corporate responsibility."*

*The Hon. François-Philippe Champagne,  
Minister of International Trade*

With this new commitment, MAC member companies that rely upon private or public security forces have committed to implementing a human rights and security approach consistent with the VPs and based on a determination of risk at mining facilities that they control. Furthermore, MAC members with international mining operations will report on their implementation annually in MAC's *TSM Progress Report*.

Several MAC members already formally participate in the Voluntary Principles on Security and Human Rights Initiative (VPI) and several others apply the VPs for their operations abroad. It was through their collective experience that spurred MAC to look at how we could encourage wider adoption of the VPs, which have proven to be an effective set of standards to help companies ensure that human rights are respected while protecting their assets and people.





“Our Government is proud that Canadian companies and industry associations continue to be recognized globally for their leadership in ethical, social, and environmental practices. MAC’s commitment to the Voluntary Principles is another example of this leadership and the importance of advancing sustainable mineral resource development while respecting human rights and promoting community-level partnerships.”

*The Hon. Jim Carr,  
Minister of Natural Resources*

The Government of Canada has identified the VPs as one of six leading standards in Canada’s CSR Strategy for the Extractive Sector. The CSR Strategy also highlights MAC’s TSM® initiative, which has recently been adopted by the national mining associations of Finland, Argentina and Botswana.

#### CANADA’S EXTRACTIVE SECTOR CSR STRATEGY

Throughout 2016, the new federal government brought a renewed focus to Canada’s Extractive Sector CSR Strategy. Throughout the year, Global Affairs Canada (GAC) engaged in a series of informal discussions with MAC, the Prospectors & Developers Association of Canada and NGOs to look at how the government could further strengthen the strategy.

In 2014, the federal government enhanced the CSR Strategy, setting a high bar for corporate responsibility performance. This new strategy has attracted international recognition, including from Professor John Ruggie, who referred to it as “an example that deserves to be emulated more widely within the NCP community.”

Throughout 2016, MAC’s engagement with government emphasized the need to fully implement the changes made to the strategy in 2014 to improve communications and to strengthen the mandate of the CSR Counsellor. MAC also provided thoughtful recommendations to government on how to further strengthen the CSR Strategy and Office of the CSR Counsellor.

#### EXTRACTIVE SECTOR TRANSPARENCY MEASURES ACT

In 2012, MAC partnered with Publish What You Pay-Canada, the Natural Resources Governance Institute and the Prospectors & Developers Association of Canada, forming the Resource Revenue Transparency Working Group (RRTWG).

This group drew on the expertise of industry and civil society to develop and publish a framework for implementing the mandatory reporting of payments to governments by mining companies in Canada. This framework was, in turn, used by Natural Resources Canada (NRCan) to develop the *Extractive Sector Transparency Measures Act* (ESTMA).

In late 2015 and early 2016, MAC and the RRTWG re-engaged and worked alongside NRCan to develop implementation guidance that would assist companies in complying with the Act’s requirements. The result of this effort was the publication in March 2016 of a guidance document and a technical specifications document that provide companies with the information needed to help prepare ESTMA reports.

#### OUTREACH AND ENGAGEMENT

##### *Faith-Based Engagement*

MAC continued to engage with faith-based organizations by participating in a steering committee organized by St. Paul’s University to plan an upcoming mining symposium that would, for the first time, include industry representatives in addition to regular attendees from the NGO community. The symposium is scheduled to take place in the fall of 2017.

##### *Voluntary Initiatives Dialogue*

In October 2016, MAC joined several voluntary initiative owners such as Responsible Jewelry, Aluminum Stewardship Initiative, BetterCoal and Initiative for Responsible Mining Assurance (IRMA) along with mining companies, including ArcelorMittal and Newmont, and downstream users such as Apple, Intel and Tiffany’s, for a discussion on responsible sourcing.

This dialogue was intended to help create alignment between upstream producers and downstream users of metals and minerals with respect to responsible sourcing standards.





One of the main purposes of this dialogue was to help downstream users learn more about what the mining sector is doing in terms of measuring and reporting social and environmental performance. MAC's TSM® initiative was identified as an industry standard that generates robust environmental and social performance information for companies to demonstrate responsible sourcing. This discussion was organized and facilitated by RESOLVE, a US-based NGO, and based its success, this effort will continue into 2017.

#### ***Meeting with the UN Special Rapporteur on the Situation of Human Rights Defenders***

In June 2016, MAC met with Michel Forst, the UN Special Rapporteur on the Situation of Human Rights Defenders. At the time, Mr. Forst was preparing a report on the state of protection for human rights defenders and took an interest in the role of the private sector. Mr. Forst was also developing a new process to engage relevant parties upon notice of threats and allegations of harm against human rights defenders. This new process would be intended to engage companies and home countries to encourage them to act to protect the human rights defender in question.

#### ***Canadian International Resources and Development Institute***

In 2016, MAC became Chair of the advisory council for the Canadian International Resources and Development Institute (CIRDI). The council provides knowledge, advice and insights from diverse perspectives to inform the Institute's work and strategic direction and is comprised of representatives from government, industry, academia, NGOs, Indigenous communities and international organizations focused on resource sector governance, integrated natural resource management, economic development and poverty reduction.

CIRDI now has 17 active projects in 13 countries around the world and has begun partnerships with several mining companies and development NGOs. Among these are significant projects focused on developing resource governance in Peru, Ethiopia, Burkina Faso, Senegal and Mongolia, as well as projects focused on water in Peru and on artisanal and small-scale mining in Ecuador.

#### **PLANS FOR 2017**

Having now completed its three-year strategic plan (2014-2016), the ISR Committee plans to conduct a scan of emerging issues to determine where to focus its efforts in the next three years. This effort will focus on looking at what is happening internationally in the environmental, social and human rights spaces as they pertain to Canadian mining abroad, but will also look at what issues are facing other sectors that operate in the developing world to help us better understand where trends are heading. In addition, the ISR Committee is undertaking several projects that will help contribute to driving performance abroad and positioning Canadian miners as partners of choice. These projects include:

- ***Supply Chain Due Diligence:*** Developing a template for a supplier code of conduct focused on local suppliers.
- ***Sustainable Development Goals (SDGs):*** Exploring alignment between the SDGs and MAC and its members' activities and programs.
- ***Canada's Extractive Sector CSR Strategy:*** MAC will remain closely engaged with Global Affairs Canada on potential developments to the strategy.
- ***Faith-Based Dialogue:*** The ISR Committee will continue to engage with faith-based NGOs and organizations, such as St. Paul's University and KAIROS, and will continue to support the International Day of Reflection process.
- ***Socially Responsible Investor Dialogue:*** The ISR Committee will partner with the Business for Social Responsibility and investment community representatives to organize a dialogue on social and environmental disclosure to better demonstrate responsible business practices. This work will complement efforts currently underway with RESOLVE to engage with downstream users such as Apple, Intel and Tiffany's.
- ***Values Distribution Report:*** MAC will continue to collect and publish data on monies spent in host countries from several internationally-active member companies. This year, the data will be published in MAC's Facts & Figures Report and will incorporate data submitted under the Extractive Sector Transparency Measures Act for the first time. ■







## HIGHLIGHTS

- MAC and its members issued seven *Principles for Climate Change Policy Design* to inform the federal government's development of the pan-Canadian climate change framework.
- Participated in the climate change working groups born out of the Vancouver Declaration issued by Canada's First Ministers.
- Worked actively and constructively with the Community of Interest Advisory Panel to identify ways to build upon MAC and its members efforts to address climate change.

## ENERGY COMMITTEE AND CLIMATE CHANGE WORKING GROUP

Chair: Chris Adachi, Manager, Sustainability Implementation and Carbon Strategy, Teck Resources Limited

*The Energy Committee promotes overall energy management, including improved energy efficiency and greenhouse gas intensity performance.*

### PRINCIPLES FOR CLIMATE CHANGE POLICY DESIGN

To assist the federal government in the development of an effective pan-Canadian climate change plan, MAC released *Principles for Climate Change Policy Design* in April 2016. In that document, in addition to supporting a revenue neutral price on carbon, MAC underscored the need for any climate change policy to ensure the competitiveness of emissions-intensive and trade-exposed (EITE) sectors, as well as the necessity of being sensitive to changing economic and geographical realities. For example, in remote and northern regions, where the energy infrastructure deficit is the most pronounced in Canada, diesel-reliant companies pay some of the highest energy costs in the country, with few viable options to economically fuel switch at the scale needed to avoid absorbing the carbon price as a penalty.

In October 2016, the federal government announced it would create a federal backstop for carbon pricing, whereby provinces and territories would be free to implement a carbon tax or a cap-and-trade system. Failing that, the federal government would impose a carbon pricing system on those jurisdictions. In the context of that document, MAC was pleased to see recognition of the unique challenges faced by remote and northern regions, as well as the need for protections for EITE sectors.

While recognition of the need for these protections is an important first step, enshrining them in policy is essential. Climate change policy that fails to adequately address these concerns runs the risk of creating carbon leakage. Put simply, it could translate into mineral production—and its associated contributions—moving from jurisdictions that are taking action on climate change to those that are not. This will not only negatively impact Canada's economy, but it would also translate into higher global emissions.

At the time for writing, the federal government was still working with the provinces on how to shape key climate change policy considerations, with significant developments anticipated over the course of 2017.

### VANCOUVER DECLARATION ON CLIMATE CHANGE

Throughout the year, MAC, the Energy Committee and the Climate Change Working Group closely monitored the significant climate change developments announced by the federal government. In March 2016, Canada's First Ministers issued the *Vancouver Declaration* on clean growth and climate change, whereby they agreed to develop a pan-Canadian framework to achieve Canada's commitments under the international Paris Agreement. Specifically, the declaration outlined their collective commitment to implement policies in support of meeting or exceeding Canada's 2030 target of a 30% reduction below 2005 levels of emissions and transitioning to a stronger, climate-resilient and low-carbon economy.





Throughout the summer months, MAC participated in stakeholder engagement sessions affiliated with four government working groups. These groups comprised federal, provincial and territorial officials who were charged with exploring climate change-related topics such as mitigation, adaptation, innovation and carbon pricing.

### COI PANEL'S ADVISORY STATEMENT ON CLIMATE CHANGE

In light of Canada signing onto the Paris Agreement, MAC's independent, multi-interest Community of Interest (COI) Advisory Panel, which advises on MAC's TSM® initiative and identifies priority issues for the association, thought it an opportune time to focus on climate change.

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CANADIAN MINING

In November 2016, the Panel issued an advisory statement, *Rising to the Challenge*, encouraging MAC and its members to continue building upon its efforts, achievements and commitments in this space. The statement also recognized MAC and its members' commitment to be constructive partners in the global fight against climate change, citing MAC's recently-released *Principles for Climate Change Policy Design*, which outlined the core elements of a successful carbon price regime to help inform the federal government as it developed the pan-Canadian climate change framework.

The Panel's statement recommended specific actions in six areas: MAC's TSM initiative; operations level; local and Indigenous communities; supply chains; public and policy engagement; and the disclosure of climate risks and opportunities.

Over the course of 2017, MAC has been engaged with members of the Panel and has been consulting experts within its membership on each of the Panel's recommendations. These engagements are informing the development of MAC's response to the statement, which will be issued in 2017. ■





## HIGHLIGHTS

- The federal government created the Canada Infrastructure Bank and announced other infrastructure-related support for northern and Indigenous communities, both key recommendations from MAC.
- Participated in the Shared Arctic Leadership Consultation, a joint Canada-US initiative to identify future Arctic policies.
- Monitored legislative developments affecting mineral project permitting processes in the Northwest Territories and the Yukon.

## NORTHERN AFFAIRS COMMITTEE

Chair: Vacant

*The Northern Affairs Committee contributes to the federal policy, legislative and regulatory environment to enhance the competitiveness of mining companies operating in Canada's remote and northern regions and to facilitate sustainable growth in the Canadian mining industry.*

The mining industry is the single largest private sector economic driver across Canada's territories and is a major employer. The opportunity for sustainable mineral development is strong with an estimated \$35 billion of potential new investment across the territories given the right market and investment conditions.

Locating, developing and operating mines in the northern regions of Canada's provinces and across the three territories is challenging. Raising awareness of the costs, challenges and opportunities that mining presents for northern Canada is a key priority of MAC's Northern Affairs Committee. The Committee's key focus is to work with governments to ensure the industry has a clear, effective and efficient regulatory permitting process, and to highlight the need for strategic infrastructure investments.

### NORTHERN INFRASTRUCTURE DEVELOPMENTS

The future of Canada's mineral industry lies increasingly in remote and northern regions, and the current infrastructure deficit acts as a major barrier to opportunities for greater wealth discovery and production. Exacerbating this is the historic under-eligibility of the territories to access federal infrastructure programs due to "public use" program criteria and "per-capita" funding formulas.

Characterized by disparate communities, extreme temperatures, and virtually no infrastructure or people for hundreds of kilometres, remote and northern regions have some of the highest per-capita living costs in the country. Similarly, industry research, detailed in the *Levelling the Playing Field* report, has found that it costs upwards of six times more to explore and twice as much to build new mines in northern regions compared to their southern counterparts.

The same report also included recommendations to address the remote and northern infrastructure deficit and cost barriers that challenge development in these regions. In November 2016, the federal government announced several policy commitments that were highly consistent with these recommendations, including the creation of the Canada Infrastructure Bank (CIB) and funding support for remote and northern communities. These commitments signal the government's recognition of the challenges faced by remote and northern communities, and the need for strategic investments to address them. MAC communicated its support for these government actions, viewing them as important steps in the right direction.

Leading up to this announcement, MAC and the Northern Affairs Committee actively engaged with the federal government, and pointed to the Alaska Industrial Development and Export Authority (AIDEA) as a successful model for a potential infrastructure bank in Canada.





At MAC's invitation, a representative from AIDEA travelled to Ottawa to meet with federal policy makers to help inform a potential Canadian equivalent. As the government works towards the launch of the CIB, which is anticipated for late 2017, MAC has been strongly advocating for the bank to have a strong focus on economic development, that it supports northern projects, and that northern expertise is represented on its Board.

### SHARED ARCTIC LEADERSHIP

In March 2016, Prime Minister Trudeau and then President Obama issued a joint statement with respect to the future of the Arctic. Following the announcement, Canada's Minister for Indigenous and Northern Affairs, the Honourable Carolyn Bennett, appointed a special ministerial representative to undertake a consultation on future Arctic policies.

MAC participated in these consultations, underscoring the industry's role as the largest pan-territorial economic driver. MAC also highlighted the significant contributions the industry makes to Indigenous communities through employment, training, and business development, and our members' commitments to sustainable mining development through TSM and individual company efforts. The special ministerial representative will develop a report, which is anticipated to form part of the basis for a broader Northern Canadian policy over the course of 2017 and 2018.

### REGULATORY ENVIRONMENT

In 2016, there were legislative developments that may or will affect mineral project permitting processes in the Northwest Territories and the Yukon.

#### *Northwest Territories*

With the enactment of the *Northwest Territories Devolution Act* in March 2014, the federal government has been moving forward with plans to amend regulations under the *Mackenzie Valley Resource Management Act* (MVRMA).

In December 2016, Minister Bennett announced that Indigenous and Northern Affairs Canada will review amendments to the MVRMA that were subject to recent court action. The amendments include the amalgamation of the regional land and water boards into one central institution, among others, whose implementation was halted. MAC anticipates legislation that will reverse the amalgamation of the boards, as well as the potential to engage on other MVRMA issues over the course of 2017.

#### *Yukon*

MAC participated in a consultation over whether the following four amendments (previously part of Bill S-6) to the *Yukon Environment and Socio-Economic Assessment Act* should be rescinded or not:

- *Time limits on the review process;*
- *Exempting a project under assessment when an authorization is renewed or amended, unless there has been a significant change to the project;*
- *Ability for the federal minister to provide binding policy direction to the Board; and*
- *Ability to delegate the federal minister's powers, duties or functions under the Act to the territorial government.*

Concerns amongst First Nations communities and governments over the level of consultation led to calls for these four amendments in the Bill to be rescinded during the federal election campaign in 2015. MAC prepared a submission as well as engaged with departmental officials, politicians and Indigenous representatives on this subject. In advance of tabling Bill C-17 to repeal the four amendments in June 2016, the federal government, the Yukon government and the Yukon Assembly of First Nations signed an MOU that made provision for further dialogue on the reassessment provision, which was of greatest significance for MAC. Looking forward, Bill C-17 is anticipated to advance through the parliamentary process in 2017 and MAC will remain engaged on this issue. ■





## HIGHLIGHTS

- Supported the federal government's negotiation of Foreign Investment Promotion and Protection Agreements and Free Trade Agreements.
- Monitored and responded to trade and economic developments.

## INTERNATIONAL TRADE AND INVESTMENT

*MAC monitors and participates in government trade activities and works to promote open flows of trade and investment to enhance the international competitiveness of the Canadian minerals and metals industry.*

The mining industry ranks alongside financial services and oil and gas as the most international of Canada's industry sectors. The industry accounted for over 19% of the value of Canadian goods exports in 2015, and consistently accounts for a significant share of Canada's direct investment abroad. Canada is also a global hub for mining finance, with the Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSX-V) hosting 57% of the world's publicly-listed mining companies, and the exchange consistently transacts the majority of global mining equity financings on an annual basis.

Canada's success in mining is influenced in part by the federal government's trade efforts. This includes the overseas network of embassies and trade commissioners, the trade finance capacity through Export Development Canada, and an array of Free Trade Agreements and Foreign Investment Promotion and Protection Agreements.

### FOREIGN INVESTMENT PROMOTION AND PROTECTION AGREEMENTS

In recent years, the federal government adopted an ambitious agenda to broaden and modernize Canada's trade infrastructure, including through the negotiation of Foreign Investment Promotion and Protection Agreements (FIPAs). By late 2016, Canada had 33 FIPAs in place, had concluded negotiations with five additional countries, and remains engaged in ongoing negotiations with nine other countries.

FIPAs are bilateral agreements aimed at protecting and promoting foreign investment through legally binding rights and obligations. These agreements place investment-treatment obligations on each country, and give foreign investors access to independent rules and arbitrators should disputes arise between the investor and the host government. These mechanisms provide Canada's overseas investors with an added layer of security and, while the enforcement components are rarely used, the mere existence of a FIPA gives foreign governments a set of rules on fairness and transparency.

#### *Investment in Latin America*

Eight of Canada's 33 active FIPAs are with Latin American countries, reflecting the industry's presence in the region, as well as the continent's mineral wealth and potential. It is noteworthy that, as of 2013, Canadian companies held nearly \$70 billion in assets in Latin America, nearly half of the total value of Canada's overseas mineral assets.

#### *Investment in Africa*

Since 2010, the Canadian government has concluded, signed or brought 12 FIPAs into force with African countries. A further three of the nine FIPA negotiations currently ongoing are with African countries.

In recent years, many African countries have been seeking to benefit from their natural resource endowments, and have become more open to new mining investments and the expansion of existing mining projects. Some of the major resources mined in Africa are iron ore, diamonds, gold, platinum, uranium, copper and coal.

### FREE TRADE AGREEMENTS

The Canadian mining industry boasts a significant international presence. Its reliance on international market demand for its products makes the industry a major stakeholder in the trade policies, programs and services that Canada's Department of Global Affairs facilitates.







Canada's trade agenda has expanded aggressively in recent years, giving Canadian miners greater ability to expand into new and emerging markets, or to export their products more freely to an increasing number of destinations. MAC supports the following policy developments and, where appropriate, provides input to Canadian policy makers and negotiators.

#### ***Comprehensive Economic and Trade Agreement with the European Union***

In the fall of 2016, Prime Minister Trudeau and EU leaders held a ceremonial signing of the Comprehensive Economic and Trade Agreement (CETA). Final ratification is still required by the European Parliament and the legislatures in each EU member country. Upon implementation, the new agreement will eliminate 98% of Canadian and EU tariffs (including tariffs on minerals and metals) and will phase out most remaining tariffs over time.

The agreement also expands into the areas of investment, labour mobility and enhanced regulatory cooperation, as well as lifts ownership restrictions on uranium. CETA is the first bilateral trade agreement in which Canada has included provisions on regulatory cooperation. By fostering cooperation earlier in the regulatory process, differences in approaches between Canada and the European Union may be reduced, resulting in fewer barriers to trade once regulations are in place.

MAC has both monitored and participated in stakeholder sessions, as well as made submissions to decision makers on this agreement. Most recently in this space, MAC has partnered with EY and Euromines on a project that would assess how a potential Mineral Investment Facility could help facilitate greater two-way trade of minerals, metals and investment between Canada and the EU.

#### ***Trans-Pacific Partnership***

While the Government of Canada announced support for the Trans-Pacific Partnership (TPP), the United States' recent withdrawal from the TPP has raised significant questions as to the future for the trade deal. When including the US, the TPP was the largest Free Trade Agreement (FTA) in history, involving a 12-nation market of nearly 800 million customers, whose total GDP exceeds \$30 trillion. Despite the US withdrawal, some member states are seeking pathways forward to salvage the deal in what has been coined as TPP 11. The future of the TPP remains uncertain.

MAC was actively engaged with government on this agreement, making a submission, participating in regular engagements with officials, as well as appearing before the House of Commons Standing Committee on International Trade. MAC will continue monitoring developments going forward.

#### ***North American Free Trade Agreement***

The new US administration has committed to renegotiate the North American Free Trade Agreement (NAFTA). While developments in this space are anticipated for 2017, MAC is engaged with government working groups on NAFTA from Natural Resources Canada and Global Affairs Canada. Given the US is the top market for Canadian mineral and metal products, MAC will remain engaged on NAFTA developments going forward.

#### ***Free Trade with China***

China is Canada's third-largest market for the export of minerals and metals, with an export value exceeding \$4.6 billion in 2015, more than 5% of the overall total.

Canada does not have a FTA with China, despite its growing importance to our trade and economic well-being. The absence of an agreement between the two nations has led to several economically damaging protectionist measures, including the introduction of a 3% tariff on steelmaking coal products and challenging regulatory barriers to trade.

With 18 countries having FTAs in place with China, and 11 more countries in various stages of negotiation and pre-negotiation discussions, many nations have acknowledged that their economic futures are inexorably tied to China.

Given this reality and China's importance to Canada's future, MAC encourages the Government of Canada to focus on enhancing economic and diplomatic relations, and to explore a possible free trade deal. MAC remains engaged with Natural Resources Canada and Global Affairs Canada officials on this subject, and anticipates activity in this space in 2017. ■





Worker at BHP Billiton's Jansen Project in Saskatchewan

## MINING INDUSTRY HUMAN RESOURCES COUNCIL

Executive Director: Ryan Montpellier,  
Board Chair: Sean Junor, Cameco Corporation  
Board Vice-Chair: Dean Winsor, Teck

*The Mining Industry Human Resources Council is a non-profit, independent organization with a mandate to identify and address the HR and labour market challenges facing the Canadian mining sector. The organization is financially supported by the Mining Association of Canada, and receives the majority of its funding from the Government of Canada and revenue from program activities.*

The Mining Industry Human Resources Council (MiHR) contributes to the strength, competitiveness and sustainability of the Canadian minerals and metals sector by leading the collaboration of industry stakeholders in the development of solutions to national HR challenges. The Council is governed by a 13-person Board of Directors that provides direction and support to ensure that the stated mission, values and activities deliver tangible results for industry. Members of the Board represent a cross-section of

MAC member companies, contractors, organized labour and educational institutions from across Canada. MiHR also brings together a network of over 250 mining industry volunteers to help inform its research and guide its project committees.

### KEY ACTIVITIES OF MIHR:

- **Labour Market Trends, Intelligence and Research:** To provide industry with a centralized, trusted and responsive knowledge centre for minerals and metals labour market trends, intelligence and research.
- **Optimizing Human Resources Supply:** To develop and distribute tools that help employers effectively engage all potential sources of labour, including women, Aboriginal peoples and immigrants.
- **Standards and Workforce Readiness:** To develop and maintain a suite of National Occupational Standards and accompanying essential skills resources for select mining occupations.
- **Credentials and Recognition:** To recognize and promote the skills of individuals and the achievements and practices of employers and training providers.

### LABOUR MARKET TRENDS, INTELLIGENCE AND RESEARCH: HIGHLIGHTS

**National Labour Market Information:** MiHR's labour market information (LMI) forecasting model is sector specific and is recognized as the go-to labour market resource for industry and stakeholders. The 2017 report will incorporate model enhancements and will feature employment forecasts for each of four mining sectors: Extraction & Milling; Support Services; Manufacturing and Fabrication; and Exploration. In addition, the 2017 report will feature a more detailed analysis of the supply-side factors such as occupation-specific retirement rates and the proportion of new entrants from school graduates and/or immigration.

MiHR is also working together with the Prospectors & Developers Association of Canada (PDAC) on the design and execution of a survey of five distinct exploration stakeholder groups (employers, entrepreneurs, educators, students, affiliates/associations) to create more detailed LMI for the sector than is available through public sources. The survey report produced is expected to be produced in summer or fall of 2017.





**Regional Labour Market Information:** MiHR has recently completed a regional labour market report for the province of British Columbia in partnership with a number of industry associations, educators and local government.

#### OPTIMIZING HUMAN RESOURCES SUPPLY: HIGHLIGHTS

**Mining Alternative Careers for Immigrants:** This three-year project will help immigrants living in Canada as well as Immigrant Serving Organizations by increasing their awareness of and access to accurate information about the Canadian mining sector, its careers, and the potential transferability of international skills and knowledge leading to employment in the sector. The intent of the project is to help reduce the industry's need for temporary foreign workers in the long term.

**Gender Equity in Mining:** The aim of this project is to expedite the institutional change necessary to improve gender equity in the Canadian mining and minerals industry through the application of tools, strategic human resources processes, and change agent activities for the sector.

#### STANDARDS AND WORKFORCE READINESS: HIGHLIGHTS

**National Occupational Standards and the Office of the Registrar:** MiHR, in collaboration with the industry, creates National Occupational Standards (NOS) for key mining occupations. MiHR's new NOS project funding (2014-2017) was used to revise three current standards in 2015 (Underground Miner; Surface Miner; and Minerals Processing Operator) and add three new standards (Industry Trainer; Hoist Operator; and Frontline Supervisor), which were completed in 2016. The review and update of the Diamond Driller standard is now underway and the revised standard will be available in the fall of 2017.

**Mining Essentials:** This work readiness training program was developed in partnership with the Assembly of First Nations to meet two goals:

1. *To provide Aboriginal peoples with the skills and confidence needed to enter the mining workforce; and*
2. *To provide industry with a ready-to-work, local workforce based on a nationally-validated pre-employment program. Since the program's inception in 2011, 520 learners have been enrolled and 297 have successfully completed the program. The graduation rate is currently 60% and 51% of graduates are employed or have continued with their education. Recently, Mining Essentials was piloted in Timmins, Ontario as a high school semester course, allowing students to obtain high school credits for this course. The program is now available in Quebec and two deliveries have already taken place in the province.*

#### CREDENTIALS AND RECOGNITION: HIGHLIGHTS

**The Canadian Mining Certification Program:** The program has now certified more than 1,100 workers. It is governed by a multi-stakeholder certification standing committee, which reports to the MiHR Board. Companies implementing this program include: Cementation, Dominion Diamond, the Diavik Diamond Mine, Teck Resources, Huckleberry Mines, Hy-Tech Drilling Ltd, New Gold, Vic Progressive, and others. National certification is available for workers in the following occupational groups: Underground Miners; Surface Miners; Minerals Processing Operators; Diamond Drillers; Industry Trainers; Frontline Supervisors; and Hoist Operators. A new, candidate-driven process is now available for the latter three occupations and this process will be piloted for the other four occupations in the fall of 2017. ■

→ *For more information on the MiHR Council or any of its programs, visit [www.mihr.ca](http://www.mihr.ca) or contact MiHR's Executive Director, Ryan Montpellier, at [rmontpellier@mihr.ca](mailto:rmontpellier@mihr.ca)*





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\*Left MAC Board in 2016

\*\*Joined MAC Board in 2016

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 David Clarry, HudBay Minerals Inc.  
 Pierre Gratton, Mining Association of Canada  
 Alanna Heath, Barrick Gold Corporation\*  
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 John Kearney, Canadian Zinc Corporation  
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 Tina Markovic, BHP Billiton Canada Inc.  
 Cory McPhee, Vale  
 Josée Méthot, Québec Mining Association  
 Shirley Neault, HudBay Minerals Inc.  
 Tom Paddon, Baffinland Iron Mines Corporation  
 Christopher Ryder, BHP Billiton Canada Inc.  
 Kristan Straub, Glencore  
 Anne Marie Toutant, Suncor Energy Inc.  
 Penggui Yan, HD Mining International Ltd.  
 Alexa Young, Teck Resources Limited

## COMMUNITY OF INTEREST ADVISORY (COI) PANEL

Dan Benoit, Aboriginal Category  
 Theresa Baikie, Aboriginal Category  
 Tim Johnston, Economic and Community Development Category  
 Joy Kennedy, Social NGO Category (includes faith-based groups)  
 Stephen Kibsey, Finance and Investment Category  
 Chief Earl Klyne, Aboriginal Category\*  
 Nathan Lemphers, Environmental NGO Category  
 Doug Olthuis, Labour and Workplace Category  
 Philip Oxhorn, International Development Category  
 Maya Stano, Expert Category  
 Dave Walkem, Economic and Community Development Category  
 Luc Zandvliet, Expert Category\*

\*Left position in 2016

### Industry Representatives on the COI Panel

Pierre Gratton, Mining Association of Canada  
 Michel Julien, Agnico Eagle Mines Limited  
 Josée Méthot, Association minière du Québec  
 Cory McPhee, Vale  
 Shirley Neault, HudBay Minerals Inc. (observer)  
 Peter Read, Syncrude Canada Ltd.  
 Mark Wiseman, Avalon Rare Metals Inc.  
 Scott Yarrow, Glencore

## TSM INITIATIVE LEADERS

**Chair:** Shirley Neault, HudBay Minerals Inc.  
**Vice Chair:** Shane Borchardt, Cameco Corporation  
 Chris Adachi, Teck Resources Limited  
 Tracy Anderson, First Quantum Minerals  
 Meghan Barnett, Glencore  
 Frederic Brassard, Association minière du Québec  
 Chris Browne, Vale  
 Bob Butler, Glencore  
 Carolyn Chisholm, Rio Tinto Canada

Chantal Clement, Goldcorp Inc.  
 Nick Cotts, Newmont Hope Bay Mining Ltd.  
 Bryan Cox, Mining Association of British Columbia  
 Louie Cyrenne, Iron Ore Company of Canada  
 Denis Desbiens, ArcelorMittal Exploitation Minière Canada s.e.n.c.  
 Craig Ford, Excellon Resources Inc.  
 Art Frye, Imperial Metals Corporation  
 Joe Fyfe, Glencore  
 Patrice Gilbert, Agnico Eagle Mines Limited  
 Katherine Gizikoff, Taseko Mines Limited  
 Bronwyn Gorsline, Goldcorp Inc.  
 Mario Julien, Glencore  
 Laurie Kelly, Teck Resources Limited  
 Mary Kita, Avalon Advanced Materials Inc.  
 Ed Kniel, Teck Resources Limited  
 Mark Kruger, Syncrude Canada Ltd.  
 Patrick Lauzière, Iron Ore Company of Canada  
 Claudine Lee, Dominion Diamond Corporation  
 Emma Leith, Agnico Eagle Mines Limited  
 Charles Levac, Glencore  
 Janice Linehan, Suncor Energy Inc.  
 Kristen Mariuzza, Lundin Mining Corporation  
 Stephanie Marshall, Glencore  
 Luke Moger, Imperial Metals Corporation  
 Loris Molino, Vale  
 Michael Patterson, Anglo American  
 Kelly Payne, Rio Tinto Canada  
 Serge Pelletier, BHP Billiton  
 Nicole Pesonen, Nyrstar  
 Gina Rau, Barrick Gold Corporation  
 Lyle Safronetz, Vale  
 Johan Skoglund, Nyrstar  
 Roger Souckey, Goldcorp Inc.  
 Gail Susana Ross, Barrick Gold Corporation  
 Lindsey Taylor, IAMGOLD Corporation  
 Denis Therrie, Agnico Eagle Mines Limited  
 Nathalie Tremblay, Association minière du Québec  
 Eric Westrum, Suncor Energy Inc.  
 Andrew Williams, De Beers Canada Inc.  
 Dean Williams, Kinross Gold USA Inc.  
 Dennis Wilson, New Gold Inc.  
 Lynda Wilson-Hare, Glencore  
 Steve Woolfenden, IAMGOLD Corporation  
 Scott Wytrychowski, Shell Canada Energy Inc.

## INTERNATIONAL SOCIAL RESPONSIBILITY

**Chair:** Alanna Heath, Barrick Gold Corporation\*  
**Chair:** Christian Del Valle, Goldcorp Inc.\*\*  
**Vice-Chair:** David Clarry, HudBay Minerals Inc.  
 Karina Andrus, Advisian (WorleyParsons Group)  
 David Barrett, Eldorado Gold Corporation  
 Brendan Cahill, Excellon Resources Inc.  
 Dominic Channer, Kinross Gold Corporation  
 Dale Coffin, Agnico Eagle Mines Limited  
 Silvana Costa, New Gold Inc.  
 Nick Cotts, Newmont Hope Bay Mining Ltd.







Bryan Cox, Mining Association of British Columbia  
 Stephen Crozier, IAMGOLD Corporation  
 Aidan Davy, International Council on Mining and Metals  
 Blair Dickerson, Rio Tinto Canada  
 Kyle Dufresne, Rio Tinto Canada  
 Mark Edwards, Teck Resources Limited  
 Craig Ford, Excellon Resources Inc.  
 Dave Forestell, Barrick Gold Corporation  
 Caitlin Glynn-Morris, First Quantum Minerals  
 Simon Jimenez, Barrick Gold Corporation  
 Matt Johnson, Lundin Mining Corporation  
 Nadim Kara, Prospectors and Developers Association of Canada  
 Etienne Lamy, Rio Tinto Canada  
 Nicola Main-Thomson, Shell Canada Energy Inc.  
 Kristen Mariuzza, Lundin Mining Corporation  
 Andrew Mathewson, AECOM  
 Cory McPhee, Vale  
 Monica Moretto, Pan American Silver Corp.  
 Krista Muhr, Eldorado Gold Corporation  
 John Mullally, Goldcorp Inc.  
 Erica Myles, Shell Canada Energy Inc.  
 Stephen Nairne, Lundin Mining Corporation  
 Kevin O'Callaghan, Fasken Martineau  
 Ed Opitz, Kinross Gold Corporation  
 Channa Pelpola, Teck Resources Limited  
 Mac Penney, Kinross Gold Corporation  
 Diane Pinto, Advision (WorleyParsons Group)  
 Caroline Rossignol, Lundin Mining Corporation  
 Amelie Rouleau, Glencore  
 Somia Sadi, AECOM  
 Jay Schlosar, Teck Resources Limited  
 Alexandra Sewell, IAMGOLD Corporation  
 Roger Souckey, Goldcorp Inc.  
 Ian Turpin, Quadra Chemicals Ltd.  
 Melanie Wallace, Prospectors and Developers Association of Canada  
 Eric Westrum, Suncor Energy Inc.  
 Tricia Wilhelm, Anglo American plc  
 Lesley Williams, Prospectors and Developers Association of Canada  
 Dennis Wilson, New Gold Inc.  
 Linda Wrong, Lundin Mining Corporation  
*\*Left position in 2016*  
*\*\*Assumed position in 2016*

## ABORIGINAL AFFAIRS COMMITTEE

**Chair: Sean Willy, Cameco Corporation\***  
**Chair: Kara Flynn, Syncrude Canada Ltd.\*\***  
 Tim Bekhuys, New Gold Inc.  
 Charles Birchall, Willms & Shier  
 Marguerite Chambers, HudBay Minerals Inc.  
 David Clarry, HudBay Minerals Inc.  
 Stephen Crozier, IAMGOLD Corporation  
 Blair Dickerson, Rio Tinto Canada  
 Mark Edwards, Teck Resources Limited  
 Patrice Gilbert, Agnico Eagle Mines Limited  
 Sandra Gogal, Miller Thomson LLP  
 Alan Hair, HudBay Minerals Inc.

Leanne Hall, Deloitte & Touche LLP  
 Rachel Houmphan, Rio Tinto Canada  
 Barbara Kirby, Mining Industry Human Resources Council  
 Heather Lawrence, Teck Resources Limited  
 Stephen Lindley, SNC-Lavalin Inc.  
 Andrew Mathewson, AECOM  
 Erica Myles, Shell Canada Energy Inc.  
 Glenn Nolan, Noront Resources Ltd.  
 Kevin O'Callaghan, Fasken Martineau  
 Bob Overvold, Dominion Diamond Corporation  
 Tom Paddon, Baffinland Iron Mines Corporation  
 Mark Prystupa, Suncor Energy Inc.  
 Amelie Rouleau, Glencore  
 Brad Ryder, Glencore  
 Somia Sadiq, AECOM  
 Alexandra Sewell, IAMGOLD Corporation  
 Jody Shinkus, HD Mining International Ltd.  
 Ken Smith, BHP Billiton Canada Inc.  
 Roger Souckey, Goldcorp Inc.  
 Rebecca Sullivan, Suncor Energy Inc.  
 Tom Syer, Teck Resources Limited  
 Mark Travers, Vale  
 Federico Velasquez, Anglo American  
 Lesley Williams, Prospectors and Developers Association of Canada  
 Dennis Wilson, New Gold Inc.

*\*Left position in 2016*

*\*\*Assumed position in 2016*

## ENERGY COMMITTEE

**Chair: Chris Adachi, Teck Resources Limited**  
 Michael Aire, Newmont Mining Corporation  
 Colin Alie, Shell Canada Energy Inc.  
 Melissa Barbanell, Barrick Gold Corporation  
 Louiza Bell, Teck Resources Limited  
 Charles Birchall, Willms & Shier  
 Russell Blades, Barrick Gold Corporation  
 Shane Borchardt, Cameco Corporation  
 Cheryl Brownlee, Ontario Mining Association  
 Tim Butler, Iron Ore Company of Canada  
 Marc Butler, Glencore  
 Marc-Andre Charette, Cameco Corporation  
 Andrew Cooper, New Gold Inc.  
 Gilles Couture, ArcelorMittal Exploitation Minière Canada s.e.n.c.  
 R. Duinker, Hatch & Associates Inc.  
 Bill Ferdinand, Barrick Gold Corporation  
 Patricia Groulx, Teck Resources Limited  
 Aaron Ling, Advision (WorleyParsons Group)  
 Alan Luck, Shell Canada Energy Inc.  
 Shirley Neault, HudBay Minerals Inc.  
 Mark Passi, Glencore  
 Frank Petrolo, Vale  
 Adrianna Stech, Ontario Mining Association  
 Harold Todd, Teck Resources Limited  
 Liezl Van Wyk, Diavik Diamond Mines Inc.  
 Scott Yarrow, Glencore





## ENVIRONMENT COMMITTEE

**Chair: Marc Butler, Glencore\***

**Chair: Mark Freberg, Teck Resources Limited\*\***

Marko Adzic, Teck Resources Limited

Steven Aiken, Knight Piésold Ltd.

Raj Anand, Imperial Metals Corporation

Tracy Anderson, First Quantum Minerals

Joe Armstrong, Vale

Mike Aziz, Goldcorp Canada Ltd.

Lynne Barlow, Syncrude Canada Ltd.

Meera Bawa, Teck Resources Limited

Tim Bekhuys, New Gold Inc.

Anne Belanger, Prospectors and Developers Association of Canada

Suzanne Belanger, Teck Resources Limited

Fariel Benameur, Rio Tinto

Debbie Berthelot, BHP Billiton

Charles Birchall, Willms & Shier

Perry Blanchard, Vale

Daniel Bouillon, Teck Resources Limited

Stephane Brienne, Teck Metals Ltd.

Karina Briño, Mining Association of British Columbia

Todd Burlingame, Baffinland

Alex Carciumaru, AECOM

Jim Chan, ERM Canada Corporation

Carolyn Chisholm, Rio Tinto Canada

Derek Chubb, ERM Canada Corporation

Chantal Clement, Goldcorp Inc.

Richard Cook, Knight Piésold Ltd.

Jay Cooper, HudBay Minerals Inc.

Denise Cormier, Iron Ore Company of Canada

Silvana Costa, New Gold Inc.

David Cotsman, RWDI

Gilles Couture, ArcelorMittal Exploitation Minière Canada s.e.n.c.

Erin Cullen, Vale

Anne Currie, ERM Canada Corporation

Sheila Daniel, AMEC Foster Wheeler AES, Inc.

Jeremy Dart, Barrick Gold Corporation

Scott Davidson, New Gold Inc.

Michael Davies, Teck Resources Limited

David Derosa, Teck Resources Limited

Chris D'Odorico, Teck Resources Limited

Mary Dubel, Vale

Martin Duclos, Goldcorp Inc.

Kent England, Cameco Corporation

David Ewing, Teck Resources Limited

Nigel Fisher, New Gold Inc.

Aynsley Foss, Ontario Mining Association

Art Frye, Imperial Metals Corporation

Joe Fyfe, Glencore

Nicol Gagstetter, Rio Tinto Canada

Katherine Gizikoff, Taseko Mines Limited

Jennie Gjertsen, Goldcorp Inc.

Julie Gravel, ArcelorMittal Exploitation Minière Canada s.e.n.c.

Alan Hair, HudBay Minerals Inc.

Brent Hamblin, First Quantum Minerals

David Harpley, Canadian Zinc Corporation

Shane Hayes, Barrick Gold Corporation

Steven Hilts, Teck Resources Limited

Bernard Hince, Glencore

Tom Hoefer, NWT and Nunavut Chamber of Mines

Jane Howe, Advisia (WorleyParsons Group)

Dave Huebert, AECOM

Carolyn Hunt, Vale

Matt Hynes, Vale

Craig Johnston, Stantec

Troy Jones, Teck Resources Limited

Nadim Kara, Prospectors and Developers Association of Canada

Laurie Kelly, Teck Resources Limited

Dale Klondnicki, AMEC Foster Wheeler AES, Inc.

Jody Kuzenko, Vale

Donald Laflamme, Rio Tinto Canada

Anthony Lambert, BHP Billiton

Lisa Lanteigne, Vale

Simon Latulippe, WSP Group

Patrick Lauzière, Iron Ore Company of Canada

Claudine Lee, Dominion Diamond Corporation

Janice Linehan, Suncor Energy Inc.

Gordon Macdonald, Diavik Diamond Mines Inc.

John Machin, Syncrude Canada Ltd.

Erik Madsen, De Beers Canada

Melinda Mamer, Suncor Energy Inc.

Kristen Mariuzza, Lundin Mining Corporation

Stephanie Marshall, Glencore

Dennis Martin, Vale

Darrell Martindale, New Gold Inc.

Shane Matson, Goldcorp Canada Inc.

Dave McDonald, Vale

Christy McDonough, BHP Billiton Canada Inc.

Samantha McGarry, Glencore

Wayne McPhee, Baffinland

Allison Merla, Vale

Bruce Mikkila, Vale

Jim Millard, Baffinland

Sean Miller, Maxxam Analytics International Corporation

Mary Mioska, Western Copper and Gold Corporation

Shannon Mitchell, Vale

Loris Molino, Vale

R. Liam Mooney, Cameco Corporation

Christine Moore, Intrinsik Corp.

Maurice Moreau, Glencore

Mary Murdoch, Stantec

Kevin Nagy, Cameco Corporation

Shirley Neault, HudBay Minerals Inc.

Bryan Neeley, Goldcorp Inc.

Brendon Norrie, AECOM

Kevin O'Callaghan, Fasken Martineau

Alvaro Paredes, AMEC Foster Wheeler AES, Inc.

Mark Passi, Glencore

Michael Patterson, Anglo American

Kelly Payne, Rio Tinto Canada

Chad Pearson, Glencore

Steve Pelletier, Glencore





Nicole Pesonen, Nyrstar  
 John Petherick, Glencore  
 Jason Plamondon, Knight Piésold Ltd.  
 Colleen Prather, Golder Associates Ltd  
 Chris Ransom, Glencore  
 Gina Rau, Barrick Gold Corporation  
 George Read, Shore Gold Inc.  
 Stephane Robert, Agnico Eagle Mines Limited  
 John Roberts, Aurora Energy Resources Inc.  
 Lindsay Robertson, Klohn Crippen Berger Ltd.  
 James Russell, Goldcorp Inc.  
 Keith Russell, Partners in Performance  
 Mark Ruthven, AMEC Foster Wheeler AES, Inc.  
 Lyle Safronet, Vale  
 Jared Saunders, Vale  
 Pamela Schwann, Saskatchewan Mining Association  
 Christa Seaman, Shell Canada Energy Inc.  
 Walter Sencza, Newmont Canada Corporation  
 Sean Sharpe, Glencore  
 Neil Shelly, Alberta Chamber of Resources  
 Isabelle Shelvey, Syncrude Canada Ltd.  
 Jody Shimkus, HD Mining International Ltd.  
 Brad Sigurdson, Saskatchewan Mining Association  
 Anne Simpson, Syncrude Canada Ltd.  
 Johan Skoglund, Nyrstar  
 Helga Sonnenberg, Ecological and Regulatory Solutions Inc.  
 Roger Souckey, Goldcorp Inc.  
 Adrianna Stech, Ontario Mining Association  
 Stephanie Thibeault, Goldcorp Inc.  
 Mark Tinholt, Teck Resources Limited  
 Ryan Todd, New Gold Inc.  
 Kirk Tourout, Newmont Canada Corporation  
 Nathalie Tremblay, Québec Mining Association  
 Nick Tremblay, Rio Tinto Canada  
 France Trépanier, Goldcorp Inc.  
 Scott Trusler, MMG Resources Inc.  
 Ian Turpin, Quadra Chemicals Ltd.  
 Carlos Vargas, AECOM  
 Richard Viflantzoff, Charles Tennant & Company (Canada) Ltd.  
 Melanie Wallace, Prospectors and Developers Association of Canada  
 Kelly Wells, Canada North Environmental Services  
 Kathryn Wherry, Hatch & Associates Inc.  
 Andrew Williams, De Beers Canada  
 Lesley Williams, Prospectors and Developers Association of Canada  
 Dennis Wilson, New Gold Inc.  
 Mark Wiseman, Avalon Advanced Materials Inc.  
 Steve Woolfenden, IAMGOLD Corporation  
 Linda Wrong, Lundin Mining Corporation  
 Warren Zubot, Syncrude Canada Ltd.  
*\*Left position in 2016*  
*\*\*Assumed position in 2016*

## **PUBLIC AFFAIRS COMMITTEE**

**Chair: Tom Ormsby, De Beers Canada**  
 Dale Austin, Cameco Corporation  
 Doug Brown, Teck Resources Limited

Scott Brubacher, HudBay Minerals Inc.  
 Heather Bruce-Veitch, Iron Ore Company of Canada  
 Carolyn Chisholm, Rio Tinto Canada  
 Dale Coffin, Agnico Eagle Mines Limited  
 Blair Dickerson, Rio Tinto Canada  
 Kyle Dufresne, Rio Tinto Canada  
 Peter Fuchs, Glencore  
 Claudine Gagnon, Rio Tinto Canada  
 Tanya Giulford, Shell Canada Energy Inc.  
 Jean-Pierre Gregoire, Rio Tinto Canada  
 Angela Hamlyn, Canadian Institute of Mining, Metallurgy and Petroleum  
 Jeff Hanman, Teck Resources Limited  
 Jeff Hryhoriw, Cameco Corporation  
 Tracey Irwin, Saskatchewan Mining Association  
 Matt Johnson, Lundin Mining Corporation  
 Dany Laferriere, Suncor Energy Inc.  
 Benjamin Little, IAMGOLD Corporation  
 Andrea Mandel-Campbell, Kinross Gold Corporation  
 Christine Marks, Goldcorp Inc.  
 Ryan McEachern, CAMESE  
 Cory McPhee, Vale  
 John Mullally, Goldcorp Inc.  
 Deana Pagnan, Prospectors and Developers Association of Canada  
 Mac Penney, Kinross Gold Corporation  
 Cheryl Robb, Syncrude Canada Ltd.  
 Emily Robb, Vale  
 Steve Robertson, Imperial Metals Corporation  
 Christopher Ryder, BHP Billiton Canada Inc.  
 Alexandra Sewell, IAMGOLD Corporation  
 Jody Shimkus, HD Mining International Ltd.  
 Michael Southern, Suncor Energy Inc.  
 Mathieu St-Amant, Québec Mining Association  
 Kristan Straub, Glencore  
 Heather Sullivan, Glencore  
 Jean Vavrek, Canadian Institute of Mining, Metallurgy and Petroleum  
 Federico Velasquez, Anglo American  
 Tracey Wolsey, Suncor Energy Inc.  
 Alexa Young, Teck Resources Limited

## **TAILINGS WORKING GROUP**

**Chair: Michael Davies, Teck Resources Limited**  
 Jennifer Abols, Lundin Mining Corporation  
 Tracy Anderson, First Quantum Minerals  
 Chris Anderson, Teck Resources Limited  
 Matthew Andrews, Pan American Silver Corp.  
 Debbie Berthelot, BHP Billiton Base Metals  
 David Bleiker, AMEC Foster Wheeler Inc.  
 Karina Briño, Mining Association of British Columbia  
 Cameron Brown, Western Copper and Gold Corporation  
 Bob Chambers, Klohn Crippen Berger Ltd.  
 Carolyn Chisholm, Rio Tinto Canada  
 Chantal Clement, Goldcorp Inc.  
 Jay Cooper, HudBay Minerals Inc.  
 Scott Davidson, New Gold Inc.  
 Randy Donato, Vale  
 Norman Eenkooren, Suncor Energy Inc.





Barry Esford, Cameco Corporation  
 Joe Fyfe, Glencore  
 Helen Harper, Glencore  
 Stephen Hebb, Iron Ore Company of Canada  
 Ali Hooshar, AECOM  
 Carlos Iturralde, De Beers Canada  
 Karlis Jansons, Tetra Tech  
 Troy Jones, Teck Resources Limited  
 Michel Julien, Agnico Eagle Mines Limited  
 Anthony Lambert, BHP Billiton  
 Simon Latulippe, WSP Group  
 Marc Lincoln, De Beers Canada.  
 Gord Livingstone, Syncrude Canada Ltd.  
 Jim Maltby, Glencore  
 Scott Martens, Shell Canada Energy Inc.  
 Todd Martin, Anglo American  
 Wayne Mimura, Syncrude Canada Ltd.  
 Peter Mooney, Dominion Diamond Corporation  
 Shirley Neault, HudBay Minerals Inc.  
 Greg Noack, Klohn Crippen Berger Ltd.  
 Michael Richardson, Advision (WorleyParsons Group)  
 Gonzalo Rios, Agnico Eagle Mines Limited  
 Stephane Robert, Agnico Eagle Mines Limited  
 Rob Rotzinger, Taseko Mines Limited  
 Lyle Safronetz, Vale  
 Brad Sigurdson, Saskatchewan Mining Association  
 Rick Siwik, Siwik Consulting Inc.  
 Nick Smart, De Beers Canada  
 Greg Smyth, Knight Piésold Ltd.  
 Cecil Ulrich, AECOM  
 Michelle Velez, Syncrude Canada Ltd.

## SCIENCE COMMITTEE

**Chair: Kent England, Cameco Corporation**

Steven Aiken, Knight Piésold Ltd.  
 Raj Anand, Imperial Metals Corporation  
 Meera Bawa, Teck Resources Limited  
 Tim Bekhuys, New Gold Inc.  
 Debbie Berthelot, BHP Billiton Base Metals  
 Valerie Bertrand, Golder Associates  
 Daniel Bouillon, Teck Resources Limited  
 Todd Burlingame, Baffinland  
 Marc Butler, Glencore  
 Denise Cormier, Iron Ore Company of Canada  
 Gilles Couture, ArcelorMittal Exploitation Minière Canada s.e.n.c.  
 Sheila Daniel, AMEC Foster Wheeler AES, Inc.  
 Scott Daniels, Rio Tinto Canada  
 David Derosa, Teck Resources Limited  
 Aynsley Foss, Ontario Mining Association  
 Art Frye, Imperial Metals Corporation  
 Joe Fyfe, Glencore  
 Katherine Gizikoff, Taseko Mines Limited  
 Jennie Gjertsen, Goldcorp Inc.  
 Julie Gravel, ArcelorMittal Exploitation Minière Canada s.e.n.c.  
 Lara Hoadley, Rio Tinto Canada  
 Jane Howe, Advision (WorleyParsons Group)

Dave Huebert, AECOM  
 Carolyn Hunt, Vale  
 Anthony Lambert, BHP Billiton  
 Martin Larose, WSP Group  
 Patrick Lauzière, Iron Ore Company of Canada  
 Gordon Macdonald, Diavik Diamond Mines Inc.  
 Erik Madsen, De Beers Canada  
 Darrell Martindale, New Gold Inc.  
 Christy McDonough, BHP Billiton Canada Inc.  
 Wayne McPhee, Baffinland  
 Sean Miller, Maxxam Analytics International Corporation  
 Christine Moore, Intrinsic Corp.  
 Gaston Morin, ArcelorMittal Exploitation Minière Canada s.e.n.c.  
 Mike Murchie, Cameco Corporation  
 Mary Murdoch, Stantec  
 Shirley Neault, HudBay Minerals Inc.  
 Steve Pelletier, Glencore  
 Colleen Prather, Golder Associates Ltd  
 Stephane Robert, Agnico Eagle Mines Limited  
 John Roberts, Aurora Energy Resources Inc.  
 Erin Robertson, Cameco Corporation  
 Steve Rusak, AECOM  
 James Russell, Goldcorp Inc.  
 Mark Ruthven, AMEC Foster Wheeler AES, Inc.  
 Walter Sencza, Newmont Canada Corporation  
 Brad Sigurdson, Saskatchewan Mining Association  
 Anne Simpson, Syncrude Canada Ltd.  
 Helga Sonnenberg, Ecological and Regulatory Solutions Inc.  
 Roger Souckey, Goldcorp Inc.  
 Adrianna Stech, Ontario Mining Association  
 Mark Tinholt, Teck Metals Ltd.  
 Kirk Tourout, Newmont Canada Corporation  
 Ian Turpin, Quadra Chemicals Ltd.  
 Glen Watson, Vale  
 Kelly Wells, Canada North Environmental Services  
 Andrew Williams, De Beers Canada

## TAXATION COMMITTEE

**Chair: Vacant**

Brian Abraham, Fraser Milner Casgrain  
 Eric Bretsen, Ernst & Young LLP  
 Thomas Cheung, Teck Resources Limited  
 Robert De Biasio, Vale  
 Ron Gagle, Prospectors and Developers Association of Canada  
 Philip Hopwood, Deloitte & Touche LLP  
 Nadim Kara, Prospectors and Developers Association of Canada  
 Tom King, KPMG LLP  
 Jacob Kulinski, ArcelorMittal Canada  
 Pat MacNamara, Agnico Eagle Mines Limited  
 Louis Martin, Glencore Canada  
 Maurice McClure, Iron Ore Company of Canada  
 Julie Morier, Rio Tinto Canada  
 Angelo Nikolakakis, Ernst & Young LLP  
 Jocelin Paradis, Rio Tinto Canada  
 Susanne Playford, HudBay Minerals Inc.





Sahba Safavi, MMG Resources Inc.  
 Audrey Sinkevicius, De Beers Canada Inc.  
 Bruce F. Sprague, Ernst & Young LLP  
 Steve Suarez, Borden Ladner Gervais Inc.  
 Travis Temple, HudBay Minerals Inc.  
 John Turner, Fasken Martineau  
 David Watson, IAMGOLD Corporation

## TRANSPORTATION COMMITTEE

### Chair: Vacant

Othman AlFaseeh, AECOM  
 Ron Annesley, Barrick Gold Corporation  
 Peter Bianchini, Iron Ore Company of Canada  
 Francois Brisson, Iron Ore Company of Canada  
 Marc Butler, Glencore  
 Marc-Andre Charette, Cameco Corporation  
 Jay Cooper, HudBay Minerals Inc.  
 Scott Daniels, Rio Tinto Canada  
 Steven Douville, Vale  
 Bev Godson, Cameco Corporation  
 Paul Graham, Vale  
 Lara Hoadley, Rio Tinto Canada  
 Thomas Hobbs, Norfalcon Inc. a Glencore Company  
 Scott Iredale, Shell Canada Energy Inc.  
 Brad Johnston, Teck Coal Limited  
 Paul Kolisnyk, Teck Resources Limited  
 Harald Kullmann, Advisian (WorleyParsons Group)  
 Eric Kuraitis, Norfalcon, A Glencore Company  
 Brian Kurczaba, HudBay Minerals Inc.  
 Jacky Larocque, Suncor Energy Inc.  
 Melinda Mamer, Suncor Energy Inc.  
 Gordon Mattson, Teck Resources Limited  
 Benoit Méthot, Iron Ore Company of Canada  
 Pat Murphy, Glencore  
 Stephen Nelson, Suncor Energy Inc.  
 Martin Pede, Glencore  
 Frank Petrolo, Vale  
 Kathy Piersanti, HudBay Minerals Inc.  
 Ben Prashaw, AECOM  
 Amelie Rouleau, Glencore  
 Lyle Safronetz, Vale  
 Daniel Sauve, Glencore  
 Mikael Schauman, Lundin Mining Corporation  
 Leigh Scrivens, BHP Billiton Canada Inc.  
 Don Smith, Teck Resources Limited  
 Suresh Soundararajan, Suncor Energy Inc.  
 Jamie Veilleux, Glencore  
 Patrick Walker, Rio Tinto Canada  
 Alexa Young, Teck Resources Limited  
 John Zaidan, Cameco Corporation

## NORTHERN AFFAIRS COMMITTEE

### Chair: Vacant

Rebecca Alty, Diavik Diamond Mines Inc.  
 Brad Armstrong, Lawson Lundell LLP  
 Mark Ayranto, Victoria Gold Corp.  
 Brent Bergeron, Goldcorp Inc.  
 Charles Birchall, Willms & Shier  
 Mike Clark, Alexco Resource Corp.  
 Chantal Clement, Goldcorp Inc.  
 Larry Connell, Agnico Eagle Mines Limited  
 Richard Cook, Knight Piésold Ltd.  
 Cathy Corrigan, AECOM  
 Elise Foong, AECOM  
 Dominique Girard, Agnico Eagle Mines Limited  
 Sandra Gogal, Miller Thomson LLP  
 Jane Howe, Advisian (WorleyParsons Group)  
 John Kearney, Canadian Zinc Corporation  
 Christine Kowbel, Lawson Lundell LLP  
 Reg Labelle, Atlas Copco Construction and Mining  
 Michel Lanteigne, AECOM  
 John McConnell, Victoria Gold Corp.  
 Ryan McEachern, CAMESE  
 Bill Mercer, Avalon Advanced Materials Inc.  
 Clynton Nauman, Alexco Resource Corp.  
 Kevin O'Callaghan, Fasken Martineau  
 Bob Overvold, Dominion Diamond Corporation  
 Tom Paddon, Baffinland Iron Mines Corporation  
 Vic Pakalnis, MIRARCO Mining Innovation  
 Brad Ryder, Glencore  
 Bruce F. Sprague, Ernst & Young LLP  
 Scott Trusler, MMG Resources Inc.  
 Jean Vavrek, Canadian Institute of Mining, Metallurgy and Petroleum  
 Paul West-Sells, Western Copper and Gold Corporation  
 Andrew Williams, De Beers Canada  
 Mark Wiseman, Avalon Advanced Materials Inc.  
 Laura Worsley-Brown, Dominion Diamond Corporation







## MEMBER COMPANIES

Agnico Eagle Mines Limited  
 ArcelorMittal Exploitation Minière  
 Canada s.e.n.c.  
 Baffinland Iron Mines Corporation  
 Barrick Gold Corporation  
 BHP Billiton  
 Cameco Corporation  
 Canadian Zinc Corporation  
 De Beers Canada Inc.  
 Dominion Diamond Corporation  
 Eldorado Gold Corporation  
 Excellon Resources Inc.  
 First Quantum Minerals  
 Glencore  
 Goldcorp Inc.  
 HD Mining International Ltd.  
 HudBay Minerals Inc.  
 IAMGOLD Corporation  
 Imperial Metals Corporation  
 Kaminak Gold Corporation  
 KGHM International  
 Kinross Gold Corporation  
 Lundin Mining Corporation  
 New Gold Inc.  
 Newmont Canada Corporation  
 Noront Resources Ltd.  
 Nyrstar  
 Pan American Silver Corp.  
 Rio Tinto Canada  
 Royal Canadian Mint  
 Shell Canada Energy Inc.  
 Shore Gold Inc.  
 Suncor Energy Inc.  
 Syncrude Canada Ltd.  
 Taseko Mines Limited  
 Teck Resources Limited  
 Vale  
 Victoria Gold Corporation  
 Western Copper and Gold Corporation

## ASSOCIATE MEMBERS

AECOM  
 Advisian WorleyParsons Group  
 Alexander Proudfoot  
 Atlas Copco Construction and Mining  
 Ausenco  
 Avalon Advanced Materials Inc.  
 Barr Engineering and Environmental  
 BGC Engineering Inc.  
 Boart Longyear  
 CAMIRO  
 Canada North Environmental Services  
 Cementation Canada Inc.  
 Centre for Excellence in Mining and Innovation  
 Centerra Gold Inc.

Chamber of Marine Commerce  
 Charles Tennant & Company (Canada) Ltd.  
 CIBC World Markets  
 Convergent Technologies  
 COREM  
 Deloitte & Touche LLP  
 Des Nehde Development  
 ÉEM Inc.  
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*\*Joined MAC in 2017*

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