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EDITION

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Dear Readers,

Global Business Reports is pleased to bring you the following report in partnership with the British Columbia Association for Mineral Exploration (AME), which includes insights from Edie Thome, president and CEO of the AME; Brian Cox, president and CEO of the Mining Association of B.C.; as well as many other industry leaders. In this pre-release, our research team focuses on the province's efforts to reconcile with indigenous groups by forming the B.C. Regional Mining Alliance (BCRMA). With a goal of increasing transparency in permitting and development, B.C. is becoming a global leader in working with local communities.

Meanwhile, Vancouver continues to serve as a mining hub, hosting over 800 juniors and other industry players who work around the globe. A strong interest in Latin America is palpable, with companies like Endeavour Silver, Telson, and Santacruz Silver Mining operating in Mexico, Lundin Gold in Ecuador, Altamira in Brazil, and Amerigo Resources in Chile. Canadian companies have learned to navigate political systems with very different sets of rules and regulations, exporting cutting-edge technology and best practices across the continent and globe. Companies around the world are therefore turning to B.C. to learn from its environmental and social practices.

Last year saw a 20% increase in exploration spending in B.C. when compared to 2012, reaching a total of C\$246 million. This has produced optimism about the potential for new discoveries. Nevertheless, juniors are still struggling to raise funds in an environment that is crazy for cannabis, blockchain and crypto-currency markets and lacks institutional liquidity. To combat these headwinds, juniors are turning to creative strategies to carry on with their projects. Companies like Mineit Consulting Inc, for instance, leverage newly graduated engineers and "assist junior exploration and mid-size production companies to sustain their mining endeavors even at times of market downturns."

New artificial intelligence (AI) and Industry 4.0 developments are also increasing productivity. From ore sorting to machine learning, companies continue to hunt for the most efficient solutions. Minesense, for instance, fully commercialized their operational ShovelSense systems in 2018 and will be present in three Canadian mines, two in Chile and one in Alaska by Q1 2019 with technology that generates precise, real-time, ore-grade measurements to a small, selective mining unit. Companies like Motion Metrics, headquartered in the heart of UBC, have also found ways to implement AI into all of their product offerings, with their most recent release being BeltMetrics™, which "uses stereo-imaging and deep learning algorithms to analyze rock fragmentation on mining conveyor belts [...] Now, mines can continuously measure rock size distribution in real time along the entire mine-to-mill comminution circuit," as explained by Shahram Tafazoli, president and CEO.

The above offers but a preview of the insights of the following report. Please feel free to share your feedback with us by writing to elisa@gbreports.com or send a tweet @gbreports.

Enjoy the read!

Elisa L. Iannaccone,
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Journalist

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B.C. Mining Enters An Era of Reconciliation

True cohesion between government, Indigenous groups and the sector is the priority.

Indigenous people have inhabited the area that constitutes British Columbia for over 10,000 years. Today, they account for roughly 200,000 of the province's population; there are 198 First Nations, Inuit and Métis with over 30 languages and nearly 60 dialects, all of which form the fabric of B.C. With a history of abuse towards Indigenous people, which included removing children from their families and forcing them to attend residential schools, B.C. is now entering an era of reconciliation and building a community in which Indigenous people and the industry can flourish. "It is vital that every mining company not forget the importance of engaging with First Nations. Most of the time, it is the dialogue that is the most crucial part of the process," says Bob Faris, president and CEO, Shamrock Resources.

Modern-day treaties were negotiated in B.C. following King George III's Royal Proclamation of 1763, where it was acknowledged that Indigenous land in North America was to remain in possession of each Nation until 'ceased' or 'purchased' by the Crown. The proclamation now falls under section 25 of the Constitution Act of 1982. Nations with a treaty gain jurisdictional power and can create rules and regulations that affect the mining permitting process. However, "in these negotiations, the First Nations group is made to give up many of the rights and title over their homeland. Tahltan land is vast and rich in minerals and other natural resources, and thus, we are not willing to give up or negotiate our rights, titles and territory," said Chad Day, president of the Tahltan Nation.

Only a select few of B.C.'s Indigenous groups have established treaties with the

"It is paramount for companies to recognize and fully respect the unique jurisdictions, rights and titles of First Nations people in British Columbia."

Chad Day, President, Tahltan Nation

government. Day is trying to modify the online staking program that the government administers for companies wanting to enter their land. "Through this system, people from all over the world are allowed to stake claims in our territory. We receive notifications of the permits and can then provide feedback or concerns," Day added. Their goal is to develop a land use plan with the government, where some areas are open for business, and others are not. The determining factors will be assessing whether mining negatively impacts species, water, and the environment, and preserving culturally significant areas.

The focus of industry players on reconciliation and collaboration has led to the creation of the BC Regional Mining Alliance (BCRMA), a partnership between the provincial government, the Tahltan Central Government, the Nisga'a Lisims Government, the Association for Mineral Exploration, Dolly Varden Silver Corp., Skeena Resources Ltd. and GT Gold Corp. The target is to develop a culture of support amongst all actors from permitting to mine closure.

The BCRMA represents industry players in the Golden Triangle, a region in Northwest B.C. that has a 150-year mining history. Rich in gold, silver, zinc, copper, lead and molybdenum, the area covers nearly 25% of the province. With strong road

connectivity, three new run-of-river hydroelectric facilities, and the completion of the Northwest Transmission line, which provides miners access to the power grid rather than relying on diesel, the industry is strongly positioned for development. "Projects that were generally diesel-powered now have a chance to plug into US\$0.04-kWh electricity. The far North will get serious amounts of snow, but the flip side is that we have a very supportive government, and local communities understand mining. The Tahltan, and the Nisga'a, who are south of us, are dream partners in terms of their understanding of mining," said Walter Coles, president and CEO, Skeena Resources.

Skeena Resources, which has strong relationships with First Nations communities, aims to become partners to international investors looking to operate in the Golden Triangle. "The potential for mineral deposits in the area is spectacular, and it is easier for global companies to partner with somebody local than to develop a First Nations relationship and a geological, regulatory expertise entirely on their own," added Coles.

Following the success of AME Roundup's 2018 Reconciliation Breakfast, where Chief Dr. Robert Joseph, co-founder of Reconciliation Canada and hereditary chief of the Gwawaenuk First Nation,



highlighted how “it’s always, always been about relationships, whether they’re good, or developing, or they’re broken,” the Association for Mineral Exploration (AME) is ready to host another successful event in 2019, sponsored by Teck Resources Limited. “It is very important for the mining industry and government to adapt to modern times and act in partnership with First Nations within the territories they want to operate in. We are starting to become more assertive, and our capacity and revenues are growing significantly. It is paramount for companies to recognize and fully respect the unique jurisdictions, rights and titles of First Nations people in British Columbia,” added Day.

The intent is certainly to ensure that companies not only enter and take from the land, but share and give back to communities, who have a deep knowledge of the land. B.C. is working on its image, in order to convey that the province is open for business, and able to support mining companies wanting to move into production. It hopes to increase transparency and public confidence, while advancing reconciliation with Indigenous groups. “Perception plays a key role in attracting investment, so building on the successes of the BC Regional Mining Alliance will help address any concerns directly,” Edie Thome, President and CEO, AME.

The permitting process has certainly dissuaded some from entering B.C., but

these efforts ensure that communities benefit, and miners from the territory’s local knowledge and skilled workforce. Sustainability must undergird the industry. “We must also remember that this province is the largest employer of Indigenous peoples, and they play a paramount role in developing the mining industry in B.C.,” said Brian Cox, president and CEO, Mining Association of B.C.

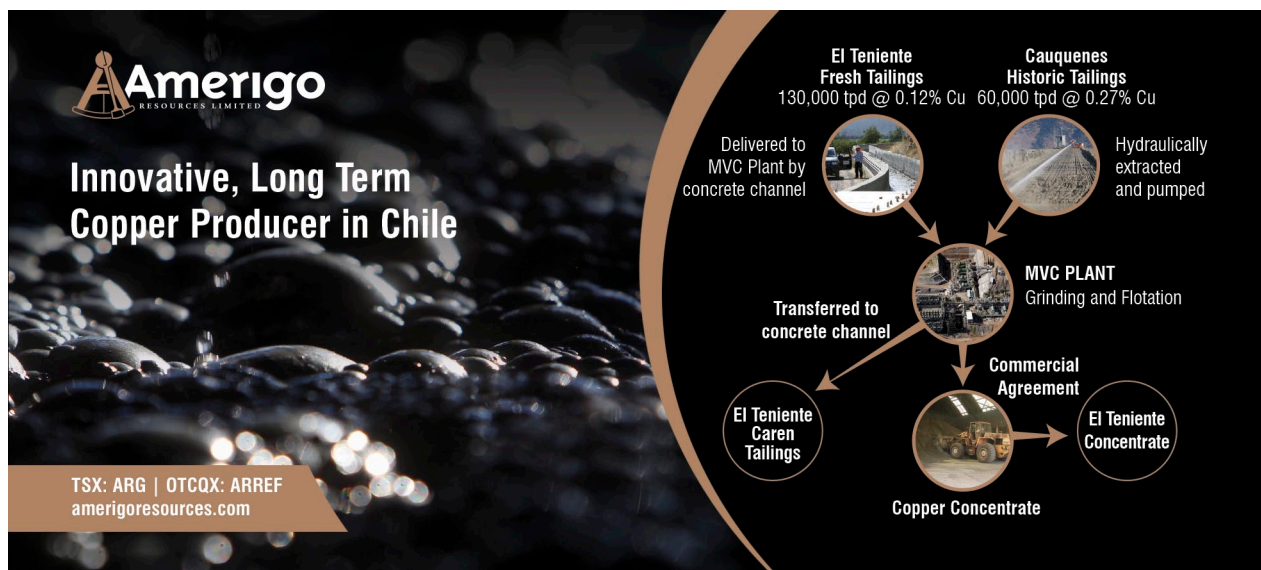
Starting to operate on a global platform, the Tahltan Nation has established relationships with communities outside of Canada that face similar challenges. Day recently met with the Ngäbe Indigenous people of Panama and Costa Rica, who hold tens of thousands of acres of land in the region. Day believes that exporting knowledge on how to mitigate mining’s negative environmental impact and strengthen relationships between industry and communities is paramount to the Nation. “In Latin America, for example, the central government often has the power to overrule the opinion of Indigenous groups, and there are many issues between local and central governments with regards to how much of the money received by the latter is reinvested into the communities,” said Brian Abraham, global mining expert, Dentons.

One of B.C.’s many strengths is the required consent and collaboration from First Nation’s groups, but this can also deter activity. Many projects can have

numerous Nations in their holding, which means that they must communicate with each and reach a unanimous decision to move forward. “There is often no true alignment of objectives amongst them, and the strength and claim of each group must thus be considered. The B.C. government has an incentive where a percentage of the revenue (resource revenue sharing) from a successful mining project is shared with Indigenous groups in terms of tax revenue, but First Nations will often also request community benefit agreements or employment and training initiatives to be implemented,” added Abraham.

A prime example is the C\$7.9 billion Enbridge Northern Gateway Pipelines project, which aimed to build parallel pipelines from Bruderheim, Alberta to Kitimat, B.C., carrying gas condensate and diluted bitumen for export to Asia via seaborne tanker. “33 Indigenous groups were required to sign an approval, 29 did and four did not, so the project did not move forward. Companies need to make everyone happy here despite the global polarity of opinion,” said Peter Espig, president and CEO, Nicola Mining.

True cohesion between government, Indigenous groups and the mining sector is still in the works, but B.C. is committed to building collaboration that will enable all parties to benefit from the province’s mineral riches. ■



Vancouver Remains a Global Mining Hub

Companies look to Latin America, Africa from their Canadian base.

Vancouver has long been a global center for mining excellence, and today hosts hundreds of companies and exports cutting-edge technology, leading environmental methods, and mining industry professionals to all corners of the globe. “For our Canadian operations, approximately 50% of our project portfolio is in Canada, 25% in the US and 25% in the rest of the world,” said Ken Embree, managing principal and president, Knight Piesold.

This success is creating a new challenge, namely a shortage of skilled laborers, as many companies are exporting their expertise, technology, operations, and skilled labor abroad, particularly to the South. The Canadian Mining Labour Market Outlook 2019, created by the Mining Industry Human Resources Council,

highlighted a 12% drop in mining engineering program enrollments between 2015 and 2016. At the same time, the McKinsey Global Institute has estimated that between 75 million and 375 million workers worldwide will need to switch career-paths and learn new skills to keep pace with the automation that will revamp work practices by 2030.

Nevertheless, the B.C. government and relevant mining associations are working to address the challenge. “Losing talent is definitely a concern and we try to retain our skilled workforce by ensuring that we have strong and responsible projects put into operation,” said Bryan Cox, president, Mining Association of British Columbia.



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The migration effect is being felt elsewhere in Canada. Victoria Gold Corp, currently building the largest gold mine in Yukon history, has developed a program to retain talent, in addition to the government's apprenticeship programs. "There are many Yukoners who have left to work in other provinces because they could not find a job locally. We are starting a campaign to attract and recruit Yukoners across Canada, and give them an opportunity to come back home to work," explained John McConnell, director, president and CEO, Victoria Gold Corp.

With a heavily regimented permitting process, many companies have chosen to operate in jurisdictions further afield, such as Africa. However, challenges emerge as some investors struggle to differentiate between the countries that make up the continent. "Out of every 100 investors, 20 look at Africa, as 'one country' instead of as a continent. They seldom realize that there are 54 countries there, which are all very different," mentioned Douglas MacQuarrie, president and CEO, Asante, who is currently focused on raising US\$20 million to further develop the Kubi mine in Ghana. With an NI-43-101 resource of 350,000 proven, indicated and inferred gold ounces, he speaks of perception challenges that foreign investors sometimes carry. "Ghana has been producing gold from large 'western' mines for more than 100 years and is Africa's second-biggest gold producer [...] Our story sells better in London and Europe than it does in Canada because of the historical ties they have to the continent," added MacQuarrie.

"The cost of failure is high in remote locations, and we want to guard against this by being certain the system is designed for maximum operational up time."

Scott Plummer,
President & CEO,
RMS-ROSS Corporation.



Nevertheless, Vancouver-based companies continue to strategize and find ways to conquer markets internationally. MGX Minerals is now looking to partner with majors in Latin America through their rapid lithium extraction technology, which won the 2018 S&P Global Platts Metals Leadership - Base and Specialty Metals award. "The government of Chile has announced that it will no longer allow for the solar evaporation of lithium. With a current 300 million gallons of water evaporation in the country, the government wants to see rapid extraction [...] We see these new policies as a potential niche for MGX Minerals," said Jared Lazerson, president, CEO and director, MGX Minerals. Using low-capital expenditure costs and robust filtration systems, MGX aims to help the industry transition to a greener energy future through cleaner extraction processes and technology and investing in commodities that power batteries.

Chile has become another center of gravity for northern mining companies. "We have a great portfolio of 'home run' exploration projects, and our goal is to make a world-class discovery. We want to become a larger, better and more sustainable company. Chile offers us a strategy to attain this. It is a high-risk and high-reward situation," said Brad Cooke, CEO, Endeavour Silver, who has historically focused on project in Mexico. Rob Henderson, president and CEO of Amerigo Resources, believes the country's infrastructure is equivalent to Canada's. "There are people with strong technical skills and the government is supportive of mining, as it makes up 25% of their GDP. Environmental regulations are based on a high standard and are clear, and the rules of business are stable and transparent. Additionally, the geological potential is enormous, under-explored, and its position in the Andes indicates there is much to find."

Despite the instability of its recent political election, "Mexico possesses a broad range of mineral prospectivity, and many interesting projects. It is an excellent platform with many opportunities for a junior company headed towards becoming a mid-tier producer. Moving forward, Santacruz will remain focused on Mexican assets," said Arturo Prestamo, CEO, Santacruz, who currently have four underground high-grade silver-gold mines operating in the country. Telson has recently entered an agreement with Glencore Technology to test the Campo Morado mineralization using the Albion Process™ to improve precious metal and po-

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tentially base metal recoveries. With six plants worldwide using “a combination of ultra-fine grinding and oxidative leaching at atmospheric pressure,” Telson hopes that “by 2020, we will be recovering most gold and silver at Campo Morado using this new Albion Process Technology,” said Ralph Shearing, CEO and president, Telson.

Canadian companies are exporting other technologies to overcome challenges unique to South America. Global UAV Technologies can now service the high-elevation, surveying obstacles faced by companies operating in the Andes. “These environments are too risky to fly with a manned helicopter, and surveying is physically impossible by foot. Drones are thus the only solution, and we are able to fly surveys at an altitude of approximately 15,000 feet,” said Michael Burns, CEO, Global UAV Technologies.

Working with small and mid-tier companies, RMS-Ross Corporation ships its heavy-duty mining equipment around the globe, designing and manufacturing recovery systems tailored to individual projects, including those further afield. Its recent work at a gold mine in Bolivia led to the discovery of seven additional possible targets that were potentially separable and profitable. “The cost of failure is high in remote locations, and we want to guard against this by being certain the system is designed for maximum operational up time,” said Scott Plummer, president and CEO, RMS-ROSS Corporation.

Despite the general optimism surrounding operations, political and social hurdles are enduring obstacles, according to Michael Bennet, president and CEO, Altamira Gold: “When it comes to politics in South America, the major problem is bureaucracy [...] Mining departments in Brazil are poorly staffed and have been overlooked for many years [...] We do feel positive about the situation, as some proactive steps by the government have been taken.” Still, many companies feel that unlocking South America’s immense wealth is worth navigating these challenges. Gregory Smith, CEO and president of Calibre Mining, explains how Nicaraguan President Ortega, the son of a miner, is very supportive of the sector. “Mining is currently the third largest export after coffee and beef, and foreign investment is encouraged.” Though B2Gold has reduced its production forecast due to country roadblocks, they keep a strong relationship with the government. “Nicaragua is a young democracy but full of promise as it supports mining and exploration,” added Smith.

Positioned at the forefront of technological innovation, Vancouver companies will continue to modernize the global sector, finding new strategies to improve safety and optimize productivity. The B.C. miner has survived through resilience, experiencing all types of weather and geography. They will continue to navigate international challenges in order to find new discoveries and innovate strategies to work efficiently despite social, political or financial constraints. ■



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Edie Thome

President and CEO,
Association for Mineral
Exploration (AME)



Could you describe how the AME has pushed for collaboration initiatives in the last year?

In the last year, AME has been involved in three very collaborative processes with the province of British Columbia that will support our members. Consistent goals of these three example initiatives are to increase public confidence, implement the principles of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), advance reconciliation with Indigenous groups and improve predictability for industry. First, AME is proud to partner with the provincial Ministry of Mines, Energy and Petroleum Resources, the Nisga'a Nation, the Tahltan Central Government, and several mineral exploration and mining companies in the newly formed "BC Regional Mining Alliance" where we aim to collectively promote B.C. as the best mineral exploration and mining jurisdiction to invest in. Secondly, AME was a participant in the Environmental As-

essment Advisory Committee to Minister George Heyman as the Ministry of Environment and Climate Change Strategy undertook a process to revitalize the Environmental Assessment process in BC. This collaborative committee included Indigenous representatives, industry, non-governmental organizations advocating for the public and environmental issues and experts in the field of impact assessments from both academia as well as practitioners. Finally, we have been collaborating through the Mining Jobs Task Force, established by Minister Michelle Mungall in February of 2018 with a report due in December 2018. Members of the task force included labor representatives, industry, educators and Indigenous representatives as well as local government voices and again, non-governmental organizations focusing on the social aspects of the industry.

How have exploration investment trends changed in the last couple years?

In 2017, we saw the first increase in exploration spending since 2012, a 20% increase of C\$41 million that made a total of C\$246 million. About C\$37 million of that was gold exploration, which is interesting considering our province's strength in copper. Raising capital is still a challenge and there are various options for venture capital investment. Given the vast expertise in the Vancouver and BC area and the steady climb of both gold and copper prices over the year, we hope exploration dollars increase over 2017.

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