

GOLD standards

AS THEIR INDUSTRY
FACES SCRUTINY FROM
CUSTOMERS, INVESTORS
AND THE PUBLIC, MINING
COMPANIES ARE JOINING
A GROWING SUSTAINABILITY MOVEMENT.
CAN B.C. STAKE ITS
CLAIM AS A LEADER IN
RESPONSIBLE MINERAL
EXTRACTION?

The Deer Horn mining project was unusual from the start. When an area in the Coast Mountains south of Smithers first intrigued him back in 2010, Tony Fogarassy didn't send in a field geologist on a clandestine rock-bashing mission. The chair of First Tellurium Corp., the project's parent company, shrugged off paranoid worries that someone might scoop the claim. Approaching the leadership of the four First Nations with history in the area, he asked for consent to work on their land.

Fogarassy asked again before the company applied for a tenure to develop the exploration project. And again when First Tellurium discovered promising signs of gold, silver and tellurium, a rare metal that's important for harnessing solar energy. He kept asking for consent at every step of the project.

"Mining has a bad reputation," Fogarassy says. "There are too many crappy mines out there that are perpetual legacy costs. We wanted to do it the right way, from the beginning."

Depending on where in the world the mine is located, that could mean preventing human rights abuses, ensuring workers' rights, protecting the environment or setting aside money for reclamation. In B.C., it starts with free, prior and informed consent, Fogarassy says. Long before Canada endorsed the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2016 and B.C. enacted it into law last year, he recognized that transparency with First Nations was the future of mining in the province.

"First Nations are often the last to know about a tenure application on their land," Fogarassy says. "When your relationship starts out like that, you've automatically ticked them off. You know they're going to fight it. By developing a relationship before you stake, you develop trust."

But more than greasing the wheels, it's reality. "As a lawyer, I can say this is their land," Fogarassy explains. "It's respectful, and it's the only way to do business in B.C."

First Tellurium has done it on other projects. In northwest B.C., it partnered with Cheona Metals, a First Nations-owned exploration company. "Mining companies have to understand that First Nations have an unceded right to the land," says Cheona founder

Allen Edzerza, a Tahltan Nation elder. "Indigenous people have to be involved and have ownership. Otherwise the projects don't have the certainty they think they do."

First Tellurium is part of a growing responsible mining movement. In the past couple of years, high-profile customers, including Apple, BMW Group, Tesla and the government of California, have committed to buying responsibly produced metals. The investment and finance community are increasingly scrutinizing mining businesses and their supply chains for everything from climate risk to human rights violations.

Progressive mining companies are paying attention. They see

GOOD QUESTIONS

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advantages in avoiding bad PR and gaining preferential access to customers and funding. There's also the potential to receive a premium for their products and easier permitting. For their part, governments like the idea of a sustainable mining sector that will attract more investment, and with it, jobs and tax dollars.

This is an important moment for B.C., a mining hub with deep roots in the sustainability movement. How the government and the businesses based here respond will determine whether the province emerges as a leader or gets left behind.

KEEPING PROMISES

For B2Gold, operating responsibly is essential to

Johnson says he runs the company with a responsible focus for three reasons: it's the right thing to do, he cares about "what's writ-

"When we go into a country, we make promises to the presidential level," he says. "We tell them we want to invest billions of dollars, hire local people, pay taxes and take care of the environment. One of the ways we manage the political risk is to live up to

Not following through breeds worry and vengeance. It's a major motivation for governments to raise taxes or change agreements to get what was promised, Johnson says. Being fair, respectful and transparent builds trust, which keeps mines running.

Throughout the COVID-19 lockdowns, B2Gold's mines continued operating. The company asked staff to work longer shifts to shrink cohorts and reduce exposure. "Government and employees wanted us to keep working because they trusted we'd keep everyone safe," Johnson says. "It takes years to build that trust."

And it pays off. B2Gold reported gold revenue of \$1.79 billion and cash flow from operations of \$630 million in fiscal 2020. Both

are records. Its stock has gained 1,600 percent

"If we deliver on our promises, when we go to the next country, they can call up Mali and ask what they think of B2Gold," Johnson says. "It paves our way forward."

THE CASE FOR CERTIFICATION

But not every jurisdiction has Mali's phone number, and not every investor knows greenwashing from good deeds. Increasingly, there's demand for an independent, rigorous and universal standard for metals mining, like organic for food and Fair Trade for manufacturing. The Initiative for Responsible Mining Assurance's

> (IRMA) Standard for Responsible Mining is emerging as the favourite, even though it's only a year old.

The standard traces its roots to B.C., where the first attempt to develop a sustainability benchmark came out of a spate of mining disasters in the 1990s. At the time, Alan Young worked for an NGO in Vancouver fighting every mining proposal on principle. But when he looked around his house, he realized how reliant modern life is on metals.

"So I and a few others started to ask, What does responsible mining look like?" says Young, now a sustainable

mining consultant based near Ottawa.

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The first indication came early in the 2000s, when Tiffany & Co. started to worry it could lose market share if consumers connected its supply chain to a tailings pond breach or human rights abuses. So the jewelry giant organized one of the first sustainable mining conferences in Vancouver. Around the same time, the Mining Association of Canada was introducing Toward Sustainable Mining, its grading system for metals mines. Seven other nations have adopted TSM, and all MAC members must meet a minimum grade.

But "if you fail TSM, you should no longer be a member of anything," Young says. "TSM is a benchmark, not an assurance.

It's owned and managed by the industry."

Young knew that a third-party, independently audited standard was the Holy Grail. That's where IRMA comes in. In the works since 2006, it tapped human rights organizations, environmental NGOs, trade unions, metals buyers, miners and other stakeholders to develop a rigorous standard for judging the responsible operation of a metals mine. (IRMA doesn't include coal and aggregate mines or the oil and gas industry.) The 400 criteria include everything from Indigenous engagement to end-of-life reclamation, water treatment and employee rights.

Mexico's Carrizal Mining, partly owned by Vancouver-based Santacruz Silver, was the first mine audited against the standard. A dozen others are moving through the yearlong process.

Despite its newness-and because of the 14-year development time, which "shows it is stable and well thought out," Young says-the standard is already respected. When researchers from the University of Ulm in Germany and the State of Sustainability Initiatives, an international project that examines industry standards, independently looked at the different mining certifications, both found that IRMA was the best.

"IRMA comes closest to providing a comprehensive mining standard covering every societal indicator relevant to mining," the State of Sustainability notes in its report. At least 70 NGOs and trade unions-including the Sierra Club, Human Rights Watch and IndustriALL Global Union, representing 50 million workers-have referenced IRMA's criteria as a benchmark for mine operations.

Metals buyers are joining in, too. About 10 years ago, customers started asking Alan Knight, head of corporate responsibility at ArcelorMittal, an iron ore miner and one of the world's largest steel producers, questions about its supply chain. Arcelor bought iron from mines all over the world, including 12 of its own. Given various regulations and transparency laws, Knight didn't know what questions to ask to find out if bad things were happening at any individual operation. Nor could he validate the answers. A third-party certification would do what he couldn't.

"IRMA is the best model I've got for governance of our mines," says Knight from his office in London, England. "If we do it authentically, the owners of the company can sleep well at night."

ArcelorMittal has committed to buying only IRMA-certified iron by 2025.

For their part, investors like the simplicity a standard offers. "Companies that meet the IRMA expectations have met

Digging for **Decarbonization**

While mining companies in B.C. and elsewhere prepare to spend more on sustainability, the minerals they produce are helping the world move toward a low-carbon future by Pallavi Rao

70% Global mining and metals executives surveyed by PwC who said they plan to increase investments in environmental social and governance (ESG) and sustainability efforts

76% Share who expressed concern about climate change and environmental damage

of B.C.'s \$8.1 billion in onet mining revenue for 2020 came from copper

more

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copperthan

traditional

RENEWABLE ENERGY SYSTEMS GENERATING SOLAR, HYDRO, THERMAL AND WIND POWER CAN REQUIRE UP TO '

Zero-emission electric vehicles require about 3x more copper

than their internal combustion counterparts

2 key minerals for wind turbines supplied almost 1/2 of B.C. net mining revenue last year



SOURCES: BC MINE 2020: A NEW AGENDA FOR TRANSFORMATION AND SUSTAINABLE GROWTH, PWC CANADA; COPPER ALLIANCE; FACTS AND FIGURES 2020, MINING ASSO-CIATION OF CANADA; TECK RESOURCES

a very high bar," says Jamie Bonham, director of corporate engagement at NEI Investments, an ethical money manager based in Toronto. "Investors would be given assurance that a project would meet their expectations around environmental impact, community engagement and Indigenous consent."

It costs about \$100,000 for a typical mine to go through the IRMA assessment. Coming anywhere close to even its base-level certification demands efforts and investments just in tracking performance that go well beyond meeting government regulations, which also costs money. Those are dollars that competitors might not be spending. And right now, the payback for going above and beyond isn't direct.

"Nobody wants to admit to the ability or desire to pay more for sustainable metals," Young says. He figures it will happen, but probably not for five to 10 years.

Until then, many miners don't see the advantage. "It's part of the conservatism of the industry," Young maintains. "Operating responsibly just for a price premium is an outdated vision of the extractive business. They're not thinking about the opportunity costs."

Young has his theories on why Anglo American, a global mining titan, joined IRMA and committed to auditing all its mines against the standard.

It could be access to market. Like ArcelorMittal, BMW and fellow German auto manufacturer Daimler have committed to only buying responsible metals. In low-margin, high-volume businesses like car making, gaining even 1-percent market share by being a favoured supplier can be "massive," Young says.

It could also be a human resources strategy. In the competition for big brains, being a responsible employer, whether it's your own operations or those of your suppliers, helps recruit and retain staff. It's a major motivation for Microsoft Corp.'s involvement in IRMA.

B2Gold's Johnson says low employee turnover is an important part of his company's success. "The exploration and mining industry has a small talent pool," he notes. "You operate responsibly, treat them well, and you earn their respect."

It's also increasingly important for finding capital. Driven by shareholders and public pressure, in recent years, several major investors and banks have announced strategies that avoid investments tied to climate change or human

rights offenses. Francis Sullivan, London-based senior adviser for sustainability at HSBC Holdings, one of the world's largest banks, says lenders are increasingly stress-testing companies against their

All of those factors played a part, Young says, but when he



its business model of investing in countries where there are risks of nationalization, tax gouging and other challenges. President and CEO Clive Johnson, a mining veteran, started the company in 2007. It's now the largest gold miner based in Vancouver, with operations in Mali, the Philippines and Namibia, and exploration projects in Colombia and Burkina Faso. Last year, the company produced more than a million ounces of gold.

From the outset, Johnson has focused on going beyond the regulations of the country he's operating in. His company's annual report includes a 170-page account of its environmental, social and governance (ESG) actions. B2Gold recently

won two honours for those efforts: the Prospectors & Developers Association of Canada's 2021 Sustainability Award and the Mining *Iournal*'s Most Sustainable Miner for 2020.

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80 BCBUSINESS JULY/AUGUST 2021 SOURCES: MINING ASSOCIATION OF CANADA: TECK RESOURCES BCBUSINESS CA JULY/AUGUST 2021 BCBUSINESS 79 asked Anglo American why they joined IRMA, a representative said the cost of conflict motivated them the most. A study by the University of Australia found that for mining projects worth US\$3 billion to US\$5 billion, the cost of delays add up to US\$20 million a week. Many, if not most, holdups stem from stakeholders like communities and NGOs mistrusting mining companies and government regulators.

"Those kind of delays last months, if not years," Young says.

B.C.'S OPPORTUNITY TO LEAD

In an industry that goes through regular boom and bust cycles, that can stop a mining project from getting built for years—or keep it from ever happening. Several mine proposals in northwestern B.C. face stiff resistance from Indigenous groups downstream in Alaska because of environmental concerns. And a coalition of 110 conservation, recreation and wildlife groups opposes Vancouver-based Imperial Metals Corp.'s exploration permit application targeting historic copper deposits and newer gold discoveries in the Skagit Valley, on the U.S. border near Hope.

Perceived lax rules and lack of enforcement of mine operations in B.C. is a major reason for both campaigns. Critics point to the promised cleanup of the abandoned Tulsequah Chief mine, which still hasn't happened; Vancouver-headquartered Teck Resources' decades-long selenium issue in the Elk River; and the 2014 tailings pond burst at the Mount Polley mine, owned by Imperial Metals. The latter resulted in no charges or fines.

The IRMA standard, which devotes an entire chapter to community engagement, lets any stakeholder challenge company assertions and the audit results. Meeting its certification would signal to the public that the mine acts responsibly, Young says.

But better government regulation and enforcement is needed too, according to MiningWatch Canada, an international industry watchdog based in Ottawa. "The only consequence of failing a standard is failing the standard," says communications coordinator Jamie Kneen. "We need punishments and fines if laws are violated."

Bruce Ralston, B.C.'s minister for energy, mines and low carbon innovation, acknowledges that there was a gap between regulations and enforcement. He's committed to filling it. "A jurisdiction with high standards is a good indicator for the best place to do business," Ralston says. "Responsible mining in B.C. will attract investment."

The province needs the edge. The 2018 BC Mining Jobs Task Force, an effort to prepare the industry for the future, concluded that B.C. was a high-cost producer with complex regulations. It also pointed out that mining was experiencing rapid change driven by technology and a shift in environmental and social values.

"The B.C. sector has the opportunity to take proactive steps to lead the way in advancing innovation, workforce inclusion and

training, Indigenous partnerships, regulatory agility and the shift to a low-carbon economy," noted the task force's final report.

One of the report's recommendations was for B.C. to investigate branding itself a sustainable mining jurisdiction. Last fall, the government started down that road, hosting a series of virtual conferences to gauge industry interest, hurdles and possibilities. Thanks to clean power, a carbon tax, high environmental and labour standards, and the adoption of UNDRIP, Ralston thinks the province is already a leader in sustainable mining.

Young is a little more pragmatic. Australia, Chile, the Nordic countries, Quebec and the Northwest Territories are all going after the same prize. "B.C. is taking an aspirational leadership position, but it's afraid to get too far ahead," he says.

Move too fast, and B.C. will become an even more expensive place to mine than it already is, driving investment elsewhere. Move too slow, and it loses the leadership position. The challenge is to align its regulations with market demands and figure out ways to encourage companies to do the right thing, Young says. Certified sustainable mines could enjoy a simplified permitting process, reduced tax rates or favoured provincial procurement strategies.

The reputation and ethics rub off on companies based in Vancouver but operated globally, says B2Gold's Johnson. Foreign governments "believe your promises partly because you come from a Western country," he adds.

It is not about perfect, impact-less mining—that's impossible, Young says. Rather, the goal is pushing the whole industry to do better. "There will be no one green mining capital," Young concludes. "It's about bringing people in and building trust."

That's what Tony Fogarassy is working on with the Deer Horn project. After several years off, he restarted exploration work in 2019 and continues today.

Fogarassy is using IRMA to help guide the project's development. First Tellurium was one of the first exploration companies to join the standard, and he's helping its board develop a comparable one for exploration projects. Part of that is First Nations ownership. Fogarassy, who has promised all four impacted groups a 51-percent stake in the project, is helping them find creative ways to buy in with less risk along the way.

Not everyone thinks it's a smart strategy. His peers in the industry have laughed at him *and* yelled at him. His style of doing business may not be popular, but Fogarassy thinks it's the future.

"Getting [IRMA] certification is something we can point to and raise up the flagpole," he says. "It shows we're operating at a much higher standard. It's a way for us to stand out among a thousand junior mining companies all running around looking for metals and money."

It's the long view—and one that might just pay off for First Tellurium and B.C. ■



30,000 tonnes

Metallurgical coal needed to build the 19-km Canada Line rapid transit system in Vancouver



1.1 kg
Metallurgical coal required for the average bicycle frame