Manitoba Exploration & Development Review

2023-2024

An Official Publication of the Manitoba Prospectors and Developers Association Inc.



- Talon Resources drone initiative to provide high-quality aerial pictures and videos of sites and working drills
- MPDA honours reconciliation at annual gala
- Alamos Gold announces new 17-year mine life for Lynn Lake Gold Project





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President **DAVID LANGSTAFF**

Editor

KELSEY JAMES

kelsey@delcommunications.com

Advertising Sales Manager **DAYNA OULION**

Advertising Sales
BRENT ASTROPE
ROSS JAMES | ANTHONY ROMEO

Production services provided by: S.G. Bennett Marketing Services

Creative Director / Design KATHLEEN CABLE

Contributing Writers

ROB CARTER | BILL GALLAGHER

ERIN MATTHEWS

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PRESIDENT'S MESSAGE

MARYANN MIHYCHUK

PRESIDENT, MANITOBA PROSPECTORS AND DEVELOPERS ASSOCIATION

All signs indicate that 2022-23 was good for mineral exploration in Manitoba. Driven by strong prices for gold, silver, copper, zinc, nickel, and lithium, 2022-23 saw the much needed rebound in exploration activity. Ongoing reports of new discoveries showing significant results support Manitoba as a robust jurisdiction for sustainable mineral exploration and mine development opportunities.

Manitoba has enormous potential for new discoveries as many parts of the province are underexplored. However, Manitoba still has many challenges, including:

- Updating and modernizing the
 Mining and Mineral Act continues
 to be a priority, with the intention
 to ensure Manitoba has a modern
 and competitive regime for mineral
 exploration and development.
 Amendment should aim to reduce
 administrative burden, clarify
 requirements for rehabilitation,
 and create regulatory efficiencies.
 Manitoba must be as competitive as
 we possibly can to make exploration
 and development attractive to
 companies and their investors.
- Improvement must align with the purpose of the Mining Act – which includes encouraging prospecting, registration of mineral dispositions, and exploration for the development of mineral resources – in a manner

consistent with the recognition and affirmation of existing Indigenous and Treaty Rights (including the duty to consult) as well as minimizing the impact on public health and safety and the environment.

- Establishing the concept of qualified persons in the Mining Act which would eliminate the need for a Mines Branch technical review.
- Mineral titles online registry
 (map staking) for the purposes of registrations respecting exploration dispositions, leases, and notices.

The MPDA is a member run, extremely active mineral association, holding monthly speaker meetings, presenting public awareness programs, hosting the provincial Mineral Sector Indigenous Reconciliation Gala, offering training and courses, and leading a study to define the exploration economy with a focus on the exploration supply chain. MPDA was instrumental in reinstating Minerals Week after an absence of five years, joining every other province and territory in Canada. We have a very strong and experienced policy team of members who have been invited to provide comments on the provincial budget, mineral strategy, park designations, and federal initiatives. It is no coincidence that our membership has increased exponentially over the past two years.

Established in 1982, the MPDA is a non-profit association for the mineral exploration and development industry based in Manitoba. The MPDA is working hard towards building a strong inclusive critical mineral sector in Manitoba by consistently advocating for more participation of First Nations at all levels of the mineral industry. MPDA represents, advocates, protects, and promotes the interests of over 124 members who are engaged in mineral exploration and development in Manitoba. The MPDA is also a strong advocate of small business in the exploration industry's supply chain.

Manitoba is home to 29 of the 31 minerals on Canada's 2021 Critical Minerals List. This includes lithium, graphite, nickel, cobalt, copper, and rare earth elements, which are the six minerals recognized as having the greatest opportunity to spur economic growth and fuel domestic supply chains. We also host high grade silica sand used for solar panels. See the Manitoba Government's Critical Mineral Strategy, which was released on July 25, 2023, at the following link: www.gov.mb.ca/iem/explore/files/criticalmineralstrategy.pdf.

MPDA is extremely bullish on the future of exploration in Manitoba, and we welcome you to be part of our growth and success. **★**

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About the MPDA

The Manitoba Prospectors and Developers Association (MPDA) is an advocacy group focused on improving the state of mineral exploration in Manitoba. MPDA is committed to supporting the minerals sector and furthering the goals of companies and individuals working within it. Our collective objective is to develop productive and efficient ways of working with our industry and community partners so that Manitoba becomes one of the most attractive places to invest in the mineral business.

BENEFITS OF JOINING THE MPDA



Join the leading voice of the mineral exploration and development sector in Manitoba!

Becoming a member is a great way to network, learn about key topics affecting the industry, and help shape the future of Manitoba's mineral exploration and extraction industries. Membership unlocks access to MPDA events, networking and professional development opportunities, newsletters, monthly speaker meetings, and short courses. The work of the association, including its advocacy activities and programs, is funded solely from revenues derived from member fees and from our events.

Get your membership at: www.mpda.ca/become-a-member



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MPDA

Acme Lithium | info@acmelithium.com www.acmelithium.com

Canalaska Uranium Ltd.

www.canalaska.com

Critical Discoveries

aarynhutchins@hotmail.com

Dave Meek | norseman@mymts.net

Garry Thorne | garrythorne@shaw.ca

George M. Nykulaik

gmn55@yahoo.com

Gossan Resources Ltd.

jccampbell@shaw.ca

Grid Metals Corp.

info@gridmetalscorp.com www.gridmetalscorp.com

Hudbay Minerals Inc

info@hudbayminerals.com www.hudbayminerals.com

Kenneth Marlin Klyne

kenklyne1@gmail.com

Chris Lytwyn

chris.lytwyn@live.ca

McFarlane Lake Mining Inc.

info@mcfarlanelakemining.com www.mcfarlanelakemining.com

Nikolay Bashaev

bnick15@outlook.com

Satori Resources Inc.

info@canadiangoldcorp.com www.satoriresources.ca

Tantalum Mining Corporation of Canada

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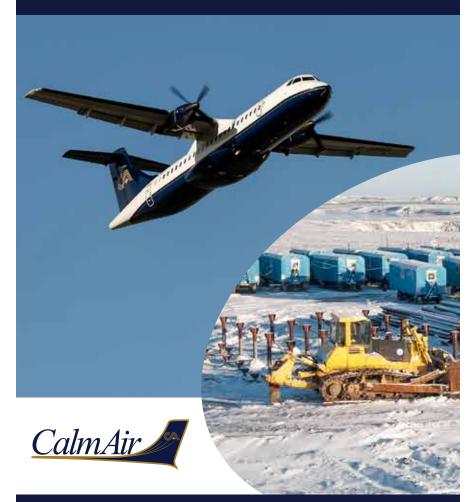
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Left to right: Pam Mardsen, Kevin Norberg, and MaryAnn Mihychuk.

MPDA HOSTS ANNUAL RECONCILIATION GALA

The MPDA Reconciliation Gala is an annual must-attend event honouring reconciliation efforts in Manitoba and celebrating the achievements of our industry.

This year's gala took place on Thursday, March 23, 2023 at Assiniboia Downs. The event included a trade show, dinner, and networking opportunities. The MPDA was honoured to have a keynote address by Indigenous activist and environmentalist Matthew Coon Come. Matthew was Grand Chief of the Grand Council of the Crees for 20 years and served one term as National Chief of the Assembly of First Nations.



The Gala included two Indigenous Reconciliation awards for a company or individual who deserved recognition for their outstanding contributions to the mineral exploration industry goal of Reconciliation.

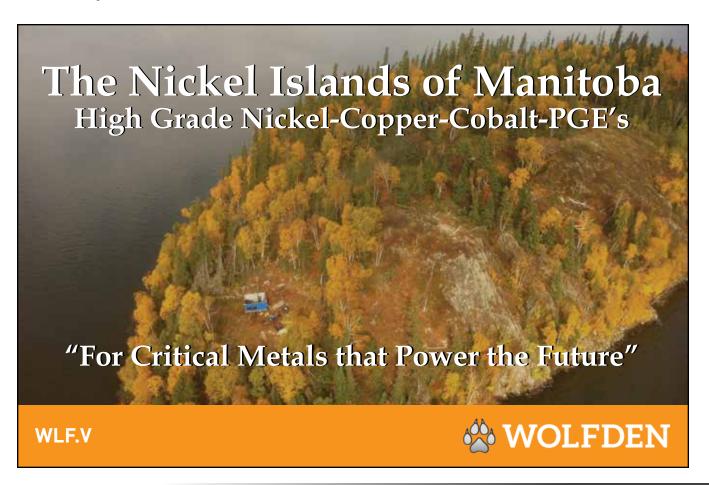
Pam Mardsen from Hudbay Minerals and Canadian Premium Sand (CPS) were the 2023 recipients. Pam Marsden initiated Indigenous Cultural Awareness Training for Hudbay employees in 2012, and since then has trained over 550 employees. Pam initiated Hudbay's participation in the Progressive Aboriginal Relations program in 2015 and her diligent work advanced Hudbay's status in the PAR program from Committed level to Silver level over a period of seven years. The PAR program confirms positive corporate performance in Indigenous relations through community engagement, employment, and local business development. CPS was recognized for their proactive approach with the Hollow Water Community in the development of the Seymourville quarry site. In 2018, a participation agreement was ratified with the Hollow Water Community and an Environment Act Licence application was submitted to develop a heritage resource protection plan, undertake surveys for traditional use plants, identify and mitigate adverse impacts to local trappers, and establish a monitoring advisory group with representation from local Indigenous communities. *



Keynote speaker Matthew Coon Come.

SAVE THE DATE!

The 2024 MPDA Reconciliation Gala and Forum is happening on March 21 at Assiniboia Downs in Winnipeg. This year we are introducing the Forum, a new and exciting addition to our event. Stay tuned for more information.



MPDA INTRODUCES ANNUAL GOLF TOURNAMENT

August 25, 2023 was MPDA's first Annual Golf Tournament, which took place at the Whispering Winds of Warren Golf course. We had over 70 golfers, and spectacular industry

support. Thank you to everyone who came out, and to all the companies that sponsored. It was a great event, and we are looking forward to hosting another tournament in 2024.





The Manitoba Mineral Development Fund (MMDF) golf team.

Titan Environmental golf team.



LITHIUM & NICKEL EXPLORATION IN CANADA

Metal Energy is dedicated to the development of its Canadian Lithium and Nickel projects. These two essential commodities play a pivotal role in the global shift towards electrification. The company's SourceRock Lithium project, situated near Thunder Bay, Ontario, holds significant importance as it is the first Lithium brine project in the province. Furthermore, Metal Energy's Manibridge project, a former Falconbridge mine in the Thompson Nickel Belt, Manitoba, is located in one of the most prominent nickel districts worldwide. Notably, Metal Energy has achieved a 100% success rate in intersecting Ni-Ci-Co sulphides across all drill holes at Manibridge.







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MPDA LAUNCHES EXPLORATION DISCOVERY STUDY

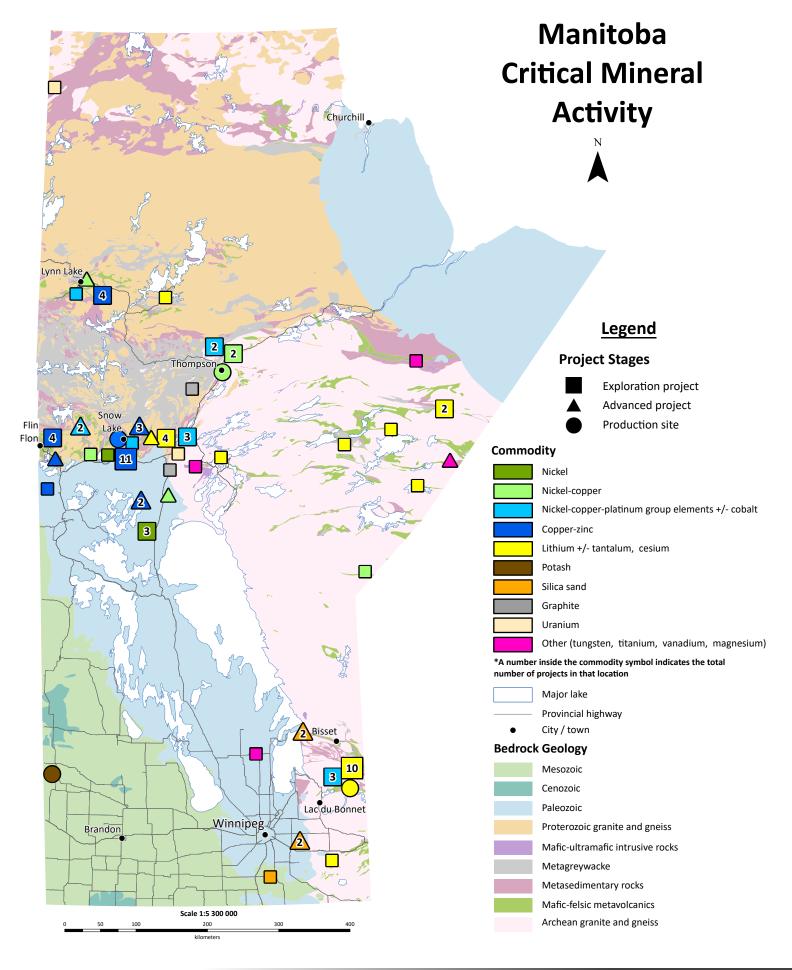
The MPDA launched an Exploration Discovery study in September 2023. The study will demonstrate the economic impact of mineral exploration across Manitoba, determine the economic relationship between Indigenous businesses and mineral exploration, and show how mineral explorers contribute to local communities. We understand the mineral exploration industry is essential to many communities and companies in all corners of the province. That is why we believe defining the scope of the exploration economy and its potential growth is essential to inform government policy and grow the sector.

This report is an opportunity to encourage a discussion about the unique role Manitoba's mineral exploration sector and its vendors can play to support economic recovery across the province. A thriving mineral exploration industry in our province also supports reconciliation and the low carbon future.

MPDA will be partnering with iTOTEM Analytics, who works with organizations from across North America to collect, analyze, and process data into useful information. To develop the Shared Values Reporting (SVR), an analysis of our members' operational data, corporate ESG reports, government reports, and surveys will be used. The information gathered will highlight the social, reconciliation, community, and broader economic benefits of the minerals sector within a quantifiable report which will help Manitobans learn more about the potential opportunities that support Manitoba's mineral exploration sector.









By Rob Carter, vice president, Manitoba Business Unit, Hudbay Minerals Inc.

gold lenses at Lalor over a decade ago, and we were extremely pleased with the results. We hope to have further positive updates as we seek to replicate our exploration success through the discovery of additional high-grade zones that could enhance

near-term production and further extend mine life.

for Hudbay in Manitoba in 2022, in 2023 our focus has turned on our operations in Snow Lake, successfully ramping up while continuing our exploration in the region and implementing strategic moves to consolidate our land holdings. We're extremely encouraged by what we've achieved and what we have to look ahead to.

After a year of transformative change

Hudbay's winter 2023 drilling program produced a significant indication that the rocks deeper down at Lalor host rich copper-gold mineralization, as predicted by our geological models. This was our first step-out and down-plunge drill program since the initial discovery of the gold and copper-

One of our areas of focus for the year has been expanding and consolidating our land holding around Snow Lake, and we have had significant success in that regard, which will be a boom to future productivity. The successful acquisition of the Cook Lake properties and an agreement with Rockcliff, both announced in June, are notable highlights of the year and

One of Hudbay's areas of focus for 2023 has been expanding and consolidating the company's land holding around Snow Lake for future productivity.

have further stoked our enthusiasm for exploration in the region. Both areas are comfortably within trucking distance of our Snow Lake processing facilities, providing significant efficiency upsides.

The Cook Lake acquisition includes the Cook Lake North and South properties. Historical drilling results in Cook Lake have shown some very interesting intersections indicating base metal mineralization with remarkable values of copper, zinc, gold, and silver. We think there might be real potential for substantial new discoveries at greater depths that will be aligned with the same mineralized horizons as established deposits in our region, such as Lalor, 1901, and

Chisel. The Rockcliff agreement expands our holdings by more than 250 per cent, consolidating our ownership of the Talbot deposit and offering further exploration opportunities. Every step taken in the year will help us to deliver on our long-term commitment to northern Manitoba as a valued partner.

Hudbay has a long history in the Flin Flon - Snow Lake Greenstone Belt. We have also expressed our commitment to exploration and stated our openness to working with the right partners in the region to create new opportunities. In this sense, the recently signed memorandum of understanding (MOU) with Marubeni is an exciting development for Hudbay as we seek to unlock additional potential in the Flin Flon area. This strategic collaboration establishes the blueprint for a dynamic multi-year exploration partnership aimed at discovering new mineral deposits on our mineral properties, conveniently situated within trucking proximity of Hudbay's processing Flin Flon facilities.

Likewise, since 2021, the vision to reprocess our wholly owned Flin Flon tailings storage facility emerged as a promising opportunity. After completing confirmatory drilling on approximately two-thirds of the facility in 2022, we identified higher zinc, copper, and silver grades than historical mill records had anticipated. This finding also confirmed the historical gold grade. Currently, Hudbay is finalizing metallurgical testing and has partnered with Cobalt Blue Holdings Limited to explore the potential of processing these tailings using Cobalt Blue's proprietary technology.



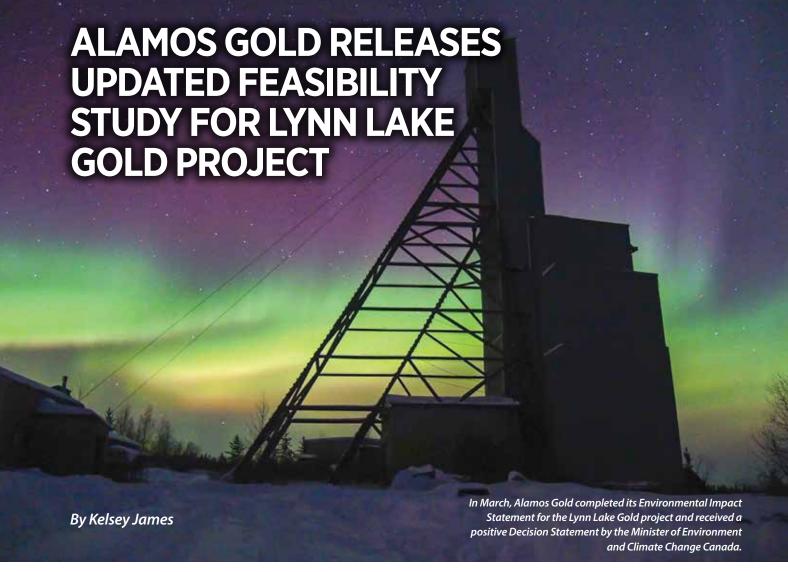
Hudbay's successful acquisition of the Cook Lake properties and an agreement with Rockcliff, both announced in June, are two other notable highlights of the year.

We feel very optimistic about the momentum we are building in Manitoba. Our strategy is working, and we firmly believe we will continue to deliver results and uncover new opportunities, driving substantial value creation through our efforts. Hudbay sees a future of growth and potential and we plan to continue to secure further opportunities that align with our vision. It is an exciting time.

Hudbay is more committed than ever to northern Manitoba, and we are working tirelessly to uncover new anchor deposits that can breathe life into our Snow Lake operations well beyond 2038. We want our Snow Lake operations to stand as a beacon of growth and opportunity, of continued positive transformation into the future. And we continue to be committed to finding new opportunities within the Flin Flon region too.

With a steadfast commitment to innovation and progress, Hudbay is charting a course that holds the promise of longevity and value creation for all. *





Alamos Gold Inc.'s 2023 Feasibility Study for the Lynn Lake Gold Project in northern Manitoba has outlined a larger, longer life and lower cost operation with continued exploration potential.

The study, released at the beginning of August, incorporates a 44 per cent larger mineral reserve and 14 per cent increase in milling rates to 8,000 tonnes per day. It replaces Alamos Gold's 2017 Feasibility Study and has been updated to reflect the larger Mineral Reserve base, the current costing environment, as well as a significant amount of additional engineering, on-site geotechnical investigation work, and requirements outlined during the Environmental

Impact Statement review process.

"The average gold production over the first five years is over 200,000 ounces and 176,000 ounces over the first 10 years, which is a significant increase from 2017," said Alamos Gold vice-president of exploration, Scott Parsons. "Projects with low-cost profiles are rare, and we wanted to demonstrate that this project – even with updated capital costs for 2023 – is an attractive project with a larger reserve and low operating costs."

Another significant aspect of Alamos's recently released Feasibility Study is the new 17-year mine life for the project. The operation is now backed by a life of mine production of 2.2 million ounces, a 46 per cent increase from the 1.5 million ounces reported in 2017.

"Our exploration team has been successful in expanding the reserve and resource base, and as a result we have a different, but more robust project now than compared to what we did in 2017," Parsons said. "One exciting opportunity at the Lynn Lake Gold Project is the district scale exploration potential across the greenstone belt."

"We have a pipeline of prospective targets across the Lynn Lake Greenstone belt from earlier stage targets that would typically involve prospecting and mapping through to drill ready targets," he added. "We've had great results from the Maynard



Alamos Gold's recently released Feasibility Study for the Lynn Lake Project includes a new 17-year mine life.



Alamos Gold recently signed an Impact Benefit Agreement with Marcel Colomb First Nation. The official signing ceremony was hosted on June 13.

drilling target, so that's a target that we intend on continuing to advance."

The updated Feasibility Study is not the only success Alamos Gold has had this year.

In March, the company completed its Environmental Impact Statement for the Lynn Lake Gold Project and received a positive Decision Statement by the Minister of Environment and Climate Change Canada. As well, in accordance with the Environment Act, the Province of Manitoba issued Environment Act Licenses for the MacLellan and Gordon sites.

Alamos Gold also recently signed an Impact Benefit Agreement with Marcel Colomb First Nation, with the official signing ceremony being hosted on June 13.

The company began working with the local First Nation as soon as it acquired the Lynn Lake Gold Project in 2016, said Alamos Gold vice-president of public affairs, Rebecca Thompson.

"The agreement is a collaborative approach between the First Nation and the company," Thompson said. "It's a holistic approach towards ensuring we can develop the project in an environmentally responsible

manner while providing significant socio-economic benefits including maximizing employment from the local community once we get going."

The Environmental Impact Statement and updated Feasibility Study is the foundation of what will lead to a decision point on whether to move forward with construction and operation of the project. In the meantime, Alamos Gold will continue to explore and advance engineering of the Lynn Lake Gold Project.

"The Lynn Lake Gold Project is one that will provide economic development in northern Manitoba, create jobs, and support the local economy, so this project is part of the benefits to northern Manitoba's prosperity," Thompson said.

In 2024, the company will also focus on the Burnt Timber and Linkwood deposits, which were not included in the study. Alamos Gold will be advancing the deposits, doing infill drilling, and expanding on them to increase the number of ounces from both deposits.

For more information about Alamos Gold and the Lynn Lake Gold Project, visit www.alamosgold.com. **★**





majorcanada@majordrilling.com 1-204-885-7532



MANITOBA IS AT A CROSSROADS WHEN IT COMES TO FUTURE RESOURCE PROJECTS

By Bill Gallagher, Strategist

That recent \$10-billion settlement to Robinson Huron was the latest in a long line of legal victories for Indigenous communities on Canada's road to resource development – a stunning amount of compensation owing for historically failing to honor the Treaty. The legal victory itself doesn't end the process, as the parties now must sort out a revenue-sharing formula going forward.

Over the past decade, Indigenous Peoples have been averaging 25 legal wins a year in the resources sector (one every two weeks) sounding a steady drumbeat on the rise of Indigenous empowerment, whose clout may not bode well for future resource projects. Harper was oblivious to this phenomenon's impact until they took out his Northern Gateway. Trudeau appears to be savvier regarding what's been happening, but he has major troubles with TransMountain, which is quickly becoming one of the biggest cost over-run boondoggles in our country's infrastructure history. Today, all politicians appear to be running scared on the road to resources; New Brunswick, Ontario, and Manitoba are clearly devolving into resource dead-zones on account of Indigenous stopping-power.

The Native legal win-streak is currently at 352 resource sector victories. Manitoba recently took a huge loss at the hands of the Inter-Lake Tribal Council over the botched clearing work for the Lake St Martin flood diversion, with the Chief Justice ruling: "The absence of any such notification and consultation in my view constitutes a breach of Manitoba's obligation and is not in accordance with the honour of the Crown." This was win #337. The Native side responded: "Manitoba severely undermined its relationship with the IRTC First Nations – our relationship with the province was already on shaky ground. This killed any trust that remained."

Canada's economic future is further imperiled by the scourge of raging wildfires which are disproportionately impacting Indigenous communities. As a result of these (now) annual events, Indigenous communities are facing a major choice: become land protectors and work with allies to shore up their traditional uses and land rights, or move into the economic mainstream by working with industry to promote an Indigenous economy. This could go either way. Indigenous Peoples may well align with eco-activists to save their own subsistence and lifestyle priorities. Who can blame them given the hype coming at them over critical minerals and infrastructure.

But the stark reality is that proponents can't get anything built in this country anymore. Manitoba has yet to reckon with the fact that Indigenous Peoples are the sole "gatekeepers" on the road to resources.

Here's what future projects should look like:

- Significant equity ownership for natives denoting management positions and shared control;
- 2. Revenue-sharing that compensates for Treaty impacts and risk assumption. This is the new project template that's needed to break from the history of fumbling and bumbling that still plays out in Manitoba. It's a whole new era: critical minerals, battery transition, forestry, hydro, transmission, and pipelines all involve access to traditional lands where Indigenous Peoples have a clear choice to either work collaboratively with a new breed of resource proponent or (default to) save Mother Earth. It'll take a whole new political approach for this to happen.

Bill Gallagher is the author of Resource Rulers and Resource Reckoning (two books explaining the rise of native empowerment). He was instrumental in getting Natives on board at Voisey's Bay for Inco. Prior to, he was federal TLE negotiator dealing with several high-profile Manitoba First Nations disputes. He addressed the MPDA last December in a presentation on "The Climax of Indigenous Empowerment."

VALE'S MANITOBA OPERATIONS ENVISIONS A GREEN FUTURE, LOCALLY AND GLOBALLY

As the world continues to shift towards a low-carbon future, Vale's Manitoba Operations is positioning itself as a top supplier of the high-grade nickel required for the battery-electric revolution.

At the helm of those efforts is Vale's new director of Manitoba Operations, Stacy Kennedy, and the first woman ever to lead Manitoba Operations. Kennedy built her career with Vale in Thompson and has a deep personal investment in the success of her operation and its place in the community.

In 2021, the mine received \$150 million for Phase 1 of the Thompson Mine Extension (TME) to extend its current mining activities for another decade. The surface infrastructure for the project is nearly complete, including new air raises and sandfill plant. The project also included drilling the longest raise bore hole in the Americas at 1076 meters of continuous downward drilling.

In the meantime, Vale continues to make record investments in its exploration program to support Phase 2 of the TME, gathering new data on known orebodies that could support mining well beyond 2040. \$60.2 million CAD has been earmarked to be spent on exploration by the end of 2023, as part of a five-year \$236 million exploration strategy.

As Vale's Manitoba team aims to expand its operation, its environmental team is proactively planning remediation for older areas of the mine site. After clay-capping their 75-hectare slag pile in 2022, Vale is testing vegetative growth to apply to this and other clay-capping projects across the site. Working with a local beekeeper in Thompson, they aim to plant bee-friendly plant life compatible with local ecology to support the production of honey. The plant site already hosts several beehives, and the beekeeper will be supplying 700 jars of plant-harvested honey for Manitoba's local employees.

Over the last two years, the mine has also started to decommission and remediate its copper ponds. In the process, the operation has reclaimed more than 12, 000 tonnes of copper precipitate that were resold to buyers, with approximately another 23, 000

tonnes by the end of 2023. When these ponds are fully drained, they will be re-graded and re-vegetated as close to their original state as possible.

"We need to continue finding new ways to convert our waste to value, to maximize the materials we bring to market, and minimize the ones we throw away," said Kennedy. "Creating a circular cycle of use and re-use is a win-win, both for our bottom line and for the land on which we operate."

"Our employees live and work in Thompson, and many of us have put down our roots and built our lives here," Kennedy added. "I want our children, and their children, to live in a healthy community."





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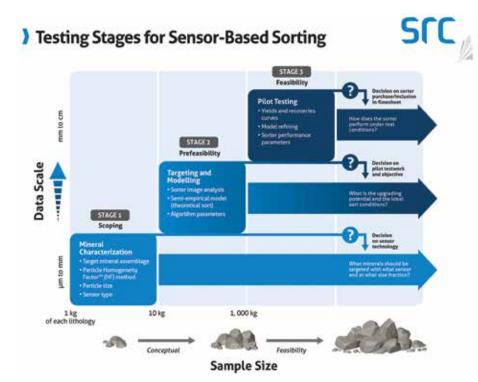


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SENSOR-BASED SORTING TESTWORK FOR POTASH OPERATIONS

By Erin Matthews



Sensor-based sorting (SBS) technologies and testwork are evolving, offering the mining industry another tool in the mineral processing toolbox. SBS is a collection of technologies that use sensors to separate ore from waste, either on a particle basis (particle sorting) or "parcel"-of-ore basis (bulk sorting).

Using different sensor techniques
– such as X-ray transmission (XRT),
near infra-red (NIR), colour and laser
scattering – the Saskatchewan
Research Council (SRC) provides SBS
testing solutions that help industry
clients select the most ideal sorting
technologies and applications to
upgrade their ore and reduce waste.

Used for decades in the recycling and food industry, as well as in the diamond industry, SBS technologies have begun to rapidly expand into other mining sectors in recent years due in part to the increased speed and accuracy at which sensor data can be processed. This has enabled sensor-based measurements to be applied to ore processing streams and downstream separation mechanisms in near real-time.

Sorting can potentially remove waste or provide valuable upgrading possibilities for the potash industry. Knowing mineral properties in near real-time can enable effective and efficient preconcentration or separation of ores before expensive grinding, beneficiation, and hydrometallurgy.

How do you know if sorting is for you?

SRC has developed a testing regime to assist industry clients with choosing

the right sensor-based sorting technology for their needs. This regime has evolved over the years through SRC's work with industry clients, helping to select, adopt, and test effective sensor-based sorting applications. Using a data driven approach, SRC's testing regime helps to maximize early decision-making. It also helps to minimize the sample required and streamlines the metallurgical testwork needed for design and adoption.

SRC's testing stages for potash sorting starts with sensor-based mineralogical characterization, which assesses the type of sensor technology and the amenability of the ore – based on specific sensor responses and mineralogical characteristics. Using this data, target minerals can be identified and the potential for upgrading or waste removal is determined.

SRC uses a mineralogical sample preparation method for potash that was developed in-house and is proprietary. SRC also tests sensor responses for all commercially available sensors, including XRT, XRF, NIR, colour, laser scattering, radiometric, electromagnetic, and more.

Understanding insoluble

Understanding the individual minerals within the waste (called "insolubles") is one of the important factors in applying sensor-based sorting to potash. This includes the proportion

KNOWING MINERAL PROPERTIES IN NEAR REAL-TIME CAN ENABLE EFFECTIVE AND EFFICIENT PRECONCENTRATION OR SEPARATION OF ORES BEFORE EXPENSIVE GRINDING, BENEFICIATION, AND HYDROMETALLURGY.

of potassium-bearing minerals to other soluble salts. Sensor-based sorting targets minerals (such as clays) within wastes differently and is important for understanding the types of insolubles and how they present within the ore.

In the second stage, targeting (selecting the target mineral, particle size, and corresponding sorting technology) and modelling help potash clients decide on a desirable sorting strategy – upgrading or waste removal. Before deciding on a pilot testwork strategy, SRC develops a sorting model from sensor response data. Clients can then use this

valuable modelling tool to test out various scenarios – including sizes, grades, and sorter parameters – while designing their final flowsheet.

Finally, SRC's pilot testing stage allows industry clients to obtain real-world sorting performance data and an understanding of sorting yields and recoveries under these conditions, as well as general performance of the full circuit. This phase is important in determining the feasibility and capital costs of a sorting project. SRC currently possesses two XRT sorters for these purposes and is evaluating options for introducing other sorting sensor technologies.

Why is testing so important for potash?

Through our testing regime, SRC's sorting team plays a key role in the optimum application of SBS technologies for potash. We help the potash industry to identify, integrate, and optimize the right sorting solution for their operation in the most costeffective and streamlined way. Using a unique combination of mineralogical work, sensor testing, and data, SRC helps navigate the application of sorting technologies.*

World-class services for every stage of your mining operation

- Geoanalytical testing and automated mineralogy
- Development of custom analytical procedures
- Closure plan evaluation and design
- Plant performance diagnostics and optimization



- Sensor-based sorting characterization and piloting
- Minerals processing testwork and piloting
- **Slurry** transport modelling, design and testing
- **Net-zero** energy assessments

Contact Us

Bernard Gartner, Lucinda Wood Business Development, Mining and Energy mining@src.sk.ca

For more information, please visit src.sk.ca/mining

ALLBUTT MINING & DRILLING SUPPLIES IN WINNIPEG FOLLOWS IN FAMILY'S FOOTSTEPS

By Kelsey James





Far left: Cliff Allbutt, owner of Allbutt Mining & Drilling Supplies in Winnipeg, worked for Midwest Diamond Drilling in Ontario, Manitoba, Saskatchewan, Alberta, and the Northwest Territories throughout the 1970s and '80s.

Left: Allbutt Mining & Drilling Supplies is known for its own leading diamond blades the Billy Boy and Tuffy 558.

Cliff Allbutt, owner of Allbutt Mining & Drilling Supplies in Winnipeg, was born into the mining industry.

Allbutt is the grandson of Rod McIsaac, founder of Midwest Diamond Drilling in Flin Flon, which grew to be an international company and was later bought by Major Drilling Corp.

Allbutt followed in his family's footsteps, working for Midwest in Ontario, Manitoba, Saskatchewan, Alberta, and the Northwest Territories throughout the 1970s and 80s. He also drilled for D.W. Coats in British Columbia and the Yukon. Allbutt took a break from the industry for just over a decade to stay close to home and raise his family before opening Allbutt Mining Supplies in 1996.

When Allbutt first started Allbutt Mining & Drilling Supplies, he worked out of his home and stored his product in his best friend's garage. Since then, the company has expanded and is now run out of a 9,000 square foot building located at 111 Omands Creek Blvd., right by the Winnipeg airport.

"Our customers have found this to be quite convenient to pop in to grab supplies before heading out to their jobs," Allbutt said. "It was a challenge in the beginning to get my foot back in the door after being away for so long. It's taken a lot of time and hard work, but it has paid off. I owe a lot of thanks to my family and friends for encouraging me to keep going."

"Over the past 10 years, I have known Cliff and his family very well. He has been there to support my business through several different companies, and most recently during the creation of two new companies," said Kevin Norberg, president of Rodren Drilling. "Cliff has been able to adapt and grow with the fast-changing mineral exploration industry and stay current with the new technology and tools that come out year by year."

Allbutt Mining & Drilling Supplies carries an extensive line of drilling products.

"Our goal has always been to focus on getting the products that our customer wants, which is why we have such an extensive line of diamond drilling tools and percussion bits," Allbutt said.

One thing Allbutt believes sets his company apart from others is that his customers use his shop as a shipping hub.

"It's great for remote, fly out jobs," he said.

Being an independent business has its advantages, including that he can make his rules, Allbutt added.

There have been times where a customer has called on a weekend, in a jam, needing product and he will hop in his truck and head out on the road to help his customer out.

"Agassiz Drilling has dealt with Allbutt Mining Supplies for over 25 years. They are always very helpful, friendly, and "IT'S SUCH A UNIQUE EXPERIENCE WORKING WITH FAMILY. I HAVE MANY WONDERFUL MEMORIES OF MY DAD, BUT ALSO SOME SPECIAL ONES HAVING WORKED ALONGSIDE HIM FOR 16 YEARS, LIKE WATCHING HIM BUY HIS FIRST TRUCK AND GETTING BUSINESS DECALS PUT ON IT," SAID HIS DAUGHTER, JENNY.

provide great customer service," said Bill Corbett from Agassiz Drilling Ltd. "They keep a great stock of items that we use regularly and, if they don't have it, they are very quick to get it in."

Allbutt Mining & Drilling Supplies is known for its own leading diamond blades the Billy Boy and Tuffy 558. While many people may think this blade was named after his oldest son, it is actually named after a close friend who first tried out this blade.

"I don't even know how many years I worked for my dad, thinking this blade was named after me, later to find out I presumed wrong," laughed Allbutt's son, Bill.

Allbutt is also currently working with Red River College Polytechnic on a joint venture to come out with an automatic core cutter. Allbutt listened to feedback from his customers on challenges they had with core cutters and what they would like to see done differently and took this as an opportunity to design and manufacture his own. Allbutt hopes to have a machine ready soon.

Like his grandfather's company, Allbutt Mining & Drilling Supplies is a family business. The office displays collections of memorabilia from back when he worked for Midwest and souvenirs from customers.

"It's such a unique experience working with family. I have many wonderful memories of my dad, but also some special ones having worked alongside him for 16 years, like watching him buy his first truck and getting business decals put on it," said his daughter, Jenny.

For more information about Allbutt Mining & Drilling Supplies, visit www.allbuttminingsupplies.com.









NORTH STAR AIR: MOVING YOUR CARGO (IT'S WHAT WE DO!)

Always looking at new and improved ways to move large freight by air, and striving to keep up with customer demand, North Star Air recently added an additional ATR 72-500 with a large cargo door modification (LCD).

"We increased the aircraft's door size to almost double the current width and height to accommodate oversized cargo much more efficiently," said North Star Air vice-president Tom Meilleur. "With the addition of rollers on the aircraft floor, these modifications are a game changer for our cargo customers who require transporting extra-large pieces of equipment and supplies to their work sites."

The large cargo door (LCD) modification increased the cargo door size from 50"x60" to 116"x71", greatly increasing the variety of large and oversized pieces able to fit in the aircraft. The roller floor can carry industry standard 108"x88" cookie sheets, enabling quicker turnarounds and improved efficiency.

The ATR-72 is recognized as the most cost-effective regional aircraft in the industry. The aircraft's short, gravel field performance is also unmatched in its category. The ATR-72 aircraft are based in Thompson, Man., however the aircraft is available for charter throughout Canada and North America. This regional workhorse

can transport up to 18,000 pounds of cargo (or up to 9,000 liters of bulk fuel) in 2,666 cubic feet. The ATR is also capable of landing on ice strips. With the addition of the large cargo door version aircraft, NSA has four ATR 72-500 freighters, complimenting it's efficent short-range fleet of three Basler DC3's.

North Star Air provides charter and scheduled freight service to over 54 destinations in northern Canada.

Recently, North Star opened a

Winnipeg cargo office, connecting the drop-off hub with it's Thompson, Man. and Red Lake, Ont. bases by road.

To learn more, please visit www.northstarair.ca.





The drone also assures minimal environmental impact in exploration. Inset: Talon Resources' new drone initiative offers a transparent look into operations through high-quality aerial pictures and videos.

In 2019, Talon Resources & Community Development cofounder and president Robert Houle saw in opportunity to expand the company's services.

After taking a break due to the COVID-19 pandemic, marketing student Ricky Houle joined Talon to understand the business and fly his recreational drone for various projects.

This addition benefits the communities Talon serves by providing high-quality aerial pictures and videos of sites and working drills, offering a clear visual representation of the operations while assuring minimal environmental impact in exploration. Locals familiar with the area are now able to identify drilling sites through these aerial views.

Talon is recognized as a trusted partner in the industry. The company was founded "with the vision of bridging the gap between First Nations communities and proponents in the marketplace," according to its website.

Houle, along with Talon's other co-founder, recognized a need for increased engagement and collaboration. The

company is now approached for its services and continually seeks opportunities to assist more communities.

Since introducing the drone, Talon has received positive feedback from communities for the visual insights into operations and the assurance companies respect the land. Proponents have also shared positive reactions, and the visuals are supporting project progression and enhancing public relations.

Talon has successfully strengthened its relationship and trust through communities by offering a transparent look into operations. Aerial visuals captured by the drone are also useful for press releases, website content, photo albums, and conference banners.

Partners Dale Ginn and Nav Dhalwal have expressed excitement about the drone initiative. Both have played pivotal roles in making the drone service integral to all of Talon's projects.

For more information about Talon Resources & Community Development, visit www.talonrcd.com. ★

ESTABLISHING A CRITICAL METALS CHAMPION IN CANADA'S BACKYARD





Far left: Proposed surface layout of McIlvenna Bay.

Left: Peter Ballantyne,
Cree Nation Chief, Karen
Bird, and Foran executive
chairman and chief executive
officer Dan Myerson at the
collaboration agreement
signing ceremony.

In northern Saskatchewan, there's a company de-risking a growing critical metals deposit with a goal to build the mine of the future. Foran Mining (TSX: FOM) (OTCQX: FMCXF) and its flagship McIlvenna Bay copper-zinc-gold-silver deposit are on a path to establish a true Canadian critical metals champion and target carbon-neutral production using sustainable mining practices.

What sets Foran apart is a three-pillar strategy:

- 1. Delivering initial phase production at McIlvenna Bay;
- 2. Unlocking the untapped value of its properties with systematic exploration; and
- 3. Its net-positive strategy, focusing on carbon-neutral critical metal production to support a decarbonizing world and other related business opportunities.

This strategy and its focus on maximizing risk-adjusted value per share for existing shareholders is likely a key reason to Foran's relative outperformance despite current volatile markets, which could also be a good sign when the cycle eventually turns upwards.

Delivering initial production at McIlvenna Bay

In February 2022, Foran announced results from its Initial Phase Feasibility Study highlighting an 18.4-year mine life producing 65.4 million pounds copper equivalent at all-in sustaining costs of \$0.90/lb (net of by-product credits). What makes the project even more exciting is the mine life extension opportunities through the drill bit. The McIlvenna Bay deposit remains open at depth and along strike, while current exploration focus is on near-mine and regional targets to drive more immediate value to shareholders. Recent discoveries, including Tesla and the new Bridge Zone, outline the opportunity of this prolific Canadian VMS deposit.

Unlocking the untapped value of its properties

Foran is still in the early stages of exploring its vast 1,595-square-kilometre land package. McIlvenna Bay is a volcanic-hosted massive sulphide (VHMS) deposit, which typically occur in clusters. At other VHMS camps in Canada, there has been 10 to 21 times more drilling and two to 15 times more resources defined, providing material opportunity for future discoveries across Foran's properties.

Exploration upside was recently showcased by the new discovery of its Tesla target, located just 300 metres from the McIlvenna Bay deposit. Recent drill intercept highlights include 6.2 per cent copper equivalent over 11.9 metres, and one per cent CuEq over 17.2 metres. Geophysical modelling highlights a 900-metre strike by 300-metre-wide conductor, with true widths estimated to be 25 to 50 metres. This sizeable, near-mine opportunity is just one across a vast canvas of targets on its properties. Foran's exploration strategy is working as they successfully unlock this prolific district on its path towards building Canada's next great mining camp.

Foran's net positive strategy

Foran's ethos is to be a net-positive community partner delivering critical resources to support global decarbonization. The company signed a landmark collaboration agreement with the Peter Ballantyne, Cree Nation in July 2023. Part of its strategy is to produce carbon-neutral critical metals. At McIlvenna Bay, carbon neutrality could be achieved in part by using power from renewable energy sources, mining with electric vehicles, and treating ore with environmentally conscious methods, in addition to other new technologies to reduce carbon emissions. Copper and zinc are critical elements of the electrification revolution, and Foran exemplifies a strong belief toward sustainable mining practices that are central to the viability of a decarbonized future.

SINOMINE AND TANCO: EMPOWERING THE NORTH AMERICAN ENERGY TRANSITION





Tantalum Mining Corp. of Canada

Sinomine Resources Inc. en.sinomine.cn

As North America rapidly shifts towards sustainable energy solutions, Sinomine Resource Group (Sinomine) hopes to be a key player in providing the market with a reliable supply chain.

Sinomine is a globally recognized mining enterprise operating in over 40 countries, with a mission that extends far beyond resource extraction.

We are dedicated to developing new energy materials for lithium batteries, harnessing rare light metal resources, and engaging in solid mineral exploration and mining rights development. At the heart of our vision lies a profound commitment to spearheading the North American energy transition.

Sinomine acquired the Manitobabased Tantalum Mining Corp. of Canada (Tanco) in 2019, and it now stands as the flagship asset of our North America Business Division (NABD). Tanco is the first lithium producing mine in Manitoba – it encompasses an underground lithium and cesium mine, a processing facility, and a chemical plant, making us a leading contributor towards a carbon-free economy.

"Above all else, Sinomine is committed to upholding responsible mining practices and prioritizing worker safety, environmental protection, and community engagement," said Frank Wang, president of Sinomine's NABD, who oversees the operation of Tanco.

Sinomine has invested and committed to spend more than \$400 million in Manitoba since 2019, effectively doubling our employee base. We are now one of the largest employers in the region, with more than 170 people currently working at the Tanco mine and at our corporate office in Lac du Bonnet, Man.

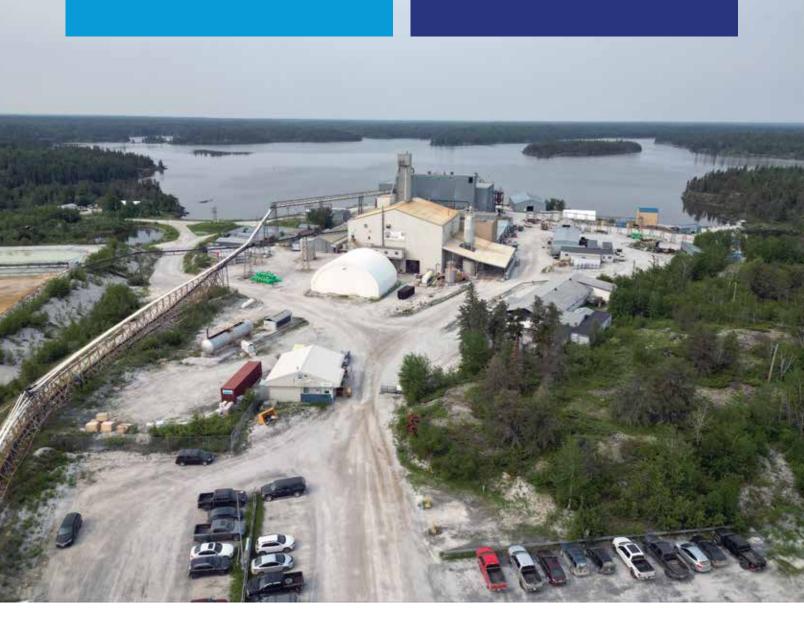
Our operations in Manitoba are conducted on the original lands of the Anishinaabe of Treaty 1 and Treaty 3 and the homeland of the Metis Nation. In alignment with our core values, we've formed meaningful partnerships with local First Nations, extending our collaboration into hiring, training, procurement, and capacity building initiatives.

"We appreciate and respect the invaluable bonds that our First Nations partners share with the land," said Joey Champagne, operations director at Tanco. "We're honoured to be able to co-create and co-develop with them in a spirit of mutual respect, understanding, and support. We also champion similar values internally among our employees, placing a

strong emphasis on diversity and integrity, while prioritizing the safety and well-being of our staff and neighbours above all else."

Manitoba wants to become Canada's renewable energy powerhouse and we want to help support that goal. Sinomine is exploring sustainability and growth initiatives to further enhance and expand our operations at Tanco. One area we are looking at is how we can strengthen the North American lithium supply chain - a critical element for electric vehicles. We are exploring a capacity expansion at the lithium plant and a possible \$1 billion investment in a new lithium chemical plant. At the same time, we are exploring an upgrade to our existing cesium plant, which has possible applications and potential uses in the broader context of clean energy technologies.

Our strategic blueprint in North
America goes beyond business
objectives. We want to become
part of the fabric of the North
American supply chain – not just as a
responsible mining company, but by
being an active community partner.
We intend to do this by continuing
to invest locally, championing
Indigenous collaborations, and
nurturing strong relationships in the
regions where we operate.





Tantalum Mining Corp. of Canada tancomine.com



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