



Journey Together

Thompson 2023 >> 2024

Learn how Vale Base Metals is working with the communities to transform critical minerals into prosperity and sustainable development in Manitoba

[#EnergyTransitionMetals](#)



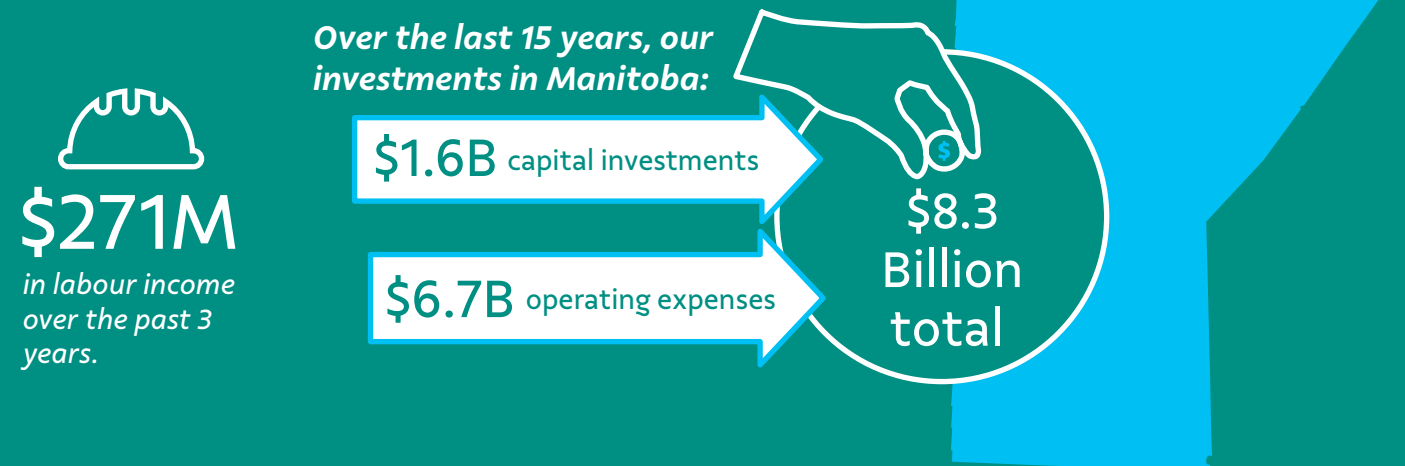
Vale Base Metals

We are a global mining company committed to safely delivering the nickel, copper, cobalt and platinum group metals essential for the world's energy transition. Our workforce of 15,000 is dedicated to transforming these critical minerals into prosperity and sustainable development across the countries in which we operate, including Canada, Brazil, Indonesia, the United Kingdom and Japan.

Our purpose is to improve life and transform the future, together. Applying leading-edge technology to sustainably mine critical minerals that drive mobility and material solutions is at the heart of what we do.

Our economic contribution

Vale Base Metals is proud to operate in Manitoba — investing in safe, responsible, and sustainable mining that contributes to a strong economy.



In 2023:

The average Vale Base Metals salary was

112%

higher than the average salary in Manitoba.



At our Manitoba Operations we produced:

11,268

tonnes of nickel concentrate.

Ni

5,113

tonnes of copper.

Cu

On the cover: Thompson's T3 headframe
Courtesy of the Mining Association of Manitoba

Message from Stacy Kennedy

“Manitoba Operations is located on Treaty 5 land, the traditional territory of Nisichawayasihk Cree Nation, Tataskweyak Cree Nation, and homeland to the Métis people. Vale Base Metals is honoured to support the Thompson Aboriginal Accord and the Thompson Urban Aboriginal Strategy, and our Manitoba Operations is committed to building strong relationships with local communities and improving our own understanding of local Indigenous people and their cultures.”



It's an exciting time to be in the mining industry right now. The world is setting the stage for a major change in the way we create and store energy, and nickel is one of the critical minerals at the forefront of the energy transition.

Thompson and Manitoba have a huge opportunity to grow from this change. Now, more than ever, it's important to think globally, while acting locally: strengthening our business to support the global demand for minerals, while making sure that success and prosperity is shared by our employees, our community, and our region.

We're getting ready to meet that challenge. Last fall, the Thompson Mine Extension Project brought its first new return air raise online: a \$25M project possible only through the effort of more than 100 team members. We've also doubled our exploration activity compared to last year, upgrading our knowledge of

known resources to build the business case for Phase 2 of the extension, and exploring new opportunities in the Thompson Nickel Belt.

We've also had great conversations this year with our newly elected premier, Indigenous governments, and our leaders in education and the trades. We want to help our region reimagine how we offer education in the north to create opportunities for the people who live here, helping them find prosperity through well-paying jobs and transferable skills in our industry, and creating a sustainable economy for the region.

We've taken our first steps by launching our Miners-in-training program in October, a new onboarding program for underground hires with no experience in mining or heavy industry. It's their first step in building a new future for themselves in the field, and we're excited to expand that model in the future.

We're also proud participants of the new Uncover Prosperity campaign launched this year by the Mining Association of Manitoba, in partnership with the provincial government. As we learned from a widespread survey this summer, most of the residents in our province have a lot of questions and concerns about mining, and yet know very little about the industry or its contribution to the wealth of our province. The campaign aims to change that, especially among our younger generation: our future workers and leaders.

This is a big moment in time for mining, for Manitoba and for the north: it's an opportunity to transform the future and make a better world for everyone. We're excited for you to join us on the road ahead.

Stacy Kennedy
Director of Manitoba Operations

We're building the future of mining in Thompson

We met a major milestone this year when we commissioned our new 350 Return Air Raise. The raise more than doubles the airflow available to the most active areas of T3 mine, and the new fans include a silencer to create less noise while running.



Powering up the new 350 Return Air Raise for the first time.

Commissioning the air raise was a \$25M project that represents the efforts of more than 100 employees and contractors. It's one of two air raises being constructed as part of the Thompson Mine Extension Project Phase 1: a \$150M investment in the future of Vale Base Metals Manitoba Operations. The project includes new ventilation, electrical upgrades, and backfill facilities that will allow us to ramp up our operations in Manitoba's T3 mine, and build a business case for Phase 2.

If approved, Phase 2 will include development of two massive orebodies adjacent to T3's current operations:

Hanging Wall High Grade and Hanging Wall Deep. These orebodies hold the promise of mining well beyond 2040.

A Focus on Exploration

Vale Base Metals' exploration team has been delivering a five-year, \$236M exploration investment in regional exploration, designed to support Phase 2 planning and find new opportunities. In 2023, we conducted 74, 320 meters of drilling across more than 100 boreholes, and drilled another 25, 500 meters across nearly 50 holes underground: more than twice the drilling we conducted last year.

Wherever possible, our surface drills utilized existing trails and roads to minimize environmental impacts, as well as helicopter access to remote sites during the spring and summer months. Both strategies help to minimize our environmental footprint.

Underground, Vale Base Metals has completed one-third of a 2.3 km-long exploration drift to more easily explore the Hanging Wall High Grade and Hanging Wall Deep orebodies. The underground drift means less drilling is needed on the surface, and shorter holes can be drilled from underground. The first drill to use the drift has already been deployed!



The 350 Return Air Raise (left) while it was under construction this fall. To the right is the 378 Sandfill Plant, another essential part of the Thompson Mine Extension Project.

Vale Base Metals geologists examining core samples at a drill site.



Emergency services

Mine Rescue

This year, Vale Base Metals' Manitoba Mine Rescue team won first place at the 2023 Provincial Mine Rescue Competition hosted at Hudbay's Chisel North mine near Snow Lake, Manitoba.



Mutual Aid

Vale Base Metals' Fire and Emergency Services maintains a mutual aid relationships with local emergency services groups like Thompson Fire and Emergency Services, Manitoba Hydro, and other mine rescue teams in the province. The teams share

facilities like the local Manitoba Fire Emergency College site, provide relief coverage during special events, and respond together to major emergencies in the community.

At this year's Provincial Mine Rescue competition, Vale Base Metals' mine rescue organizers also spearheaded

the very first provincial Mutual Aid team: each mine provided two mine rescuers who trained with their local teams and met for the first time on the eve of the competition, similar to a real-life emergency where mutual aid was invoked. The team exceeded expectations and came in second place overall!

Rocky the Rescue Robot

Our Emergency Services team recruited a unique member for their department last year: Boston Dynamic's SPOT robot. It can be operated remotely, travel over difficult terrain, and enter dangerous environments in the event of an emergency to reduce the risks to our emergency team.

Vale Base Metals' Fire and Emergency Services hosted a colouring contest and competition among our local elementary schools to name our newest member. Today, we know it as Rocky the Rescue Robot!



Want to meet Rocky? Rocky often joins our team at events around town! Swing by a Vale Base Metals-sponsored community event and say hi!

Health and Safety

Homesafe

Homesafe is our safety program: it's how we acknowledge our responsibility to our family, friends, and neighbours to ensure our employees come home safe and sound.

Wherever Vale Base Metals works, our goal is zero harm: to our people, our environment, and the communities in which we live and work.



HeartSmart

Manitoba introduced the HeartSmart program in 2023 in collaboration with Telus Health to check employees' blood pressure, heart rates, glucose levels and lipid profiles. Fifty-two employees were voluntarily screened for their cardiovascular health, and as a result, 15 employees were advised to seek further medical follow-up. Early detection and lifestyle changes are key to cardiovascular health and supports our holistic approach to improving employee health and wellbeing — on and off the jobsite!

MINES for Minds

Manitoba Operations has launched its MINES for Minds program, which is currently being delivered to new employees during onboarding. MINES for Minds equips employees with tools to prioritize the mental health of themselves and others, and how they can take action if they, their family, friends or colleagues are in distress. The program has been delivered to more than 110 employees to date, with more focus on our broader workforce in 2024.

Lifevacs

After deploying 38 LifeVac's across Manitoba Operations, the Health & Safety team donated another 15 units to local schools, the local Scouts chapter and several daycare centers. The Lifevac units are easy-to-use tools to save people who are choking, particularly when abdominal thrusts cannot be easily administered.



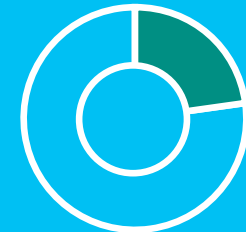
The future of mining is for everyone

We believe that amazing careers in mining should be accessible to everyone. In 2023:



31%

of new, permanent hires at Manitoba Operations were **Indigenous**.



23%

of new, permanent hires at Manitoba Operations were **women**.



86%

of summer students hired at Manitoba Operations were **women**.

Miners In Training program

This October, we were proud to launch our first Miners in Training (MinT) program, starting 8 women on the path towards exciting careers in underground mining.

The program is designed for people who have no experience in heavy industry succeed in the world of mining. After they finish their surface orientation, MinT employees receive hands-on training at Thompson's T1 Mine in an underground area dedicated exclusively to training MinT employees, learning fundamental mining skills like scaling, heavy equipment operation,

and more. They also visit every area of the mine to understand their roles in the larger operation, and to learn about the opportunities available to them as they progress their careers.

After their training is complete, trainers follow up at the 30, 60, and 90-day intervals to see how they are adapting to their new roles, and if they could use any additional support or education.

We'll continue to offer the MinT program to new hires as eligible roles become available!



A new hire in the MinT program learning new skills underground.

Environment

Environmental Management Systems (ISO 14001:2015)

ISO 14001:2015 is the internationally recognized standard for environmental management systems (EMS). It provides companies with a framework for designing and implementing an EMS, and continually improving their environmental performance.

After our Newfoundland and Labrador sites were certified under the ISO 14001:2015 standard in early 2023, our Ontario and Manitoba Operations followed suit in August and November 2023, respectively.

One of the Environment Department's goals is to develop a culture of continual improvement with respect to environmental management at our plants and mines by increasing awareness and engaging employees at all levels at our Manitoba Operations.

Regreening Our Clay Caps

When we clay-capped our slag pile, we found the grass application we used would have required too many resources and artificial fertilizer to consistently grow.

Since then, our environment team piloted clay test plots to scientifically test vegetation that thrives in the clay on its own. By observing the test plots over a period of three years, they found that using nitrogen-fixing

legumes enriched the clay enough to allow the local surrounding plant life to seed and take root on their own. Local vegetation supports natural biodiversity, controls the erosion of the clay caps, and creates an environment that supports pollinators like bees. These revegetation efforts are supported by 9 beehives owned and maintained by a local apiarist.

The bees promote pollination on site and support our revegetation efforts

in our tailings management area while producing honey. This year, we gifted 700 jars of honey to our local employees over the holidays, produced right here in our Manitoba Operations!

Perimeter Study

Starting in 2021, Manitoba's environment team has established a long-term perimeter study of Thompson Mine, including the Tailings Storage Facility, Pipe Mine, Birchtree Mine, and the former Soab Mine site. The study will span several years, utilizing 60 monitoring wells to ensure that the water flow in our tailings facility is leaving our property only in the where it is designed to leave, meeting all quality requirements. This is especially important for groundwater flow in areas affected by our mining activities.

Our Water Quality Management Program regularly tests surface water and groundwater in our tailings storage area while monitoring the plants and animals that live in and near our operations.



Our revegetation efforts are supported by 9 beehives owned and maintained by a local apiarist.



This year, we gifted 700 jars of honey to our local employees over the holidays, produced right here in our Manitoba Operations!



Honey bees fly in and out of a beehive installed on-site at Manitoba Operations.



Tailings management

Members of Manitoba's Tailings and Dams Group conduct a drill testing the procedure for clearing a blockage in the water control structure.

The Manitoba Tailings Storage Facility (TSF) uses a combination of natural topography and seven dams to contain the waste tailings from the Thompson Concentrator. The facility is monitored using virtual real-time collection of dam performance information with 35 remote instruments and cameras as well as patrolled in-person daily.

Vale Base Metals Tailings and Dams has dedicated technical expertise, engineers and experienced personnel who prioritize tailings and water management across our operations. The external Engineer of Record, retained by Vale, is involved in all aspects of the management of the facility and validates that the TSF and dams are performing and being operated according to design. Annually, an Independent Tailings Review Board is convened to provide objective, expert advice to manage our risks and continually improve our systems.

The dams in our Manitoba Operations are purpose-built structures that are designed as water retaining dams to contain tailings underwater in perpetuity. There are over 28 million tonnes of tailings storage capacity available to support the life of the Manitoba operations. For perspective by 2047 under the current Life of Mine plan (including consideration for Phase II Thompson Mine expansion projects), the TSF is projected to utilize 50% of its remaining design capacity leaving plenty of room for future operations.

In the unlikely event of an emergency, the Manitoba Tailings and Dams group is prepared to escalate pre-planned mitigations in collaboration with the Manitoba Emergency Response team 24 hours a day.



7 dams and natural topography are used by the Manitoba tailings storage facility.



35 remote instruments and cameras are used to monitor dam performance.



Emergency Services
Truck Pull, Nickel Days



Annual Vale
Employees' and
Pensioners' Bonspiel



Annual Nickel Days Parade



Annual Vale Employees' and
Pensioners' Golf Tournament

There's never a dull moment at Vale Base Metals

We were privileged to be a part of a lot of great events this year, both out in the community and among our own team, including:

- Vale Day at Mystery Mountain
- Quarter Century Club
- Employees' and Pensioners' Curling Bonspiel
- Nickel Days Parade and Truck Pull
- Nickel Run 5K
- Employees' and Pensioners' Golf Tournament

Many internal events are organized by our Employee Events Committee, an independent group of employees plan great events for their fellow coworkers.



Annual Santa Parade



Nickel Run 5K



Annual Vale Employees' and Pensioners' Golf Tournament



Celebrating the end of the August PMP Celebrating the end of the August PMP



Quarter Century Club



Vale Day at Mystery Mountain Winter Park



Annual Remembrance Day Ceremony



Annual Nickel Days Parade

Community

For the first time in the history of our operation, we were honoured to raise a teepee on our plant site to commemorate National Indigenous History Month, shared with us by Keewatin Tribal Council. The Manitoba Métis Federation joined us at the teepee to host cultural workshops on-site for our employees, including beadwork, working with furs, and a lunch of bannock and stew. The next day, members of the Manitoba team attended a sunrise ceremony to welcome the summer solstice, and National Indigenous Peoples Day celebrations held at MacLean Park.

On National Day of Truth and Reconciliation, we gave out orange shirts to employees across the operation, and attended events and discussions that reflected on the history of residential schools and the path towards reconciliation.



Giving out orange shirts to our employees on National Day of Truth and Reconciliation.



Vale is proud to be a major sponsor for Thompson's National Indigenous Peoples' Day and National Day for Truth and Reconciliation.

\$746,575

In 2023, we invested \$746,575 in the community of Thompson, including:

\$500,000  in ongoing investment in the City of Thompson's Aquatic Facility (\$2M total over four years).

\$80,000  to the Thompson Humane Society for their Animal Care and Wellness Centre.

\$20,000  to food security programs in the community, including Manitoba Keewatinowi Okimakanak, Ma-Mow-We-Tak Friendship Centre and the Thompson YWCA.

\$17,000  to sports clubs hosting community events, including the Thompson Ski Club, Norman Northstars, Burntwood Curling Club, the Thompson Golf Club, and more.

\$13,000  to Thompson's Nickel Days and Canada Day celebrations.

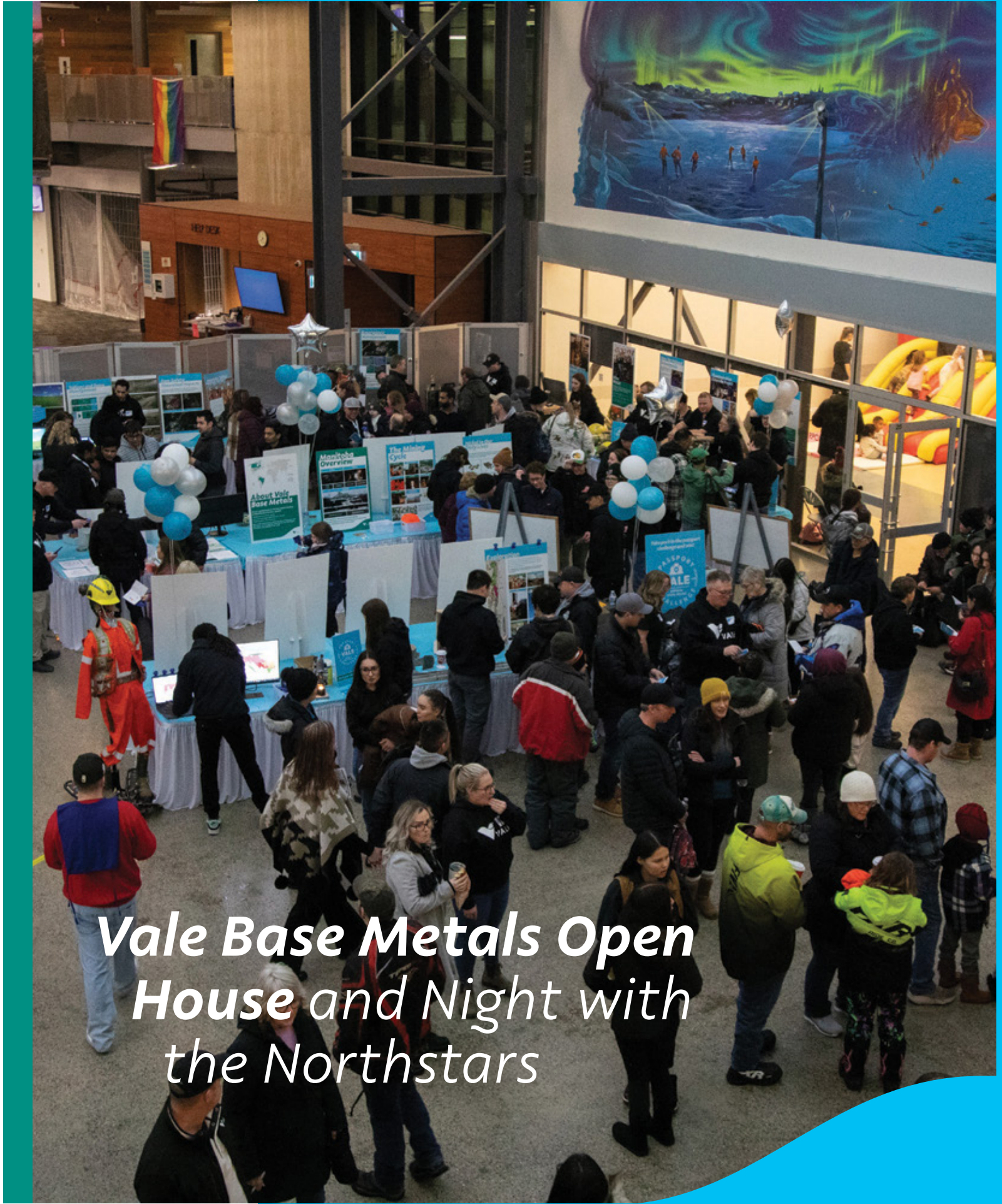
\$10,000  to MKO for hosting National Indigenous Peoples Day and National Day of Truth and Reconciliation Events.

\$10,000  to the Thompson Boys and Girls Club to support their programs.



Community Liaison Committee

Our Community Liaison Committee connects Vale Base Metals with the northern Manitoba region by holding quarterly stakeholder meetings where attendees can learn about our ongoing projects, our environmental monitoring, and our community investments. It's also a great time to discuss the ways we can work together to provide training, careers, and economic development in the region. If you're interested in attending, call our community line at 204-778-2888, or Manitoba.operations@vale.com.



Vale Base Metals Open House and Night with the Northstars

In January, we hosted our Open House at the Thompson Regional Community Centre in partnership with the Norman Northstars for our annual night of free admission, Night with the Northstars.

We didn't predict the amazing show of support we saw from the community: approximately 1,500 people turned out that night to learn about our operations, and our team was energized by the thoughtful questions and enthusiasm.

The Northstars game was absolutely electric: every seat in the house was full, and the Northstars won by an 8-1 landslide!

~1,500  attended the Open House.



Our environmental superintendent explains how clay capping helps to preserve water quality.



The Norman Northstars won against the visiting team by an 8-1 landslide that night!



Contact Us:

If you have any questions or concerns about Vale Base Metals' Manitoba Operations, please contact our Community Concerns line at 204-778-2888, or Manitoba.operations@vale.com