Celebrating 72 years of natural resources news

MINE TO MARKET

GLENCORE
From the COOs

This special, 360th and final edition of Mine to Market represents the bitter-sweet end of an era, as we close the book on our flagship north Queensland news publication, and begin an exciting push into the digital space. For more than 70 years Mine to Market has been bringing readers from across Queensland, Australia and the world the latest from our north Queensland operations. Mine to Market serves as a record for the developments, characters and visionaries that made Glencore’s operations across the great north west what they are today.

From visits from royalty and icons of the Australian political landscape, to technological developments like the IsaSmelt™, IsaMill™, and Jamieson Cell that have changed the face of the minerals industry the world over. Mine to Market has gifted us with a portal to the past, allowing us to reflect on our rich history as an economic powerhouse for the state of Queensland, as we take the next steps into our exciting future as a key player in a diverse, dynamic and truly global natural resources company.

We would like to thank our people and our communities for the support you have shown Mine to Market over its lifetime.

We look forward to continuing to connect our business, our communities and our people with a world of possibilities as we start this next chapter.
The 360th edition: Looking back on 72 years of natural resource news

After 299 editions of MIMAG (Mount Isa Mines Magazine) and 161 editions of Mine to Market, it’s time to bid a fond farewell to our printed publication and take the leap into the digital space.

With the inaugural edition released in 1947, MIMAG printed its final edition in 1996 and was replaced by the Mine to Market magazine we know today.

Over the years these magazines have provided a platform for us to celebrate our achievements, acknowledge our people, engage openly with our communities about our activities and revel in special occasions – even brushes with royalty.

Every three years we conduct a Community Attitudes Survey within our local reach to gather valuable feedback, including your preferences on how you like to receive news and updates from our operations.

Overwhelmingly our readers have told us that a printed magazine no longer satisfies their appetite for up-to-the-minute information from our business. Instead, our audience is now turning to online media outlets and social media feeds for the latest news.

By redirecting our efforts in the digital media space, we are ensuring you will continue to receive the same interesting updates from our sites but with greater immediacy and the potential to reach a far broader audience.

As we move forward, we will continue to listen to your feedback, ensuring we keep you up-to-date with the news you want, the way you want it, and adapting our approach as necessary.

While this is the final edition of Mine to Market, in its current incarnation, you can still get all the latest Glencore news by checking our websites and following us on social media. We will keep you abreast of any new communication mediums in the pipeline for the future.
HILTON OPENS

If the sense of occasion at the opening of the Hilton Mine was highlighted by the presence of the Queensland Premier, it was certainly underlined by the pride seen on the faces of three generations of geologists and miners who have brought the mine to fruition.

– MIMAG, June 1990

FAREWELL TO MOUNT ISA’S OLDEST UNDERGROUND MINE

After 80 years of mining Zinc Lead by underground mining methods, it is now time to pack up the crib port, tag out for the shift and call it a day for underground Zinc Lead mining.

– Mine to Market, December 2005

TWO MILLION DOLLAR SMILES

Mount Isa Mines recently announced it was committing $2 million in funding towards the construction of a new $6.6 million Oral Health Building through its partnership with Queensland Health as part of the Community Partnership Program North Queensland.

– Mine to Market, July 2010
ERNEST HENRY MINING’S LIFE EXTENDED BY 12 YEARS

Ernest Henry Mining is proud to announce that the life of its mining operations near Cloncurry has been extended to 2024, following the board’s decision on 3 December 2009.

– Mine to Market, December 2009/January 2010

MOUNT ISA MINES

Mount Isa Mines was inducted into the 2010 Queensland Business Leaders Hall of Fame by Her Excellency, Ms Penelope Wensley AO, Governor of Queensland, at the annual awards ceremony held in Brisbane on 14 September.

– Mine to Market, September 2010

UNDERGROUND PRODUCTION UNDERWAY AT EHM

Ernest Henry Mining has successfully transitioned to an exciting new future in underground mining and magnetite processing, with its open pit mine completed and underground production now underway.

– Mine to Market, December 2011

MOUNT ISA MINES BRINGS VIRGIN AUSTRALIA TO ISA

We work hard to make a difference, which is why over the past 16 months, we have been working closely with Virgin Australia to secure a second airline to service the Mount Isa to Brisbane route.

– Mine to Market, May/June 2012
**LADY LORETTA MINES FIRST ORE**

We congratulate the Lady Loretta team on reaching ore early as part of its greenfield development project.

– Mine to Market, September/October 2012

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**PRODUCTION TO DOUBLE AT EHM WITH SHAFT HOISTING UNDERWAY**

In a project years in the making, Ernest Henry Mining has achieved an enormous milestone with ore hoisting commencing via our new kilometre-deep underground shaft.

– Mine to Market, May/June 2014

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**TWO MILLIONTH CATHODE PLATE MARKS ACHIEVEMENT 40 YEARS IN THE MAKING**

In August, the Townsville Copper Refinery and Glencore Technology teams celebrated the manufacture of the two millionth ISA Cathode plate; an achievement 40 years in the making.

– Mine to Market, July/August 2015

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**COPPER SMELTER AND REFINERY OPERATIONS EXTENDED**

The Mount Isa and Townsville communities celebrated the news that our Mount Isa Copper Smelter and Townsville Copper Refinery will remain open past their respective planned closure dates of 2016 and 2017.

– Mine to Market, November/December 2015
$1.3 MILLION IN GLENCORE COMMUNITY FUNDING TO SUPPORT MORE PROJECTS THAN EVER BEFORE

Seventeen partner organisations shared $1.3 million in funding under the Glencore Community Program North Queensland in 2017. — *Mine to Market, March/April 2017*

FINAL MILESTONES ACHIEVED AT BLACK STAR OPEN CUT

Bringing an impressive thirteen year journey to an end, Black Star Open Cut mine was placed into care and maintenance in October. — *Mine to Market, November/December 2016*

LADY LORETTA PRODUCTION UNDERWAY

Glencore’s Lady Loretta Mine, operated by RedPath, is now ramping up toward full production after recommissioning during the first half of 2018 following two years in care and maintenance. — *Mine to Market, Quarter 2 2018*

MORE THAN $120,000 RAISED FOR BREAST CANCER AT ZINC GOES PINK


ZINC LEAD CONCENTRATOR AND R62 SHAFT CELEBRATE 50 YEARS

When the Zinc Lead Concentrator and K57 shaft were officially opened 50 years ago, it was the biggest industrial inauguration ever seen in Queensland, part of a $130 million expansion program and marked one of the most important phases in Mount Isa Mines’ history. — *Mine to Market, September/October 2016 (originally reported in MIMAG, December 1966)*
Glencore donates $1 million to north Queensland flood recovery

Following the devastating floods in north Queensland in February, Glencore announced a $1 million donation towards flood recovery efforts.

Many of our employees live and work in the regions surrounding Townsville, Cloncurry and Mount Isa, and have shown an incredible spirit and resilience during the devastating floods.

A number of our employees have been seriously impacted or displaced by this unprecedented event which took north Queensland by surprise.

Record breaking rainfall and significant flooding has been seen from Townsville to Hughenden, Richmond, Julia Creek and Cloncurry, with the Flinders River in Richmond exceeding the 1974 flood level.

Townsville received a year’s worth of rainfall in nine days, with over a metre of rain. Further west, hundreds of thousands of cattle and wildlife died in the floods.

We have been working closely with our employees, local stakeholders and pastoralists to provide support where it is needed. This includes supplying heavy equipment and employees to help with the clean-up and removal of dead cattle from properties safely. We also supplied a dedicated dry storage and landing area at Ernest Henry Mining, which was used by the Defence Force as a base for staging fodder drops.

As one of the largest Queensland employers and businesses operating in the Townsville region for almost 60 years, Glencore has close ties to local businesses and community groups throughout the region.

We understand how tough it can be to get back on your feet and keep going when something like this happens.

Our thoughts are with the families affected by these events.
Darren Nyen, Acting Copper Refineries Limited Manager and his family were among many people evacuated from Idalia in Townsville. Pictured is his wife Debbie, with children Heidi and Caden being evacuated by friend Paul Adams.

Devastating floods hit Townsville and north west Queensland.
Restoring land at Ernest Henry Mining

At Ernest Henry Mining (EHM) our people have been working progressively to rehabilitate the South Waste Rock Dump (SWRD), in line with Glencore’s commitment to the productive and sustainable management of our leases.

The SWRD is one of two waste rock dumps at EHM which were built during the open cut phase of our operations. To manage our waste rock they were designed to encapsulate potential acid forming rock.

Rehabilitation is part of our life of mine planning. Therefore we cap the tops of the dumps to enhance trans-evaporation and reduce water ingress. Adding soil and grass ensures less moisture goes into the rocks and oxidises.

Following a three staged approach, grass is now growing on the SWRD rehabilitated land.

STAGE ONE – BULK SHAPING
Using a dozer, the surface operations team reshaped 8.9 hectares of the land, which was filled and cut with over 7,150 bulk cubic metres of rock and soil. This ensures the ground has the correct slope for drainage while maintaining the design integrity of the waste rock dump.

STAGE TWO – TOPSOIL
Topsoil was added to the reshaped ground, with over 48,000 bulk cubic metres of top soil used over 12 hectares of land.

STAGE THREE – SOIL PREPARATION AND SEEDING
Over 277.5 kilograms of seeds were sewn. Native grasses such as Iseilema vaginiflorum (Red Flinders Grass), Astrebla squarrosa (Bull Mitchell), Astrebla lappacea (Curly Mitchell), Brachyacne convergens, Chrysopogon fallax, were exclusively used. Seeding took three days and was completed with a seeder attached to the back of a grader driven by surface operations. Some seed was also sewn by hand.

Phil McCann, Acting Health Safety and Environment Business Partner EHM says the aim is to rehabilitate the final surface of the waste rock dumps to a safe, stable and self-sustainable state.

“To minimise environmental impacts, our strategy is to rehabilitate land, incorporating natural habitats in keeping with the surrounding ecosystems, progressively while we are still mining as well as after mining activities have finished.”

Grass shoots sprouting up on the SWRD at Ernest Henry Mining.
Looking out onto the rehabilitated area

Grass growing on the SWRD
With community feedback placing high importance on educational outcomes, the Books in Homes program helps to ensure early literacy engagement and the development of reading skills for students across north Queensland.

Go into the draw to win one of three $1,000 travel vouchers.
Take part in our Pulse Survey

In May, take part in Glencore’s Community Pulse Survey and tell us about the issues that matter to you.

Every three years, Glencore surveys residents in Mount Isa, Cloncurry and Townsville to understand what’s important to the people who live and work in the communities in which our operations are based.

The survey is conducted by independent researchers and provides anonymous feedback on how communities rate Glencore’s performance as a corporate citizen.

Maryann Wipaki, Heath, Safety, Environment and Community General Manager North Queensland says understanding the views and goals of our communities is valuable.

“It ensures we’re investing in the right projects and proactively engaging with our stakeholders to make a real difference in the lives of people that live and work in north and north west Queensland,” Maryann says.

“Over the years, many of our major community infrastructure investments have been a direct result of community feedback.

“Our last survey told us that improved health and medical facilities was a priority for all our communities, which led us to funding a range of initiatives across north Queensland, including a Fractional Laser for the Townsville Hospital, upgrades to the Flinders Medical Centre in Cloncurry, a Retcam for the neonatal unit in Mount Isa and funding of the LifeFlight Rescue Helicopter to secure an aerial medical retrieval service for the north west region.”

To have your say, you can complete the survey online by via links on the websites www.mountisamines.com.au and www.ernesthenrymining.com.au

It takes around five minutes to complete, and you can enter the draw to win one of three $1,000 travel vouchers.

The survey results will be analysed by independent researchers, and your survey responses will remain confidential.

For more information phone our Community Feedback Hotlines: 1800 982 982 (Mount Isa), 1800 346 463 (Cloncurry) or 07 4781 8222 (Townsville).
In February, geotechnical professionals spanning six continents joined together to discuss and share resources, knowledge and technology around Glencore’s Fatal Hazard Protocol 5 – Ground/Strata Failure.

Hendrik Esterhuizen, Senior Geotechnical Engineer Ernest Henry Mining (EHM), Geoffrey Potgieter, Superintendent Operational Services Mount Isa Copper Operations and Nathan Gamble, Senior Geotechnical Engineer George Fisher Mine were among around 50 delegates from Glencore’s diverse copper, zinc, coal, nickel, alloys and corporate businesses who attended an intensive three day workshop in Baar, the home to Glencore’s global headquarters.

Geoffrey says it’s difficult to overstate just how seriously Glencore takes safety, the importance of the Fatal Hazard Protocols and the importance of Life Saving Behaviours.

“The wider Glencore team has great skills and expertise,” Geoffrey says.

“Glencore Coal in Australia has a very clever Mine Operating System comprising a Personal Development Framework, Technical Framework and Asset Management Framework that has the potential to help us solve some of our problems.

Hendrik says the necessity for continuous improvement and addressing the gaps we may have in our systems was one of the main points he took from the workshop.

“Because of the unpredictable nature of rock masses that Rock Mechanic Engineers work with underground, we need to be looking at continually improving, learning and evolving,” Hendrik says.

“We should not underestimate or overlook areas where we do not expect any significant risk, these are the areas where things are not quite as obvious and significant incidents may occur.

“We met and established contacts with colleagues from around the world.

“Because seismicity is one of the key risks for EHM, it was beneficial to establish connections with some of our Canadian counterparts, who also experience significant seismicity at their operations.”

Nathan says that since returning from the workshop, they have been sharing information with other Rock Mechanics from Zambia and Canada.

“There is a lot of geotechnical experience within the business, it’s important that we share this wealth of knowledge and learn from each other to continuously improve safety and innovation within the company,” Nathan says.
Mount Isa Copper Operations (MICO) tackled their longest shutdown to date, during which they successfully replaced the 30 year old original P41 plate feeder and crusher head box at X41 No. 6 Crusher.

The 16 day shutdown stretched from February through to March and involved 23 major projects, various minor projects and scheduled maintenance jobs.

Rick Winsor, Superintendent Fixed Plant Operations MICO says the success of the shutdown was a result of the significant planning and execution by all departments along with assistance from local contractors and suppliers.

“Shutdowns are vital to the life and health of our operations, they allow us to carry out necessary repairs and replacements to our infrastructure, providing a safer environment for personnel to work in, and increase the productivity of well-maintained equipment,” Rick says.

“The work on the P41 plate feeder, crusher head box and structured steel replacement was complex but crucial to maintain the optimal operating capacity through our crushing system.”

The P41 plate feeder weighs eight tonnes and controls the feed of ore to the crusher. Using a reciprocating process the plate feeder feeds ore into the crusher jaws at a controlled rate. The reciprocating process is operated by a hydraulic system and controlled by the surface control room.

With other major works also carried out in the M62, U62 and X41 areas, Rick says the shutdown required an extensive sharing of resources and teamwork on and off the lease to get the desired result.

“We are very impressed with the work completed during the shutdown, a lot of time and effort goes into the planning, followed by the execution of the jobs,” Rick says.

“I’d like to thank everyone involved for their efforts in completing a safe and successful shutdown.”
We provide funding for local events, projects and initiatives across our north Queensland communities of Mount Isa, Cloncurry and Townsville to make the communities we call home safer, happier, healthier and more vibrant places to live. Some of the key recipients from the quarterly program are featured here.

**Townsville**

**THE PYJAMA FOUNDATION**

In Townsville we have committed funding to support the expansion of The Pyjama Foundation’s Love of Learning program. The program provides learning mentors to children in the foster care system supporting them with learning, building life skills and confidence.

**Mount Isa**

**WONDER OF SCIENCE**

Glencore has committed funding for the Wonder of Science program to be delivered to Mount Isa and Cloncurry schools for one school term in 2019. The program creates a STEM (Science, Technology, Engineering and Maths) culture in schools, leading to improved career options through tertiary studies, vocational education and training.

Through the program, students from years five to nine will be taught by Wonder of Science STEM ambassadors who provide authentic real-world learning in their classrooms. Students will have the opportunity to attend a regional and state conference to present their science projects.

**BOOKS IN HOMES**

Glencore has extended its sponsorship of the Books in Homes program which provides hundreds of children in Mount Isa and Cloncurry with nine new books per year to take home to build their home libraries. When children have books in their homes, it increases their exposure to quality reading material and fosters a greater love of reading that will hopefully last for a lifetime.

Thanks to this initiative, teachers are happy to report that learning outcomes have improved as well as school attendance.

**MINEX 2019 MINING EXPO**

Mount Isa Mines (MIM) will be a platinum sponsor of MineX 2019 - Mining and Engineering Trade Exhibition and Networking Event to be held at Mount Isa’s Buchanan Park from 30 May to 1 June 2019. MineX showcases exhibitors’ products and services to targeted audiences. It is a key opportunity for businesses, contractors, consultants, and services to network within the mining industry.

**ZONTA INTERNATIONAL WOMEN’S DAY DINNER**

MIM was proud to be a platinum sponsor of the 2019 Zonta International Women’s Day Dinner to acknowledge the social, economic, cultural and political achievement of women in Mount Isa.

**GREGORY RIVER CANOE MARATHON**

MIM is a major sponsor of the 2019 Gregory River Canoe Marathon to be held on 5 May 2019.

The event sees local and interstate competitors paddle their kayaks for a marathon 42 kilometre race or a short course 18 kilometre race down the iconic Gregory River.

**Cloncurry**

**STOCKMAN’S CHALLENGE AND CAMPDRAFT**

Ernest Henry Mining is a Platinum sponsor for this year’s Stockman’s Challenge and Campdraft event, set for 10–14 July 2019 at the Cloncurry Equestrian Centre.

One of Australia’s premier horse events, the challenge weekend attracts around 600 competitors and spectators to Cloncurry for a series of competitive stock handling and horse control events in various categories, before finishing off with an evening rodeo.
Each year through our Community Assistance Program, we award hundreds of thousands of dollars in funding to local community organisations and not-for-profit groups.
Ernest Henry Mining and Cloncurry Mustering reach new heights

Ernest Henry Mining (EHM) have been working closely with Cloncurry Mustering to ensure we are compliant with new aviation regulations.

Glencore has adopted the resources industry Basic Aviation Risk Standards (BARS) flight safety program, which is recognised as best practice and has a proven safety record.

EHM requires the use of helicopters onsite to access areas for water sampling that have become isolated due to rain. We invest significant resources into monitoring and managing groundwater across our operations and conduct regular monitoring to ensure the health of groundwater and aquatic ecosystems.

In cooperation with our local provider, Cloncurry Mustering, we completed a complete review of our process in line BARS requirements.

As part of the review we conducted an onsite inspection of the Cloncurry Mustering hanger, workshop and maintenance facilities, ensuring they met standards.

Phil McCann Acting Health, Safety and Environment Business Partner EHM says it is important to continuously improve our processes in line with best practice.

“By continuously improving process onsite we have set a fatal hazard protocol and concrete standards for aviation operations,” Phil says.

“BARS requirements have been implemented through the new aviation hazard protocol and Glencore’s Aviation management guideline, and we now have two comprehensive risk assessments for our site.

“Cloncurry Mustering have been extremely helpful throughout this whole process and provided all the evidence required to demonstrate compliance.”
Major hoisting upgrades ensure longevity of X41 Winder

Mount Isa Mines’ X41 hoisting system has undergone a major two month, $8 million upgrade to install new braking and control systems.

The X41 hoisting system, made up of a winder house and shaft, provides vital access to our underground copper operations for personnel, equipment and vehicles.

The existing control and braking systems were commissioned in 1971 and while they were state of the art at the time, technology has since come a long way.

Simply put, the braking mechanism was changed from an old drum brake set up to a new disc brake set up and control system, similar to a modern car but on a much larger scale.

Alan Dean, Superintendent Fixed Plant and Maintenance Mount Isa Copper Operations says the upgrade required extensive planning and a multi-disciplinary effort.

“This was an important investment to ensure the longevity of critical infrastructure that has served our operations for almost 50 years,” Alan says.

“The system’s ongoing reliability to provide the safe and efficient movement of our personnel and equipment is essential.

“With a calculated and risk assessed approach, we were able to deliver a successful outcome with minimal disruptions to our production schedules.”

The new disc brakes that were installed
Mount Isa Copper Operations (MICO) successfully completed their first in-house rebuild on a TerraTec Drill Raisebore 1000 (TDR 1000), with significant savings through the collaboration of internal resources and local supplier expertise.

The TDR 1000 rig is used for raiseboring works onsite and is capable of drilling and reaming a 1.1 metre diameter hole to a depth of 200 metres.

Following the detection of a fault in the main gearbox support bearing, the rig underwent an out-of-plan rebuild. Given mine schedule and part availability constraints, resources within the Drill and Blast Department were deployed to complete the rebuild.

With a thorough scope of works and project plan in place, the rig was stripped, inspected and completely rebuilt with the help of multi-disciplinary internal teams and local supplier engagement.

Crack testing, line boring, repair of components and the manufacturing of obsolete and damaged parts were all due process to ensure the rig was returned to original equipment manufacturer specifications.

Simon Barnes, Drill and Blast Superintendent MICO says the sharing of resources and teamwork across departments on and off the lease were the main contributors in the project’s success.

“This is the first time the MICO Drill and Blast department has undertaken a project of this size and complexity,” Simon says.

“We appreciate that our management team had the confidence in our team’s skills and expertise to complete the project, something that is outside the scope of department’s usual responsibilities.”

Recognition goes to everyone involved for completing the rebuild efficiently without injury or incidents.
Making it personal with SafeLeader

In February, Mount Isa Copper Operations (MICO) started rolling out a refined version of the SafeLeader program, which approaches safety on a highly personal and values based level.

With the program initially rolled out at EHM in 2018, implementation continues and will start at our Townsville operations in the near future.

Headed by project team leader Jordan Calverd, Production Superintendent Ernest Henry Mining (EHM), the SafeLeader program was revisited in tandem with the development of SafeStart - our new pre-shift safety meeting.

“We wanted SafeLeader to align with SafeStart so it made sense to collaborate and redesign our safety leadership program simultaneously,” Jordan says.

“Engagement across our North Queensland operations found that not everyone had been through the previous ‘Switch On’ safety training or if they had, it had been a while.”

Matt O’Neill, Chief Operating Officer North Queensland Copper Assets says that taking greater ownership of our own safety and that of our mates is key.

“To improve our safety culture we need to move beyond compliance as the primary driver for safety behaviours and embrace ‘why’ we should be safe,” Matt says.

“The vision is to create a belief system that is based on going home safe so we can enjoy the things we love, and the reasons why we go to work in the first place – like family, travel, hobbies, sport – your ‘Top 4’.

“Valuing the personal consequences of our actions and how these can affect our home lives gives us a renewed appreciation for the hazards in our workplaces and the importance of controlling them to stay safe.

“SafeLeader is a reminder that we are all safety leaders, our decisions at work impact whether we and others will make it home safe.

“I hope we make good decisions.”

This program represents a significant investment in the safety and health of our people and our operations, and is the next step in our cultural development and safety leadership journey.

All personnel are encouraged and have the opportunity to complete the program. Please consult your supervisor and training advisor to book in your session.

“Why should you stay safe today?”

My Top 4

“The vision is to create a belief system that is based on going home safe so we can enjoy the things we love, and the reasons why we go to work in the first place – like family, travel, hobbies, sport – your ‘Top 4’.

– Matt O’Neill, Chief Operating Officer
North Queensland Copper Assets
2019 new comers on the path for career success

Our School Leavers, Vacation, Indigenous Employment, Graduate and Apprenticeship Programs continue to provide valuable employment pathways for those seeking a career in the mining industry.

SCHOOL LEAVERS PROGRAM
This year our School Leavers Program (SLP) took on 19 2018 high school graduates and provided them with employment throughout Glencore’s North Queensland Operations across a number of different departments.

Stephanie Jackson, Senior Human Resources Advisor North Queensland Copper says the program is a great stepping stone for young people into the mining industry, or an opportunity for students to test-drive a career in a supported way before making their final choices for further education.

“The program has been a growing success and offers a rare opportunity to gain hands on experience in a professional workplace that could ultimately lead to a rewarding career,” Stephanie says.

INDIGENOUS EMPLOYMENT PROGRAM
Our Indigenous Employment Program (IEP) offers local Indigenous job seekers the opportunity to undertake 12 weeks of paid job readiness training, and the chance to move into a 12 week placement within our operations to gain experience and basic qualifications they can use to pursue a career in mining.

William Blackley, IEP Supervisor says the first intake of candidates for this year are excited for this opportunity with Glencore.

“It gives me great pleasure knowing I am supporting the careers of Indigenous people in the mining industry and watching them take on the opportunities the IEP offers as they begin to build lifelong, transferrable skills,” Will says.

VACATION PROGRAM
Our Vacation Program is offered to university students and is a great way to practically apply what undergraduates have learnt during their current studies. It gives students the chance to decide whether the mining industry is the right fit for them.

Will Dendle, Metallurgy Vacation Student Ernest Henry Mining recommends the Glencore Vacation Program, emphasising that it has given him invaluable practical experience, and the chance to apply his university studies.

“I was able to work on a large copper processing plant that has everything from a SAG mill to a complex flotation circuit,” Will says.

“The metallurgy team has been outstanding in their knowledge and support, and it’s been fantastic to work each day enthusiastic and eager for the tasks ahead.

“As Glencore is regarded as one of the premier global mining corporations, this experience is the perfect stepping stone for a young metallurgist like myself to enter the mining industry, leaving me fully equipped for any situation.”

Russell Davies, Electrical Engineering Vacation Student Copper Refineries Limited says the program was an exciting experience where he got to learn something new each and every day.

“Thanks to this opportunity, I now have a better understanding of the role and duties of engineers in industry,” Russell says.
Over the past 12 weeks I have worked on a variety of tasks including interpreting and producing technical drawings on Autocad, reading, decoding and writing ladder logic, and understanding how power is received and distributed in the plant system.

I have really appreciated the opportunity to work with and learn from the engineering team and have experienced first-hand what is involved in an engineering project.

GRADUATE PROGRAM
Successful applicants to our Graduate Program are stepping straight into a pathway designed to help them establish new careers in their chosen field. Our graduates come from a broad range of disciplines including business, geology, engineering, environmental science, metallurgy and information systems and technology.

Jake Wood, Electrical Engineer Graduate Zinc Assets says the program has excellent structure and he is looking forward to career progression in the future.

I’ve been given this amazing opportunity to come back to my home town and start work in the Graduate Program,” Jake says.

“I get to do really exciting things, in a profession that I love, with a company that has a strong reputation within the industry.”

APPRENTICESHIP PROGRAM
Training has commenced for 45 new apprentices in their chosen electrical, diesel fitting, boiler making, fitting/welding, auto-electrical, refrigeration or radio technician disciplines in January.

Ron Eastburn, Apprentice Coordinator Safety and Training Mount Isa Mines says it is a good sign that our entry-level programs are working to help our people build careers.

“Our programs offer exposure to the mining industry and its associated trades, offering opportunities that would not otherwise be available to young people,” Ron says.

“We offer a warm welcome to all of our new starters as they undertake a journey towards a rewarding career within our business.”

SCHOLARSHIPS
The Vic Stampton Technical Growth Scholarship is a new scholarship program awarded to two people who take up university in a mining core or mining shortage discipline to provide financial support during the first year of their degree.

This year’s recipients, Shanara Body and Crissa De-Sagun were involved in the 2018 SLP and they both plan to study a Bachelor of Engineering (Mechanical) at the University of Queensland.

The Pathway-to-Trade Scholarship supports personnel from any one of our talent pipeline programs who look to take up an apprenticeship, providing financial support during their first year. This year’s recipients were Casten Lemson, former IEP participant and Lucy Cameron, former SLP participant. Casten is undertaking a Diesel Fitting Apprenticeship and Lucy is starting a Fitter-Welder Apprenticeship.

Left to right: Townsville Copper Refinery Vacation students, Kiana Payn, Laboratory, William Cordingley, Electrical Engineering, Mikayla McKenna, Metallurgical Engineering, Russell Davies, Electrical Engineering and Julie James, Environment

Pathway-to-Trade Scholarship winners Casten Lemson and Lucy Cameron with Matt O’Neill, Chief Operating Officer North Queensland (left), Leanne Ryder, Human Resources Manager (Centre) and Jody Todd, Technical Services Manager (right)

Technical Growth Vic Stampton Scholarship winners Shanara Body and Crissa De-Sagun, centre, with Leanne Ryder, Human Resources Manager and Matt O’Neill, Chief Operating Officer Copper Assets North Queensland
Brayden McConnell, a fourth year Mechatronics Engineering student from the University of Southern Queensland understands the secure footing a vacation placement with Glencore can afford aspiring engineers.

Having earned three vacation placements with George Fisher Mine (GFM) since 2017, Brayden has honed his practical engineering skills in a challenging industrial environment and worked on projects that hold real value within our business.

Given the increased application of robotics and technology in modern society, Brayden brings a unique set of skills to our operation. Mechatronics integrates precision mechanical engineering with electronics, computer systems, and advanced control, to design and construct products and process.

His primary focus has been the development of a Cavity Measurement System (CMS) remote-controlled buggy for the underground environment, a safety improvement initiative identified early on in his vacation student career.

The CMS buggy removes the requirement for surveyors to be in the direct vicinity of an open stope when carrying out routine up-hole stope scans. Traditionally this task is conducted from a bund, roughly four-metres from the stope, using a camera extended on a long carbon fibre pole.

The CMS buggy also reduces the manual handling associated with the task and improves our ability to capture detailed, shadow-free data.

Designed with ease of use in mind, the buggy is light, compact, uses simple directional controls, and has a multiple speed state and lighting controls.

Being granted autonomy and control over this project from conception, while still being supported by an experienced team has had an immense impact on Brayden professionally.

"Throughout the various stages of my project I’ve been able translate learnt theory and apply it to a relevant, real world scenario," Brayden says.

"Knowing that I have contributed to the fabric of the operation and produced a product that will now improve the workflow of others is very satisfying.

"This is a reflection of the entrepreneurial and continuous improvement values that Glencore endorses.

"Looking back on my experience, I’ve learnt so many invaluable lessons from project development and management, budgeting and cost analysis, through to safety implementation and proactive safety design.

"These are things you can’t learn in a classroom alone and working in this environment, with ownership over my projects has allowed me to mature as an engineer.”

Brayden McConnell, Vacation Student, GFM, hopes to see the application of mechatronics engineering in mining becoming more widespread to help streamline processes and improve safety.

The CMS buggy was designed to fit in the cab of a ute for easy transfer.

Mechatronics meets mining
Mount Isa Mines’ Zinc Processing maintenance team has overhauled several parts of the processing plant this year, removing redundant infrastructure, and replacing parts of the plant with new structures.

The team has improved the plant structure by tackling redundant assets on the west side of 308 Crusher at the Lead Smelter, which has involved replacing screens, steel, old pipes and pans.

Old beams at the Sinter Plant were removed and replaced with new beams, and covered in a protective coating to prevent corrosion into the future.

Proper risk and project management principles were applied to the task to ensure the teams were working towards achieving their goal.

Dave Bartolo, Acting Manager Engineering and Assets says improvements have been identified and safety enhancements initiated.

“Safe zinc and lead production continues at Zinc Processing through continuous inspections, felt leadership, and through an engaged workforce,” Dave says.

Work is ongoing.
Collaboration between a team of hand-held miners from Mount Isa Copper Operations (MICO) and the George Fisher Mine (GFM) development team resulted in the successful development of a truck chute using a specialised technique called ‘rise mining’.

The highly specialised art of hand-held rise mining is rarely used in mining operations these days due to the introduction and advancement of jumbos. However, rise mining is still required for excavations in places where jumbos simply can’t fit.

For the development of the truck chute at 15C II Ore Pass, GFM required the use of hand held air leg drills to excavate a finger, or tunnel, two metres by two metres between the ore pass and the truck chute development. This finger, which is 30 metres in length, allows the ore to move safely from the ore pass into the truck chute.

Such a specialised development is often contracted out at premium rates. Fortunately, it was identified that Clint Brennan, Hand-held Miner MICO had a wealth of experience in this mining method. Clint and his team worked closely with the GFM development team completing the rise safely, to a high standard and ahead of schedule.

This was an invaluable learning opportunity that allowed Clint to share his unique air legging skills with fellow miners at GFM.

Nick Fryer, Development Superintendent GFM says that opportunities like this for the two mines to work together provide added value for the business.

“Discussions between GFM and MICO identified an opportunity to do the highly specialised mining in-house which proved logistically easier and more efficient,” Nick says.

“Being able to involve our own people was key to reducing costs and avoided the need to bring contractors in from out of town.

“Having Glencore employees on the job meant that they already understood our site procedures and core values around safety and team work.”

The successful completion of the rise mining has enabled civil works to commence on the truck chute, with implementation due in June 2019.
Jumbo to live out its days at the Unearthed Museum

In late 2018 Ernest Henry Mining (EHM) gifted a retired Development Drill Rig, more commonly known as a ‘Jumbo’, to the Cloncurry Unearthed Visitor Information Centre and Museum.

Taking pride of place at the museum, it is hoped that the bright orange machine will peak the interest of passing tourists and showcase some of Cloncurry’s more recent mining history.

Aaron Harrison, Underground Mining Manager EHM says he hopes the donation will give visitors a glimpse into our underground operations.

“Through community support, such as this, we hope to improve community understanding of what we do and how we do it, and the role mining plays in our shire,” Aaron says.

“It’s not every day or in every town that you will be able to get up close and personal with a jumbo.”

Jumbos are vital in underground mining and have three main functions:

1. Drill horizontal holes in a predetermined pattern to advance our tunnels four meters at a time
2. Are used to install ground support by drilling and installing bolts and mesh in the upper walls and ceiling of the mine tunnels
3. Assist with rehabilitation, meaning they improve or replace previously installed ground support that is beyond its useful life in existing tunnels to ensure they remain safe.

The retired Jumbo started its life at Mount Isa Mines and was originally purchased for more than $1 million.

Upon retirement, the asset had marked over 12.5 years of service across both operations, clocking up 21,641 total drill hours and 1,215 kilometres of development and rehabilitation.
ERT builds skills with Cloncurry paramedics

In Quarter One, Emergency Response Team (ERT) personnel from Ernest Henry Mining (EHM) enjoyed a series of medical training sessions with the Queensland Ambulance Service (QAS) in Cloncurry.

Twenty-six people travelled to town over three different weekends to practise a variety of scenarios and build relationships with local paramedics.

Steve Kuskopf, Emergency Management Advisor EHM says it proved valuable to challenge our ERT in a different environment and to learn from the QAS professionals.

“The paramedics came up with some tough scenarios to test our skills and it was amazing to watch them work so quickly in response to the scenarios we threw back at them,” Steve says.

“Our team got to practise on the special QAS training dummy which can be programmed to show different symptoms – things like breathing sounds, heart rhythm, pulse – offering a realistic training experience.

“It’s also great for us to put faces to names and to establish a working relationship with our local emergency services personnel so we’re already familiar if we ever have to deal with an emergency together.”

Crews prove hydration aware through summer heat wave

While Cloncurry cooked up a record 43 consecutive days above 40 degrees, the team at Ernest Henry Mining (EHM) showed they have the know-how to beat the heat through good hydration.

With site education and various hydration testing processes in place, even ‘less acclimatised’ workers like visiting contractors and new starters are reminded constantly of the importance of managing their hydration status through every shift.

Julia Mansfield, Health Coordinator EHM says they present toolbox talks for crews focussed on hydration at the beginning of every summer to remind them to be extra vigilant in the hotter months.

“We also conduct spot hydration tests and block tests at random for different work groups and have hydration stations located around site for self-testing and awareness,” Julia says.

“Most people know how to manage their health in our work environment and how to rehydrate adequately to avoid experiencing heat illness and we find the teams support and remind one another, which is great.”
Building your super balance
Salary Sacrifice contributions

Boost your super and potentially manage your tax at the same time.

What are salary sacrifice contributions?
Salary sacrifice contributions form part of your ‘pre-tax’ or ‘concessional’ super contributions. A salary sacrifice arrangement involves your employer contributing some of your pre-tax salary or wages directly into your super fund. By using a smart strategy like salary sacrifice, you could reduce your income tax and boost your super balance at the same time.

Why should I salary sacrifice?
The key advantage of salary sacrificing is that you’ll be taxed at a maximum rate of just 15%* on your salary sacrifice contributions (or 30% if you have income from certain sources in excess of $250,000 in 2018/19). Any earnings on these contributions, once invested in your super fund, will also be taxed at the concessional rate of up to 15% and not at your marginal rate (which could be up to 47%).

You should consider whether the amount of salary sacrificed will attract an additional 35% tax – broadly, this occurs when you have an income and concessional super contributions of more than $250,000 in the 2018/19 financial year*.

So depending on your circumstances, making salary sacrifice super contributions could reduce the amount of tax you have to pay on your salary, wages or a bonus by up to 32% and enable you to make a larger investment for your retirement.

Watch your limits
The concessional contributions cap for 2018/19 is $25,000. It’s important to know that your employer contributions PLUS any salary sacrifice contributions PLUS personal contributions for which you have claimed a tax deduction are included in the concessional contribution limit.

The benefits of salary sacrifice over 20 years

Assumptions: A 20 year comparison based on $1000 in pre-tax salary per year. Investment earns a total pre-tax return of 7.74%pa (split 3.68% income and 4.06% growth). Investment income is franked at 28.55%.

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(8pm daylight savings time), Monday to Friday.
How do you know if you have the flu or a cold?

**FLU SYMPTOMS:**
- Fever (often high)
- Chills
- Severe cough
- Headaches
- Muscle aches and pains
- Sore throat
- Children’s symptoms may also include:
  - Nausea
  - Vomiting
  - Diarrhoea

Influenza is a common and acute respiratory illness. On average an adult contracts influenza just once every five years or less and the only effective protection against influenza is an annual vaccination.

**COLD SYMPTOMS:**
- Sore throat
- Runny nose
- Coughing
- Sneezing
- General congestion
- Feeling miserable

In an average year, most Australian adults contract a cold two to three times per year and children six to ten or more times per year.

**HANDY TIPS TO FIGHT THE SPREAD OF FLU:**

**Regular hand washing:** Hand hygiene is especially important after using the bathroom, before eating, or after coughing or sneezing.

**Dispense with flu:** Keep hand sanitiser in a convenient spot – rub hand sanitiser all over your hands, fingers, and wrists until dry.

**The hands off approach:** Don’t cough into your hand – sneeze or cough into the crook of your elbow instead.

**Blow and toss:** Use a tissue to blow your nose or to catch a sneeze, then bin it and wash your hands.

If in doubt make sure you visit your General Practitioner to check any symptoms you are unsure about, especially if they persist over a few days or if any of your symptoms get worse.
Announcements


Congratulations to Ben Vella, Maintenance Planner, George Fisher Mine and Georgia on the birth of their son, Edison Geoffrey, on 18 December 2018.


Congratulations to Edward (Jack) Brown, Environmental Advisor, Mount Isa Mines, and Mariah Willis on their engagement, on 29 December 2018.

Congratulations to Catherine Power, Electrician, George Fisher Mine and Miebaka on the birth of their son, Diepriye Donald, on 24 January 2019.

Congratulations to Jim Faulkner, Superintendent Drill and Blast, Mount Isa Copper Operations and his wife Jocelyn on the birth of their daughter, Lauren Kate, on 5 February 2019.

Calendar of Events

APRIL
12–14 Julia Creek Dirt n Dust Festival
21 Easter Sunday
25 ANZAC Day
27–28 Camooweal Six-a-side ANZAC Cricket Weekend
27 Mount Isa Races

MAY
4–5 Gregory River Canoe Marathon
11 Mount Isa Races
18 Cloncurry Multicultural Festival
25 Mount Isa Races
30–31 MINEX 2019

JUNE
1 MINEX 2019
1 Cloncurry and District Race Meeting
7–16 Mount Isa Eisteddfod
8 Mount Isa Races
8 Welcome to Cloncurry
13 Cattleman’s Dinner, Cloncurry
14–15 Cloncurry and District Show
19 90th Birthday of the Pedal Radio, Cloncurry
21–22 Mount Isa and District Show
22–30 Glencore Great Western Games
29 Mount Isa Races

Environmental credentials

Mine to Market is printed on Impact paper stock. Impact is made with a carbon neutral manufacturing process* It is well priced, FSC COC certified and consists of 100% post consumer waste recycled fibre.

* Mill use 86% renewable energy, meaning emissions generated by producing Impact are incredibly low. The remaining unavoidable CO2 emissions are compensated for by promoting controlled emission reduction projects, audited and certified by Climate Partner. The life cycle analysis tracks Impact from raw materials through to K.W. Doggett Fine Paper Warehouses nationally.
Great value corporate health insurance

Nothing is more important to us than providing our members with quality corporate health insurance. That’s why we’ve teamed up with Glencore, so you can access a range of health and wellness services as well as great corporate discounts to help you live a longer, healthier, happier life.

As a Bupa member, you can look forward to:

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- Say goodbye to 2 and 6 month waiting periods on Extras when you combine Hospital and Extras cover giving immediate access to dental, optical, physiotherapy, chiropractic and more.**
- A 6% discount on your health cover+

*Not applicable for standalone ambulance products. **Only for new customers on new Hospital and Extras cover policies issued by Bupa HI Pty Ltd ABN 81 000 057 590. 2 and 6 month waiting period waiver only applies to Extras. Other waiting periods apply. Your Choice Extras includes access to four Extras services and capped Emergency Ambulance. Fund and policy rules, waiting periods and yearly limits apply. +Discount is reviewed periodically by Bupa and your Company and is subject to change. Must pay by direct debit or payroll deduction (if available); Simple Start, Reciprocal Health Cover and Basic Hospital cover (both standalone or combined with an Extras product) are ineligible for any discounting, waivers or retail offers. Bupa HI Pty Ltd ABN 81 000 057 590.

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