Zinc Goes Pink!
Mount Isa Mines raises more than $120,000 for breast cancer
Breast Cancer at Zinc Goes Pink

More than $120,000 raised for breast cancer at Zinc Goes Pink.

Pioneering legacy returns to Cloncurry for C150 Celebrations.

Diversity in mining celebrated as inaugural scholarship awarded.

Community groups benefit from funding under our Community Assistance Program.

Glencore lends a hand for the Great Northern Clean Up.

Indigenous Employment Program boosts its mentoring support.

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Students benefit from donated technology equipment.

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Operations

George Fisher Mine completes phase one of intensive fleet management project.

Glencore Technology simplifies leaching processes to treat complex ore.

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Glencore at a glance: Glencore Nickel.

Health and Safety

Emergency response skills put to the test.

Glencore shares achievements at the Queensland Mining Industry Health and Safety conference.

From the COOs

As a business, it’s incredibly rewarding to use our platform to make a lasting impact on the issues that matter in our communities, and equally, to recognise the important role our communities and our industry have played in building and sustaining regional Australia.

In September we hosted a one off gala charity event to raise funds for local and national organisations dedicated to supporting women through breast cancer, improving treatment options, and finding a cure.

‘Zinc Goes Pink’ was held on the surface at George Fisher Mine, and marked the first time in modern memory such an event has been held within the footprint of our active mining lease, giving guests an unprecedented, ‘up close’ perspective of our operations.

With the help of the Mount Isa community Zinc Goes Pink raised more than $120,000 for the National Breast Cancer Foundation and the Mount Isa and North West Queensland Breast Cancer Support Group.

This injection of funding dollars will progress the National Breast Cancer Foundation’s vision of zero women lost to breast cancer by 2030, as well as support the local volunteers who work tirelessly to assist breast cancer patients, survivors and their families right here in our region.

To celebrate this remarkable achievement, we’ve ‘gone pink’ in this edition of Mine to Market in solidarity with patients, survivors, and those in our communities touched by this disease. You can read more about Zinc Goes Pink on page 1.

2017 also marks 150 years since British explorer Ernest Henry discovered copper mineralisation in the area now known as Cloncurry.

In September we were proud to celebrate this historic C150 milestone with the Cloncurry community; a town of just 3,000 that punches above its weight when it comes to contributing to the economic vitality of the state, thanks to its rich mining and cattle industries that continue to thrive side-by-side.

As part of the C150 celebrations, Ernest Henry Mining hosted site tours for almost 120 Cloncurry residents and visitors. Guests took the opportunity to learn more about our activities, and the critical role Cloncurry’s mining past played in opening up the west.

We supported local Indigenous group the Mitakoodi to curate an exhibition of their cultural traditions, stories, food, medicines, and connection to the land, through a display at the Cloncurry Community Precinct Art Gallery during the celebrations.

For more on Cloncurry’s C150 celebrations, turn to page 4.

We’re proud to work in partnership with our communities, and look forward to continuing to play a positive role in delivering a more prosperous future for local people.

Contact the Editor to subscribe to the Mine to Market e-flipbook mailing list.

Want more?

You’ll find all the latest from our north Queensland operations as well as previous editions of Mine to Market, on our websites. Visit www.mountisamines.com.au or www.ernesthenrymining.com.au

You can also follow Glencore on social media:

Community Feedback Hotlines

Our Community Relations team is responsible for engaging openly and honestly with our stakeholders, as well as responding to all community enquiries. If you have any questions or concerns about our operations, contact our 24-hour hotlines on:

Mount Isa Mines
1800 982 982

Ernest Henry Mining
1800 346 463

Townsville
07 4781 8211

CONTACT THE EDITOR IN CHIEF

Lara Lavers, via email lara.lavers@glencore.com.au or phone 07 4744 2955.

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You can also follow Glencore on social media:

Mike Westerman
Chief Operating Officer
Copper Assets Australia

Greg Ashe
Chief Operating Officer
Zinc Assets Australia
More than $120,000 raised for breast cancer at Zinc Goes Pink

Three-hundred and forty guests walked the ‘pink carpet’ at Zinc Goes Pink; a one-time-only fundraising ball held at George Fisher Mine and hosted by Australian television icon, Logie Award Hall of Fame inductee and breast cancer survivor Kerri-Anne Kennerley.

As the sun set, guests made the most of the unique location’s magnificent vantage point, with views of the operation’s mammoth mine hoisting infrastructure (lit up in pink for the occasion, of course) framed by the region’s iconic bushland.

More than 2,000 tickets for eight major raffle prizes were sold at the event, and a very pink, 50-tonne Caterpillar R2900G loader went under the hammer, with Rob Katter, State Member for Mount Isa, playing auctioneer for the night. The owners of Mount Isa's Sanctum Medi-Spa Retreat were the successful bidders, generously committing $6,200 for the right to name and brand the loader before it’s put to work underground.

Chris McCleave, General Manager George Fisher Mine, says Zinc Goes Pink was an incredibly important opportunity for the company.

“As a mining operation, it’s not every day we get the chance to step outside our core business and make a real, lasting impact on a cause that means so much to so many people, not only in our community but all over Australia,” Chris says.

“We know that breast cancer is the most common life-threatening cancer facing women in Australia. One in eight Australian women will be diagnosed with breast cancer in their lifetime.

“These statistics are alarming, and made more so by the fact we know just how important women are in sustaining the fabric of our families, and our communities.

“Earlier this year, we began tossing around the idea of painting one of our underground loaders pink, as a symbol of our commitment to breast cancer awareness and support.

“I can’t quite remember how we leapt from painting a loader pink, to hosting a gala event for 340 members of the community within the footprint of an active mining lease, but I couldn’t be prouder of what we have achieved here tonight.”

One hundred per cent of funds generated through Zinc Goes Pink ticket sales, sponsorship, and the event auction and prize raffles have been donated to the National Breast Cancer Foundation and the Mount Isa and North West Queensland Breast Cancer Support Group.
Kerri-Anne Kennerley, with the pink, 50-tonne loader, which went under the hammer at the event.

George Fisher Min management draw the raffle.

MINE TO MARKET 3
A handful of the descendants of Ernest Henry have returned to help celebrate the town’s anniversary – 150 years since the namesake of our Ernest Henry Mining (EHM) operations discovered copper on the banks of the Cloncurry River.

Visiting from various parts of Queensland, the Henry's joined dozens of other locals and visitors for special mine site tours of EHM run in conjunction with Cloncurry Shire Council to mark the milestone occasion.

Departing from the Cloncurry Community Precinct, the tours gave guests an insight into the scale and size of the EHM operation and in building Cloncurry’s role in north west Queensland.

The C150 celebrations kicked off with the EHM Street Parade and Street Party on Friday 15 August, followed by a week of events, markets, tours and reunions. The celebrations closed out a gala C150 Ball and the C150 Races and Rodeo.
In September, Glencore’s Mount Isa Mines (MIM) awarded its inaugural Tim Underhill Diversity Scholarship in Mine Surveying, in partnership with the Australian Institute of Mine Surveyors (AIMS).

Second-year University of Newcastle engineering – surveying student Katherine Lindsay, 19, was awarded the new scholarship at the AIMS national conference in Hunter Valley.

The three-year scholarship supports female students to commence or continue their studies in mine surveying. It offers valuable mentorship and career development opportunities through Glencore’s annual Vacation Program, in addition to financial support.

The scholarship is named after the late Tim Underhill, a Senior Mine Surveyor at MIM and a respected AIMS Fellow, who passed away in 2014. It aims to increase opportunities for women in this specialist field within the mining industry, something Tim was passionate about.

At the conference Chris McCleave, General Manager Zinc Mining spoke about how diversity, in all forms, is an integral part of Glencore’s business strategy.

“Diversity exposes our people to a broader range of ideas, unearths new and innovative ways of approaching challenges, boosts workplace culture, and is shown to improve productivity, leading to better operational outcomes in the long term,” Chris said.

“We champion careers for women through a combination of mentoring, leadership development programs and supportive working practices and policies that encourage women to excel, and allow them to reap the rewards of their successes.

“The Tim Underhill Diversity Scholarship in Mine Surveying is an important scholarship which aims to encourage and support women throughout their studies in a highly technical and male dominated field.

“We look forward to forging a lasting partnership with Katherine through the Glencore Vacation Program and the ongoing mentorship and support we can offer.”

Katherine, a high achiever from Orange in country New South Wales, says she is grateful to be recognised for her academic commitments and career aspirations.

“The scholarship will provide invaluable support for me to complete my degree and achieve my long-term goal of becoming a registered mine surveyor,” Katherine says.

“I’m also really excited about the unique work experience opportunities I’ll have access to at Glencore’s operations, which will give me important insights into the many different aspects of mine surveying.”

Julia Reynolds, AIMS Director says AIMS is committed to promoting gender diversity in mining surveying and related fields.

“We will continue to work with universities, companies and other agencies to encourage female participation in studying and developing a career in mine surveying,” Julia says.

“AIMS has adopted a collaborative approach and an integrated strategy offering a mechanism to attract, recruit, retain and develop women at all levels of the organisation within this sector.

“On behalf of AIMS I wish Katherine all the best with her studies, and I look forward to her one day joining AIMS as a fully-fledged member with a mining endorsement.”
George Fisher Mine completes phase one of intensive fleet management project

In August, George Fisher Mine (GFM) completed phase one in the implementation of a new fleet management system, called DISPATCH Underground, which is set to improve overall operational productivity.

After a successful phase one implementation, PITRAM, the pre-existing system, was turned off and replaced by DISPATCH Underground, developed by Modular Mining Systems.

By May this year, all trucks and loaders in GFM’s underground fleet were successfully running through the new system.

Once fully implemented the new system will ultimately improve productivity by increasing the use of all mobile assets through improved data accuracy, benefits we are already starting to realise.

Stuart Reid, GFM Operations Manager says this is the first time DISPATCH Underground is being rolled out in an underground environment as complex as GFM.

“Through DISPATCH we have gathered excellent frontline production data which affords us the ability to have real-time, short-interval control which we will continue to develop,” Stuart says.

“The new system produces increased volume and accuracy of data in relation to our production activities which provides greater insight into our operations and allows us to more accurately forecast on a real-time basis, helping us to better manage our business.

“Fully integrating the system into our business is a significant undertaking to ensure a seamless transition, while providing education and training to our workforce on the changes.”

The DISPATCH Underground fleet management system is being implemented in a phased approach over a four year period. Modular Mining Systems has been onsite to assist our internal project team throughout this process, which is now working towards the system being rolled out across the remaining fleet with production and development drills being the next priority.

Once fully implemented, the system will provide automated, real-time monitoring, management and visibility within GFM to allow the operation to maximise material movement, reduce operating costs and effectively manage mining processes.

Module’s DISPATCH Underground has already been installed in all underground trucks and loaders.

Our new fleet management system offers a broad range of operational benefits, including:

- Timestamps all production cycle records as they occur, which provides an important insight into cycle times and equipment efficiencies.
- Allows for near real-time equipment tracking and location positioning. With the addition of approximately 1,300 new radio-frequency identification tags installed underground to date, DISPATCH has already logged in excess of 4.2 million equipment position records since its inception. Understanding where our equipment is helps to reduce time wastage and enhances the safety of our people.
- Operators can now record equipment pre-starts electronically. With real time feedback, maintenance personnel can now view and address any potential issues as they occur, rather than wait for paper forms to be submitted and processed at the end of each shift.
DISPATCH Operators now have a clearer and more comprehensive view of the operation thanks to the new fleet management system.
Nick Rodriguez abseils into the KSOE crusher bin to rescue mock patient Andrew Shiels during the vertical rescue exercise.

Mount Isa Mines Mine Rescue used specialised hydraulic tools to cut the roof of a vehicle to access the ‘casualty’.

Having removed the car roof, Mount Isa Mines Mine Rescue extracted a mock patient from the scene of a road crash while being watched and assessed.
Putting through their paces over a full day at MIM, teams were challenged to compete in realistic scenarios including vertical rescue, road crash, search and rescue, and skills test exercises.

Graham Hills, Superintendent Emergency and Protective Services MIM says internal competitions allow personnel to put their training into practice within a pressed, but safe environment and provide an opportunity to receive feedback for further development.

“It is important that we take measures to ensure our squads maintain and test their skills year round and are prepared for any conceivable mine site rescue scenario,” Graham says.

“For the internal competition many of the squad captains took a step back and ran the scenarios, with the Vice Captains asked to step up and run the squads, providing an important leadership development opportunity.

“Furthermore the competition ran with mixed teams, meaning they weren’t necessarily working with their usual squad, making communication even more critical for a successful outcome.

“Overall, we were very pleased with the competition outcomes, with strong command, clear communication and problem solving skills evident, leading to a great outcome for all teams involved.”

Four teams; three from MIM and one from EHM, made up of 25 squad members competed on the day.

Teams were given time limits to complete each exercise; however, the challenges were not strictly a race.

While time pressures were an important part of the day, more broadly teams tested across a wide range of categories, including:

- Road crash rescue techniques
- Vertical rescue skills
- Search and rescue processes
- Skills and knowledge testing
- First Aid capacities and practices
- Internal and external team communications
- Problem solving and scenario resolution

There was fierce competition and all teams excelled in their performance, with the best performing team on the day awarded to EHM.
Glencore shares achievements at the Queensland Mining Industry Health and Safety conference

The 2017 Queensland Mining Industry Health and Safety (QMIHS) Conference attracted more than 650 people from across the resources industry, including representatives from our Glencore north Queensland operations.

Hosted at the Gold Coast over three days in August, the conference theme was 'Sharing my story' with the event featuring interesting keynote speakers, presentations by industry experts and innovation award finalists as well as 55 trade displays.

The popular Innovation Awards recognise creative and practical solutions to health and safety risks by Queensland-based resources companies, and promotes their use across the resources industry.

This year, George Fisher Mine (GFM) was one of 10 finalists from 23 submissions for industry innovations, with their innovation the AD45 Front Strut Handling Tool.

The tool was developed by GFM’s Mobile Asset Maintenance department, as part of a team effort by Wayne Hilton, Blain McCormack, Jason Wernowski and Michael Barbagallo. At the conference, the team presented their innovation to the judging panel to highlight the significant effect it has made to reduce safety risks and the time it takes to complete the task of replacing the front strut from an AD45 underground truck.

With a strong field of worthy contenders for first place, Redpath Australia was announced the overall winner of the Innovation Award for their innovation, Safe Stop, an anti-jam door unit which prevents crushing injuries from heavy vehicle doors.

Our copper operations also participated in the event with Aaron Harrison, Manager Underground Mining Ernest Henry Mining (EHM) presenting twice at the conference; the first presentation to share learnings following a controlled emergency response exercise completed last year at EHM and the second presentation about safely and successfully managing a high risk ore pass hang-up in EHM’s underground mine.

Other Glencore representatives at the conference included Matt O’Neill, Chief Operating Officer Copper Assets North Queensland who was a member of the judging panel for the Innovation Awards and Simon Pope, Chief Mining Officer Copper Assets North Queensland who chaired the Metalliferous Papers session.

The next QMIHS Conference will be held at the Gold Coast from 19 to 22 August 2018.
Driven by a culture of continuous improvement, the AD45 Strut Handling Tool was developed in-house by our people and plays a key role in reducing the risk of injuries while performing the very physical task of removing the front strut from an AD45 Mine Truck chassis.

George Fisher Mine’s Mobile Asset Maintenance department developed the simple handling tool which eliminates our people’s exposure to suspended loads, limits their physical exertion, and reduces the time spent on the job by approximately 11 hours.

The AD45 Front Strut Handling Tool allows for the safe removal and replacement of the front strut, weighing 145 kilograms, using a fabricated hydraulic arm with limited manual handling by personnel required.

Unlike the traditional method, which requires personnel to work in a restricted space underneath the chassis, the handling tool maintains personnel postures within normal range of movement, reduces the risk of sprains and strains by eliminating the physical exertion required during alignment, and keeps hands and fingers away from pinch points.

It also significantly reduces the time personnel are required to work underneath the chassis and eliminates the need to remove and replace the strut using a sling and crane and subsequently the safety risks associated with working around a suspended load.

The approximate cost to design the tool and purchase its materials was $16,000 proving it is also a cost efficient way to eliminate risks.

While the handling tool was specifically designed for use with a Caterpillar AD45 strut, the team is also looking at applying the tool to other machinery used on site with a similar suspension arrangement.

Congratulations to Wayne Hilton, Blain McCormack, Jason Wernowski and Michael Barbagallo for their innovation and significant contribution to prevent workplace injuries and increase efficiencies.
These programs support local events, projects and initiatives that improve the lives of the people who live and work in our north Queensland communities.

Some of Mount Isa Mines’ (MIM) sponsored events held recently include:

**WHITE RIBBON AMBASSADOR TROY CASSAR-DALEY CONCERT**

Over 1,500 people attended the live concert by 2017 Golden Guitar winner and white ribbon ambassador Troy Cassar-Daley during August, sponsored by MIM. The drug and alcohol free concert provided a night of country music while raising awareness in the community about domestic and family violence.

**OPERA QLD**

Mount Isa’s school students and community came together during September for a three day workshop with Opera Queensland, sponsored by MIM, preparing the participants to perform alongside the cast of A Night with Opera Queensland as part of the Isa Outback Fringe Festival.

Opera Queensland artists Jason Barry-Smith and Clarissa Foulcher created an inspirational learning environment to teach the skills of stage craft, improvisation, singing, movement and stage direction to Mount Isa locals.

**CAMOOWEAL DROVER’S CAMP FESTIVAL**

Hundreds of people travelled to Camooweal in August for the Camooweal Drover’s Camp Festival, which is Camooweal’s main event for the year providing an opportunity to bring together drought affected graziers, people from isolated communities, and Camooweal locals.

The Drover’s Camp Festival celebrates Australia’s rich droving history through displays and activities like poetry, bronco branding, a street parade, music, a charity mail race and thoroughbred horse racing.

Some of Ernest Henry Mining’s (EHM) sponsored events held recently include:

**C150 CELEBRATIONS**

The C150 week of celebration was a major milestone in the history of both Cloncurry and north west Queensland, marking 150 years since Ernest Henry discovered copper and Robert Sheaffe established the first pastoral run at Fort Constantine.

The celebrations kicked off with a street parade and free concert by Troy Cassar-Daley, and continued through the week with trivia nights, museum tours, family sports days and surface tours of EHM.

The week wrapped up with the C150 Ball on the Friday night, and C150 Races and Rodeo on the Saturday.

Some of Townsville operations’ sponsored events held recently include:

**THE AUSTRALIAN CONCERTO AND VOCAL COMPETITION**

The Australian Concerto and Vocal Competition Inc. launched in 1980 and is an annual competition covering concerto and operatic repertoire. The competition has gained significant national stature attracting entrants from throughout Australia and overseas and offers a unique opportunity for participating north Queensland musicians to be stimulated and extended by entering such a prestigious national event.
Clarissa Foulcher and Jason Barry-Smith from Opera Queensland teaching performance skills with students from Healy State School.

The Ernest Henry Mining float leading the Ernest Henry Mining C150 Street Parade on the opening evening of the celebrations.

The charity mall race at the 2017 Drover’s Camp Festival.

The next round to accept applications for our Community Assistance Program will open 13 November and close 1 December 2017.

Contact your local Community Relations team to request an application form:

**MOUNT ISA**
Jemma Schweikert, Community Relations Advisor, 07 4744 3416

**CLONCURRY**
Carmen Tooth, Community Relations Advisor Ernest Henry Mining, 07 4769 4363

**TOWNSVILLE**
Avril Plath, Community Relations Officer Townsville Operations, 07 4781 8222

Winner of the vocal competition, Morgan England-Jones and her accompanist.
“Baking bread turned out to be my pathway into the mining world.”
Glenn Muller’s Story

Ringfiring Supervisor,
Mount Isa Copper Operations

Growing up in a north west Queensland mining town, it was inevitable that Glenn Muller would work in the mining game. With 31 years now under his belt at Mount Isa Mines (MIM), the industry and the outback is an important part of his identity.

Born in Cloncurry, Glenn lived with his family at Mary Kathleen for five years before moving to settle in Mount Isa in 1971. He grew up in the Isa with his two brothers and sister and kept himself out of mischief by playing footy.

Glenn was a talented rugby league player making it into the Queensland under 15 team in 1981 and was a longstanding member of the local Blackstars team.

Glenn says playing rugby league formed a big part of his younger years.

“They held the North Queensland Games here in Mount Isa and I was lucky enough to have the opportunity to play in the Brothers invitation side against the Broncos,” Glenn says.

“My opposing centre was Gene Miles and even though we went down to them 52–12, we did well to hold them from the half time score of 40–12.”

Glenn didn’t start his working life as a miner, but as a baker by trade. A chance meeting with a man involved in running the North Queensland Games changed his career path. It turned out he oversaw the old Base Supply Depot (BSD) at MIM and gave Glenn his first start in the industry.

“We struck a deal where I would teach the chefs at the BSD to bake bread and they would teach me to be a chef, but that came to an end when the BSD was closed down shortly after,” Glenn says.

The BSD forms part of MIM’s iconic history. It began as barracks to accommodate an army workforce in World War II during the construction of a supply link road from Mount Isa to Tennant Creek, which now forms part of the Barkly Highway. The BSD mainly consisted of single men’s quarters and a mess hall, and it was this mess hall that gave Glenn a foot in the door at MIM.

Glenn started out as a sprightly 20-year-old, going on to work in both the processing and mining streams. He did a short stint in the Copper and Lead Smelters but the bulk of his time has been dedicated to the Underground Production team at X41.

Glenn’s first opportunity to join the leadership ranks came when he took up a Production Supervisor role at Enterprise Mine. In his current role as Ringfiring Supervisor, which he has held for the past six years, he looks after a crew of eight Ringfiring team members for the daily stope firings.

Throughout Glenn’s career, the mining industry has evolved, adapted and changed and he has seen many advancements, but he says most significantly the technology used in underground equipment has changed the most.

“In my early days working underground, machinery was air powered, loaders had open cabs and you would wear a breathing mask hooked up to two oxygen tanks on either side of your vehicle. But today everything is electronic and the machinery has closed in air-conditioned cabs,” Glenn says.

Glenn says his proudest achievement over the years has been becoming a supervisor, although this hasn’t been without its challenges. After working in production for 22 years he was at first reluctant to take on the Ringfiring Supervisor role but after some persuasion he stepped into unfamiliar territory and faced the challenge, and was rewarded with a new body of knowledge.

One of Glenn’s most recent highlights has been his involvement in firing the open cut silica pit for the Copper Smelter.

“Open cut firing is very different to underground firing. Previously, the silica pit firing was completed by Blackstar Open Cut Mine, but since its completion the Underground Ringfiring team has been called-in to help out,” Glenn says.

Away from work Glenn loves watching the footy and travelling but the most important thing to him is his family; his wife Josslyn, daughter Tylah who is currently studying at Griffith University in Brisbane and eldest daughter Kristee-Lee who runs a special gym at the Gold Coast for people with spinal injuries, after breaking her back 10 years ago.

Glenn says he is a country man at heart and his longevity in the mining industry comes down to being able to earn a respectable living and comfortably take care of his family without leaving the place that he loves.
Throughout the years, Glencore Technology has been at the forefront of developing processes and technology that improve efficiencies and keeps mining operations viable.

For the past 30 years, Glencore Technology has been dedicated to marketing these innovations around the world, along with continuing to develop technology used in the metals and mineral processing industries.

With orebodies becoming increasingly more complex to process, innovative solutions are required to maximise value from orebodies while producing an efficient solution to extract the ore.

What makes Glencore Technology unique is our ability to provide an end-to-end solution. We work with clients from the initial stage of test work, to understanding the problem and identifying an innovative solution, through to standing beside them and commissioning the technology, and finally achieving the desired outcome.

An example of this ingenuity is one of Glencore Technology’s newest innovations, the Albion Process™, which was developed in 1994 and has made the task of treating complex ores much simpler.

The Albion Process™ uses oxidative leaching after ultra-fine grinding using our IsaMill™ technology. After the concentrate has been finely ground, the slurry is then leached, in agitated vessels and oxygen is introduced to the leach slurry to oxidise the sulphide minerals using Glencore Technology's HyperSparge™ supersonic injection lances.

The HyperSparge™ is a cost efficient system, which uses less power and reagent consumption when compared to other methods, that delivers air, oxygen or other process gases into tanks or vessels for leaching or oxidation processes.

The HyperSparge™ technology is also versatile, and is able to be adopted and used in industries other than mining, including wastewater treatment and fermentation for brewing, food and beverage and pharmaceuticals.

As proven with the grouping of the IsaMill™, Albion Process™ and HyperSparge™ technologies, one of the major advantages of Glencore Technology’s innovations is that they are able to work together, and by doing so are making a big impact in providing innovative solutions to complex situations.

These innovations are also applied, tried and tested at Glencore’s own operations and others around the world, significantly maximising the value of finite mineral assets and contributing towards supplying vital resources to the world.
In September, Mount Isa locals demonstrated community pride and stewardship by embracing the Great Northern Clean Up.

The Great Northern Clean Up is an alternative to Clean Up Australia Day, which is traditionally held annually in March, giving communities north of the Tropic of Capricorn the opportunity to beat the heat and remove rubbish prior to the wet and cyclone season.

Mount Isa Mines’ Health, Safety, Environment and Community department put forward a team for the Mount Isa City Council organised clean-up event in support of this important initiative.

Lara Lavers, Senior Community Relations Advisor says it was great to see so many employees volunteer their time and give back to our community by cleaning-up the environment where we live, work and play.

“The Great Northern Clean Up is important because it promotes positive environmental values and aligns with our sustainability objectives, but also because it has an immediate impact on the look and feel of our community, making Mount Isa a more attractive place to live,” Lara says.

“We all have a role to play in the future of a sustainable world, and when we take pride in the environment we live in, that’s the first step towards lasting, positive environmental change.”

Making a huge difference to the environment and city aesthetics, together the Mount Isa community collected almost three tonnes of litter, consisting of mostly food packaging and illegally dumped rubbish.
Mentors participated in workshops in early 2017 to revitalise the mentor component of the Indigenous Employment Program.

Glenore’s award-winning Indigenous Employment Program (IEP) is increasing its support to trainees with the reinvigoration of its mentoring component.

The program has been in place since 2014 and since then has helped 107 local Indigenous people get a start in the mining industry at our Mount Isa Mines (MIM) and Ernest Henry Mining operations.

While an internal mentoring component of the program has been in place since its inception, it was reinvigorated at the beginning of this year to better assist trainees to integrate into the workplace and provide the personal support they may need.

Fifteen of our Indigenous employees were appointed as mentors to support trainees while they complete the IEP program, and throughout their employment journey if they progress further as an employee or contractor.

The reinvigorated mentor program involves trainees being paired with a dedicated mentor who is required to check-in on a regular basis to provide support and guidance. The mentor/mentee relationship is based on the needs of the individual, and mentors can also play a role of liaison between the trainee and their Supervisor to help the mentee become a successful member of the workforce.

Will Blackley, Supervisor Indigenous Employment says the new style of mentorship by our own Indigenous employees will greatly assist trainees to successfully complete the program and integrate into our workforce.

“The new program was created by the mentors and is now better suited to the needs of the trainees and the mentors,” Will says.

“The new style of mentoring is successful because it gives Indigenous people who are new to the workforce a network of support for the times when things become difficult during the early stages of employment.

“Mentors themselves are a visible reminder to the trainees that through hard work and commitment, Indigenous people can be successful in the mining industry.”

Our latest intake of trainees commenced in September at our MIM operations and will be paired with a dedicated mentor to support them through the 12 week mining school and potentially into employment.

Meet some of our mentors

RODNEY MCDONALD
Miner (Jumbo Operator), Mount Isa Mines
Worked for the company 22 years

Proudest work achievement: Having the opportunity to complete remote mining

Why did you choose to be a mentor: I would like to help our younger generation to reach their goals and to secure a job in the mining industry

What advice would you give to others about being a mentor: It’s a great program to be involved with.

DAVID KING
Mine Planner, Mount Isa Mines
Worked for the company 13 years

Proudest work achievement: Designing my first stope (J624) and seeing it start production in 2017

Why did you choose to be a mentor: I felt it would be a great opportunity to pass on my experience and to show others to not just be content, but to look up to the stars and set their goals there. I live by the mantra; hope and faith – hope to keep your dreams alive and faith in yourself to make them happen.

What advice would you give to others about being a mentor: ‘Just do it!’ Pass your knowledge and experience forward like our Elders have done for us to help take all Indigenous people into the future and beyond.

Indigenous Employment Program boosts its mentoring support
Students benefit from donated technology equipment

In August, networking equipment no longer supported by Glencore’s information technology systems was donated to Good Shepherd Catholic College (GSCC) enhancing the practical learning experience for senior Information and Communications Technology (ICT) students.

The equipment included six Cisco Layer 3 Network Switches which were donated by Mount Isa Mines’ Information Systems and Technology Department.

Mr Nathaniel Staples, Curriculum Leader of Technologies GSCC says the donated equipment will greatly enhance the learning experience for the students.

“The switches will prove valuable to Year 11 and 12 students who will be able to explore their networking unit to a greater depth than has been possible in the past,” Mr Staples says.

Adam Maguire, Data Network Engineer says he also spent time with the ICT students to provide insight into how networking fits into real world applications and some of the considerations when designing and implementing data networks.

“The equipment will be used to set up laboratory environments to create network subnets and virtual local area networks simulating the real world environment,” Adam says.

“It’s satisfying to see equipment that would normally be destined for e-waste benefiting our local community.”

Community creativity inspires new safety signage

Ernest Henry Mining (EHM) have tapped into its community’s creativity for assistance to develop their latest on site safety awareness campaign.

The Mining team ran a colouring-in competition for the family and friends of workers, where children were encouraged to depict what they enjoyed doing with their parent, friend or family member who works at EHM when they were home from site.

These drawings have been enlarged and printed onto metal backing for installation at key locations both on the surface and underground to act as a reminder for the team of why safety remains the number one priority on site.

Cloncurry State School provided creative input to the Concentrator team’s safety project, with students sending colourful handprints and safety messages for EHM staff. These will be incorporated into a large sticker which will be displayed on the concentrator thickener tank in addition to existing SAFEWORK branding.

Continuing EHM’s strong emphasis on safety and the ongoing mission of zero harm, the catchy safety signage is a departure from traditional site safety messaging.

Dan Brooks, Concentrator Manager explains why the input from our local community is an important element in the new safety messaging project.

“The signage will serve to reinforce to everyone coming onto site of the importance of valuing safety at a humanistic level and not simply to demonstrate compliance in the workplace,” Dan says.

“Not only will this initiative be aimed at connecting our employees and the local community to safety outside of the workplace, but it also seeks to personalise the SAFEWORK branding to further enhance its effectiveness.

“This action is one of a number of targeted initiatives being implemented across EHM aimed at reinforcing and driving improved safety outcomes.”
New crane lifts safety to new heights at Ernest Henry Mining

The Ernest Henry Mining (EHM) Concentrator Maintenance team has taken delivery of a new Terex AT-22 Franna mobile crane, replacing an older model that was purchased in 1996 to assist with the construction of the Concentrator and other surface infrastructure.

Upgrading to the new crane improves reliability and reduces maintenance costs. It also has increased lifting capacity and additional features including a tyre pressure monitoring system, digital load indicator and a load capacity dashboard to help the team operate the new crane.

Operators completed familiarisation training to take advantage of the full set of features for the new crane.

The new crane also acts as a mobile billboard, with Glencore’s SAFEWORK campaign promoted on the crane boom helping to maintain awareness of SAFEWORK’s Fatal Hazard Protocols and Life Saving Behaviours associated with Lifting and Cranage.

Jaap Verhoek, Superintendent Mechanical Maintenance says incorporating the SAFEWORK branding keeps safety front of mind for crews working with the crane.

“The new crane brings a very useful increase in capacity to the Maintenance team, and by leveraging the SAFEWORK messaging in this very visible way we can ensure that as a team we stay accountable to ourselves and each other when it comes to our safety procedures and values.

The crane also had a starring role in the Ernest Henry Mining C150 Celebrations, leading the Street Parade which opened the week-long celebrations on 15 September.

Roofing upgrade delivers health and safety improvements

In September, the Townsville Copper Refinery’s Store Warehouse roof was replaced as part of a rehabilitation program to remove asbestos from site.

The warehouse roof was made up of six asbestos-containing roof sheets which have been part of protecting the Refinery’s spare parts and consumables for over 40 years.

Stringent health and safety controls and measures aligning with State Government legislation were taken to appropriately remove and dispose of the asbestos, ensuring there was no exposure to people or the environment.

A custom built and certified lifting frame was designed and manufactured specifically to safely remove the sheeting from the Townsville Copper Refinery Store Warehouse. The frame provided a safe and efficient removal method reducing the time required to complete the work, as well as reducing the amount of manual handling.

Once the old roof was dismantled, structural upgrades and safety mesh installation works were completed followed by the installation of a new Colorbond custom orb sheeting roof.

Darren Nyen, Refinery Maintenance Superintendent says he was extremely happy with the project outcome.

“The planning, execution and communication during this project was completed to a high standard and resulted in no incidents, a significant improvement to safety of our environment, and delivered cost savings for structural modifications, all completed ahead of schedule,” Darren says.
Here, we take a closer look at one of our charities making a real difference in our communities.

**LAURA JOHNSON HOME**  
(MOUNT ISA)  
Quality care and services for the north west community

The Laura Johnson Home is Mount Isa’s only residential aged care facility providing fully accredited residential aged care, respite care, independent living and support services for the residents of Mount Isa and the north west region.

The facility provides critical services aimed at assisting residents to maintain their independence.

As a non-profit charity, the Laura Johnson Home depends on grants, fund-raising and the generosity of others to enhance the home and its facilities for its residents.

**HOW DO I GET INVOLVED?**

Simply fill out the Workplace Giving Program form available on your site intranet, or contact the Payroll office on 07 4744 8972. It only takes five minutes to sign up, and any donation over $2 is tax deductible.

Betty Kiernan, CEO/Facility Manager of the Laura Johnson Home says each person is entitled to the fullness of life, love, freedom and comfort from family, friends, staff and the wider community.

“It is our role to provide a service of high quality nursing care in an overall atmosphere of warmth and caring to enable residents to maintain mental, physical and spiritual wellbeing by reinforcing their self-esteem and maximising their worth as members of the community,” Betty says.

“As seen by their commitment over many years, great things have been achieved thanks to the wonderful support of Mount Isa Mines employees.

“I encourage all Glencore employees across north Queensland to get involved in workplace giving as it helps charities like us to continue providing much needed services.”

Mount Isa Mines has been a long-time supporter of the Laura Johnson Home through our Glencore Community Program North Queensland.

By signing up to workplace giving and supporting Laura Johnson Home you are helping them to continue to provide critical services and deliver their lifestyle and wellbeing programs to residents. This includes activities such as bingo, concerts, bus trips and exercise programs.

For more information on the Laura Johnson Home visit www.lauraj.com.au
Maintaining a healthy working environment with stringent occupational health and hygiene processes

The Occupational Health and Hygiene team is part of Glencore’s Health, Safety, Environment and Community department and is dedicated to monitoring our working environments for potential health hazards that employees may be exposed to at our north Queensland operations.

The role of our Occupational Health and Hygiene team is to anticipate, recognise, evaluate and enable management and control of occupational hygiene risks in our workplace.

Certified Occupational Hygienists with extensive technical expertise and field experience provide recommendations and strategies to reduce exposure and limit health effects with the aim of eliminating the risk.

This role includes developing and facilitating monitoring programs, workplace exposure assessments, compliance reporting, product stewardship and advice on improvement opportunities.

A multi-disciplinary approach is taken in occupational hygiene, and success relies on the contributions of many workers who assist to implement and carry-out site programs. These contributions include representative samples of workers donning personal monitoring equipment to gather information on exposure to occupational risks, which enables effective decision-making for implementing personal and engineering controls and improvements.

Other ways to measure personal occupational exposure include biological monitoring for heavy metals and solvents as a reliable indicator of personal exposure and effective clearance from the body.

There is an occupational exposure limit for all the contaminants, physical and biological agents on site. Best occupational hygiene practice is observed in relation to limiting and managing personal exposure at our operations.

The site hazards range from chemical, physical and biological agents originating from mining, processing and refining minerals. These can include heavy metals, process gases, chemical by-products and naturally occurring chemical and physical agents.

Asbestos is also a legacy from the time when this hazardous product was used in building, plumbing and insulation materials. Asbestos requires strict controls to manage personal exposure, and its removal must only be carried out by authorised specialists under controlled conditions.

Our potable water is quality assured by a comprehensive monitoring program. The control of biological and chemical agents in water, tank storage and cooling towers is ongoing at all our north Queensland operations.

Protecting the health and safety of our people is our highest priority. Our occupational hygiene monitoring and control programs have an integral role to play in helping us achieve our goal of zero harm.
A new clean in, clean out facility has been installed at the Mount Isa Mines Zinc-Lead Concentrator for Zinc Processing employees to use before their crib breaks.

The new facility ensures employees have showered and changed into a clean uniform prior to eating, and provides an added measure for hygiene in addition to the May Downs clean in, clean out facility Zinc Processing employees use on arrival and departure from work each day.

The new facility comprises showers, a crib port storage room fitted out with lockers and refrigerators and an eating area for Zinc Processing employees and contractors.

Miranda Giuliano, Health, Safety and Training Superintendent says it’s important to ensure our personnel are clean prior to eating their lunch.

“Our research shows that ingestion via mouth transfer is the most significant pathway of dust and contaminants into the body, so if we can ensure our employees have showered before meals we can reduce this risk,” Miranda says.

The Zinc Processing areas of our operations have been clean in, clean out areas for many years, with strong compliance by employees and contractors.
Glencore Nickel

Making up our only Glencore Nickel operation in Australia, Murrin Murrin is a world-class hydrometallurgical nickel project located between the remote towns of Leonora and Laverton in the north-eastern Goldfields region of Western Australia.

Operated by Minara Resources and wholly owned by Glencore, Murrin Murrin has been operating for over 15 years.

With more than 30 years of nickel reserves, Murrin Murrin has one of the longest life of mine reserves among Australian nickel operations, and is one of Australia’s largest nickel and cobalt producers.

Murrin Murrin’s operations consist of open pit mines and a processing plant where high-pressure acid leach technology is used to recover nickel and cobalt from laterite ore, followed by refining techniques to produce high-purity London Metal Exchange (LME) grade metal.

The processed nickel and cobalt product is primarily in briquette form and is transported by rail to the port of Kwinana, south of Perth for worldwide export. Increasingly our high-quality metal products are finding application in the growing battery sector as vehicle electrification gains traction.

FAST FACTS

- Glencore’s nickel business is the fifth largest producer of nickel metal globally
- Produced 46,000 tonnes of nickel and 3,200 tonnes of cobalt in metal in 2016 (including metal from third party feed)
- Increasingly our high-quality nickel is used in the manufacture of lithium-ion batteries for a range of growing applications
- Cobalt has diverse industrial applications and is experiencing increased demand as a result of interest in electric vehicles
- The production process utilised at Murrin Murrin produces ammonium sulphate as a by-product which is sold to the agricultural industry

Nickel is used to create modern-day products and deliver important services, from everyday items like cutlery, and the high-precision metals used to produce mobile phones, to jet engines, wind turbines, surgical equipment and hybrid cards.

Murrin Murrin is one of the world’s largest recyclers and processors of nickel and cobalt bearing materials.

The site is remotely located 895 kilometres from Perth where approximately 1,000 employees and contractors are employed to service the 24/7 operation on a fly-in, fly-out basis. Employees work a range of lifestyle and family friendly rosters in line with Minara’s commitment to work/life balance.

The Murrin Murrin Village is located approximately eight kilometres from the plant site and encompasses a range of modern facilities including en-suite rooms, pool, gym, tennis courts, sporting fields and barbeque areas. A range of other health and wellbeing activities are available in the village.

Minara has a comprehensive community relations strategy encompassing strong relationships built over many years. A long term partnership with the Laverton Leonora Cross Cultural Association has been in place for over 15 years. This is a community driven association with a cooperative format that includes local mining companies.

The Minara Community Foundation was established by Minara Resources in 2007 for the long-term benefit of the people in the northern Goldfields region, in particular communities near the Murrin Murrin operations. The Foundation has assisted local groups with grant funding for 95 projects since 2008.
Open pit mining has been used to extract ore for over 15 years at Murrin Murrin.

The Murrin Murrin Processing Plant uses high-pressure acid leach technology to recover nickel and cobalt from lateritic ore.
Mount Isa Mines’ zinc operations recently hosted a special dinner to recognise our long-serving employees and their career contributions to our business.

These employees celebrated either 20 or 30 years of service with the company.

The dinner was an opportunity to recognise and thank our employees for their hard work and achievements throughout their careers.

Congratulations to all of our long-serving employees on this remarkable achievement.

CONGRATULATIONS TO THE FOLLOWING MOUNT ISA MINES ZINC EMPLOYEES:

Athol Kennedy (20 years)
Rick Bailey (20 years)
Nikolas Papadopoulos (20 years)
Mick Sexton (30 years)
Paul Russell (30 years)
Thomas Larkin (30 years)
Mick Hazle (30 years)
Steven Curry (30 years)
Des Casey (30 years)
Jeff Fox (30 years)
Ross Lovejoy (30 years)
Retirement is a new life chapter, an exciting time that you may have been looking forward to for some time. But like all new beginnings, retirement involves planning ahead and making the financial decisions that are right for you. When approaching retirement, an important consideration is how to invest your savings including superannuation so you are able to replace your wage with regular income throughout retirement.

When it comes to choosing how to structure your investments in retirement, it is important your savings are invested in a tax effective way while still maintaining flexibility to cover any unforeseen changes in your circumstances.

When it comes to retirement income solutions ours is the logical choice

As your trusted super provider, we're excited to introduce PLUM Retirement Income (PRI). Exclusive to PLUM members, PRI is an account based pension that offers a simple and flexible way to convert your GlencoreSuper account into an income stream when you retire or transition to retirement.

As a member of Plum Retirement Income, you'll enjoy:
- Regular payments from your PRI made directly into your nominated bank account
- The ability to withdraw all or part of your balance at any time (restrictions apply if you are using as a transition to retirement pension)
- Tax free investment earnings if used as a retirement income stream and investment earnings taxed at only 15% if used as a transition to retirement income stream
- The flexibility to choose an investment strategy specific to your retirement needs
- The ability to make a reversionary, binding or non-binding beneficiary nomination
- Access to financial advice services
- 6 monthly pension benefit statements
- Online access so you can monitor your account and switch your investments at any time

Retirement without limits

Retirement is a time to achieve more of your dreams and goals. With a little planning, there's no limit to what you can aim for. The future is yours in the making.

Get growing

To open a PRI account log onto your online account, call us at 1300 55 7586 from Monday to Friday between 8am to 7pm (AEST) or chat with us online.

Can take as little as 15 minutes to apply

Plan ahead

The account based pension in PRI is based on the amount you choose to invest in your account. It's not a guaranteed income for life, so it's important to determine whether it's right for you.

To learn more about PRI, visit plum.com.au/PRI

Want to know more about GlencoreSuper?

We have a dedicated website for GlencoreSuper (Plan). Here you can find information about your plan and access our online tools, information and education to help you create your dream retirement. To access this site:
1. Go to plum.com.au
2. Select the 'Login here’ option.
3. Enter the Login ID which is plums and PIN 5000.
4. Select 'Login’.

Not a member?
Speak to your HR representative to find out how you can join.
Make Health a Priority

When our bodies and minds are healthy, we feel better, have more energy and we’re able to get more out of life.

Our bodies need a tune, just like the vehicles we drive, and this is especially important as we age. Take charge of your health – do self-checks regularly and be aware of any changes to your body, especially breasts, testicles and skin.

Aim for three meals (and snacks) each day from the five main food groups – vegetables, fruit, lean meats and fish, dairy, grains and cereals. Avoid processed foods that are high in fat, salt and sugar.

Did you know most adults lose about two to three litres of water per day? Aim for six to eight cups of fluids every day to replace water loss. Water is best for hydrating the body, flushing out waste, aiding digestion and keeping our body temperature under control.

Many of us tend to be less active as we get older, which can lead to chronic health problems such as heart disease, diabetes and some cancers. Get up and out of your seat and move those limbs. It’s never too late to turn it around!

Our brain is like a muscle, it needs a workout to keep it working effectively. Try a new skill – it helps safeguard against dementia. Do something you’ve always wanted to do – learn a language, play a musical instrument, try meditation or enrol in a course.

If you are sleep deprived, you’re likely to have a short attention span, poor judgement, poor memory and low mood. Although we may find we don’t need as much sleep as we did when we were younger, we still need to get a good night’s sleep – about eight hours a night.
**Announcements**

Congratulations to Dipankar Srigyan, Mine Planning Engineer Mount Isa Copper Operations and his partner Lopamudra on the birth of their daughter, Thea, on 20 July 2017.

Congratulations to Jamie Saunders, Training Advisor Zinc Processing and his partner Leonie on the birth of their son, Daniel, on 1 August 2017.

Congratulations to Chris Swan, Apprentice Diesel Fitter George Fisher Mine and his partner Sarah on the birth of their daughter, Chloe Sunshine Grace, on 7 August 2017.

Congratulations to Darren Swann, Safety Advisor Zinc Processing and his partner Sarah on the birth of their son, Kobe, on 8 August 2017.


**For Sale**

Brand new X-Box One 1TB console, comes with one controller and headset and HDMI cable, $170. Call or message Frank on 0409 768 633.

**Calendar of Events**

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**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.