



MINE TO MARKET

Issue 55

October 2005

Simpler & safer ore feed for Zinc Lead operations

Mount Isa Zinc Lead operations announced in September the commissioning of an independent ore feed system to treat Black Star Open Cut and George Fisher ores by 2006.

The system will enable the secondary and tertiary crushing of ore from both mines and conveying directly to the No. 2 concentrator heavy medium plant via a 600 metre conveyor.

The current Zinc Lead ore feed system through the R62 tipple, R2 belt, coarse ore bins and the No.2 Concentrator's crushers will be made redundant. The construction of the new Zinc Lead Independent Ore Feed System commenced during September following a contract being awarded to Pac-Rim Pty Ltd.

"The new system is simpler and safer than the current system which is more than 30 years old and has required an enormous maintenance effort over recent years," said Jeff Moncrieff, Manager Technical Services, Black Star Open Cut.

"The ore feed system will result in significant savings to the business over the life of the contract," he said.

Commissioning is expected to take place in January 2006 with full production expected in February 2006.



Xstrata Chair of Metallurgical Engineering established at UQ

Xstrata recently announcing funding for the new Xstrata Chair of Metallurgical Engineering at the University of Queensland (UQ).

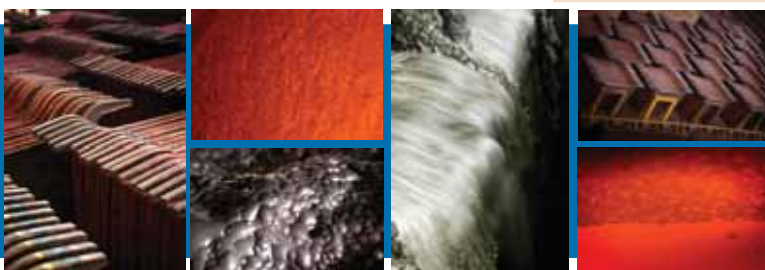
The \$1.5 million agreement, which was signed by UQ Vice-Chancellor Professor John Hay, AC, and Xstrata Copper Chief Executive Charlie Sartain, covers funding for the establishment of the Xstrata Chair of Metallurgical Engineering for the next 10 years starting in 2006.

The chair and UQ strategic funding will

be used to oversee and guide the implementation of a new Bachelor of Engineering double major in Chemical and Metallurgical Engineering from 2006, encourage students to study metallurgy and further enhance the reputation of the University as a research leader in mining and metallurgical engineering.

UQ Vice-Chancellor Professor John Hay, AC, said UQ has a strong reputation as one of the leading

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MICO visits Canada for Mass Mining Technology

Project

Mount Isa Copper Operations (MICO) recently sent Myles Johnston (Technical Services Manager), Warren Kropp and Guy Hubert (Senior Planning Engineers) to Sudbury in Canada as part of its active involvement with the Mass Mining Technology Project.

The session in Sudbury was the latest meeting of major sponsor groups to review progress on mass mining research projects and to conduct a number of mine tours of current caving operations in the extensive Sudbury mining district.

Involvement in the project is another part of the ongoing strategic review of the Isa underground copper business. The MICO technical team have continued



Number 7 hoisting headframe at INCO operation

to assess the remaining underground copper resources (more than 160 million tonnes at 2.6% Cu) and also to review the large tonnage of lower grade material (>100 million tonnes of + 1.0% copper) sitting adjacent to the current mining areas. This material does not



MMT team going underground at INCO's Stobie operation

form part of the current mining plan and the challenge for MICO is to determine if this material can be mined safely, economically and productively to further extend the mine life.

To advance this assessment Xstrata Copper is sponsoring the recently formed Mass Mining Technology Project (MMT). This group has been brought together under the University of Queensland's Sustainable Minerals Institute (SMI). Sponsorship of this project will provide access to the latest knowledge and technologies that Mass Mining Methods can offer.

The sponsorship provides immediate benefits, including formal access to a group of multinational companies that have a variety of caving experience, including long established caving operations, more recently developed caving operations and recently completed feasibility

investigations in caving in strong rock masses. Xstrata Copper will also have access to an existing database on best caving practices and to engineering guidelines developed in previous international caving study projects.

The trip to Sudbury was a very constructive experience for the MICO group who have come back to Mount Isa with a range of new ideas and concepts that will be tested over the coming months.



Cave crater at INCO Sudbury operation

Xstrata Chair of Metallurgical Engineering established at UQ (continued from page 1)

universities in mining and metallurgical engineering in the world.

"To maintain this position, support from industry to ensure the quality of the teaching programs and graduates is essential," Professor Hay said.

Xstrata Copper Chief Executive Charlie Sartain said the agreement would help address the skills shortage facing the resources industry pointing out that currently there is an annual shortfall of around 20 metallurgical engineering graduates in Australia each year.

Xstrata's agreement with UQ will help

address the situation by increasing the number of metallurgy graduates from the University from five in 2004 to 20 by 2008.

This is just one example of Xstrata's partnership approach with schools, universities, training bodies and government to help address the skills shortage and provide exciting career pathways for young people.

Many of Xstrata's own industry-leading minerals processing technologies, including IsaMill, ISA PROCESS and ISASMELT, were developed in Queensland.

These technologies, marketed by Xstrata Technology, are used all over the world and many UQ metallurgy graduates and staff were instrumental to their development.

UQ Head of the School of Engineering Professor Jim Litster said the initiative was undertaken following extensive consultation with the resources industry.

"This new Bachelor of Engineering program was developed in consultation with the Queensland Resources Council and the Minerals Council of Australia," Professor Litster said.

Mount Isa Mines Training the World



Mount Isa Mines is currently hosting a number of trainees from the Republic of Zambia to learn the skills required to operate the ISASMELT process. Xstrata Technology has successfully designed, commissioned and supported ISASMELT furnaces in India, Germany, Belgium, the USA, China, Malaysia and England.

Kenward Chansa from Mopani Copper Mines in Zambia (pictured above with Supervisor Col Lowe) is one of 8 trainees currently being hosted by Mount Isa Mines. Mr Chansa is partway through a six week term in Mount Isa's copper smelter.

"I'm enjoying my time here in Mount Isa. The work is more manual in Zambia whereas here it is quite automated with a lot of emphasis on the control room," said Mr Chansa.

Mopani Copper Mines is constructing a copper ISASMELT plant and Mr Chansa is part of the first group of trainees from Mopani Copper Mines.

This is the sixth time that foreign ISASMELT operators have been trained at Mount Isa Mines. A team from Yunnan Metallurgical Group in China were trained in 2004. Their lead ISASMELT plant was successfully commissioned in June 2005.

Simon Hunt, Process Engineer with Xstrata Technology, said that the ISASMELT technology had been a successful export for Mount Isa Mines.

"It is successful because it is simple, robust, flexible and easily installed in existing smelters. It successfully captures sulphur dioxide gas creating a cleaner smelter," said Mr Hunt.

Supply Department celebrates 12 months DI Free



All Departments within Mount Isa Mines' operations are competing for the best safety record within the mine.

The Supply Department recently reached 12 months without any disabling injuries.

This means that for the past year no employee has been injured resulting in them being unable to go back to their normal pre-injury duties on their next shift.

In recognition of the Supply Department's one year safety milestone achieved on 24 June 2005, the group celebrated its success by attending one of the two presentation evenings.

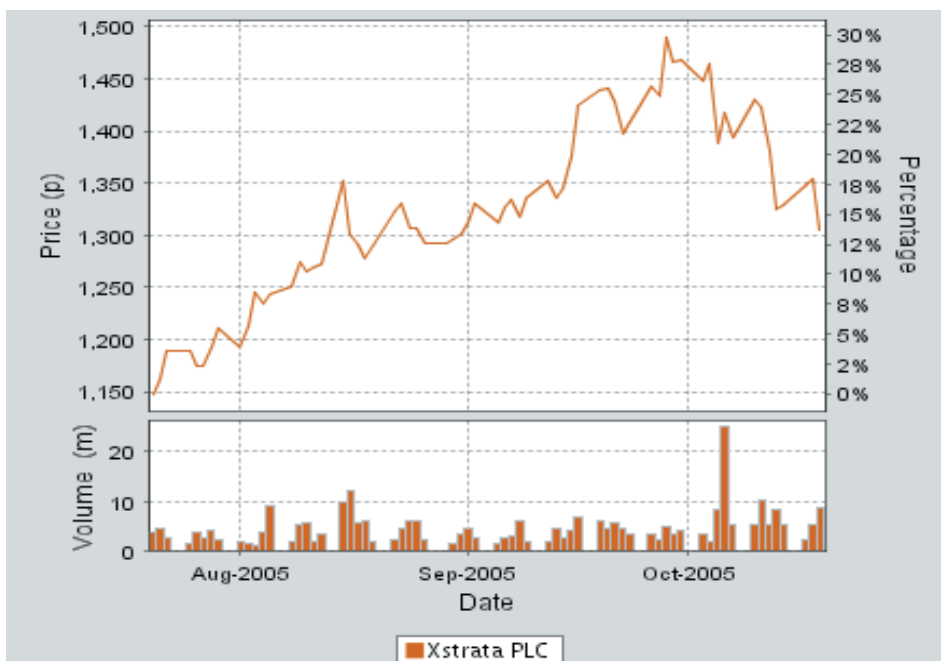
Everyone in the Department received a "12 Month DI Free" shirt. The team has continued with its good work to maintain their injury free record which has now reached 15 months disabling injury free.



Stock Price



Xstrata is listed on the London and Zurich stock exchanges. As at 18 October 2005 the Xstrata share price on the London Stock Exchange (XTA.L) was 13.05 (pounds sterling).



At 3 years of age, Braiden was diagnosed with Acute Lymphoblastic Leukaemia, the most common form of childhood cancer. After months of chemotherapy, Braiden is doing well but continues to visit the Royal Children's Hospital for checkups and monitoring. Your support through the Royal Children's Hospital Foundation helps fund vital clinical trials and research into childhood cancer, helping kids like Braiden.

Working Wonders
pt.43.182

Xstrata is committed to supporting the care and treatment of sick kids by offering a Payroll Giving program to its employees.

LIFE IS PRECIOUS.
Your participation in the Xstrata Payroll Giving Program gives kids like Braiden the most precious gift of all, the gift of life.

contactus@workingwonders.com.au

Spinifex showcases *Pathways to Excellence*

Congratulations to Spinifex College who were recently awarded runner up in the 2005 Showcase Awards for Excellence in Schools at an award ceremony held at the Brisbane Convention Centre.

The school's program "Pathways to excellence" was highly commended by the judging panel who visited the school's display and spoke with the School's Principals and a Mount Isa Mines' representative.

The judges were very impressed with Xstrata's Community Partnership with Spinifex College which is one of the few schools in Queensland that has combined an apprenticeship program while students complete year 11 and 12.

Year 11 school student William York is currently completing his boiler making apprenticeship while studying his senior years at Spinifex College. William attends regular schooling for part of the year and is released from school for a block period for his on-the-job training at Mount Isa Mines.

William completes a minimum of 48 days per calendar year in Site Services where he is mentored by Murt Langton.

At the conclusion of year 12 William will have completed his senior certificate as well as having the first two years of his apprenticeship completed.

M2M on the WWW

Did you know you can read the *Mine to Market* online? Each monthly edition of the *Mine to Market* magazine features on the Mount Isa Regional Information System (MIRIS) website.

MIRIS is published by the Mount Isa Chamber of Commerce.

To log on to *Mine to Market* go to: www.mountisa.biz



Welcome to our newest Environmental Advisor



Environmental Department - Stacey Polomka, Anne Moore, Ed Turley, Ben Seaborn and Frank Boyes (in foreground)

Arriving in Mount Isa on Rodeo Night last August was a memorable introduction to the town for Mount Isa Mines' newest Environmental Advisor, Stacey Polomka. Originally from a small farming town in south eastern South Australia Stacey said the rodeo was a fabulous introduction to the hospitality of the town.

Stacey completed a Bachelor of Agricultural Science at the University of Adelaide in 2000 and has since worked in the meat processing industry as a Natural Resource Management Officer and then an Environmental Advisor for Croesus Mining, a Western Australian gold miner.

Stacey enjoyed her two years in Kalgoorlie - her first two years in the mining industry. She has found the mining industry an exciting change that has given her a fresh approach to her career.

"Although my career appears to have taken an unexpected turn from agricultural science into the environmental/mining field I couldn't be happier with the change and am constantly surprised at the number of environmental professionals working in the mining field with a similar background to mine," said Stacey.

Stacey has expressed her excitement about living in Mount Isa while looking forward to taking advantage of the challenges the complex minesite has to offer and experiencing the unique natural beauty of North West Queensland.

"I'm enjoying the warmer weather in Mount Isa and I'm looking forward to making use of the space on our block at Breakaway Creek by hopefully buying a horse and getting involved in some riding again after a hiatus of a number of years," said Stacey Polomka.

Queensland Arts Council Regional Forum Mount Isa - November 26 - 27

proudly sponsored by QAC and Xstrata

If you are a local artist, cultural development officer, regional arts worker in museums, galleries or other cultural heritage sector or are involved in cultural tourism, then don't miss this opportunity to network and build relationships with other dynamic and creative regional Queenslanders.

There is no cost and registration includes two lunches, casual dinner and all morning and afternoon teas.

For more information and registration forms please email dfinter@xstrata.com.au or telephone the Queensland Arts Council on 07 3846 7744.

What Happens in the Copper Concentrator?

Part 1 in a series by Matt Magee, Senior Metallurgist.

The role of the Copper Concentrator is to extract the valuable mineral from the rocks (ore) brought to the surface from underground. The Concentrator is a necessary stage between the mine and the smelter, because without it, we would require a smelter more than seven times larger than the existing Copper Smelter, to produce the same amount of metal. A smelter this size would take up most of the western side of Mount Isa.

The valuable mineral in the Mount Isa Copper ore is called Chalcopyrite (chal-ko-pie-rite). Chalcopyrite has the chemical formula $CuFeS_2$, where Cu is

copper, Fe is iron and S is sulphur. Chalcopyrite is the main copper mineral that is mined around the world. Chalcopyrite is also one of the two minerals commonly referred to as “fool’s gold” due to its golden metallic colour.

Only about 10% of the ore that comes up from underground is Chalcopyrite. To separate the Chalcopyrite from the other minerals, we need to grind the ore very finely, then use a process called flotation to ‘concentrate’ the Chalcopyrite into a product that can be fed to the Copper Smelter. The other minerals, most of which are similar to

quartz (silica), are disposed in tailings dams. The tailings dams are then progressively rehabilitated to minimise the impact of the operation on the environment.

Over the next few months *Mine to Market* will publish in more detail how the Copper Concentrator operates. We will look at the four main plant areas, which are:

- SAG Milling;
- Ball Milling;
- Flotation;
- Tailings Disposal.



Invention tackles weighty problem

Underground mining vests featured recently on the ABC TV’s “The New Inventors” are being trialled by underground miners at Mount Isa Mines. The ASE Mining Vest is purposely designed to attach a self rescuer, a cap lamp battery and other necessary equipment to safely and comfortably conduct underground mining.

The ASE Mining Vest takes the weight of equipment, which the law requires underground miners to carry, and redistributes the weight evenly over the shoulders, back, chest and hips. The vest has been designed to alleviate the health hazards posed by the traditional mining belt used to carry this essential equipment around the miner’s waist.

Rob Stokes a Shift Electrician in Mine Maintenance (pictured) has been wearing the vest for a number of weeks and said the weight of his self rescuer and cap lamp battery is now evenly distributed around his body.

Protect yourself from skin cancer!

An important message from Gemini Health

Once again the weather has started to warm up and our thoughts begin to turn to summer fun. But in Mount Isa we should always have sun protection in mind. This is because our weather is so wonderful that even in winter we spend the majority of our time outdoors. How many of us work outdoors, enjoy having a Bar-b-que on the weekend or go camping?

Australia has the highest rate of skin cancer in the world. Skin cancer forms when skin cells are damaged by UV rays penetrating the skin. UV rays disrupt the cells' genetic material causing the cells to mutate and grow abnormally. If these mutant cells are not destroyed by your body's normal defence systems they will continue to develop and can turn into skin cancers.

Who's most at risk?

- The majority of the population living in Australia
- Fair skinned people or those who burn easily
- People with freckles or moles
- Those exposed to the Australian sun as children
- People who suntan intentionally
- People who work outdoors for lengthy periods of time
- People who use solariums, sunlamps and sun beds

How can you protect yourself from skin cancer?

SLIP ON A SHIRT

Loose clothing offers the best protection. Clothes should be made of closely woven fabric and cover most of the body. Clothing protects the skin from UV radiation by creating a barrier between the skin and the sun. But remember clothing doesn't always cover all of your skin, that's why you still need to slip, slop, slap and wrap!

Gemini Medical Services announces the centre has been recognised as a Department of Veterans Affairs medical provider. Accordingly Gemini welcomes all DVA card holders to the practice. To reserve your appointment contact Gemini on 4744 2242.

SLOP ON SUNSCREEN

Clothing, hats and shade are the best methods for protecting skin from UV rays. Any remaining exposed skin can be protected by applying sunscreen. Without sunscreen there is no protection at all.

SLAP ON A HAT

A broad-brimmed, closely woven hat offers the best protection from UV radiation. Wearing a hat reduces the UV rays from reaching the face, which helps to reduce the risk of skin cancer and premature ageing. Some of the most common sites of skin damage and skin cancer are the neck, ears, temples, lips, face and nose.

WRAP ON A PAIR OF SUNGLASSES

When your eyes are exposed to cumulative UV radiation, it can cause irreversible eye damage. Skin cancer can also occur on the eyelids and the eye's surface. Choose a close fitting, wrap around style of sunglasses for maximum protection.

SHADE

Shade is a very effective form of sun protection but it will not totally block out all UV rays. Indirect UV radiation can scatter in the atmosphere and reflect from surfaces such as water, sand and concrete.

Throughout October and November Gemini are targeting the prevention and early detection of skin cancer. If you would like more information about skin cancer drop in to see the health promotion display or to pick up some sun safe brochures from the Gemini Health Centre at Mount Isa Mines.

Desktop Refresh Project update

The majority of desktops and laptops at Mount Isa have now received the new Standard Operating Environment (SOE).

The deployment of the new SOE at Mount Isa has been a complex and challenging task. Thank you to all staff for your cooperation during this time of significant change.

The project team would like to thank the Local Contacts in particular; they did an outstanding job in coordinating the deployment for all areas.

If you have any unresolved issues from the SOE deployment please make sure your Local Contact is aware of them. If necessary your Local Contact will raise the issue with your Staff Coordinator who can submit a **Desktop Refresh Project Unresolved Issue Report** on your behalf (the report must include the Support Centre ticket number).

If your desktop or laptop has not received the new SOE, it is your responsibility to lodge a Transact request to have the new SOE deployed to the machine.

Once the old Novell network environment is retired (during October) machines without the new SOE will cease to work on the Xstrata Network.

During October, the Desktop Refresh Project will be completed at Ernest Henry Mine and McArthur River Mine. This will conclude the major activities under the Desktop Refresh Project. Next month's *Mine to Market* will provide a summary of the outcomes of the Desktop Refresh Project and the tidy up activities that will be conducted at each of the sites over the coming months.

If you have questions about any of the Desktop Refresh Project activities please email the Project Manager at DesktopRefreshProject@xstrata.com.au.



Sally-Anne Parker

New faces at Central Office reception

luck to Narelle Kupetsky who has recently taken maternity leave.

Nadine previously worked at the Medical reception in the X-ray clinic at the Mount Isa Hospital and is enjoying reception work at the mine. During her spare time Nadine enjoys participating in theatre performances with the Mount Isa Theatrical Society and spending time with her family of two young children.

Originally from Melbourne, Sally-Anne was most recently employed as a sales assistant for Mansworld in Mount Isa. Sally-Anne also ran a successful



Nadine Hardwick

Anyone visiting reception at Mount Isa Mines Central Office will have noticed the new smiling faces of Nadine Hardwick and Sally-Anne Parker.

Former receptionist Janice Copelin moved to another position within the mine as purchasing officer for supply and is enjoying her new position. Good

business, training horses and riders to compete in dressage and jumping events and regularly competed in these events.

During the change of staff, Jenny Coldham has also been one of the friendly faces working in central office reception. Welcome aboard Nadine, Sally-Anne and Jenny.

Why report compressed air leaks?

Compressed air is a very expensive commodity being used extensively in both Copper and Zinc/Lead Operations at Mount Isa Mines.

Compressors on the surface produce the air, discharging it into various sized pipes and hoses transporting it to the consumers around the mine.

We are operating in a highly competitive market where excessive costs reduce our competitive advantage. It is in our best interest to report leaks and have them repaired as soon as possible.

As part of an increased emphasis on energy, a new PC based management system (PC: UMS) is being developed and we encourage operators to learn more about this management system. More information will be available in future *Mine to Market* articles.

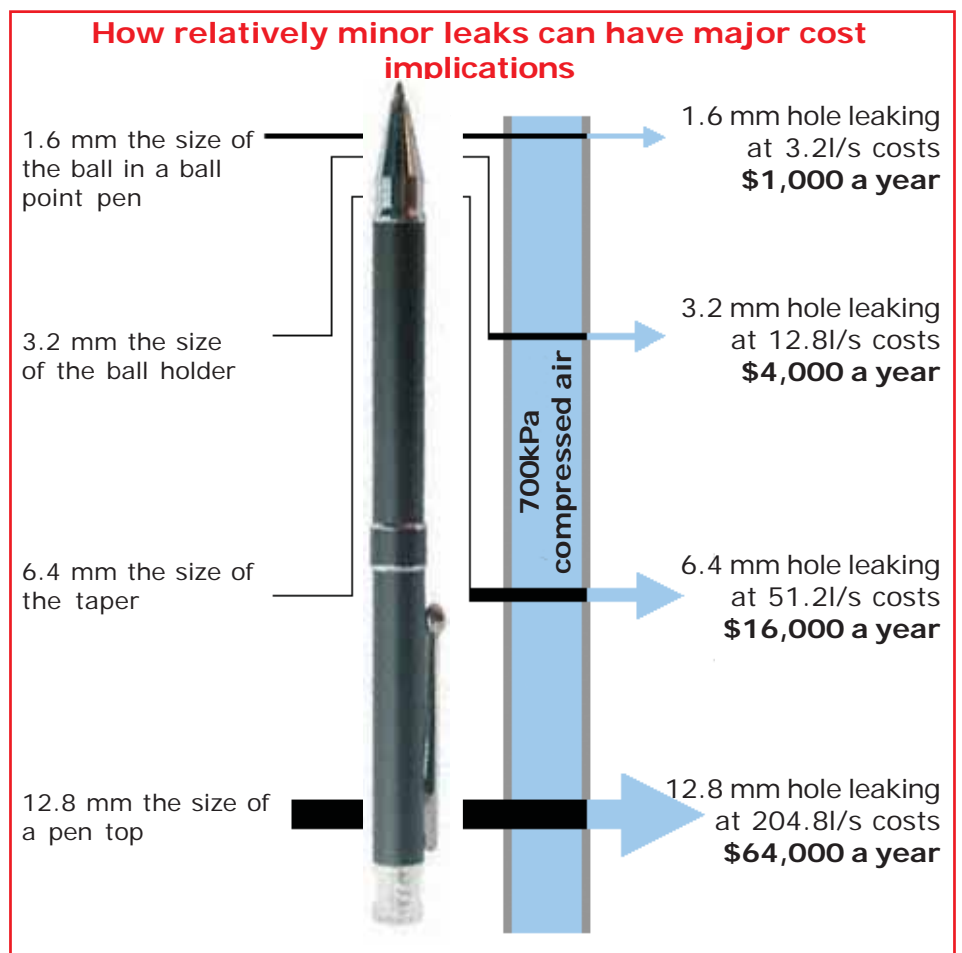
In many instances underground the air needs to travel through 2 kilometres of pipes before it is consumed by a drill unit. On the surface compressed air can be transported for hundreds of metres before it is used productively.

An extensive transport piping system throughout the mine allows ample opportunities for leaks to develop. Leaks can be caused by holes in piping and hoses, faulty connections (misaligned

Vitaulic couplings) and pipes with open ends. Relatively minor leaks can have major cost implications.

However it is not just the cost of producing extra compressed air to

replace that leakage that is the sole problem. Electricity drives the compressors, therefore wasted air increases electricity consumption.



CLASSIFIEDS

sell - swap - buy

Classifieds are free to Mount Isa Mines' employees. The deadline for the next issue is Wednesday 2 November 2005. Forms are available on the intranet. Please keep descriptions to 25 words or less.

For sale

Holden Commodore 2001, super-charged, silver, auto, RWC, 48,000 kms. \$22,000. 4743 7744 or 0439 770 752

VK Berlina Commodore, 1984, dark green with light green interior, fair condition, no rust. Where is as is \$500. 4743 7192 ah

Girl's single bed, white steel frame, 4 poster, dressings around top of posts, no mattress. \$100. 4743 7192 ah

Bed wooden, with bookshelves and set of 4 drawers and pull out table/desk all together. \$200. 4743 7192 ah

2003 BA XLS Marlin Ute, mercury silver, CD player, power windows/mirrors, cruise control, tonneau cover, keyless entry, 4 speed sequential sports shift auto, 4L 6 cyl, 16" alloys, new tyres, 20,000kms, still under warranty. Registered and roadworthy. \$24,500 neg. 0400 055 780

Toyota Camry wagon, 1989 first reg 1990, 2L twin cam EFI, 2nd owner, 126,000kms, power steering, radio/cassette, top car great fuel economy, 600+ km's per tank, RWC, rego till 02/06. \$5,000 ono. 4743 2741

Datsun/Nissan Pulsar 1981, 4 door hatch, ideal work car with a little bit of work for RWC. \$350. Ring anytime 0412 879 703 or 4743 3260

2 x Nissan Urvan's, 1 - '83 model with front end damage, but good running gear (Z20 motor). 1 - '81 model. A bit of work for RWC (Z20s motor). Use one for spares and register the other. Can arrange transport within town. \$500 ono. Ring anytime 0412 879 703 or 4743 3260

Caravan 19.5 ft Franklin Arrow, 7 mths rego, elec brakes, tandem wheels, aircon, island double bed, 2 bunk beds, wardrobes, 4 burner gas stove & oven, fridge/freezer, microwave/tv/crockery etc plus many extras. All in good condition. \$6990 ono. 0429 333 558

Ford Territory TX AWD 2004, 19,000kms, cruise control, 6 stack CD player, tinted windows, bull bar. \$37,000 neg. 0400 799 855

Yamaha XJR 1300 motor bike, 2000 model, 12000kms, very good condition. \$10,000 ono. 4749 0224 or 0437 228 897

Baby Goods - wooden cot, wooden change table, baby monitor \$450 the lot. Queen size wooden bed and side tables \$250, wooden duchess \$150. All in good condition. 4743 5182

Notices

Congratulations to Stephen Constantinou and his partner Tanya Wheeler on the birth of their baby girl, Abigail Grace, on Thursday 15 September. Abigail weighed 7 lb 7oz and mum and baby are doing well.

Best wishes to Copper Smelter Maintenance Technician Danny Knowles and his wife Joanne on the birth of their second son, Brendan Daniel, on Tuesday 11 October. Brendan weighed a healthy 9 lb 10 oz and mother and baby are doing very well.

Congratulations to Copper Smelter Primary Operations Met Technician Paul Wheeler on becoming a grandfather.

Seeds for Life program is running a workshop on Advanced Seed Collection Work in Mount Isa on 10 - 11 November 2005. If you have any questions regarding the workshop please contact Toni Tyson-Doneley on 3902 4417.

Customer Service Training is coming to Mount Isa on Friday 4 November 2005 being held at the Civic Centre in West Street, Mount Isa. Excellent Customer Service is the key to any successful business. This course covers communication skills, developing rapport with customers, how to anticipate customer needs, creating the WOW factor, resolving customer complaints and teamwork. For more information contact Kimberly Chisholm on 0427 773 206.

Mount Isa Mines photo competition



Congratulations to Len Russ who has spent some time passing the West Side takeaway on Fourth Avenue enabling him to correctly guess last month's photo competition was the painting on the wall of the Fourth Avenue building (pictured above).

Len has won a prize from Mount Isa Mines. Thank you to all others who correctly guessed the photo.

Can you guess this month's Mount Isa Mines photo competition (pictured below)?

For your chance to win a prize email mtrim@xstratacopper.com.au with your answer. The winner will be drawn prior to the November edition of *Mine to Market*. Good luck.



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