

ANNUAL REVIEW
2002



O K T E D I M I N I N G L I M I T E D



Children from Matkomnai
Cover: Ridge south of Tabubil



Above: The Hindenburg Wall from the processing plant at Folomian.

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Chairman's report

In February of 2002, the new arrangements surrounding the future operations of Ok Tedi were finalised and a new chapter for OTML commenced.

These new arrangements arose as a result of BHP Billiton's desire to transfer its 52 per cent majority interest in Ok Tedi to the PNG Sustainable Development Program Limited (the Program Company). The mandate of the Program Company is to spend, over time, all the dividends it receives from Ok Tedi, and income from its investments of these dividends, in support of programs and projects that benefit the people of Western Province and of Papua New Guinea. The significance of this change in shareholding is that, together with the government of PNG's 30 per cent ownership of Ok Tedi, substantially all of the economic benefits of the Ok Tedi mine now flow back to PNG.

These new arrangements not only address where the economic benefits of the mine will go in future, but also attempt to address the environmental impacts of the mine. A new environmental regime is now in force and, as part of that regime, Ok Tedi has agreed to continue its dredging program to remove a portion of the sediment that its operations generate. Ok Tedi is also setting aside money for closure so that when it reaches the end of its mine life it has the funds at its disposal to close the mine in a responsible fashion.

The other key aspects of these new arrangements are the Community Mine Continuation Agreements (CMCAs). All but 10 out of 153 villages, representing more than 50,000 people, are signatories to these agreements. Through these agreements, the communities affected by the mine's operations not only allow OTML to continue to operate, but are the means through which OTML can continue its ongoing programs for sustainable development and training. Through the CMCAs, the people of Western Province have shown their desire for, and entitlement to, further economic development. During 2002, Ok Tedi started to implement the various aspects of the CMCAs and is committed to working with the communities to ensure that the funds generated from these agreements are put to good use.

Ok Tedi is also advancing the role of the Ok Tedi Development Foundation, with the eventual goal of being a stand alone and significant contributor to long-term development in the region. Ok Tedi is a critical part of the economy of Western Province. Ok Tedi recognises that it must

carry out programs to give as many benefits as possible for not only the present but also for future generations. Some of those are as fundamental as health and education. Others relate to growing cash crops and setting up international export businesses.

Both the CMCAs and the Ok Tedi Development Foundation are the means through which Ok Tedi can give back to those communities some of what it has taken away.

The other significant aspect of the new arrangements is the way in which Ok Tedi is governed in future. A new Board of Directors has been formed to oversee the governance of Ok Tedi. This Board includes three directors that are independent of the shareholders and they will play a critical role in ensuring that Ok Tedi has all the resources at its disposal to continue to operate as a world-class competitive operation.

The other change in 2002, which was not part of the new arrangements but was a significant event for Ok Tedi, was the departure of Dr Roger Higgins, Ok Tedi's Managing Director of five years. We were very fortunate that Keith Faulkner was ready to assume the Managing Director's position, which has resulted in a smooth transition.

Ok Tedi is now even more of a significant part of the PNG economy. Ok Tedi's employees are taking on this new role with great enthusiasm by way of a greater sense of responsibility and accountability. The Board and management of Ok Tedi are committed to maintaining the highest standards at Ok Tedi, particularly with

respect to the health and safety of our employees. Ok Tedi ranks as one of the safest mines in the world, evidenced by its excellent safety record and four star NOSA rating.

The shareholders are also committed to continuing investment in new technology and equipment to ensure that our company achieves its maximum potential. This is all translating into lower costs and more productivity, which will ultimately benefit all stakeholders. This was demonstrated in the operational results in 2002 as Ok Tedi reported record production of more than 211,000 tonnes of copper metal and almost 510,000 ounces of gold. This was achieved in spite of the fact that Ok Tedi had to face the impacts of the El Niño weather system in 2002 that disrupted shipping in the latter half of the year.

Ok Tedi has tackled the changes in 2002 head on and has completed the year as a more productive and focussed company. We believe that the new business model for Ok Tedi is sustainable and will result in benefits for many years to come. Ok Tedi is even more committed to maintaining its goals of world-class production, safety standards, continuous improvement and ongoing and sustainable development.

I am certain that we are more than up to the task.

RICHARD ROSS

Chairman

Ok Tedi Mining Limited

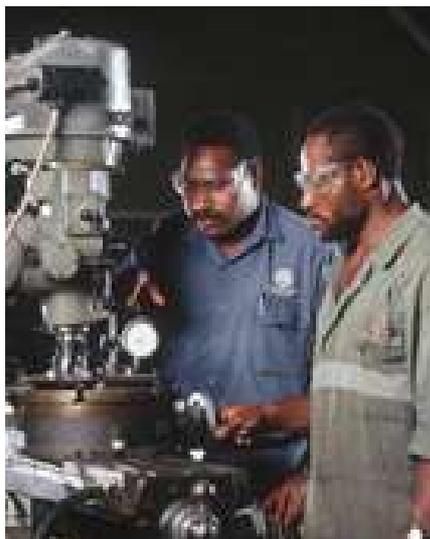
Highlights of 2002



Top: One of prime ore movers at work in the mine.

Right: Apprentice fitter Waipe Selon going through finer points with instructor Thomas Vore.

Below: Fish filleting at Obo Fishing Factory.



- ▶ BHP Billiton exited the Ok Tedi mine on 7 February 2002. It divested its 52 percent shareholding to the PNG Sustainable Development Program Limited.
- ▶ A new shareholder arrangement was introduced: Inmet Mining Corp 18 percent; PNG Government 30 percent; PNG Sustainable Development Program Limited 52 percent.
- ▶ A company-wide reorganisation under the “three business model” completed in July.
- ▶ The company maintained an excellent safety record with no lost-time injuries for the year. 3.75 million man hours LTI-free were achieved, a company record.
- ▶ OTML completed its first environmental annual report under the Environmental Regime introduced in 2001.
- ▶ The Tabubil by-laws for the long-term management of the town of Tabubil were prepared.
- ▶ The Shares in Success Scheme, which rewards all employees for their contribution to the company’s fortunes, was introduced.
- ▶ A new OTML board was elected.
- ▶ Keith Faulkner was appointed OTML’s Managing Director.

2002 at a glance

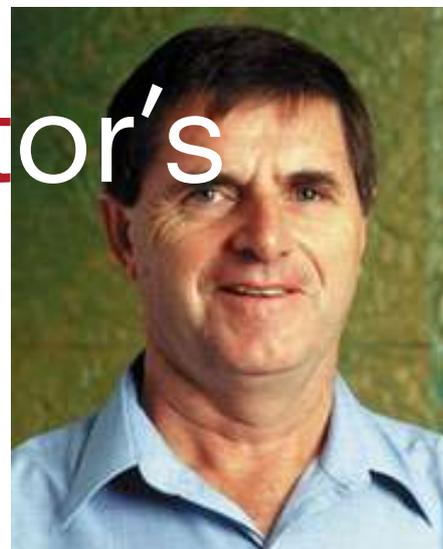
Production	719,863 dry metric tonnes of copper concentrate, an increase of almost 25,000 tonnes from 2001, and containing 211,313 tonnes of copper, 509,106 troy ounces of gold and 1,039,369 troy ounces of silver
Export	K1,241.8 million, which is 20.6 percent of PNG's total exports and 11 percent of GDP
Royalties	K17.39 million to Western Province government and K7.1 million to landowners
Mining levy	K43.8 million to PNG Government
Dividends	K66.2 million to shareholders, including K22.7 million to PNG Government
Compensation payments	K70.36 million to local communities in return for permission to mine. This includes CMCA payments in January and December 2002.
Infrastructure Expenditure	K329.1 million on schools, roads, health and community facilities
Tax Credit Scheme	K14.7 million on Government-led development projects in health, education, roads, bridges, airports, police and utilities
Training Expenditure	K5.4 million on staff training and community education scholarships, totalling K40.62 million since 1981
Business Development	75 local businesses assisted, which turned over K174.8 million
Employment	1,883 people employed, 93 per cent of whom were PNG citizens, and 694 from the preferred area
Contractors	K446.6 million on contractors, K316.1 of which was paid to PNG companies

At December 2002 K1 = US\$0.244



Managing Director's report

Looking back over 2002, it has certainly been a year of change. But the year brought something more than change - a series of beginnings has emerged. This framework gives Ok Tedi Mining Limited a solid base for it to remain a world-class mining company on which to build in the coming years.



2002, a year of beginnings...

One new beginning was the restructure of OTML, which was officially in place in September this year. The restructure brought in four new General Managers and a better-aligned workforce that is more efficient, effective and focused.

2002 also marks the first year operating under OTML's new business model. The business model ensures that all business units are aligned to achieve cost effective, safe production. From 25 February 2002, the first day of operations under the restructured company, until the end of the year, OTML recorded 3.5 million man hours without a lost-time injury, a company record. We are a good company, and we are a safe one.

While the drought, which ran for the second half of 2002, did affect operations, we managed to maintain excellent production figures for the year, producing 719,863 dry metric tonnes of copper concentrate, a very good level of production and almost 25,000 tonnes more than the previous year.

OTML has also influenced the beginnings and progression of careers. In 2002, more than 100 people undertook training courses and OTML employed 26 new apprentices.

The company remained tightly focused on performance this year. We implemented a new performance management system that encourages all employees to stretch beyond their goals. This year also marked the beginning of a new incentive scheme, the Shares in Success Scheme, which allows all employees to share in the fortunes of the company.

And lastly, 2002 was the beginning of my appointment as Managing Director. We plan to do things better every year. If we examine all the changes throughout the year, I am confident that we have the beginnings and the foundation to achieve great things in the coming years.

KEITH FAULKNER

Managing Director
Ok Tedi Mining Limited

Right: Mechanical Apprentices at the Star Mountains Training Institute. **Opposite page, top:** Copper flotation at the Folomian Mill. **Below:** Inpit crusher with the primary stockpile in the background.



New ownership structure

Guaranteeing

2002 was the year in which significant changes to OTML's ownership structure happened. The restructure was the result of an agreement between all shareholders in response to the desire by OTML's majority shareholder, BHP Billiton, to withdraw from the project. On 8 February, BHP Billiton notified the Australian Stock Exchange that it would transfer its 52 per cent equity in Ok Tedi Mining Limited to a trust company, the PNG Sustainable Development Program Limited (Program Company). The Program Company, which now holds the 52 per cent equity in Ok Tedi Mining Ltd, was incorporated in Singapore on 21 October 2001 as a company limited by guarantee, and subsequently registered in Papua New Guinea on 21 December 2001.

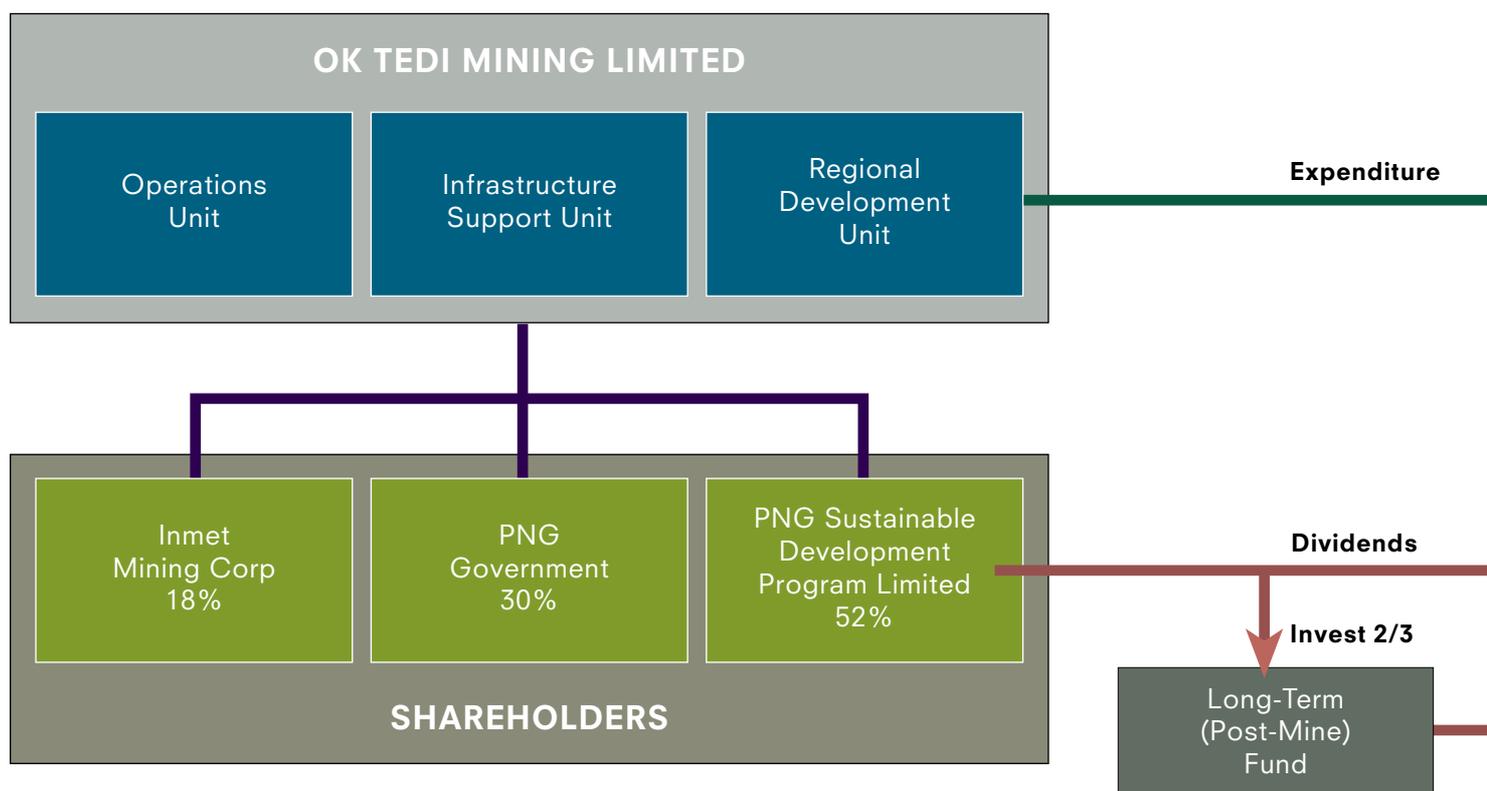
These arrangements are now given the force of legislation by the PNG Parliament under the Mining (Ok Tedi Mine Continuation (Ninth Supplemental Agreement) Act 2001, which came into effect on 20 December 2001.

The new OTML shareholder composition is:

	%
PNG Sustainable Development Program Limited	52
PNG Government	30
Inmet Mining Corp	18

The Program Company will spend its dividend income from its equity stake in OTML to fund approved current and long-term sustainable development projects in PNG, and Western Province in particular.

One third of the Program Company's annual dividends will be spent on development programs, with the remaining two thirds invested in a Long-Term Fund.



Long-term benefits for PNG

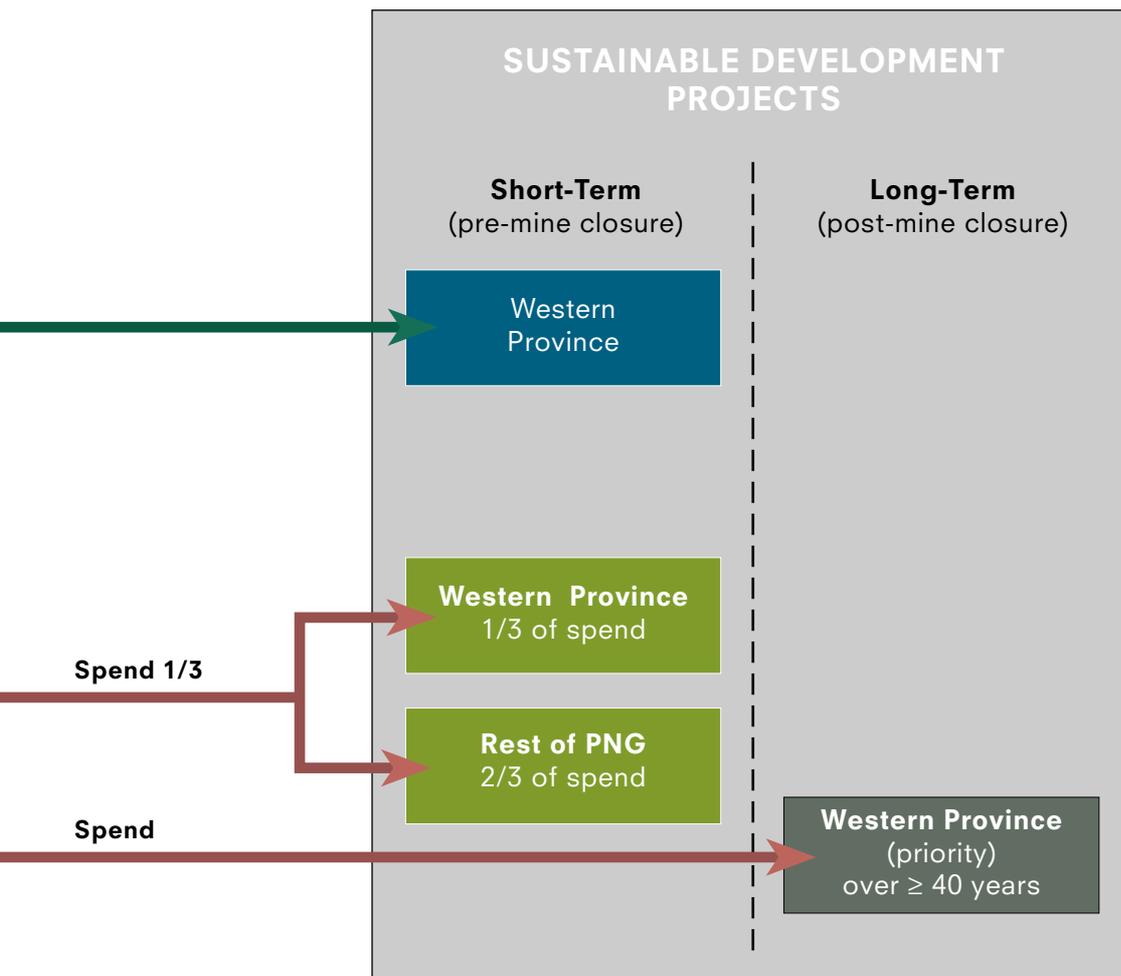


This fund will provide for on-going sustainable development programs for the next generation of people living beyond the expected life of the Ok Tedi mine. It will be spent over 40 years, beginning at mine closure, with priority given to programs for the Western Province of PNG. This priority recognises the impact the mine has had on the lives of the people of Western Province.

The Program Company is managed independently of OTML and BHP Billiton, and has six directors appointed by BHP Billiton and the PNG institutions and one director based in Singapore, where the Program Company is registered. The Chief Executive Officer and staff of the Program Company are based in Port Moresby.

Above: Village presentation at Matkomnai.

Opposite page, top: The Ok Tedi mine on Mount Fubilan, Western Province.



New business structure

Streamlining the business

In February 2002, Ok Tedi Mining Limited commenced a process that restructured the entire company and put in place a business model that maximises resources and provides new opportunities for company growth and prosperity. A key objective of the new business model is to meet OTML's efficiency target for a 25 per cent reduction in copper cash cost to 40 US cents per pound by June 2003. Most importantly, this business model makes OTML a stronger, more efficient operation.

The restructure separates the Operations unit from the business's other two main functions – Infrastructure Support and Regional Development – allowing each of the three new units to completely focus on achieving its agreed objectives. The support services of strategic leadership, commercial services and human resources are spread across all three units.

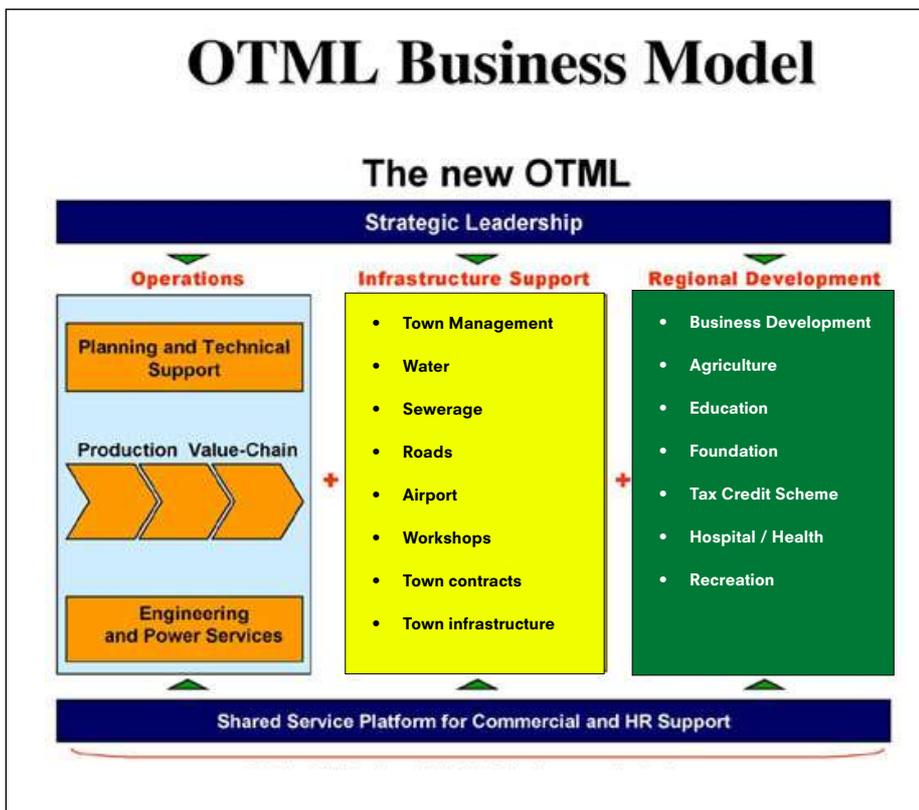
Each unit is reported separately in this Annual Review. The diagram for the Operations unit (within the OTML Business Model diagram, below) shows the

production value chain that streamlines the production tasks. The value chain recognises the contribution from each link in the entire chain of production from mine to customer and unites them into a seamless and complete process, allowing value to be maximised along the way.

The new business structure and change in ways of working has been enabled by a shift in organisational culture and the commitment and cooperation of the whole workforce. The OTML Charter adopted in 2000 encapsulates the

company's mission and its values of integrity, openness, participation and continuous improvement. It laid the foundation for the new ways of working – reducing hierarchy, empowering employees with discretion and influence, and ensuring accountability.

OTML will continue strategic planning annually and, in particular, focus on improving the efficiency of the Infrastructure Support and Regional Development units.



Top left: Workmen constructing a drainage system, Tabubil town. **Above:** Rosemarie Konie, electrical tradeswoman. **Facing page, top:** Migalsimbip village on the Ok Menga. **Centre:** A woman harvests vegetables grown at the Bige dredge site. **Below, left and centre:** Ok Tedi provides health care services to mine affected and surrounding villages.

Ok Tedi's place in the PNG nation

If a company's contribution to building a nation can be measured by money alone, Ok Tedi's economic contribution to PNG, and Western Province in particular, is great. Ok Tedi's copper concentrate exports in most years account for around 20 per cent of PNG's total export income. Ok Tedi also contributes around 10 per cent of PNG's gross domestic product, one of PNG's single greatest contributions.

Ok Tedi accounts for more than half of the economic activity in the province, and is also a significant economic driver in the south of Sandaun Province, which lies to the north of the Mount Fubilan mine.

But it is Ok Tedi's contribution to the future economic and social resilience of PNG and the two provinces that will be more significant in the longer term. OTML, in 2002, spent more than US\$2 million on sustainable development programs alone. With the change in shareholding to create the PNG Sustainable Development Program Limited, a good deal more will be available for funding sustainable development programs for PNG and the provinces for the next 40 years.



OTML's regional development department has been running programs for many years in local capacity building, agricultural and business development and micro-finance projects as part of its contribution to the local community.

In the mine's more recent years of operation, the focus has shifted to working with local communities to prepare them for life without the mine. This effort is in



recognition that the large economic contribution the mine has made to the local and national economies can't be sustained after the mine closes, and that OTML needs to support the communities to stand on their own feet both economically and socially.

Since the mine began operating in 1984, the average life expectancy in Western Province has increased from 30 years to 52 years. With development, too, has come

access to education, usually provided by church groups, but supported by OTML.

In the future, Ok Tedi will provide sustainable development programs through two major initiatives: the Community Mine Continuation Agreements (CMCAs), and the Ok Tedi Development Foundation (OTDF), both of which reached major milestones in 2002.

In 2002, OTML signed agreements with representatives of nearly 50,000 people from Western Province. The CMCAs provide funding for projects that would help secure the future for these landowners. They were signed as the culmination of a two-year consultation process initiated by the PNG Government when it became apparent that the option to close the mine on account of its environmental impacts was an issue that required the support of the people who stood to lose or gain from such a decision.

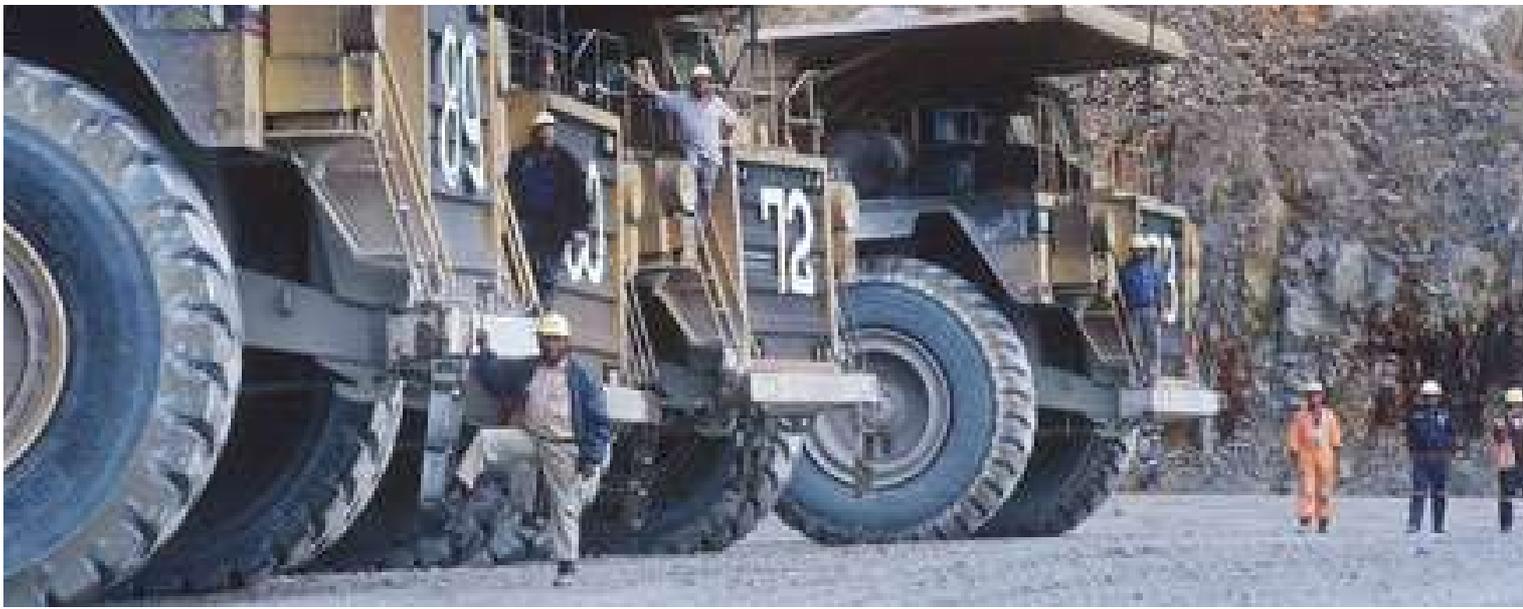
The agreements reflect that those landowners want the mine to continue operating in full understanding of its impacts, and that OTML would commit to funding development projects by way of compensation for the environmental damage the mine has caused. Many of the agreements have as a priority health and education projects as a key way of providing for the future of the landowners in Western Province.

These agreements will be administered by OTML's other major sustainable development commitment, the Ok Tedi Development Foundation.

Operations



2002 was a year of refinement and increased efficiency in OTML's operations. The new business model introduced a more effective and cohesive Operations unit. For the first time, the mine, mill, power and engineering departments are working within one unit, reducing competing interests and delays. Likewise, the four operations sites – the mine, mill, port of Kiunga and Bige dredging site – were unified under a common vision and objective of seamless production.



Improved production ●

OTML's production processes were further refined and stabilised in 2002. Production reporting lines were substantially decreased, improving efficiency and effectiveness.

Company-wide productivity initiatives to contain the copper unit cost were very successful. The year's target per unit cost of 63-64 US cents per pound was bettered – the average per unit cost for the year was 52 US cents per pound.

In 2002, OTML produced 719,863 dry metric tonnes of copper concentrate, an increase in production of almost 25,000 tonnes from 2001. The copper concentrate contained approximately 211,313 tonnes of copper metal, 509,106 troy ounces of gold and 1,039,369 troy ounces of silver. The best production day of the year in the mine was 25 May, yielding 303,660 tonnes of ore and waste mined, an improvement of 4,850 tonnes on the 2001 record.

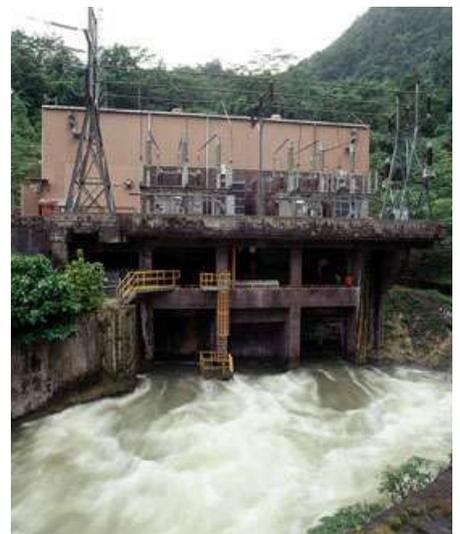
Top: Shift change at the mine pit. **Above right:** SAG Mill 2 at Folomian. **Right:** Tabubil Power Station. **Far right:** Ok Menga Hydro Power Plant. **Opposite page:** Welding the water pipe for the SAG mill.

Power plants

In 2002, OTML power plants generated 469,371 megawatt hours of energy, of which 129,404 megawatt hours of power was generated using 36.22 megalitres of diesel fuel. The generated power supplies not only the mine and mill operations, but also the town of Tabubil.

Major work and upgrades to OTML's power plants during the year included:

- Replacing a turbine and cassette at Ok Menga Hydro Station Unit number 1 at a cost of US\$650,000.
- Replacing both automatic voltage regulators at Ok Menga Hydro Station Units at a cost of US\$150,000
- Replacing a prime mover in a 5.4 megawatt diesel generator at the Tabubil Power Station at a cost of US\$560,000
- Completing a major overhaul of a 4.3 megawatt generator at the Tabubil Power Station. This took 15 weeks and cost US\$260,000.



Shipping

In 2002, OTML shipped a total of 715,141 wet metric tonnes from Kiunga to the silo vessel, MV Erawan, moored in the Gulf of Papua. In the second half of 2002, the drought experienced throughout Papua New Guinea from El Niño weather patterns caused delays to OTML's crucial shipping operations. The Fly River sometimes reached unnavigable levels and shipping days for the last four months of 2002 were below average, with no shipments made in September. This situation not only interrupted export of copper concentrate to our customers, but also the receipt of supplies to OTML.

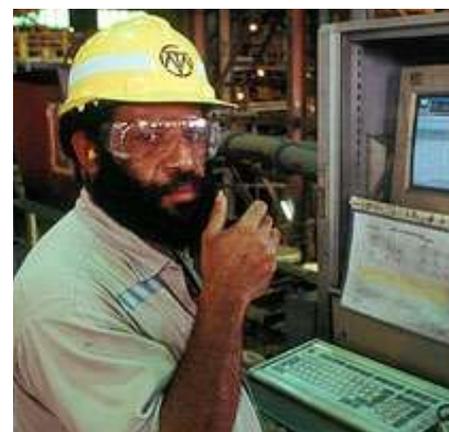
OTML's port operations at Kiunga sit on the Fly River at the end of the 157 kilometre pipeline that delivers copper concentrate slurry from the mine site. Kiunga operations staff used the dry period to bring forward a number of maintenance projects. Major projects targeted structural refurbishment and corrosion control in sheds, the ship loader, conveyors and filter drums.

The remainder of OTML's shipping fleet, the Western Triumph and the Western Zenith, were altered to be able to carry increased loads in 2002. They can now carry up to a minimum of 3,580 wet metric tonnes of cargo and a total deadweight capacity of more than 3,600 wet metric tonnes each.

Dredging

OTML negotiated its contract with Dredco, the company that operates OTML's dredging operation on the Ok Tedi at Bige, to December 2012. This allowed Dredco to spread costs over a longer period and pass on more than US\$3 million per year in cost savings to OMTL.

The Bige dredging operation was also affected by the drought towards the end of the year. The lower river levels affected the rate of sand delivery into the dredge slot and the angle of the cutter head, resulting in lower dredge production. During 2002, 10.37 million cubic metres, or 16.8 million tonnes, of sand were dredged from the river and deposited into controlled stockpiles.



Top: Long dry spells in 2002 caused delays in shipping from and to Kiunga Port facilities.

Above right: Mike Siener, shift supervisor at the Folomian Mill Control. **Right:** The Bige dredge site on the Ok Tedi.

Above right: Dredge (MV Cap Martin) on the Ok Tedi at Bige.

Facing page: One of the concentrate ships on the Fly River.

Far right: Mill chemistry manager, David Willy, at work.



Mill

Mill operations in 2002 were focused on improving recovery rates of copper and gold through consistent operating practices. As a result, in the second half of the year gold and copper recovery rates noticeably improved. In conjunction with the refocusing of operations, a major capital project was implemented, called the Flotation Optimisation Project. The aim of this project was to improve copper and gold recovery

by removing materials handling bottlenecks, improve on-line monitoring and reconfiguring the re-grind and final cleaner area. The Flotation Optimisation Project is scheduled for completion in the first quarter of 2003, however, due to the staged approach of the commissioning partial benefits were realised in the last quarter of 2002. These benefits also contributed to the improved recoveries late in the year.

In 2002, the mill laboratory undertook a major shift in assaying techniques from



classical wet chemical analysis to dry chemical analysis. The new technique decreases sample turn-around time and increases the accuracy of assay results, improving operator decision-making. An x-ray fluorescence spectrometer was purchased to undertake the dry chemical analysis.

Other new laboratory equipment purchased included atomic absorption spectrometers and a Leco sulphur analyser.

A decision was taken to replace the very old FORTRAN program, which reconciles the metallurgical balance of the mill's throughput on a daily and monthly basis, with JKMetAccount software.

Safety

In 2002, OTML took a new approach to safety, combining safety and risk management analysis to create the safest possible workplace for all employees – from the operations units, to the ground staff at the airport, to those working in the offices downtown in Tabubil.

By the end of December 2002 OTML company-wide had accrued more than 3.75 million man hours without a lost-time injury (LTI) – a record achievement for the company. At December 2002, the mine operations had exceeded three million man-hours, or 879 days, without an LTI.

OTML's Strategic Safety Systems goals revolve around the continual development of a "zero harm" safety culture strongly reinforced by the Take Five for Safety process that enables all employees to assess and prevent risks before any job is undertaken.

OTML revised its Contractor Safety Management Plan to achieve new levels of contractor safety performance, underpinned by a process of involvement, ongoing compliance audit requirements and advisory assistance from the OTML safety practitioners' team.

During the year, OTML sustained a Four Star rating from the National Occupational Safety Association (NOSA), a worldwide program of safety audits.

OTML's internal safety audits produced an 81.6 percent rating, which equates to a Four Star (out of five) NOSA rating.

Risk management

In 2002, OTML conducted the groundwork to implement a site-wide Risk Management System that is geared towards identifying all forms of safety, environment and business risk.

Risk management is an integral part of sound management practice and fundamental to achieving company objectives. It is an iterative process consisting of steps which, when undertaken in sequence, enable continual improvement in decision-making. OTML is establishing



best-practice procedures for risk management appropriate to the mining industry. The Risk Management System is consistent with the OTML Charter, NOSA Standards, the OTML Corporate Safety and Environmental Strategy, PNG Regulations and AS/NZ Standard 4360.

Quality assurance and quality control

In 2002, OTML's Quality Assurance and Quality Control Team worked towards implementing a Quality Management System for the technical data stream based on the ISO 9001:2000 standards. The system will be specifically designed to seek the continuous improvement of the technical data stream leading to improved decisions within OTML.

Mine planning

OTML launched a new ore optimisation plan during 2002 that increases the mineable reserve by including areas previously omitted.

An ore control program, which ensures the best throughput and recovery of metal is obtained out of any given material, continued successfully throughout the year.

OTML's technological advances included using the latest version of Vulcan geologic modelling software, which provides the users with a three-dimensional view of the ore body, increasing work accuracy.



Operating Excellence Program

OTML's Operating Excellence Program continued to create process improvements throughout the business and return quantifiable benefits to the company. In 2002 the program returned US\$5.4 million with 13 projects completed during this period. Some of the projects completed have returned process efficiency improvements and intangible benefits, rather than cost savings. The projects that have returned direct cost savings are:

- The **mill water project**, to increase capacity of the Ok Ningi dam, which brought a saving of US\$1.5 million.
- **Haul truck utilization project**, a 25 per cent reduction in delays for mine haul trucks leading to a reduction in the haul truck fleet numbers, saving US\$1.2 million.
- The **mine to mill** project reduced downtime of the mine reclaim system, saving US\$995,000.





- **Unplanned mill stoppages** reduced downtime of the SAG mill screens, saving the company US\$761,000.
- **Blast optimisation** expanded drilling patterns in waste rock of up to 40 percent, (depending on the shot location), a saving of US\$289,000.
- US\$285,000 was saved in the **helicopter usage** project, which reduced the OTML helicopter fleet by 50 percent.
- **Shipping container management** reduced the number of containers within OTML, saving more than US\$212,000.
- The **D11R dozer track life** project reduced the costs associated with replacing track undercarriage components by US\$93,000.
- The **light tools** project introduced tighter controls for the issue and management of personal, area-specific and general tools, saving the company US\$63,000.



Opposite page, top: A mine geologist at work in the pit.
Opposite, right: Field supervisors guide the movement of dump trucks by radio.
Opposite, bottom: Blasting at the mine site. **Top:** The Ok Ningi Dam, the Folomian mill's main water supply. **Left:** The flotation circuit at the Folomian mill. **Bottom:** The crusher crew on break.

Environmental management

Environmental Regime During 2002, OTML completed its first environmental annual report under its new environmental regime. The PNG Parliament adopted this new regime with passage of the Mining (Ok Tedi Mine Continuation (Ninth Supplemental) Agreement) Act 2001. This environmental regime is designed to provide the PNG Government with the information it needs to make informed decisions about the mining operation's impact on the environment. It requires OTML to undertake specific activities on an annual basis and to report the results to the government.

Accepting that physical and ecological impacts had already occurred due to the mine, a set of human-related environmental values was formulated to assess the future impact of the mine's operations. These environmental values relate to water quality, the availability and edibility of aquatic and terrestrial resources, and the navigability of the main river channels.

Compliance monitoring

The compliance monitors reflect mine-related impacts on the receiving environment (the river system), especially those aspects identified as environmental values to be protected. During 2002, OTML complied with each of the monitors assessed, although there were insufficient data for ecotoxicology to be properly interpreted.

In summary:

- There were no issues regarding water quality in terms of drinking standards.
- Fish biomass did not degrade during the year and there were no issues relating to the edibility of any fish.
- Food crops grown on the floodplain were found to be edible.
- The main channels of the Ok Tedi and Fly River were navigable during the year until drought conditions set in during late August.
- Dissolved copper levels throughout the system were consistent with historical trends and patterns of occurrence and there was no evidence of increasing copper levels.
- While the onset of dieback continues to develop in the Middle Fly, vegetation dieback mapping revealed a quicker than expected onset of recovery in the lower Ok Tedi.
- There was no evidence of oxidation of mine-derived minerals leading to increased levels of metal in the environment or impacting on the ecology of the river system.

- Ecotoxicological monitoring could not be properly analysed as additional data will be required to allow trends or patterns to be determined.

Acid rock drainage

Acid rock drainage (ARD) remains a risk in sulphide ore bodies such as those occurring at Ok Tedi. During 2002, OTML continued to develop management strategies for controlling potential acid generation.

The main areas of activity concentrated on the waste rock dumps, the sediments in the upper Ok Tedi and the dredged sand stockpiles at Bige.

Investigations have confirmed localised acid generation in the mine pit and some of the sand and gravel deposits along the channel of the upper Ok Tedi. Geochemical monitoring of the catchment downstream of the mine has confirmed there is no adverse change to river water as a result.

To ensure that this situation continues through and beyond the remaining life of the mine, the mine is discharging additional limestone into the waste rock stream. This increases the buffering capacity of waste rock and tailings and boosts the already high levels of natural buffering capacity found in the river waters.

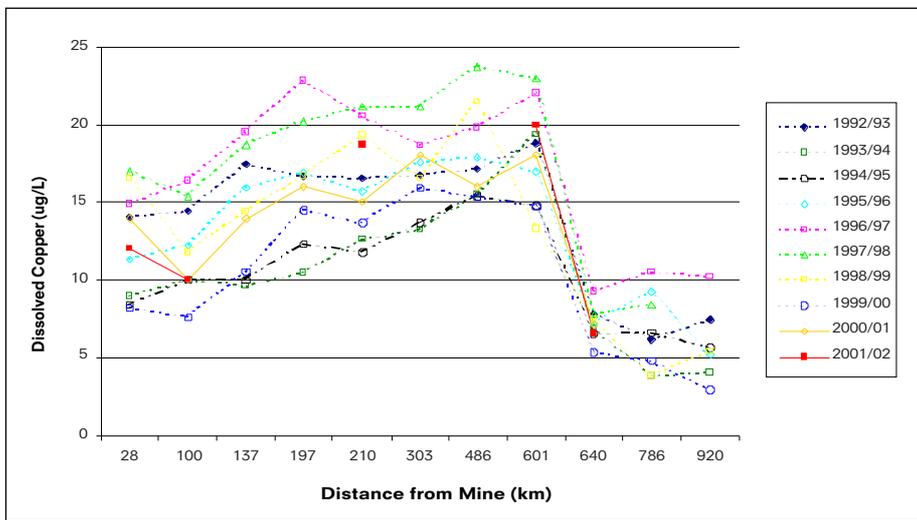
Further investigations are underway to better understand the risks of ARD, particularly after mine closure and during dry weather periods. As a result of investigations in 2002, including predictions based on model simulations, OTML is implementing additional monitoring activities in areas of greatest risk to provide early warning of possible development of acid conditions and to assess the performance of mitigation steps.

With regard to the Bige sand stockpiles, monitoring of the stockpiles was enhanced following the commissioning of four pyramid-like field lysimeters. These allow for relatively large-scale evaluation of leaching behaviour and sulphide oxidation rate, which is important information that can be used to fully assess the risk of ARD from stockpiled dredge sediments.

While no acid drainage has been observed at the Bige dredging operation, there is evidence of sulphide oxidation and neutralisation reactions in sand stockpiles. Various measures have been adopted at Bige to reduce the risk of ARD. These include modifying stockpile design to minimise the volume of sulphide-bearing sand exposed to the atmosphere, and setting up a drainage system to allow for the capture and treatment of seepage waters released from



Bottom right: Sampling along the Ok Tedi River at Bige. Facing page, top: Green house at Bige. Top: Dieback areas at Bige.



Historical dissolved copper: The 2001/02 values are represented by the red squares. Ningerum is located 100 km south of the mine, Nukumba at 210 km, Obo at 610 km, Ogwa at 640 km and Lewada at 920 km.

the stockpiles, should acid conditions develop.

Dissolved copper

While various metals are examined throughout the receiving environment, copper is the most obvious one to measure. Dissolved copper has historically been measured at Ok Tedi.

Concentrations of dissolved copper increase with distance from the mine, reaching a maximum at Obo before decreasing significantly after Everill Junction, where the Strickland River flows into the Fly River.

The above graph illustrates dissolved copper levels over the past 10 years.

Historical dissolved copper values

The results of the 2001/02 analyses indicate that the values fall within historical patterns of occurrence throughout the system. Dissolved copper values generally fell following the 1997/98 El Niño drought as the system entered wetter than normal La Nina conditions from early 1998 to mid 2001. The current 2001/02 values show an increase in dissolved copper as climatic conditions normalised. The Fly system's dissolved copper, as shown in the above graph, continues to easily meet drinking water levels of 2,000 micrograms per litre. However, experimental work is under way aimed at measuring bioavailable copper which, if it can be successfully developed, will give a better understanding of the aquatic environment's response to this parameter.

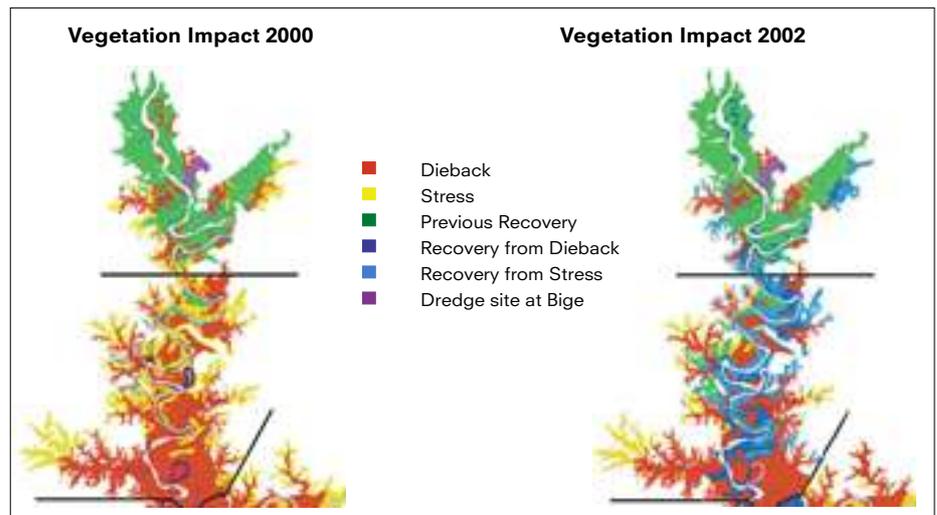
Dieback

The build-up of mine-derived sediment in the lower Ok Tedi and Fly River has caused a rise in the riverbed, resulting in over-bank

flooding and sediment deposition on the flood plain. The resulting increased inundation stresses and, if prolonged, kills flood-sensitive vegetation along the riverbanks and on the floodplain. This phenomenon is known as "dieback". The dredging operation at Bige has had a positive effect on natural vegetation recovery along the lower Ok Tedi. Vegetation recovery – the re-establishment of vegetation on formerly denuded areas – is expected to

Ok Tedi floodplain that has been the subject of considerable overbank flooding and floodplain sedimentation in recent years.

The diagram below highlights the areas showing recovery of vegetation between September 2000 and June 2002 in the Lower Ok Tedi when the most recent satellite images were available. Throughout the Ok Tedi / Fly River system, approximately 1,461 square kilometers had been impacted by dieback processes, most of it mine related, as at September 2002. Of this, approximately 167 square kilometres (11 percent) was undergoing some form of vegetative recovery.



be an early-stage in the process of re-establishing forest in dieback sites.

Since the dredge was put into operation in April 1998, 45.3 million cubic metres, or 73 million tonnes of sand, has been dredged from the river and deposited into controlled stockpiles. In 2002, 10.37 million cubic metres, or 16.8 million tonnes, of sand was dredged.

While the onset of dieback continues to occur along sections of the Middle Fly floodplain, vegetation recovery in the lower Ok Tedi is progressing downstream, with approximately 60 percent of the dieback-affected areas showing recovery. The majority of recovery is occurring on the flat

Fish biomass

Fish biomass, diversity and abundance along the main river system are monitored at regular intervals. During 2002, 1,400 fish from 31 species were caught, measured, classified and dissected for tissue analysis. Biomass at Kuambit (just downriver from where the Ok Tedi joins the Fly River) has shown an increase for the first time in many years. At Bosset in the middle of the Fly River, no significant change has occurred, while at Ogwa (just below the junction of the Strickland and Fly Rivers) a decline has been recorded.

Ok Tedi people

A photograph of a male worker in a yellow hard hat and safety glasses, wearing a light-colored work shirt, working in a factory. He is focused on a task, possibly inspecting or handling a component on a workbench. The background shows industrial machinery and a factory environment.

At December 2002, OTML employed 1,883 people, 93 per cent of whom were PNG citizens. During the year, the company introduced a new staff incentive scheme, strengthened its Performance Management System, continued the Home Ownership Scheme, and provided training and development programs.



Above: Wenis Bakbinam, one of the long serving operators at the mine. **Right:** Francis Pomenauri and Rose Token, building apprentices. **Opposite page:** Daniel Orwe, senior metallurgist, testing copper flotation.



Staff performance and incentives

In 2002, OTML introduced a new staff incentive scheme, the Shares in Success Scheme (SISS), and aligned all incentive schemes under the banner of OTML Incentives. OTML Incentives are designed to motivate and reward all employees for their efforts and contribution to the success of the company.

The Performance Management System, introduced in 2001, was strengthened in 2002. The system went on-line and focus on individual and team performances was sharpened. Every OTML employee now has outputs, measures and targets against which their performance is assessed.

Home ownership scheme

The Ok Tedi Home Ownership Scheme was established in 1995 to help employees from all over PNG build their own houses in their local villages.

In 2002, 91 employees received housing loans totalling K2,235,425.

Staff training and development

OTML has four core trade categories; electrical, metal, building and mechanical, and has trained around 17 percent of all PNG apprentices in these categories since 1982. The company continues to open its training up to PNG industry, inviting external

business and the public sector to participate in OTML programs on a fee-for-service basis.

In September 2002, the PNG National Training Council approved OTML's training institute, the Star Mountains Institute (SMI), as a registered training body.

Training was conducted in most of the trades, as well as post-trade, operator, vehicle driving, load shifting, supervisory and management, computer, safety and first aid, cultural induction and trainer training.

OTML employed 26 new apprentices during the year, bringing the number of apprentices in training to 111 and the total intake since the scheme's inception in 1982 to 720. They have been apprenticed in the building, mechanical, metal

OTML or other employers.

The first Supervisor Development Program was run in 2002, aimed at upgrading the competencies of all supervisors. This program lays the foundation for a major increase in OTML's competitiveness through enhanced middle management competencies.

During 2002, 185 employees were trained in the use of Operating Excellence process improvement methodology and group problem solving tools to improve processes in their work areas.

Consultant-run courses continued in post-trade technical, trainer training and safety during 2002. OTML also had one employee attending full-time overseas study.



Left: Monica Dakmen, an electronics technician with the Information Services Department. **Below:** Second year automotive electrical apprentices Sumbiniil Pora (centre), and Torambi Emisok (right), with instructor Eddie Haung.

fabrication, heavy equipment fitting, electrical and electronics trades, and have included 13 females.

OTML also inducted 20 new graduates in 2002 in its two-year-long Graduate Development Scheme. Since 1988, 149 graduates have completed this program and 50 have been retained by OTML. The scheme was set up to help further develop graduates in their selected field, either with



rastructure support



In the 21 years since the Ok Tedi mine began, the company has built and maintained an extensive infrastructure. Everything from roads, bridges, houses, hospitals and schools exist because the mine, its employees, contractors and their families need the support services they provide. Maintaining the infrastructure is a massive and important task, not only so the company can operate smoothly but because it provides thousands of people in Tabubil and Kiunga with a safe, clean, well-served and desirable place to live.

During 2002, OTML entrusted the support of that infrastructure to a newly-created unit within the company. The Infrastructure Support unit now oversees management and maintenance of houses and offices, roads, and the provision of sewerage and water to the towns of Tabubil and Kiunga and the dredging site at Bige. They spent more than US\$14.6 million during the year, with roads accounting for approximately US\$4 million.

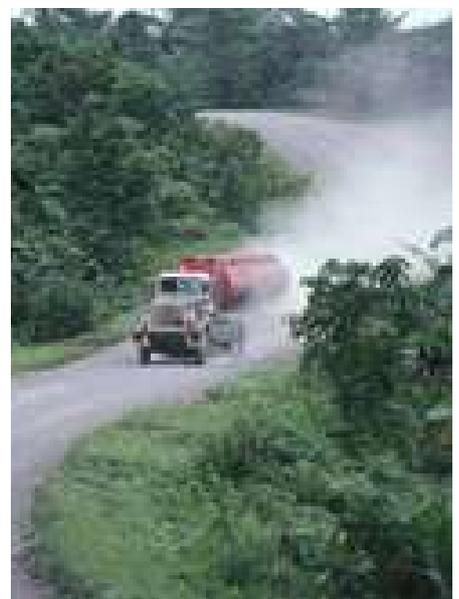
The decision to establish a unit that has the sole purpose of maintaining infrastructure reflects the desire of OTML to leave a viable legacy after mine closure.

Tabubil

The town of Tabubil on the Ok Tedi, (Ok means river in the local language, Faiwol) 25 kilometres from the mine site, was once a small village and is now a town adapted



Top left: The Ok Tedi Development Foundation building in Kiunga under construction.
Above: Ok Tedi mine's support facilities are based at Tabubil township.
Left: OTML port facilities at Kiunga.



managing town concerns, such as litter, vehicles, health, safe storage of gases and property. The by-laws will be submitted for approval by the National Government.

It is anticipated that the laws will be fully implemented by July 2003.

Kiunga

specifically for the Ok Tedi mine. Tabubil exists on 2,275 square kilometres of mountainous land. The town's residents enjoy the benefits of a well planned and maintained township providing schools, hospitals and sporting facilities.

In 2002, the Tabubil by-laws were created in preparation for the time when the town will exist without the support of the mine. The by-laws outline procedures for

The port town of Kiunga sits on the banks of the Fly River and provides the mine with its shipping facilities. Kiunga has now become the main administrative centre for Western Province and will be the operating headquarters for the Ok Tedi Development Foundation.

Kiunga wharf is the main supply link for the towns of Tabubil and Kiunga. Even in the months of low river levels caused by the

Top: Tabubil International Airport provides air services to OTML workers and surrounding communities. **Above centre:** Health facilities provided by OTML at Tabubil. **Above right:** Convoy truck on the highway connecting Tabubil and Kiunga. **Above left:** Tabubil Primary School children on parade during Independence Day.

El Niño drought, vessels carrying food supplies and other necessities were dispatched whenever possible using OTML employees and equipment.

Many people living in Kiunga work on the wharf and at the copper concentrate filter drying facilities.

They have access to fishing, boating, swimming and weekend picnic areas, as well as a range of sporting facilities.

Regional development

Sowing the

During 2002, the restructured Regional Development unit of OTML took over responsibility for the implementation of the various sustainable development projects undertaken by the company.

The new structure reflects the emphasis placed by OTML on regional development.





In recognition of the limited life of the mine, plans are in place for the Regional Development unit's activities to move over to the Ok Tedi Development Foundation (OTDF). This foundation will be OTML's stand-alone vehicle to devise and implement sustainable development and community projects in Western Province and PNG. OTDF is governed by its own constitution and sections of the Mining (Ok Tedi Mine Continuation (Ninth Supplemental) Agreement) Act 2001.

The goal of the Regional Development/OTDF group is to bring about equitable and sustainable social, economic and infrastructure development to improve the community's quality of life. The group supports programs on agriculture, fisheries, eco-forestry, business development, health, education, women and youth, community and provincial works, development planning and capacity building.

Agriculture, forestry and fisheries

In 2002, particular emphasis was placed on developing agriculture, forestry and fisheries projects to help local communities during the year.

Work on the best way to set up fisheries was done in 2002 and will be completed by March 2003. The strategy work will address the options for a sustainable fisheries sector in the province and will recommend business opportunities and sustainable food sources for communities in the Ok Tedi/Fly River catchment.

OTML's fisheries team is currently working with the PNG National Fisheries Authority on talking with communities about the recently completed Fly River barramundi management strategy and an aquaculture project in the Lower Ok Tedi that is examining the potential for farming barramundi. The Obo Fishing Company, a cooperative project started in 1998, continued to export prawns to Australia and other parts of Papua New Guinea.



In agriculture, progress was made with assigning officers to work with communities in the Middle and South Fly on food and cash crops. Extension bases and food crop multiplication centres are being established in Aiambak and Tapila. OTML's partnership with the National Agriculture Research Institute (NARI) also continued with the conduct of taro trials in the mine area.

The rubber industry further developed, with more than 300 hectares of new rubber planted by smallholder farmers in the province. Extension support for this crop is through North Fly Rubber Limited, a joint venture of OTML and Kiunga-based Progress Pty Ltd.

Possibilities for extending the rubber industry were investigated when the North Fly Rubber Limited board of directors and PNG government officials travelled to Mindiptanah, West Papua, for discussions with Indonesian government officials and

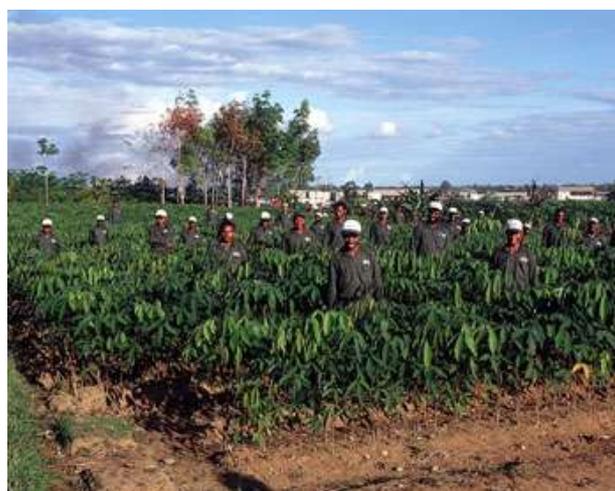


Top: Star Mountains Primary School students being prepared for a mine excursion. **Centre:** Kaviananga village fishermen fishing for the Obo Fishing Project. **Above:** Prawn tails from the Obo Fishing Project. **Bottom centre:** Filletting barramundi at the Obo fish factory. **Opposite page:** Obo Station in the Middle Fly.

rubber farmers about the feasibility of purchasing rubber from Indonesian farmers for processing in the Kiunga factory.

The concept was well-received and further investigations are necessary to determine the best logistical arrangements.

Forestry officers helped set up Obo Forest Products, a spin-off of the Obo Fishing Company. The community groups that own the fishing business bought a sawmill with proceeds from fishing and have harvested sustainably small quantities of high-value timber. Work is underway with the National Forest Authority to acquire an export licence for the company.



Top & left: North Fly Rubber Limited's nursery at different stages. **Far left & below:** Kiunga High School facilities built by OTML under the Tax Credit Scheme. **Below:** Correctional institution housing in Daru, also built under the TCS. **Facing page, top:** Manda villagers of the Middle Fly. **Bottom:** OTML Community Relations team with Tapko villagers along the Kiunga/Tabubil highway.



Business development

Ongoing business development is the key to sustainable development in Western Province. In 2002, Ok Tedi assisted the development of landowner businesses and clan investment companies and, in conjunction with finance organisations, set up microfinance for local ventures.

Local business development activities focused on support for projects undertaken as part of the Community Mine Continuation Agreements (CMCAs), and support to mine area contractors.

Major landowner companies established during the year were:

- Flood Plains Investment Limited under Middle Fly River Development Foundation
- OMDA Limited – an amalgamation of local contractor companies in Kiunga
- Star Mountains Investment Holding Limited – a truly representative mine area landowner company that brings the mine area people together under one investment vehicle.



Clan investment companies

Clan investment companies are formed under the Mine Villages Investment Program, which organises the 10 villages affected by the mine into a clan-based investment structure. Each clan investment company issues one share to the head of each family.

The structure is designed to encourage savings and investment out of the benefits that flow from the mine to the landowners and that are distributed according to clan lines.

OTDF Microfinance

OTDF, in partnership with Opportunity International Australia and the ANZ Bank (PNG), finances micro-enterprises and provides savings products to the people who live between Obo and Tabubil. Given the previous lack of credit and savings facilities, the project has gained strong local support. Since the scheme began in late 2001, more than 4,000 savings accounts have been opened and they contain more than K500,000.



Many of the savings clients apply for small loans to set up small businesses such as poultry farms, trade stores, roadside stalls, vegetable farming, cane furniture manufacturing and fishing net manufacturing. More than 290 loans worth K217,000 were granted to small entrepreneurs in 2002. There have been no defaults to date.

OTDF Microfinance currently operates branches in Kiunga and Tabubil, and branches in Aiambak and Tapila, Western Province, will open by mid-2003.



Building local capacity

Training courses in Personal Viability were conducted during the year at Tapila, Obo, and Suki. More than 180 people attended these courses. Personal Viability courses teach self-reliance, time management and how to use resources and skills in everyday activities, such as gardening and baking.

They were run in conjunction with the Entrepreneurial Development Training Centre and are scheduled to run in Bosset, Teapopo, Samari, and Kiunga in 2003.

Tax Credit Scheme and Special Support Grant

In 2002, OTML continued its partnership with the PNG and Fly River Provincial Government to build projects under the Tax Credit Scheme and Special Support Grant. The Tax Credit Scheme funded major works at Mitiganap (Oksapmin), Balimo and Lake Murray that included an airport terminal, road, classrooms, electricity and water supply, teachers' houses and health centres. The main Special Support Grant project for the year was the construction of a two-storey double classroom at Olsobip.

Fly River Development Trust

Community activities funded by the Fly River Development Trust (FRDT) ceased in 2002. The FRDT was replaced by eight new community development trusts formulated in the CMCA consultation process. Since it began in 1990, the FRDT funded more than 1,000 community projects in 107 villages. The main projects in 2002 were completing school classrooms in Sui and Suki, and renovating solar pumps for community water supplies in several Fly River villages.

CMCA development trusts

Eight new trusts were set up in 2002 to support community development and are in addition to the Alice River Trust (ART). The ART was set up in 1997 in the Lower Ok Tedi area. A landowners' investment committee will be established to support the investment component of each trust. Committee members will include a landowner representative from each CMCA region, two OTML representatives and an independent investment advisor.

Development planning

Under the CMCAs, substantial funds were made available for development projects in Western Province. During 2002, teams of OTML staff, government officers and community leaders carried out one of the largest community development exercises ever undertaken in PNG. From February to April, the teams travelled to more than 150 villages within the six CMCA areas to begin the community development planning process.

The process encompassed community meetings to plan for sustainable development under the CMCA, appointing Village Planning Committees, gathering general socio-economic data about the village, including the development of a village skills register, and documenting a list of prioritised potential village projects and development issues.

The preliminary list of proposed projects requested by communities includes the following:

Category	Number
Business	214
Agriculture	159
Fisheries	138
Infrastructure (housing)	296
Transport	164
Communication	32
Education	85
Health	26
Women	59
Youth	51
Forestry	56
Total projects	1,280

Village housing program

Better village housing is the most sought after of all projects among the local communities. In 2002, work continued on community housing programs in the mine area through CMCA's with funding from the Alice River Trust in the Lower Ok Tedi area.

Partnerships

A number of new partners were introduced to OTML/OTDF-sponsored development activities in 2002. The OTDF entered into development agreements with:

- Opportunity International Australia and ANZ (PNG) Ltd for microfinance initiatives;
- The Australian Doctors International for support to rural health services in conjunction with the Monfort Catholic Mission;
- Hope Worldwide (PNG) Foundation for Western Province and Telefomin District school book program; and
- Appropriate Technology Community & Development Institute at the PNG University of Technology in Lae for support with appropriate rural technology.

Agreements with OTML in progress in 2002 included:

- European Union Eco-forestry Program for support for community-based eco-forestry initiatives in Western Province; and
- The Australian Centre for International Agricultural Research for support in primary sector development initiatives.

Education

In 2002, the Star Mountains Community Learning Centre (SMCLC) achieved incorporated status under the PNG Associations Incorporation Act. Although the SMCLC now operates independently of OTML, it continues a close association with OTML's Preferred Area Development Forum, through which many SMCLC students are provided education funding.

At December 2002, the SMCLC had a total of 815 enrolled students, and serviced the whole region from Daru through to Telefomin providing education in grades 7 to 10, matriculation, university and community vocational courses.

Under OTML's Preferred Area Development Forum, 1,346 people studied across a variety of technical, nursing, clerical and operator courses at institutions in PNG in 2002.

Hospitals and health

OTML funds and manages Tabubil Hospital, one of PNG's leading modern health facilities. During the year, the hospital continued its range of community health programs, such as vaccinations and family planning. Almost 50 of its medical staff received specialist training in accident and emergency management in a program conducted during October.

Below: Mine Continuation Agreement signing at Bosset, Middle Fly. **Below, centre:** Kavorabip village, Star Mountains. **Bottom, left and right:** Child immunisation at Tabubil Hospital.



INCOME STATEMENT (US\$ millions)

Copper Sold	300
Other Gold & Silver	133
Total Sales	<u>433</u>
Total Cost of Sales	270
Treatment Charges, Refining Charges & Shipping	93
Royalties	5
Depreciation	<u>78</u>
Operating Profit	(12)
Other Expense/(Income)	<u>0</u>
Earnings before Interest & Tax	(12)
Inter-set Income	(2)
Interest Expense	<u>0</u>
Earnings Before Taxes	(14)
Provision for Taxes	<u>14</u>
Net Income	(28)

BALANCE SHEET (US\$ millions)

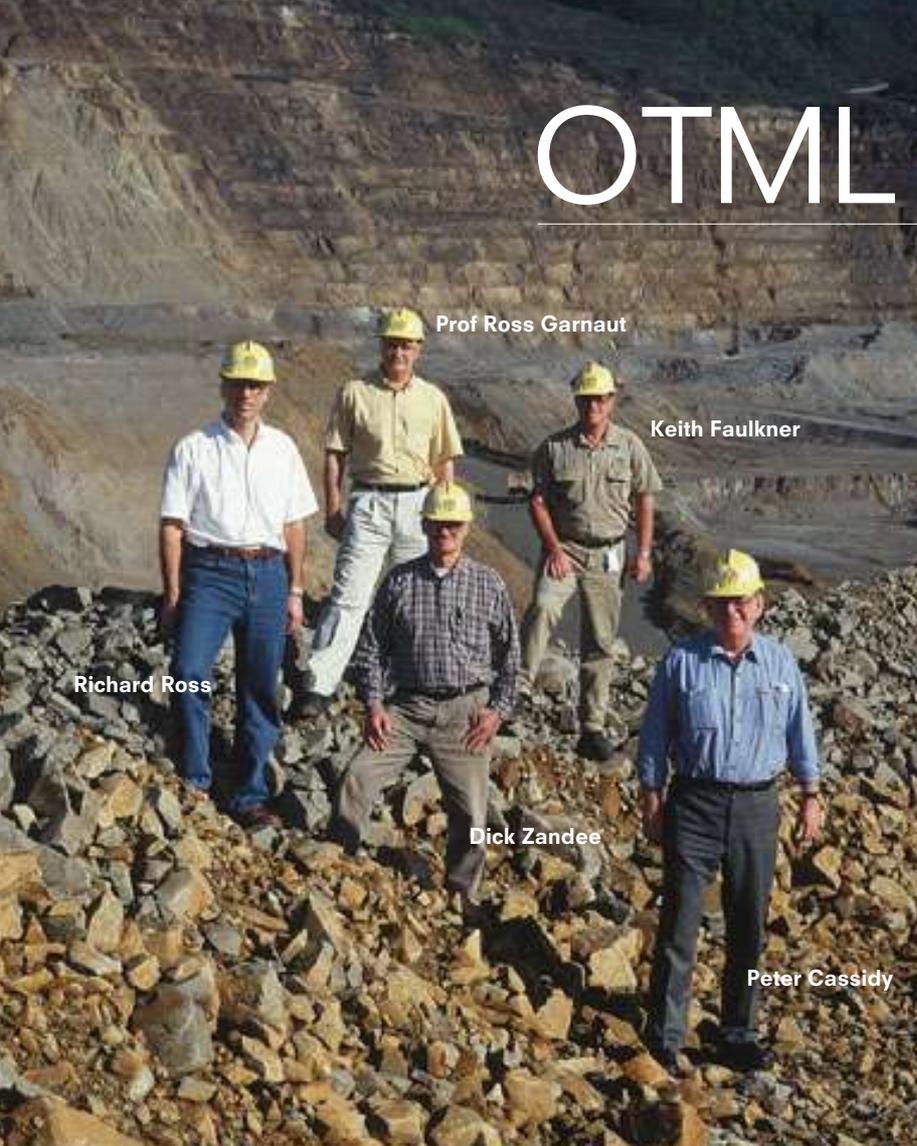
Assets	
Cash	71
Other Current Assets	<u>107</u>
Total Current Assets	178
Net Property Plant & Equipment	276
Pre-Production Costs	127
Other Assets	<u>103</u>
Total Assets	<u>684</u>
Liabilities	
Other Current Liabilities	<u>48</u>
Total Current Liabilities	48
Total Debt	0
Other Liabilities	<u>128</u>
Total Liabilities	176
Net Worth	
Contributed Capital	286
Retained Earnings	<u>223</u>
Net Worth	<u>509</u>
Total Liabilities & Net Worth	<u>684</u>

CASH FLOW STATEMENT (US\$ millions)

Net Income	(28)
Depreciation	<u>78</u>
Operating Cashflow	50
(Increase) Decrease in Net Working Investment	<u>21</u>
Net Cash from Operations	71
Capital Expenditures	(11)
(Increase) Decrease in Other Long Term Assets	<u>(13)</u>
Net Cash from Investments	(24)
Increase/(Decrease) Debt	0
Increase/(Decrease) Long Term Liabilities	19
	0
Cash Dividends	<u>(16)</u>
Net Cash from Financing	3
Net Change in Cash	50
Balance Sheet Beginning Cash & Equivalents	21
Balance Sheet Ending Cash & Equivalents	<u>71</u>
Balance Sheet Net Change in Cash	50

At December 2002 K1 = US\$0.244

OTML Board



Prof Ross Garnaut

Keith Faulkner

Richard Ross

Dick Zandee

Peter Cassidy

Mr Richard Ross, Chairman
President and Chief Executive Officer
Inmet Mining Corporation

Mr Dick Zandee
Independent Advisor to the Board

Mr Peter Cassidy
Independent Advisor to the Board

Prof Ross Garnaut, Director
Chairman
PNG Sustainable Development Program Ltd

Mr Koiari Tarata, Director
PNG Government

Mr Keith Faulkner, Director
Managing Director
Ok Tedi Mining Limited

Absent is Koiari Tarata, Director

OTML Executive Management

Mr David Hatch
General Manager Operations

Mr Paul Mullins
Chief Financial Officer

Mr Glen Kuri
General Manager Business Support

Mr Robin Moaina
General Manager Public and
Community Affairs



Mr David Hatch



Mr Paul Mullins



Mr Glen Kuri



Mr Robin Moaina



Mothers from Matkomnai



OK TEDI MINING LIMITED

PO BOX 1 TABUBIL

WESTERN PROVINCE PAPUA NEW GUINEA

TELEPHONE: (675) 548 3311