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# Ár Tionchar Thimpeallachta / Our Impact /

Lisheen Mine Sustainability Report 2006/



SIR ERNEST
OPPENHEIMER
FOUNDER OF
ANGLO AMERICAN

'The aim of this group is, and will remain, to make profits for our shareholders, but to do it in such a way as to make a real and lasting contribution to the communities in which we operate.'

## Our Mission /

#### **Anglo Base Metals Division**

Anglo Base's vision is to build the most valuable and respected base metals business in the world.

We are committed to achieving long-term, sustainable growth in shareholder value by:

- » Finding, acquiring, developing and operating long-life, low cost base metal businesses;
- » Building strong and mutually beneficial relationships with our customers, suppliers, partners and host governments;
- » Respecting the environment and the well-being of our employees and contributing to the sustainable development of the communities in which we operate; and
- » Creating a work environment that promotes integrity, teamwork, continuous improvement and innovation and encourages people to perform at their best.

#### Lisheen Mine

We take pride in responsibly and profitably producing quality concentrates together.

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CYRIL BOUCHER
GENERAL MANAGER

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'It gives me great pleasure to present you with our second sustainable development report, "Ár Tionchar Thimpeallachta" ["Our Impact"]. We continue to regard sustainable development as a fundamental principle underpinning all our business dealings and a basis for all business management. We also believe in maintaining balance between economic results, social responsibilities and protection of the environment.'

» Lisheen Safety Statement



## A word from the General Manager /

The information in this report provides an overview of Lisheen Mine's progress in implementing some of the core aspects of sustainable development within our business processes.

Our Safety Management System together with our Safety and Occupational Health Management System remain accredited to level 8 of Det Norske Veritas' International Safety Rating System and to the internationally recognized OHSAS 18001 standard. As part of our safety programme over 700 near miss incidents were reported and positively acted upon and over 800 formal Visible Felt Leadership interactions were conducted by supervisors and managers during the year. We did regrettably record ten Lost Time Injuries - nine in the Mining Department and one in the Metallurgical Department. The elimination of all Lost Time Injuries remains our challenge and I firmly believe that with an embedded mindset which accepts that all injuries are preventable, that appropriate task risk assessments form an integral part of any task. and with a positive attitude towards the adherence to all safety standards at all times, this will be achievable and sustainable.

Our vision for occupational health is zero harm and I am pleased to report that no occupational disease in all its forms was reported in 2006. Our key risk areas are exposure to noise, dust and vibration and these continue to receive attention.

Engagement with the local community remains a priority and two issues in particular topped the agenda in 2006, viz. consultation on the discovery of and a remediation programme for non toxic high metal concentrations in the sediments of the two rivers into which treated water from the site is discharged and consultation on the proposed development of a wind farm on company owned land. A request for planning permission for the proposed development of the wind farm was submitted to the North Tipperary County Council in the latter half of the year and a positive response is expected early in 2007.

Compliance with the requirements of our Integrated Pollution Control Licence issued by the Environmental Protection Agency is core to our operational practices and again, as in previous years, high levels of compliance were achieved.

The challenges facing our business continue to grow and I believe that we have the team, the dedication and the will to meet these challenges and to continue to demonstrate our commitment to sustainable development.

We invite you to read this report and would be please to receive any comments that you may have.

Cyril Boucher
General Manager



# Lisheen in Numbers /

Measurement	2005	2006
Site Fatalities	0	0
Lost Work Time Injuries	11	10
Ore Mined [tonnes]	1,460,854	1,527,596
Total Tonnage Mined [Including non-economical rock]	1,696,455	1,856,000
Backfill placed underground [m³]	458,654	260,107
Water pumped to surface [Megalitres]	746.8	747.6
Lead Concentrate Produced [tonnes]	33,910	37,292
Zinc Concentrate Produced [tonnes]	298,545	319,494
Number of Environmental Measurements taken	720,000	720,000
Number of Environmental Complaints received	13	11
Electricity Usage [MWhr]	124,652	127,000
Air Quality [% compliance with Licence Conditions]	100%	99.76%
Noise and Vibration [% compliance with Licence Conditions]	99.6%	95.65%
Surface Water Quality [% compliance with Licence Conditions]	96.8%	96.26%
Sponsorship Spending [euro]	16,500	54,00
Money raised for charities [euro]	-	64,000
Annual Training Spending [euro]	420,000	431,000



« Killoran Tower

## Anglo American & Sustainability /

Anglo American plc and its subsidiaries have an established tradition of community involvement and social investment. We have always seen the objectives of seeking to provide superior returns to our shareholders and shouldering our share of social and environmental responsibilities as complementary.

Our business success brings with it obligations of good stewardship and ethical behaviour.
Our operations will perform better when the communities surrounding them are stable and prosperous. Conducting business now with an eye to the needs of the future is the essence of sustainable development.

Our Business Principles ['Good Citizenship' ref.] apply to every business we manage, everything we do and to every part of the world in which we operate. We will ensure that these principles are properly understood and observed.

We will modify and refine these principles from time to time in the light of experience.

Our primary responsibility is to our investors. We will seek to maximise shareholder value

over time. We believe that this is best achieved through an intelligent regard for the interests of other stakeholders including our employees, the communities associated with our operations, our customers and business partners. A reputation for integrity and responsible behaviour will underpin our commercial performance through motivating employees and building trust and goodwill in the wider world.

Our focus this past year has been on changing the way we do business, on making sustainable development an intuitive but conscious part of every decision – whether it is made by a mine manager, a corporate finance officer or someone working with communities or biodiversity.

#### Sustainability

Change is ongoing and inevitable as human influence extends into every part of the globe. Our operations are catalysts for change and because of their size and location can have a significant impact.

Interior of
Concentrator Building



03 /

We believe, however, that we can and do make a positive contribution. The developmental change that takes place adds to the quality of life of local people by providing jobs, and generating income. We also contribute through social investment, through keeping our environmental footprint small and contributing to the development of local infrastructure.

In making a public commitment to sustainable development, we adopted a variety of codes of conduct, sustainable development frameworks and our own principles of sustainable development, as well as the Group's Good Citizenship Business Principles. We are signatories to the Global Compact, the sustainable development framework of the International Council for Mining and Metal [ICMM], and the Voluntary Principles on Security and Human Rights, and are committed to working within international approaches to sustainable development. These are outlined in the Rio Declaration of 1992 and Agenda 21, the UN's Johannesburg Plan of Implementation of 2002, and was perhaps best defined by the World Commission on Environment and Development in the Brundtland Report of 1987.

#### Our sustainable development principles

We will:

- » Be ethical, efficient and create value;
- » Create meaningful employment in safe, healthy environments;
- » Reduce our environmental footprint and contribute to biodiversity;
- » Increase innovation, technology and process improvement;
- » Contribute to building more adaptable societies.

#### **Global Mining Initiative**

Anglo American has been a member of and has played a key role in the Global Mining Initiative since its foundation in October 1998. At that time, discussions between the chairmen and chief executives of several of the world's largest mining companies on the social and environmental challenges facing the mining and metals industries led to the birth of the Global Mining Initiative [GMI]. There were clear

common concerns on three issues. Firstly, worldwide, there were signs of increasing resistance to new mining projects from a wide range of stakeholders. Secondly, there were growing concerns over perceptions of health and environmental threats resulting from the use of metals. Thirdly, the CEOs felt their companies were contributing to a large number of industry associations yet wondered if they were getting value for money.

The original group of companies has now become ten and all are members of the World Business Council for Sustainable Development, where an official 'mining working group' has been established.

The GMI seeks to address the full range of issues that have arisen from the activities of mining, processing, and the use and disposal of mineral products. Such issues include access to land and resources, exploration, governance of mining projects, their place in social and economic development and issues of capacity-building, stewardship and the efficient use of resources such as water, bio-diversity and energy, the management of waste and the social and

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environmental consequences of mine closure.

Since the Earth Summit at Rio de Janeiro in 1992, a more positive relationship is characterising relations between the mining industry and the environmental movement. Both have realised that co-operation and open discussion are essential for real progress towards sustainable development. The mining industry has accepted that, alone, it cannot 'rewrite its reputation' and needs to work with a wide range of non-industry participants, such as governments, international organisations like the World Bank, and the NGO community, in order to achieve a common understanding of the challenges and priorities.

#### **Extractive Industries Transparency Initiative**

Anglo American endorsed the Extractive Industries Transparency Initiative [EITI] at its launch in Johannesburg at the World Summit on Sustainable Development in 2002. Whilst the development of mining generally provides a considerable boost to investment, government revenues, jobs and skills, the volatility of commodity markets and the concentrated nature

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The Mill in the Concentrator Building



of the revenues can, for otherwise poor countries, create significant macro-economic challenges, can unbalance an economy and can create opportunities for corruption.

The objective of the EITI is to improve the transparency around the generation and spending of revenues from the extractive sector so as to improve development outcomes, reduce the potential for corruption or large-scale embezzlement of funds by host governments; and to stimulate debate about the uses to which these revenues are put.

The basic concept is that oil and gas and mining companies should declare - in each participating country - the payments made to the host government [either individually or aggregated by an independent third party, with other companies in the sector]. These figures are then audited to international standards and the host government is expected to make a separate declaration of the revenues received - so that the opportunities for 'revenue leakage' are reduced.

Anglo American is a participant in the process through having a representative on the EITI

International Advisory Council and has been involved in the development of EITI in Peru.

Anglo Gold Ashanti, an independently managed subsidiary of Anglo American, is involved in EITI processes in Ghana, Guinea and the Democratic Republic of Congo.

The EITI is a multi-stakeholder process involving developed and developing country governments, the international financial institutions, non-governmental organisations and a group of significant investors.

#### **Challenges for Mining**

Anglo American and The Lisheen Mine recognise that the key current challenges for the mining industry, worldwide, are threefold:

- » Ensure continued supply through secure access to the mineral deposits;
- » Demonstrate the socio-economic benefits of mining to the local governments as well as the local community;

» Ensure that materials are consumed safely and securely.

The company is committed to all our operations being run with these challenges in mind.

#### **Mine Closure**

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One of the big issues of concern to the local community in North Tipperary is that of mine closure at Lisheen. Anglo American has worked with The Lisheen Mine in preparing a mine closure plan. We have already commenced work on the mine closure programme and it is expected that the mine will be operational until 2014. We continue to work on the important details of the Mine Closure Project on an ongoing basis.

The objectives of this closure plan are to identify and prescribe the actions required to ensure that the mine is restored to a state in accordance with the conditions laid down in the original planning permission. This includes the removal of all infrastructures [buildings and facilities], with the exception of the TMF, and some buried

facilities [e.g. underground discharge pipelines]. A conceptual closure plan for the Lisheen Mine was submitted as part of the planning process in 1995. Through the current process of review of the closure plan, a programme of closure will be developed in the near future. From a legal standpoint, we are required to agree a detailed action plan with the regulatory bodies within two years of the proposed closure date.

Some of the ongoing work on the Mine Closure Project has included an internal workshop [held in the second quarter of 2006]. External experts [in the areas of ecology, dam engineering and mine tailings] attended the workshop; the aims of the process were to assess risks and to agree appropriate action plans, including:

- The scope and extent of the field-scale Tailings Pond [TMF] trials; and
- » A closure programme schedule [to include the necessary discussions with regulatory agencies].

To date, some discussions have been held with specific regulatory agencies. These have enabled

#### Killoran Tower



03 /

access to data in relation to the Silvermines Mines [in South Tipperary]. Approval has also been obtained to use this site for comparative study purposes. Furthermore, field visits have been carried out to other mine sites in Ireland and the United Kingdom. These visits have underpinned the importance of a biodiversity action plan in any closure option.

A quantity surveying firm [who are familiar with the mine's operations] commenced work in 2006 in re-visiting and compiling cost estimates for the closure inventory, which was last updated in late 2004. From a cost perspective the closure model is based on returning the mine to its original state with the exception of the TMF facility which will be closed in accordance with the rehabilitation plan approved by all the relevant regulatory and other authorities.

Work is also ongoing on post closure and sustainable development initiatives. To this end, the Thurles Marketing Group visited Lisheen in 2006 and have committed to working closely with Lisheen Mine in an effort to secure post-closure enterprise[s] at the mine site.

When mining operations cease, as they inevitably must – that is the nature of mining – the site offers many advantages from a development perspective:

- » A very substantial land bank [approximately 500 Hectares];
- » An abundant water supply;
- » A 10 kVA electricity sub-station already on-site;
- An experienced and well-trained workforce, with an excellent cross-section of skills;
- Good physical infrastructure for commercial purposes; and
- » Excellent road and rail links.

We believe that the addition of an on-site wind energy generation facility to this list improves its potential. It should also considerably strengthen the hand of elected representatives and local business leaders in seeking industrial and commercial activity for the area in the future, and we at Lisheen want to play our part in that process.

#### Wind Farm at Lisheen

The operations at Lisheen mine are one of the largest electricity consumers in Ireland, due to the large volumes of underground dewatering and the requirement to mill the material so finely. We have all become more aware of the need for clean energy and energy conservation in relation to global warming and climate change; energy use has become a critical business concern for any responsible business. In this context, a planning application was submitted for a 55MW wind farm on the Lisheen site and a grid connection to the National Grid was received in late 2006. This development will be capable of supplying 65% of the Mine power requirements, and will further enhance the suitability of the site for post-mining development. The project will also contribute to meeting Ireland's Kyoto Protocol greenhouse gas emission commitment and help meet the Government's increased target of 30% renewable energy by 2020.

The output from the wind farm, based on the recorded wind data on the site and the efficiency of the wind turbines, will be approximately 132 GWhr per annum which is equivalent to

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supplying the energy demands of 30,000 houses. The renewable energy generation will reduce national  $\rm CO_2$  emissions by approximately 113,000 tonnes per annum.

This will be a substantial contribution by North Tipperary to the production of Green Energy and should help to reduce the county's [and country's] dependence on imported fossil fuel. At the moment, Ireland has been allocated an annual  $CO_2$  emission limit [by the EU] of just over 60 million tonnes per annum. As a result of Ireland's rapid economic growth in recent times, there has been a corresponding increase in energy consumption and associated  $CO_2$  emissions. Ireland now needs to reduce the emissions by over 13 million tonnes annually to meet the EU limit. The development of the wind farm will be a significant achievement in the National emissions reduction campaign.

There have been a number of public information days in the past year, in order to demonstrate the project's potential for the North Tipperary region both from a potential employment [in assisting with potential post closure activities on site] and positive environmental perspective.

Enclosed Stockpile [Teepee]



03 /

Many concerns, raised by the community during the public information days and in submissions to the local Planning Authority, were addressed in the request for information submitted to the Planning Authority in December 2006.

During the planning process, we believe that we demonstrated that this project will pose no health risk to the community and will not impact negatively on the agricultural activity on either the mine-owned properties or on the surrounding lands. The wind farm will also continue to power the national grid after the Lisheen mine closure. We are convinced that a continuation of commercial activity at the Mine Site after closure will enhance the area and help to offset any potential property devaluation arising from the relocation of people to other areas of employment. If business or commercial activity can be attracted to the site it should counteract this effect and provide opportunities for employees to stay in the area.

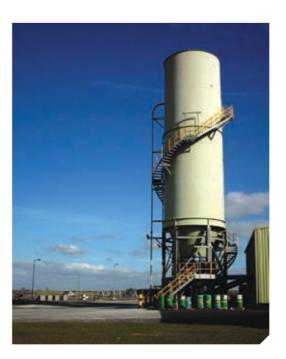
#### "The Source"

The Anglo American worldwide portal, "The Source", was launched at Lisheen Mine on 6 November 2006. "The Source" is an interactive web-based tool that provides access to company-wide information and is an essential key to improved communications throughout AA plc.

The use of this interactive tool will facilitate the sharing of information and knowledge between all the Anglo American staff and experts throughout the world as well as improving collaboration and communications within the company. It includes amongst others:

- » People Finder: a global directory that will assist you in finding people in any country or operation around the world;
- » Ask Anglo: a system that provides the opportunities to ask questions and receive answers from experts in a variety of fields. It also gives you the chance to provide expert advice to other people;

» Backfill Plant Storage Silo



- Top Stories: an Anglo news section reporting the happenings in the company;
- Knowledge Sharing Communities: a place where you can interact with groups of colleagues who share the same interest as you and can value to your work;
- A financial dashboard and safety dashboard: tables which provide accurate information on the history and progress in these areas.

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## The Economy & Lisheen /

It is a fact that Lisheen Mine brings considerable economic benefits to the local community, but we also contribute significantly to Ireland's economic development. This takes direct form in Wages, Goods and Services, and indirectly by producing a first-class, well-trained workforce.

The mine puts a considerable amount of money into the local economy in the form of staff wages and expenditure on goods and services. During 2006 capital expenditure [CapEx] reached a total of US\$10 million. This was used to finance a variety of projects and initiatives, primarily the Bog Zone Development.

Goods and services are sourced locally, where practicable. Healthy relationships are also fostered with various educational institutes in the form of work placements, whereby students can gain much needed experience in the many fields of endeavour in our workplace. This has the added benefit of producing future, experienced employees within the Irish workforce.

#### Markets and Uses

Almost every area of human activity, including agriculture, construction, manufacturing, transportation, electronics, art and science, depends on minerals and therefore mineral extraction.

We produce Zinc and Lead concentrates, which are shipped to Europe for smelting [as there are no smelters in Ireland].

Almost 50% of the world's Zinc is used in the construction, automotive and white goods industries, where its primary use is as a protective galvanised coating for steel and iron. Galvanised steel and iron's resistance to corrosion enhances their suitability for these products as they require less frequent replacement. Its corrosion resistant properties mean it is also used within the construction industry as Zinc sheet for roofing and other applications such as crash barriers on roads and motorways.

A view of the Tailings
 Management Facility
 [TMF]



04 /

Zinc's low melting point, fluidity and strength make it suitable for die-casting and gravity casting for automotive equipment, household appliances and fittings, toys and tools. It is also used in the manufacture of electrical components, batteries, rubber, glasses and enamels, and in the production of brass, bronze, and other alloys.

Zinc is also an essential nutrient for humans, animals and plants, and is renowned for its healing properties. It is often used as an ingredient in processed food, animal feed and fertilisers, and is sought after for use in pharmaceutical products and cosmetics.

Approximately 70% of the world's Lead is used in the manufacture of batteries, predominantly for the automotive industry. Lead is also used for the production of pigments [dyes], chemicals, cable sheathing, solder and lead sheet.

The Zinc and Lead concentrates are exported to smelters to convert into metals. Our concentrates are currently shipped to smelters across Europe, the USA and North Africa. A key issue for Lisheen is the cost of delivery to these customers,

which we try to incorporate in the sales terms and agreements.

Smelters are located near to the metal markets for a number of reasons:

- It is cheaper to carry concentrates in bulk over long distances than the equivalent tonnage of zinc bundled, packed and dunnaged;
- » It is easier to manage the customer requirements when located near to them;
- Zinc smelters are big power consumers and therefore tend to be located in industrial areas where power is available.

#### **Supply-chain Initiatives**

A series of Supply Chain Improvement Initiatives were launched in 2005/2006; work on these initiatives is still ongoing and the aims are ultimately;

» To improve the service level and turn over of stock supplies;

- To implement warehousing best practices to improve accuracy and to manage and reduce discrepancies on deliveries from suppliers;
- » To improve both safety and housekeeping; and
- » To implement Advance Procurement Management practices to maximise value.

The initiatives are focussed in three main areas:

- » Improved Inventory [Stock] Management;
- Implementation of Warehousing best practices;
- » Networking with other Supply Chain departments to improve Purchasing Skills.

A number of **Supplier Days** were undertaken by the Purchasing Department. An invitation was extended to all suppliers and a number of days were dedicated to giving them an overview and tour of the Lisheen Mine.

The importance of Ireland as a source of zinc concentrates to the European smelters was explained in detail.

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The main benefit of this open day was to provide the suppliers with an improved understanding of the Lisheen operations and the limited pricing scenarios. In general, Lisheen work on the basis of unknown pricing, i.e what is shipped today will be priced sometime in the future. The day also benefited the company, allowing us the opportunity to collate supplier feedback, and further understand their needs.

#### Lisheen and the new EU REACH Directive

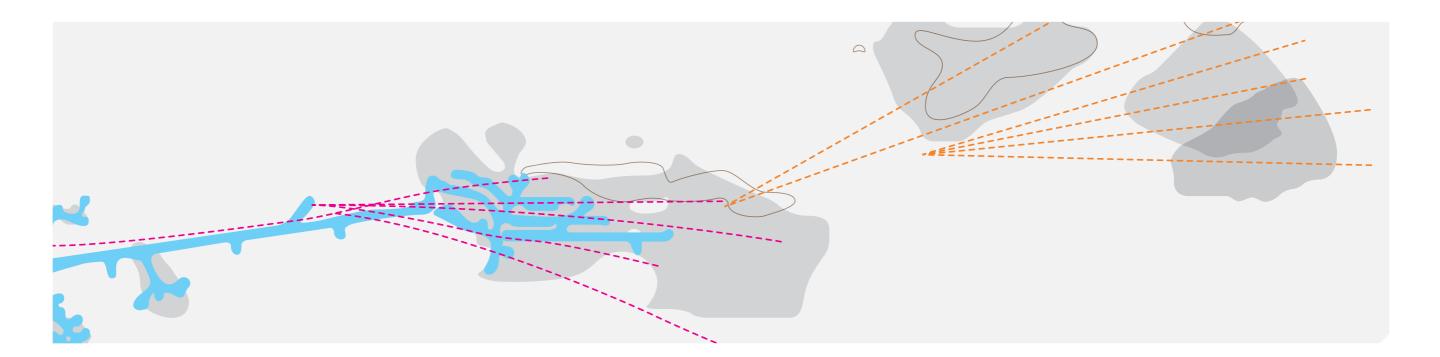
REACH is the new EU chemicals legislation, it is based on the idea that industry itself is best placed to ensure that the chemicals it manufactures and puts on the market in the EU do not adversely affect human health or the environment.

REACH will create a single system for both what are currently described as "new" and "existing" substances. All substances manufactured or imported in quantities of one tonne or more per year are covered by REACH and must be registered, and substances of very high concern will be subject to authorisation. Applicants will

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» Bog Zone Well Drilling

04 /



have to demonstrate that the risks associated with the uses of these chemicals are adequately controlled or that the socio-economic benefits of their use outweigh the risks.

Lisheen as a downstream user is NOT required to register as an applicant, but we are required to communicate with our suppliers and customers to ensure that the relevant supplies that we purchase from them are compliant with the REACH legislation

# New Development Contractor underground - Bog Zone

The mining of the primary access to the Bog Zone ore body [the third ore body at Lisheen] commenced in November 2004 after planning permission was received from North Tipperary County Council.

Four sub-horizontal well holes, totalling 1,922 metres, were initially drilled across the western zone of the Bog Zone for the purpose of lowering the water table to the level of the Bog Zone ore bodies so that mine development can continue

safely. Some water quantities were intercepted and there has been a good water level draw-down response indicated by surface water monitoring holes. The figure above shows the well holes drilled to date [pink] and the well holes planned to cover the central and eastern ore bodies of the Bog Zone [orange]. Drilling recommenced in July 2006 by a Canadian contractor to cover the central and eastern ore bodies.

An Australian mining contractor was engaged to expedite the mining of the access to the Bog Zone ore bodies. The development of the haulage remains a key focus for the mine and is a key requirement to achieve scheduled head feed zinc and lead grades in the next four years. It is anticipated that the mining contractor will be on site for one year.

Orebody
 De-watering borehole 2005
 Underground development
 De-watering borehole 2006



## People & Lisheen /

#### **Global Donations Policy**

In 2005, as a corporation, AAplc contributed \$56.7million [1.0% of pre-tax profit] in charitable donations and community social investment, an increase of \$9.3million over 2004. This excludes core business activities such as our work on local business development, workplace HIV programmes etc.

At an international corporate level, our priorities mostly relate to projects involved with international development objectives.

Sponsorship provided by Lisheen in 2006 amounted to approximately €54,000. The major contributions were extended to the following:

- » Cabragh Wetlands Trust;
- » North Tipperary Hospice;
- » CARE International;
- » Lions Club International;
- » Rotary International;
- » Phoenix Productions;

- » Moyne/Templetuohy Parish;
- » Moyne/Templetuohy GAA;
- » Moyne/Templetuohy Defibrillation Fund;
- » St Kevins FC;
- » Cooleeney cemetery;
- » Two Mile Borris GAA Club.

#### Cabragh Wetlands Trust

Cabragh Wetlands is a 200-acre floodplain marsh beside the Suir valley just downstream of Thurles, Co. Tipperary.

The wetland covers a unique range of habitats, including reed beds, swamps, open water, fen carr and flood callows. It pulsates with life that varies as the seasons change.

Further details about the area may be accessed on www.cabraghwetlands.ie

The 2006
Lisheen cyclists



Ar Tionchar Thimpealleachta /

SANDRA STANLEY
EVENT ORGANISER

'The event was organised by 5 key people and was a great success, in relation to the awareness and the money that they raised. The event went exceptionally well and the team were lucky in terms of weather and that fact that there was not even one puncture on the day. The team wish to take this opportunity to thank all sponsors and supporters and let all know that another event is being scheduled for the weekend of the 30th of June 2007.'

Sandra speaks about the North Tipperary Hospice Cycle

05 /

During 2006, Lisheen Mine sponsored IT and electronic equipment to the trust worth over €3,000.

# Lisheen Cyclists raise €22,000 for the North Tipperary Hospice

The Lisheen Machine charity cycle took place during the weekend of 30 September and raised €22,000 for the North Tipperary Hospice. The fund raising included two auctions, a 'roller cycle', a mail shot to local companies, bag-packing in local supermarkets as well as collection buckets on the day of the cycle. Forty members of staff, both cyclists and helpers took part in the weekend long cycle.

### **Three Peaks Challenge**

Employees joined forces to form four teams of hill walkers to compete in the Irish Three Peaks Challenge on the 20 and 21 May 2006.

The event kicked off mid-morning on Saturday 20th May, in South Western Ireland's County Kerry, where teams embarked on their ascent of mountain number one - Ireland's highest mountain – Carrauntoohil [1,039m]. Then it was off to the nearby Brandon Mountain, for an evening ascent of mountain number two, Mount Brandon [952m]. An overnight drive across the country towards the east of the country took the intrepid teams to the Wicklow Mountains, and the location for their third and final mountain, Lugnaquillia [925m].

This is a charity event to help raise money for CARE International. CARE International is an international relief and development agency working with poor communities in 70 countries worldwide, reaching over 45 million people every year. CARE programmes promote positive and lasting change and avoid long-term dependency, tackling issues like education, HIV and AIDS, water and sanitation. CARE also provides emergency relief to survivors of natural disasters and conflicts, including the Asian tsunami, the devastating earthquake in India and Pakistan and the current food crisis affecting 25 countries in Africa.

The Lisheen Mines Rescue Team manage to pull out the stops and won the event outright in a time

of 19hrs 02 secs. The Lisheen Mine also won the award for the highest sponsorship raised for the event, €42,000.

The Lisheen Mine would like to say a very big thank you to all of our sponsors whose generosity contributed significantly to the success of the event and a special thanks to all who organised the event and coordinated the fundraising.

#### Other Sponsorships

Donations within the region of €10,000 were also made to both the Lions and the Rotary clubs.

#### **Staff Initiatives**

# The Nutrition & Health Foundation Workplace Wellbeing Programme

The Health and Wellbeing of staff is a critical management issue for Lisheen Mine. Lack of exercise and poor nutrition has an enormous impact on productivity in any company. Related factors such as stress, absenteeism, staff turnover and morale all impact on results.

Medical research has shown that the benefits are not only seen by workers – for every €1 spent on Workplace Health Lifestyle Programmes, the company will receive an average return of €3.20 through increased productivity.

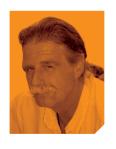
The goal of our Workplace Wellbeing Programme is to achieve positive behavioural change for staff inside and outside the workplace, integrating simple activity and nutrition initiatives into peoples' daily lives. Simple and practical advice, based on the principle of the Food Pyramid, is made available to all employees.

Motivational issues are also addressed by the 'start low, go slow' principle, which encourages participants to begin and proceed at a level that is suitable to their own ability, encouraging a gradual build up of daily activity from 15 minutes to the ultimate goal of 60 minutes.

Employees, in trial sections, are provided with the opportunity to avail of workplace workouts daily, and lunch time walks and exercise.

The following sports clubs/societies are actively supported:

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VIC HAYWOOD ORGANISATION LEADER

'This is my third year taking part as organisation leader in this successful event and I am very pleased with the amount of money raised. I am looking forward to organising the event for 2007 and commencing the extensive training programme.'

Vic speaks about the Three Peaks Challenge



**CAMILO AGUILERA** COMMERCIAL MANAGER

'It has been easy to adapt to the way of life in Ireland and it is much safer for myself and my family to live in Ireland mainly in relation to criminal activities and natural disasters. My current experience is Lisheen has been an excellent learning opportunity and something that will be an advantage to me in the future.'

Camino speaks about working at Lisheen

Lisheen Mine /

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- » Golf Society;
- » Outdoor Soccer Club:
- » Squash Club;
- » Hill Walking.

#### **Student Placement Programme**

In 2002, Anglo American established a trial Work Placement Programme for undergraduate and postgraduate students in mining related disciplines in UK Universities. This programme offered work placement or internships of between 6-8 weeks between August and September.

This initiative was used to meet four main objectives:

- » Promote Anglo American as the employer of choice for all students studying mining-related subjects in Universities;
- » Meaningfully support relevant Universities by providing their students with:

- 1 Practical and attractive international field-based experience opportunities to capitalise on their academic education;
- 2 Access to employment decision makers within Anglo's mining related division;
- » Pre-empt recruitment activities by competitor companies by identifying and creating links with high potential technical students and, where appropriate, making job offers ahead of graduation; and
- Promote mining-related studies and careers to students, to ensure a continued supply of technical graduates into the international market place.

In 2002 students, drawn from three UK Universities were offered placements within Angle American. Since then the scope of the programme was extended to support students at a number of additional European and International Universities. In addition to the UK Universities, successful students are drawn from the Netherlands, Canada, Chile and Poland, to name a few. We have had an opportunity, at Lisheen, to participate in this programme since 2005.

The students have the opportunity to work in a number of diverse Anglo American Divisions in a number of countries including the following:

- » Anglo Base Metals [Lisheen & Chile];
- » Safety, Health and Environment [London & Sweden];
- » Tarmac [Central Europe];
- » Exploration [Johannesburg, Peru & Australia].

#### **Multinational Employment Profile**

Over the years, Lisheen Mine has employed a wide diversity of nationalities at our facility, including workers from: Scotland, Wales, England, Poland, Phillipines, USA, Canada, Spain, Australia, South Africa, Dutch Guyana, Colombia, Chile, Peru, Austria and Germany. Each member of staff from around the world offers their own individual skills, and our teams have learned and benefited from the diverse cultures and experiences.

A South African employee on a short term contract commented on his experiences in

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coming to Ireland, how he adapted to the Irish culture and his new role in the Lisheen Mine.

A Chilean employee on a two year secondment programme, commented how coming to Ireland to work in the Lisheen mine was a great opportunity to meet and work with new people from different cultural backgrounds.

#### **Learning Career Management**

Learning and Career Management is about helping to unlock individuals potential, so that they can improve their performance, enhance their job and enrich their careers. The courses for this programme commenced in 2006 and are targeted for frontline to senior managers.

The objectives of the training are to:

- » Understand the Learning Career Management Process and roles and responsibilities of the managers;
- Understand the tools available to help make realistic assessments of development needs and career responsibilities;



SARA BULFIN ORGANISER

'This is also my third year taking part in the event. In the first year we had no expectations and I could not explain the enthusiasm and excitement that the event generated. The second year saw the introduction of a larger event with double the number of groups and very generous donations from all sponsors.'

Ar Tionchar Thimpealleachta /

Sarah speaks about the Three Peaks Challenge

Port of Cork Employees



JUSTIN ROXBURGH
SALES MANAGER



JOHN FOLEY
LOGISTIC MANAGER



KATIE CORCORAN
CONTRACTS
ADMINISTRATOR



EOIN MCCARTHY
SHIPPING OFFICER

05 /

» Begin to develop a meaningful Individual Development Plan.

This training serves to:

- Encourage career self-reliance and ownership for skills acquisition;
- » Enhance performance and upgrade capability to meet the demands of global competitiveness;
- Address learning needs created by the introduction of new technology, standards or work practices;
- » Provide learning solutions to address identified barriers to workplace performance;
- » Support effective career management through developing people with the potential to take on future roles;
- » Increase employee diversity;
- » Enhance morale and job satisfaction;
- » Improve employee safety, health and wellbeing;
- » Attract and retain the best employees.

This training is to complement the normal training needs identified for all employees at the mine which is conducted once per year during their performance appraisals.

Approximately 30 employees attended the Learning and Career Management workshops during 2006.

#### **Supervisor Development 10-Day Programme**

This programme is aimed at developing those in management positions within Lisheen Mine. The objectives of the programme include enhancing the business, leadership and personal skills of those who attended. A total of nineteen Lisheen Mine employees attended the programme, which ran from September 2005 to February 2006. The course was scheduled on two days per month over a five-month period.

Participants learned to work on the areas they needed to focus on in their businesses, with clear action plans coming from the activities undertaken throughout the programme.

Those who attended learned to improve the

areas they are responsible for within the company while learning from best practice in the area of managing people. They, at the same time improved their personal effectiveness, leadership, communication, business and interpersonal skills.

The programme included a range of practical exercises, which looked at real difficulties and issues in the business as well as giving some useful insights into how to resolve them. Participants were encouraged to share experiences and learning was developed through a range of approaches.

#### Port of Cork Employees

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Cork was chosen as the port of choice for Lisheen Mine for the storage, loading and shipping of zinc and lead concentrates to various smelters throughout the world. Not least of all its position on a deep quay for the size of the ships used. The Tivoli warehouse is leased from the Port of Cork.

Although management of the Tivoli warehouse operations was originally intended to be managed

from Lisheen, the local presence has allowed a hands-on management of the warehouse and stevedoring activities.

We have a direct staff of four currently operating in Cork: a Sales Manager, a Logistics Manager, a Contracts Administrator and a Shipping Officer.

Justin Roxburgh, the Sales Manager has responsibility for selling our products. He has worked in the metal and mining industry all his working life and has 19 years experience in the commercial side of metal concentrates, including a long period as a buyer of zinc and lead concentrates.

John Foley, the Logistic Manager, has worked in shipping-related activities all his life. This has included agency, chartering and general port operations. His job includes ship chartering.

Katie Corcoran, Contracts Administrator, has worked with Lisheen in the Cork Office since the early days on contract administration.

Eoin McCarthy, Shipping Officer, has over 35 years experience working with Irish Steel in

Lisheen participants during the ThreePeaks Challenge



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their transport office, shipping steel products around Europe. He has been with us since mid 2005, and is responsible for our ship agency work.

Close to two million tonnes of concentrate have been handled since the mine started in 1999. About 90 ships are loaded per year, typically varying in size from 3,000 to 8,000 tonnes. The largest shipment ever made was 17,300 tonnes.

#### Safety, Health and Environment Diary

The SHE Diary is updated, published and distributed to all members of staff annually. The diary is used to highlight safety, health and environment issues. It includes the following information:

- » SHE Policy;
- » The Golden Rules;
- » Safety Checklist;
- » Lisheen Mine Site Rules;
- » Safety, Health and Welfare Act, 2005;

- » OHSAS 18001;
- » ISO 14001 Environmental Aspects;
- » Useful Numbers;
- » 5 Point Safety System;
- » Chemical Safety;
- » Accident/Incident Prevention;
- » Risk Assessment;
- » Manual Handling Techniques;
- » Safety in the Office;
- » Safety at Home;
- » Emergency Response Summary.

## Pioneering Technology: Enterprise Resource System – Ellipse 6.1

The Mine Information Management System [MIMS] system currently manages Lisheen's core business processes: maintenance, logistics, finance and human resources. In early 2005 Mincom released the latest software version – Ellipse 6.1. Since mid-2006 the Ellipse project team made up of representatives from key

administrative departments including Information Technology; has been working to get the new version up and running. The real test will come in April 2007, when the system goes live and people in the different departments will begin using the new system.

With Ellipse 6.1, Lisheen Mine is looking to strength its core business processes in order to increase company efficiency, operational excellence and competitiveness in the market.

With the new Ellipse fully integrated reporting and business intelligence modules, Mincom Ellipse Reporting [MER], it is expected to expand the knowledge and sharing of key business information and identify and analyze trends accessing real time information that will be helpful for future decision-making.

This new system will allow the company to improve its business performance.

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#### 3D Camera

The three dimensional camera is an imaging system that produces three dimensional photos of underground rock faces. Lisheen Mine is the first company in the world to trial the equipment. It is an entirely new concept in underground mining and is being developed by MDA, a Canadian space technology company, together with AAplc and Lisheen Mine.

The 3D camera is likely to have many benefits for the Grade control, Mine Geology, Survey and mining functions. Once the system is running smoothly, digital photographic records will be available for every mine face. Computerised data will capture real time survey measurements and photographic records for better geological modelling.

Once the 3D camera has proven its worth in the production environment of Lisheen Mine, its use will be rolled out to other Anglo Base Metal mines.

Lisheen Mine



SILVIA RODRIQUEZ SPANISH GRADUATE ENGINEER

'I've recently spent three months working underground. I liked the work and gained an invaluable experience working at Lisheen. I have developed a good working relationship with my male work colleagues and I like to think that in the time I have been there their attitude to taking instructions from a female has dramatically improved.'

Silvia speaks about working at Lisheen



PHILIP WRIGHT
LISHEEN SAFETY OFFICER

'This process was designed around the idea of sharing information between the Anglo American mines. We received adequate training prior to the trip and this area of expertise, as well as practices noticed during our visit to the Black Mountain mine, will all be put to use in the Lisheen Mine.'

Philip speaks about the Safety Peer Review Process

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#### Climate Survey, 2006

In 2004, Anglo American Base Metals performed its first worldwide Organisational Climate Survey. The purpose of the climate survey was to give employees the opportunity to share their opinions in an open and honest way, thereby creating opportunities for 'improving the existing climate'. Lisheen Mine received a tremendous rate of response in 2004 of 98% for this survey.

The survey is conducted biennially. In 2006 another survey was conducted and 89% of the workforce took part.

Overall, the 2006 survey told us a lot about how workers feel about working at Lisheen – what is good and, perhaps more importantly, what they would like to see changed for the better. Here are some of the key things that Lisheen workers highlighted:

» 82% have a clear idea of the results expected in their job;

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» 85% say that managers are flexible when there is a family matter to attend to;

- Over 82% say they are treated fairly regardless of religion, age, race/ethnic origin or nationality;
- 77% say line managers encourage them to take the initiative when solving problems;
- y 74% say there is good cooperation and team work within their team.

Overall Lisheen received a satisfactory rating of 65%. There are many other areas where we do well, but equally there are some things we as a management team need to do to make working life better. For example:

- » 53% believe that salary and incentives are not related to job performance;
- y 49% believe that there was no positive action taken on issues raised in the 2004 Work Climate Survey;
- » 46% of employees do not believe we have good communication between departments;
- y 45% believe that Management will not do something about the issues uncovered in this survey.

The results of the Climate Survey conducted in 2004 prompted the Company to set up Focus Groups in each department and to establish what the Lisheen management can do to address the issues that were highlighted in the survey. Below is a list of some of the outcomes from these meetings:

- » Monthly bonus committee meetings for both Mill and Mine;
- » 10-Day Supervisory Development programme;
- » Enhanced communications through Focus Groups;
- » Teambuilding exercises with third party facilitators:
- » Three Peaks team-building;
- » Employee Assistance Programme initiated;
- » Learning Career Management.

#### **Safety Peer Review Process**

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Nine employees attended the Anglo Safety Way auditors training course presented on site during

2006. Following this training, three employees visited Anglo Base Metals Black Mountain Mine in South Africa to conduct a peer review based on the requirements of the Anglo Safety Way standards. A review team from the Black Mountain Mine in South Africa reciprocated and conducted their review during November. Findings from this peer review were compiled into an action plan, with responsibilities and target dates assigned to various managers for completion.

#### Safety: 9 Golden Rules

The Anglo American Safety Golden Rules were reviewed during 2006 resulting in a comprehensive site of rules addressing the causes of serious accidents occurring in the Group. These rules evaluate the risks associated with work activities and define measures to be in place to reduce the risks in these key areas. AA plc as a Company are dedicated to the safety and well being of their employees and contractors and as a result have expanded the golden rules to include three additional rules this year.



LINDA MAHER
GEO-TECHNICIAN

'I've been working underground at Lisheen for approximately one year as a Geo-technician. I prefer work underground as opposed to on the surface. There is generally a different more relaxed attitude to work underground. Health and Safety precautions are a key factor that we bear in mind when working underground.'

Ar Tionchar Thimpealleachta /

Linda speaks about working at Lisheen



EILEEN MCGRATH
GEO-TECHNICIAN

'I've been working underground at Lisheen as a Geo-technician for approximately nine months. Work underground is a lot different to work on the surface. I have a good working relationship with all my colleagues in a more relaxed less competitive work environment.'

Eileen speaks about working at Lisheen

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The additional three rules bring the total to nine Golden Rules which are as follows:

- 1 Safety Fundamentals;
- 2 Mining Quarrying & Stockpiling Operations;
- 3 Confined Spaces;
- 4 Working at Heights;
- 5 Energy & Machinery Isolation;
- 6 Heavy mobile Equipment & Light Vehicles;
- 7 Lifting & Material Handling;
- 8 Accumulations of Water and Liquids;
- 9 Chemicals & Hazardous Substances.

#### **Seatbelts**

As a result of the implementation of the revised Golden Rules the operation was required to fit seatbelts in the rear of light vehicle man carriers. Durable seatbelts, suitable for the mining industry, were sourced and trialled in one vehicle during the latter stages of 2006. The trial proved successful and all light vehicle man carriers are to have these seatbelts fitted during 2007.

#### **Female Staff Working Underground**

Mining worldwide is predominately a male oriented environment primarily due to the harsh conditions prevailing underground and the perception that it is a hazardous, manually intensive place to work and can be wet and dark. However new ground has been broken at Lisheen in that the Company employs seven females who are working underground.

#### 'Fall of Ground' workshop

During 2006 the Geotechnical section regularly presented ground awareness courses to all underground employees that are exposed to rockfall hazards. The purpose of the course was to enable employees to recognise poor ground conditions and assist in making decisions on the corrective action necessary to make the area safe.

The changing nature of the underground environment is explained along with the mining induced risks associated with pillars, wide spans and paste filling. An underground visit to

demonstrate and discuss conditions is included along with a practical session of manual scaling.

#### **Continual Improvement Programme**

A climate of Continuous Improvement [CI] continues to be fostered throughout the organisation. This includes the suggestion scheme, known locally as the Rewarding Innovative Ideas [RII] scheme [108 suggestions were recorded in 2006]. The vast majority of suggested improvements continue to be associated with safety [51%], productivity [18%] and cost [17%].

Some of the continuous improvement initiatives that took place in 2006 include:

» In the Mining department a crew and workshop were established to repair submersible pumps on site rather than send them to the Suppliers as has traditionally been done. Not only is this a financial saving, but improvements are also materialising in accountability, housekeeping and control;

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- During the year the Minerals Processing department focussed, amongst others, on the two surface water treatment plants to seek improvements in both efficiency and operating costs. Both were achieved and focus remains in this area for 2007;
- » Improved treatment charges and sea freight costs were realised through successful negotiating strategies by the Marketing department;
- » In the Finance and Administration department savings were achieved predominantly in the IT and Procurement sections. Savings were mainly generated through improved negotiations with suppliers;
- » Improvements in the mining face geological assessments generated substantial financial savings in the Technical Services department.



## The Environment & Lisheen /

# Integrated Pollution Control Licence Review

In accordance with the terms of the Integrated Pollution Control [IPC] Licence [Reg No. 550 or P0088-02] issued to Anglo American Lisheen Mining Limited, we are required to submit an Annual Environmental Report to the Environmental Protection Agency. The report provides details on effluent, air, noise and vibration compliance monitoring carried out by Lisheen as well as waste management practices conducted on site. The 2006 report is the sixth such report for the mine – it is available for scrutiny on-site [in our Environmental Centre] or at the EPA Offices in Wexford.

The company has made every effort to design the mine to the highest Environmental and Health and Safety standards. We have retained our independent certification to the ISO 14001:2004 [Environment] and OHSAS 18001[Health and Safety] standards since their award in 2002 and 2005 respectively. The mine also operates in accordance with strict environmental standards specified in the Integrated Pollution Control

[IPC] Licence issued and enforced by the Irish Environmental Protection Agency. The construction of the Tailings Management Facility [TMF] is also strictly supervised and controlled within this regulatory framework.

There are four persons employed full-time carrying out environmental monitoring, all highly qualified environmental scientists.

There are also two environmental officers and an Environmental Engineer who co-ordinates activities and, reports to the Risk Manager.

Effluent emissions are monitored on a quarterly basis and areas of non-compliances are summarised for submission to the EPA.

There were 8,154 discharge samples taken and analysed during 2006, only 358 of these samples were non compliant with the standards set out in our IPC Licence giving a compliance rate of 95.6%. The 358 samples that were non-compliant have been logged and investigated accordingly and remedial actions implemented where appropriate.



STEPHEN WHESTON ENVIRONMENTAL CO-ORDINATOR

'I have been working with Lisheen for the past four years. The Company has committed fully to its environmental obligations and is continually seeking better ways of improving that commitment.'

Stephen speaks about Lisheen and the environment.

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There were no major breaches of the licence, and no significant incidents associated with air emissions in 2006.

Day time and night-time noise emissions were monitored at predetermined locations in 2006; there were seven exceedances out of a total of approximately 3,600 blasting events giving a total of 99.8% compliance with our IPC Licence.

Energy and water usage figures are monitored and summarised for the EPA. Water used in the processing of the ore is recycled continuously from the TMF.

There was a total of 11 complaints received from the general public in 2006, the majority of the complaints were in relation to vibration. Extensive efforts are made to minimise the vibrations associated with the underground blasting. Compliance with the IPC licence for vibration was 99.8% in 2006.

An application to convert our IPC Licence into an IPPC Licence [Integrated Pollution Prevention Control] is currently being prepared and when complete will be submitted to the Environmental

Protection Agency. To ensure that the licence is a concise and effective document, justifications to introduce a number of changes based on the bank of knowledge gathered over the years will be made. This will ensure that time and effort is focused on monitoring areas where it is most needed.

## Sediment in the Drish and Rossestown Rivers

Lisheen mine discharges a large volume of water [approximately 62 ML/d] into two local rivers
Drish [51ML/d] and the Rossestown [11ML/d]].
This is currently well within the IPC licence limit
[100ML/d and Rossestown 20ML/d]. Although
the suspended solids loading of the discharge is
significantly lower than the IPC Licence conditions
[and full compliance was achieved in 2006],
the metal load to the rivers was approximately
13 kg/day Zinc and 1kg/day Lead, and levels of
both Zinc and Lead in river-bed sediment have
been seen to increase in both rivers.

Lisheen management meet with an Environmental Monitoring Committee [EMC] on a quarterly basis

to discuss environmental issues relating to the business. The EMC is made up of representatives from the EPA, Tipperary North Riding County Council, Southern Regional Fisheries Board and the Department of Communications, Marine and Natural Resources. It was through this forum that elevated levels of metal concentrates in the river were was first identified, and continues to be managed.

The river the sediment issue relates to the Biological Quality Index [BQI] monitoring. BQI monitoring is conducted by the EPA every three years throughout the country to give an indication of the health of the rivers. A drop in the BQI was noted between 2004 and 2005, even though the discharge waters from Lisheen were in full compliance with the IPC licence conditions.

Lisheen took the following steps to identify and manage the sediment issue:

The issue was highlighted during an Environmental Monitoring Committee Meeting in late 2005;

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- » Sampling and monitoring was undertaken in the Drish and Rossestown rivers;
- » Elevated metal concentration results in sediment were found, and this report was presented to the Environmental Monitoring Committee:
- Additional sampling and monitoring was conducted using accredited [Irish] EPA sampling techniques, to check accuracy;
- These results demonstrated similar findings to the initial sampling project;
- » A number of additional experts were contacted by the Environmental Monitoring Committee and asked to attend meetings at Lisheen to advise on testing requirements and assess data determine possible impacts. The group of experts gathered to assess this issue consisted of members from the EPA, the Southern Regional Fisheries Board, Tipperary North County Council, the Health Service Executive and the Department of Agriculture;
- » Until a full Ecotoxicity study could be completed, the EPA issued a precautionary restriction order on livestock entering the

Bogland surroundingLisheen Mine



06 /

rivers for drinking and The Southern Regional Fisheries Board also restricted angling in certain sections of the river;

- Lisheen employees met personally with local community members to explain and discuss the issue. Dialogue with the community was continued throughout the investigation and remediation process and included a number of formal meetings both on site and in the community. Local political representatives and members of the Irish Farmers Association were among those actively engaged with during this period;
- » Further additional sampling was conducted; including sediment testing and biological indicator sampling. Among the bioindicators tested were fish tissue, cattle tissue and milk, and macro-invertebrates;
- » An ecotoxicity report concluded that there was negligible impact on fish, livestock and humans. However there was some impact on river invertebrates:
- Following receipt of the ecotoxicity report both the EPA and the Southern Regional Fisheries Board lifted their restriction notices.

A remediation plan was developed through an extensive consultation programme with the EPA, Fisheries, Tipperary North County Council and other interested parties.

The affected stretches of both rivers are to be fully cleaned. The sediment will be removed from the areas of the rivers, where metal concentrations exceed the EPA limits. The material removed from the rivers will be safely disposed of in the Lisheen Tailings Management Facility. All works in this area will be overseen by the EPA and the Southern Regional Fisheries Board. It is expected that the work will be complete by September 2007. Ongoing improvements in the water treatment plant performance will minimise the amount of suspended particles in the mine discharge water and minimise the risk of this issue. Trials of abatement technology are being conducted on site to ascertain the possibility of an end of pipe treatment, which could further reduce the quantity of suspended solids in the final discharge. However, It has been made clear to all concerned that the mine discharge is already low [~8mg/L vs. the tightest EU limit of 25mg/L]. A zero discharge is physically not possible and it may be necessary to clean the immediate point of discharge in both rivers periodically to ensure that metal concentrations are not allowed to accumulate in the future. A monitoring program will ensure that levels do not build up again to a level that would be of concern.

decreased from 35 mg/L to less than 15 mg/L. Additional modifications have been planned for 2007.

## Waste water treatment plant efficiency and waste water issues

Work is ongoing with further improvements to the efficiency of the Mine Water Treatment Plant [MWTP]. Although the plant currently operates well above design specifications, a further increase in efficiency will improve our IPC compliance levels.

Much effort has been expended in 2006 carrying out optimization work on the two mine water treatment plants on site. A number of modifications are complete on the smaller 'reclaim water' treatment plant and lead removal efficiency has been increased from around 90% to greater than 99%, zinc removal efficiency has increased from around 90% to greater than 97% and suspended solids in the plant discharge



## Recognition & Awards /

#### **Excellence through People**

Excellence Through People is a national Human Resource Management Standard certified by FAS. The main objectives of the standard are to:

- » Act as a business improvement tool and a driver for change and innovation;
- » Promote employee learning, development and involvement with Lisheen goals.

There are three levels if achievement in the Excellence Through People standard:

- » Standard;
- » Gold;
- » Platinum.

Lisheen achieved the ETP standard in 2002 and was re-accredited for this standard up to the end of 2005. It is planned to be audited in early 2007 for its activities in 2006 and the Gold Standard will be sought. Only eleven businesses in Ireland are at present accredited to this standard.

#### OHSAS 18001: 1999 & ISO 14001: 2004

ISO 14001 – This Environmental Management
System accreditation was first achieved by
Lisheen in September 2002 while OHSAS 18001
– Safety Management System accreditation was
achieved in February 2005, both systems are
audited by the National Standards Authority of
Ireland [NSAI] a 3rd party certification body.
Both systems were again externally audited
in October 2006 and recommendations were
made on both counts that the operation retains
its certification. Findings from these audits
were compiled into action plans assigning
responsibilities and target dates for completion.



# Objectives & Targets / 2006 & 2007 /

## Safety / 2006 /

08 /

Objectives	Results
Zero fatalities	Achieved
Zero Lost Time Injuries	10 Lost Time Injuries recorded
Review the Lisheen Mine Safety Statement and ensure appropriate site wide distribution and knowledge	Complete
Review individual and departmental safety roles and responsibilities	Appointments developed as part of the Lisheen Mine Safety, Health and Environmental Management Systems [LISHEMS] currently being rolled out to all departments
Improve employee involvement in the safety programme	All supervisors and managers attended the DNV Modern Safety Management course and associated workshops in Accident/Incident Investigation and Risk Assessment
Consolidate the use of the computerized Safety Data Management System [SafeBase]	Complete
Utilise the reporting of near misses to drive focused specific departmental/mine improvement initiatives	Weekly and monthly analysis of near misses is conducted and communicated amongst all employees

## Safety / 2006 / continued /

Objectives	Results
Mine and Departmental leading indicators to be developed and reported monthly; e.g. planned inspections, planned task observations, Visible Felt Leadership audits conducted, emergency simulations conducted, remedial actions completed, departmental safety meetings held, near misses reported, Golden Rules audits conducted and resultant scores, compliance with Risk mitigation measures etc.]	Leading indicators developed and reported on both internally and externally
Departments will be required to develop Safety Improvement Plans based on the Divisional Safety and SD templates	The Company has developed a Safety Improvement plan as per the Anglo Safety Way requirements. Roll out to the various departments is in progress
Identify new safety and health requirements/ changes in the Safety, Health and Welfare at Work Act 2005 and the future Regulations to be framed thereunder and prepare and implement a compliance programme	The Company has subscribed to a legal register and service which in turn informs the Company of updates and interpretations of relevant legislation

#### Health / 2006 /

Objectives	Results
Retain OHSAS 18001 & ISO 14001 accreditation	Achieved
Develop the Lisheen Mine SHE system by incorporating all the relevant requirements of ISO14001, OHSAS 18001, AAplc's Occupational Health Management Guidelines, AAplc's Anglo Way and the International Safety Rating System	Complete
Develop and manage Departmental SHE programmes, based on the Lisheen Mine SHE system and also to address the results of the 2005 Du Pont Safety Climate Survey	In progress
Consolidate the Mine/Departmental Occupational Health and Hygiene programmes with the assistance of the Anglo Technical Division's VOHE section	Complete
Appoint a REACH champion and steering committee to manage REACH requirements and implications	Complete
Take part in the Divisional Peer Review Audits.  [Lisheen Mine is twinned with Black Mountain mine in South Africa]	Complete
Prepare for the mitigation to ISRS version 7 in 2007	In progress – development of LISHEMS and a gap analysis done by DNV during November 2006

#### Environment / 2006 /

Zero Level 2/3 Environmental Incidents	One level 2 incident recorded
Finalise the waste management programme	90% complete
Consolidate the departmentally driven water management programmes. Suitable KPIs to be development and reported against	Complete
Develop and implement departmental energy savings initiatives	Several energy saving initiatives were submitted under the CI Programme
Develop and implement the rehabilitation programme utilising the ATD model	The Closure Plan is being developed using the ATD template

Safety / 2007 /

**Objectives** 

Zero fatalities

Zero lost Time Injuries

Vehicle Management Plans [VMP] to be implemented

DNV Audit – Achieve Level 8

LISHEMS – to be rolled out to all departments

Take part in Anglo Base Metals' Operational Safety Peer Review Programme

Departmental Safety Improvement Plans to be documented and managed [reference Anglo Safety Way System]

Review and improve the Induction programme

Health / 2007 /

Retain OHSAS 18001 & ISO 14001 accreditation

Environment / 2007 /

Finalise the TMF Closure methodology and seek approval from ABM and the EPA

Review IPC Licence and convert to IIPC Licence

08 /

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#### 08 / Feedback /

We would sincerely welcome any feedback on this report from our readers, be they positive or negative comments. To demonstrate our commitment in this regard, we pledge to donate a sum of €10 for every written feedback we receive in relation to this report to the North Tipperary Hospice Movement.

Please send your comments to:

#### Terry McKenna

- a The Lisheen MineKilloranThurlesCo. Tipperary
- e tmckenna@lisheenmine.ie

#### **Acknowledgements /**

This report has been prepared by The Lisheen Mine, with the assistance of Patel Tonra Ltd [www.pateltonra.com] and Obsessive Compulsive Designer [info@obsessivecompulsivedesigner.com]

We wish to thank all employees and participants for their contributions.

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