

BELL BAY ALUMINIUM

PACIFIC ALUMINIUM

2011 **SUSTAINABLE
DEVELOPMENT** REPORT



ABOUT THE PACIFIC ALUMINIUM

Pacific Aluminium is a world leader in quality aluminium products. Our bauxite mine, alumina refinery and smelter operations in Australia and New Zealand mean we have the advantage of being a fully integrated aluminium business.

- Gove Operations bauxite mine and alumina refinery in the Northern Territory
- Boyne Smelters Limited in Queensland
- Gladstone Power Station in Queensland
- Bell Bay Aluminium in Tasmania
- Tomago Aluminium in New South Wales
- New Zealand Aluminium Smelters Limited in New Zealand

Formed as a new Rio Tinto business unit in 2011, it is an exciting time to be part of Pacific Aluminium as we come together to create a great, independent and enduring business.

The success of Pacific Aluminium is founded on our deep commitment to safety and operational excellence.

We pride ourselves on producing quality aluminium products, created by the best people in the industry.

Pacific Aluminium produces more than 1 million tons of aluminium each year, making us one of the largest aluminium businesses in the world.

While we are a big business, we have a straightforward, lean and adaptable approach that enables us to deliver superior performance across our operations.

Pacific Aluminium is also committed to operating sustainably, and our people are actively involved in the local communities in which we operate.

ABOUT THE BELL BAY SMELTER

Bell Bay Aluminium, located just south of George Town at the mouth of the Tamar River in Tasmania, produces around 180,000 tons of aluminium per annum.

The smelter's economic contribution to Tasmania is significant. Investment in people, process and products is an unremitting pursuit by the business and is undoubtedly the reason for its continued success.

Bell Bay Aluminium has been in operation since 1955, and was the first smelter built in the southern hemisphere. Its main metal products are ingot, block and T-bar.

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FROM THE **GENERAL MANAGER**

Welcome to the 2011 Bell Bay Aluminium Sustainable Development Report. This report highlights our performance and activities in 2011, and in a first for our business, will only be available online. Our Sustainable Development Report is produced primarily for members of our community, our employees and other interested stakeholders. We aim to make the report as transparent as possible as we believe it is important that the Tasmanian community understand how we operate and the challenges we face.

2011 was a year of change and challenges for our operation. Although in some areas on site we were unable to sustain 2010 results we did celebrate successes.

The highlight on the Health, Safety and Environment front was achieving zero recordable health incidents for the year, a first for Bell Bay. Our safety and environmental performance was not as good as in previous years and will remain one of the key challenges for every employee and contractor on site in 2012.

In April, the site hosted around one thousand visitors over two Open Days as part of our Beyond 60 campaign. Hundreds of people provided positive feedback. I would like to thank and acknowledge our employees who volunteered their time to make both days a resounding success.

A new record for hot metal tonnes was achieved in 2011 when the operation finally sustained 118kA. By the end of the year this had further increased to 120kA. There have been a number of attempts to reach this milestone over a number of years. This was truly satisfying for many people on site who have worked together to achieve this world class result.

In response to the results of the 2010 Global Employee Engagement Survey, two key initiatives were implemented in 2011, the Crew Strength Project and the establishment of the Employee Advisory Council (EAC). The Crew Strength Project addresses the fundamental requirement to have sufficient trained staff available, and good progress was made in the second half of the year to close the gap against the new targets. This continues to be a focus area in 2012. The EAC is up and running and meeting regularly. It provides a formal process for issues and opportunities to be syndicated with a group of employee representatives.

The business was impacted by a number of significant external factors in 2011 including the loss of an international container shipping service from Bell Bay, the high Australian dollar and low aluminium prices. The deterioration of the London Metals Exchange price for aluminium and a strengthening Australian dollar put further downward pressure on revenue.

In late 2011 the Federal Government's Clean Energy Future (CEF) Legislation passed both Houses of Parliament. The carbon policy imposes a cost and future uncertainty on Australian

industry which is not seen by our competitors. What is more important to Bell Bay today is that we are already paying a carbon price through the Renewable Energy Target of \$40 per tonne of aluminium. The total cost of RET is already around \$9 million per year for Bell Bay, this is before the carbon price is introduced.

In October, Rio Tinto announced the divestment of a number of their Australasian aluminium assets including Bell Bay. We are part of a new business unit called Pacific Aluminium, which is being established as a standalone business for potential sale or stock exchange listing. As part of this change we have re-named our business Bell Bay Aluminium.

While our name is new, our values remain the same. Bell Bay Aluminium's number one priority is the health, safety and wellbeing of our employees. The positive relationships we have forged with our people, suppliers, customers and the Tasmanian community remain central to our business success.

The divestment provides us with an opportunity to reshape our business to better suit both the new business context, as well as the challenging market predictions for aluminium over the next few years.

A comprehensive and detailed business planning workshop (Building Full Potential) was completed in July. The process identified a number of new initiatives which when fully implemented will improve Bell Bay's cash flow position, somewhat offsetting the external cost factors.

Bell Bay Aluminium is fortunate to have a dedicated and highly skilled workforce and supplier base. The support, drive and commitment demonstrated by our employees and suppliers makes facing these challenges much easier.

Our strength has always been our ability to look forward, identify the looming challenges and adapt our business plans to succeed. Our efforts are focussed on the work required to keep our business strong and resilient in any market conditions. We will continue to rise successfully to the challenges, working toward our 60th year of operation and beyond.

We trust that you will find this report useful and invite you to provide any feedback on our performance, activities or this report. We value community feedback as it helps us to continuously improve our approach and our work, and better align our programmes with community expectations.



Ray Mostogl

General Manager - Operations





Tony Coogan, Shipping & Scheduling Officer, Warehouse and Tim Coogan, Potrooms & Site Maintenance - Electrical

OUR PEOPLE

Bell Bay Aluminium's goal is to be an employer of choice. This means we want the smelter to be recognised as a great place to work where everyone is encouraged and supported to reach their full potential. The way we work ensures that everyone is valued, treated with respect and rewarded for their achievements.

Performance Indicator	2010 actual	2011 target	2011 actual	Target met	2012 target	Notes
**Number of recordable injuries	5	4	12	X	4	
All injury frequency rate (AIFR)	0.81	0.64	1.88	X	0.64	
New cases of occupational disease	2	2	0	✓	2	
Number of employees	557	-	550	-	-	Includes employees from other Rio Tinto businesses based at the Bell Bay smelter
Percentage of female employees	9%	-	11.7%	-	-	As at end 2011
New graduates	2	-	5	-	-	As at end 2011
New first year apprentices	4	-	4	-	-	
Total apprentices	15	-	18	-	-	
Total contractors (full time equivalent)	102	-	91	-	-	As at end 2011. Note, contractors reported as full time equivalent but typically around 100 contractors are working at Bell Bay smelter on any day
Staff turnover	6%	-	7.8%	-	-	

What is an all injury frequency rate?

The all injury frequency rate (AIFR) converts the number of recordable injuries into a number that enables comparison of our safety performance against previous years, as well as with other Pacific Aluminium operations..

Bell Bay Aluminium defines a recordable injury as any work related injury that either:

- Needs treatment by a doctor, over and above general first aid;
- Prevents a person from performing all of the duties of their role on their next given shift; or
- Prevents a person from returning to site on their next rostered shift.

What is occupational disease?

An occupational disease is defined as an illness or disease that results from workplace exposure and lasts more than one shift.

****Seven out of the 12 injuries were hand injuries. We also recorded one face injury, one leg, one foot and one knee injury as well as a shoulder injury. A rigorous and full investigation was completed for each incident to determine root cause and actions were formally captured and tracked.**

CASE STUDY

VALUING OUR PEOPLE

At Bell Bay Aluminium we believe that our people, their knowledge, skills and commitment provide us with a competitive advantage. Our aim is to make people matter to the organisation by encouraging their development and focussing on their well-being, performance and working relationships. Likewise we aspire to be an organisation that matters to people.

EMPLOYEE OPPORTUNITIES
JON DREW

In May 2011 Jon Drew was approached by Bell Bay Aluminium's General Manager and asked if he would be interested in going to Oyu Tolgoi in Mongolia for two months to assist the Health Safety and Environment (HSE) department implement tap-root actions following a double fatality at the remote mine site. Jon jumped at the opportunity and arrived in Mongolia in July to commence work. Jon spent nine weeks at the mine site. His primary task was to ensure that the Rio Tinto HSE standards were implemented prior to asset handover. At that time, 14,000 people worked on site. Working with people from all around the world, in a different country and on a project of such a massive scale meant that Jon faced many challenges. At the end of the nine weeks and having enjoyed the work immensely, Jon was very keen to return and continue what he had started.

Fortunately, another opportunity arose and Jon returned to Mongolia in October to fill a position in the Business Readiness team, assisting to establish maintenance systems to support plant operations. The team is now in the middle of handover from construction to operations and is moving toward becoming a Rio Tinto managed operation.



'The work is very interesting and is constantly changing. The basic camp facilities are good and the four weeks on two weeks off roster is manageable.'

'I essentially lead two lives, one in Mongolia when I am working flat out and one when I come home. I look forward to coming home so I can focus on my family and spend quality time with them with few interruptions from work. I am very grateful to have had the opportunity to participate in a project of this scale and of great importance to a country like Mongolia'

Jon Drew



The modification eliminated the need for an operator to place their hand inside the machine during operation.

BRAVO! AWARDS

Bravo recognises contributions in four categories - values, business priorities, leadership and community involvement. An individual or team who have made a significant contribution can be nominated for a Bravo.



A LITTLE THANKS GOES A LONG WAY DIAMOND SAW MODIFICATION

In 2011 the team of Greg Keogh, John Males and Andrew Bishop from the (Laboratory), Patrick Cruse (Metal and Carbon Maintenance) and Scott Sherriff (Potrooms Site Maintenance) won a Bravo for their Diamond Saw Modification. They won for their work in significantly improving the safety of cutting carbon saw samples for analysis. The team developed a modification that eliminated the need for an operator to place their hand inside the machine during operation thereby eliminating the potential for pinch points and hand injuries.

The team's winning design has meant that they have introduced real change to reduce risks in their work place.

** (2012) The team won the "Our Values" category in Brisbane for their work in significantly improving the safety of cutting carbon saw samples for analysis



Greg Keogh and Patrick Cruse travelled to Brisbane and accepted the award on behalf of the team from David Bloor, Pacific Aluminium Vice President Health, safety, Environment and Community (centre)

TRAINEE PROCESS OPERATOR POOL

The Trainee Process Operator Pool was established in late 2011 to support the Crew Strength Project. Trainee Process Operators from the Pool are provided with training in areas where it is anticipated that there are likely to be future vacancies - generally within the Potlines or Rodding Room - ahead of those vacancies actually occurring. This then allows a vacancy, when it does occur, to be filled much more quickly by a person with basic job competencies specific to the process area, thereby reducing the impact of an experienced person leaving a crew.

"Each Trainee is provided with a detailed training plan for their process area and their progress against the plan targets is regularly reviewed with their Crew Leader, Trainer and Learning and Development team members. Nominated Trainers are also given the opportunity to further develop their own training skills."

The results to date have been very promising with all stakeholders agreeing that the increased emphasis on the training plan is delivering higher quality training in a shorter timeframe than has traditionally occurred."

Glen Hayhurst

Superintendent, Learning and Development



Tanya Wells, Trainee Process Operator
(based in the Rodding Room at the
time of this photo, now in the Potlines)

HEALTH AND SAFETY

Our goal is simple – to achieve zero harm. Together we can and will create an injury free workplace. Everyone should go home safe and healthy each day of their working life.



HAWKS FLY INTO BELL BAY

On Friday 2 December Alastair Clarkson, Hawthorn Football Club coach visited the smelter to meet with employees. Alastair's visit was prompted by the Site Health, Safety and Environment Committee. The Committee believed that a different and innovative approach to delivering the workplace safety message would help to reinforce our goal – that everyone should go home safe and healthy each day of their working life. The Committee agreed that an invitation would be extended to a high profile person such as a successful AFL premiership winning coach. Given the strong ties that Northern Tasmania has with Hawthorn an invitation was extended to Alastair to visit Bell Bay.

The purpose of Alastair's visit was to weave his extensive leadership skills and football knowledge into the safety journey at Bell Bay. Alastair's visit was extremely well received by employees. He interacted with six teams in their work environment and met around 80 employees. This was followed by a motivational session with site leaders.

Primary schools students from George Town were treated to a special event. With support from the smelter, AFL Tasmania and the Hawthorn Football Club, Alastair and Hawthorn assistant coach, Brendan Bolton put the kids through their paces at a football clinic at the George Town Football Club.

The clinic gave the students the opportunity to meet some of their heroes.

We look forward to building on the success of Alastair's visit and developing an ongoing relationship with Alastair and the Hawthorn Football Club over the coming twelve months.



From left to right: Richard Mudge, Adam Underhill, Russell Franklin, Alastair Clarkson, Ben Harris, Peter Jones, Jason Hillard (Process Operators North Blue, Potlines)

Alastair's key messages to employees were:

- To truly appreciate the highs one must have experienced some lows along the way
- A healthy and fit lifestyle means productive and safe outcomes for all
- Understanding each other's work patterns, habits and skills makes a team successful
- Be prepared to listen to ideas and change your behaviours based on feedback
- When assigning someone a new role ensure they are prepared and be flexible
- Following a change it is critical that you have the ability to react positively to the change and maintain focus on the task at hand
- As a team member it is more beneficial to be a participant
- We need to look after each other on and off the 'field'
- Ensuring the success of a major task requires team support

The Emergency Crew from left to right, Adrian Lister, John Brewster, Brett Maurer, Mick Jago, Joe Bodis and Ian Nixon



TASMANIAN MINERAL EMERGENCY RESPONSE COMMITTEE - COMPETITION

Seven site Emergency Response team members from Bell Bay competed in the annual Tasmanian Minerals Emergency Response Competition held in Queenstown in November.

Held over two days, a total of 11 teams from across Tasmania competed. Bell Bay Aluminium entered eight events:

- Confined space rescue
- Road crash rescue
- Surface search and rescue
- Theory exam
- Team skills event
- First aid scenario
- Ropes rescue
- Fire

At the end of each scenario the team was briefed on their performance by qualified adjudicators from the Tasmania Fire and Ambulance Services. Bell Bay Aluminium finished 2nd in the Surface Search and Rescue and 3rd in Team Skills.

The team found the whole experience very beneficial and have already identified improvement opportunities to ensure a stronger and improved performance in the 2012 competition.



Brett Maurer (crew member) puts his rescue skills to the test



Health Performance

Our 2011 Health performance was our best ever with zero occupational diseases recorded. Increased focus on early medical intervention into injury and illness has helped in ensuring our workers come to work fit and healthy, with a specific focus on respiratory health. Respiratory checks are required for all employees returning to work following a respiratory illness.

Wellness Programme

Participation in the Wellness Programme exceeded expectations in 2011 with 51% of employees taking up the voluntary assessment, up from 25% participation in 2010. The Wellness Programme gives employees the opportunity to benchmark individual health and fitness levels against healthy population data and identify means of improving.

CASE STUDY

OPERATOR SAFETY IMPROVEMENT

The Problem

Whilst floor based operators are anode setting in the potlines, noise is exacerbated because compressed air is released from nine solenoid operated valves and this creates loud noise. If operators need to work near or on cells then they are exposed to the noise. The level of noise is high enough to cause permanent hearing damage after regular exposure.

Operators must wear hearing protection but this is not an ideal solution as it depends on people wearing and fitting the protection properly.

Automated break and feed is the regular breaking of the crust on the cell followed by feeding of a measured quantity of alumina into the cell. It takes place at four point feeders in each cell and occurs each five minutes. The total duration of the break and feed activity, including pauses, is 31 seconds during which noise is generated for 21 seconds.

The Solution

Work using coalescing silencers has established that the exhaust noise level can be lowered to 75 decibels on the A scale as measured using a device that can determine average exposure over a full shift. The standard for operators on 12 hour shifts is that the noise level has to be below 83 decibels on the A scale.

The system works by directing all the exhaust air lines from the tap end and duct end break and feed and the master air to a device originally developed for collecting droplets from airlines. This device, a coalescing filter, has been found to have highly effective sound attenuation ability so it is also known as a coalescing silencer.

A project to fit the silencers to all the cells in the potlines was completed in 2011.

PLANET

Our reputation as a sustainable business depends on our ability to demonstrate sound environmental management practices and stewardship of our natural resources. Everyone working at the smelter needs to be aware of the site's interactions with the surrounding environment and to understand that we all have a role to play to minimise our impact on and protection of the environment for future generations.

Performance Indicator	2010 actual	2011 target	2011 actual	Target met	2012 target	Comments
Non-compliance with environmental permit conditions	1	0	3	X	0	Three non-compliances with EPN in 2011.
Number of community complaints	0	0	0	✓	0	
Total on-site greenhouse gas emissions (tonnes CO ₂ e per tonne of aluminium produced)	1.82	1.78	1.79	X	1.76	An improvement on 2010 although target of 1.78 was not met, largely due to Net Carbon Ratio (NCR).
Total energy use (Gigajoules per tonne of aluminium produced)	74.3	73.6	73.77	X	73.4	This metric was affected by the higher than plan NCR.
Energy efficiency (DCkWh per kilogram of aluminium produced)	14.65	14.53	14.61	X	14.52	An improvement on 2011 although target of 14.53 was not met.
Total fluoride emissions (kilograms of fluoride per tonne of aluminium produced)	1.10	1.0	1.06	X	1.03	Significant improvements in second half of 2011 due to improved scrubbing efficiency, although target of 1.0 was not met.
Waste to landfill (tonnes per month)	16.8	14.5	14.4	✓	14.2	Met waste to landfill target.
Fresh water usage (kilolitres per tonne of aluminium produced)	0.80	0.88	0.83	✓	0.85	Continued to meet water use targets.

In 2011 there were three incidents of non compliance against our Environmental Protection Notice (EPN).

- A fire at the Carbon Bake Furnace forced the stack scrubber into bypass. This resulted in elevated air emissions until the plant could be returned to normal operation. The root cause was investigated and systems implemented to prevent reoccurrence
- During planned maintenance on the Potlines dry scrubber, high bearing temperature tripped out an exhaust fan. This resulted in elevated hydrogen fluoride emissions for one hour
- Dust emissions in excess of EPN limits were detected during routine monitoring of a dust collector

- ✗ 2011 fluoride emissions were lower than in 2010, but fell just short of target. Following extensive trials, traditional filter bags were replaced with “hairier” filters in two of the six reactors in the dry scrubber. The new filter bags significantly increased the capture of hydrogen fluoride in the exhaust fume.
- ✓ We continue to make progress in recycling and met the 2011 target for waste to landfill. More waste than ever was recycled and we continue to explore opportunities to further reduce waste to landfill. More aluminium scrap was recycled on-site, reducing energy use for transport to another facility. As part of our on-going commitment to reduce hazardous waste to storage, 1,952 tonnes of non-hazardous waste and 10,264 tonnes of hazardous waste was recycled in 2011. The hazardous waste was made up of 3,697 tonnes of aluminium dross that was recycled by SIMS Aluminium and 6,567 tonnes of SCL recycled by Cement Australia in Railton.
- ✓ We met our water use targets in 2011
- ✓ The land surrounding the smelter is home to a number of threatened, endangered, vulnerable and rare plant and animal species and vegetation communities, including the endangered coastal paperbark. As part of our commitment to preservation of biodiversity in the Tamar region, in 2011 we donated 10,000 to the Launceston and Tamar Valley communities. The trees were planted by students at three sites in Launceston and the Tamar Valley (see case study).

CASE STUDY

Sam Duncan, Superintendent, Environment and Analytical accepts the award from James McKee, CEO, NRM North (Award Sponsor)



LAUNCESTON CHAMBER OF COMMERCE BUSINESS EXCELLENCE AWARDS 2012

BEST ENVIRONMENTAL PRACTICE REWARDED

On Saturday 29 October, 2011 the smelter was presented with the Best Environmental Practice Award at the CGU Launceston Chamber of Commerce Business Excellence Awards. Our Awards entry centred on our continuing efforts in recycling Spent Cell Liner (SCL) through Cement Australia's cement kiln in Railton. This project has broken new ground in recycling for the Bell Bay smelter

Congratulations must go to Bell Bay employees, Alex Grodski, Sam Duncan and Marty Daly who helped bring the project to fruition and to Cement Australia for its efforts in this collaborative project, Peter Ives in particular.

At Bell Bay we are always working to do things better. Our partnership with Cement Australia is a great example of how, with initiative and drive, we can make significant environmental achievements.

Winning this award allows us the opportunity to showcase our business and our commitment to reducing our environmental footprint and impact. In particular we hope that the SCL project will inspire others to pursue environmentally sustainable projects in their own workplaces.



The site has committed to rehabilitating 2.5 hectares of *Melaleuca ericifolia* coastal paperbark forest by 2015

Students from Waverley Primary School



Jennie Timmins
(Human Resources
Administration Assistant)

TREE PLANTING – A COMMUNITY PROJECT

Bell Bay Aluminium donated 10,000 trees to the Tamar Valley community. Working in partnership with local schools and the Launceston City Council, approximately 500 students from nine local schools assisted Bell Bay staff to plant the endangered coastal paperbark (*Melaleuca ericifolia*) at three sites across the valley. Half of the trees were planted at the Old Farm on Bridport Road at Bell Bay with students from Port Dalrymple School, South George Town Primary School and Star of the Sea College. The remaining 5,000 trees were split between two parklands in the Launceston region; Juvenile Ponds at Waverly and parkland at Rocherlea. Students from Ravenswood, Waverley, Rocherlea, Mayfield and Mayfield Heights Primary Schools and Scotch Oakburn College planted the trees in ground prepared by Launceston City Council staff.

Once common in the Tamar Valley, coastal paperbarks are a nationally threatened community, present in small, disjointed patches. This rehabilitation work forms part of the site's Biodiversity Action Plan commitment to rehabilitate 2.5 hectares of coastal paperbark forest by 2015. Forestry Tasmania grew beautiful, healthy seedlings from locally sourced seed and it is hoped our work will help to re-establish and strengthen these communities.

In 2010, a Biodiversity Action Plan (BAP) was developed for Bell Bay. The BAP sets out a framework and the direction that Bell Bay will pursue in order to make a positive contribution to the management and preservation of biodiversity in the Tamar region.

CASE STUDY

DRY SCRUBBER BAGS

Business improvement uses different tools to improve the value generated by the site. In 2011 a Green Belt project, utilised DMAIC (define, measure, analyse, improve and control) Kaizen to determine the filter bag with the best hydrogen fluoride scrubbing performance. A three month trial was conducted involving the testing of seven different bag types. The hydrogen fluoride concentration was measured in the gas exiting the bags. The project results determined that two bag types were statistically better. As a result two full sets of bags (1600 per set) have been changed as per the planned maintenance schedule using the new improved bag types. The reactors have shown significant improved scrubbing performance without affecting other metrics.



1 - 3: Pipe work inside the reactor that samples clean gas from the trial bags.

4: Pipe work of the sampling system but from outside the reactor. Pipes are fed into a gas monitor which measures HF concentration (not shown).



Bill Woodworth (specialist adviser process control) and Chris Cameron Human Resource Adviser) coordinate visitors at the 2011 open days.

OUR COMMUNITIES

Bell Bay Aluminium has a long history of supporting Tasmania and its communities.

We actively work with the community to develop and promote activities directed at improving quality of life and cultural diversity.

Our initiatives in education, environment, health and well-being and cultural and performing arts are designed to make a positive difference and create long lasting, high quality outcomes.



OPEN DAYS

In April the smelter gates were opened to the community for the first time since 2005. Promoted as family days, around 1000 people took advantage of two open days scheduled as part of our Beyond 60 campaign. An army of volunteers ensured that the open days ran smoothly as we showcased Bell Bay's history, innovation, technology and contribution to the community. As well as providing an opportunity for the community to see first-hand how the smelter operates, the open days provided a wonderful opportunity for many past employees to catch up with old friends, revisit and reflect on their time at the smelter.

COMMUNITY GRANTS PROGRAMME

2011 Community grant recipients	Purpose of grant
Salvation Army Therapeutic Youth Residential Programme	Purchase equipment to establish education rooms
St Helens Marine Rescue Inc	Assist with the purchase of a global positioning system
Family from Launceston*	Purchase an accredited assistance dog to aid their son's development
Youth Suicide Action Group Inc	Purchase leisure and recreation supplies to service clients aged between 12-25
4K Children's Ward Auxiliary - LGH	Assist with purchase of low flow microblenders
Special Olympics Northern Region	Purchase sporting equipment
Uniting Care Tasmania	Purchase of swags and blankets for homeless people with mental illness
Maydena Community Association Inc	Purchase GNS-Em10 fully body splint for transportation of patients
Family from Launceston*	Assist with purchase of specialised equipment for their quadriplegic son
Tasmanian Sudden Infant Death Society Inc	Purchase a MR10 infant respiration monitor
State Emergency Service	Equip members with personal protective equipment
Laurel House	Assist with the delivery of the "Love Bites" training to high schools and Ashley Detention Centre youth
Launceston City Mission	Assist with delivery of the community outreach programme
Exeter Charity Knitters	Provide stocking fillers to be delivered to the elderly, homeless and needy.
Tasmanian Mounted Search & Rescue Inc	Purchase saddlebags to store equipment
Kentish Regional Clinic Inc	Enable delivery of community forums "Breaking the Code of Silence" to assist in suicide prevention

*names not supplied for privacy reasons

Bell Bay Aluminium's Community Grants programme aims to provide financial support for not-for-profit organisations and individuals and is directed towards improving quality of life, particularly through building community capacity.





WE HOST **WORLD EXPERTS**

The 10th Australasian Aluminium Smelting Technology Conference was held in Launceston from 10-14 October, 2011 at the Hotel Grand Chancellor, Launceston. More than 180 delegates from Australia and overseas attended the five-day event – with the milestone conference being held close to the site of Australasia’s very first aluminium smelter at Bell Bay.

Over 100 conference delegates visited the Bell Bay smelter on Wednesday 12 October. As part of the site visit, General Manager, Ray Mostogl, presented to delegates on the history and modernisation of the Bell Bay smelter. Delegates were taken on hosted tours of the smelter by employees.

Although Bell Bay is a small smelter built some 50 years ago, it has a proud history of being a centre for technical development and innovation. These technical developments have yielded improvements that are now incorporated into mainstream aluminium production technology around the world. In fact, the Bell Bay smelter still leads the world in a number of technical benchmarks.

We were extremely proud to be able to showcase our business to the world.

An important event on the aluminium industry calendar and held every three years, this was the first time the conference had been held in Tasmania. With delegates travelling from as far away as South Africa, Indonesia and Dubai, many experienced our best restaurants, wineries and attractions and upon their return home will promote Launceston and the Tamar Valley as an appealing and unique destination.



“With the delegation visiting site, I have the task of providing an overview of the improvement journey Bell Bay has been on since 1955. I feel quite humble to be part of a team that, over a number of generations, has had the ability to adapt and evolve in a highly competitive global marketplace”.

Ray Mostogl
General Manager Operations

COMMUNITY COMPLAINTS

We welcome and encourage both positive and constructive feedback to assist us with improving the way we work.

We take all complaints seriously and investigate each one in a timely and responsive manner. Remedial actions are taken where appropriate. All complaints are reported to the general manager and are recorded in the site incident reporting system. No complaints were reported in 2011.

BELL BAY ALUMINIUM'S COMMUNITY CONSULTATIVE COMMITTEE

In 2011 Bell Bay Aluminium's Community Consultative Committee (CCC) met four times.

- Membership of the Committee comprises a representative cross section of the Tamar Valley community. Ray Mostogl, General Manager and the Community Relations team meet regularly with the Committee on a formal and informal basis.
- The role of the Committee is to provide feedback on all aspects of smelter performance as well as bring issues or matters of importance (positive and negative), of interest or concern to the community to our attention.
- Committee members are volunteers and we appreciate the time and commitment that they give to us by way of their participation in the CCC. Regular consultation with the Committee ensures that we are better informed and can be more responsive and proactive about community needs and expectations.

COMMUNITY INVESTMENT

During 2011 our support included

- Investment of \$75,000 in donations and community assistance, including sixteen community grants
- Two community partnerships representing an additional \$130,000 of direct investment plus in kind support
- Paid leave for employee involvement in community initiatives such as Try A Trade Day and F1 In Schools judging
- In kind support including mentoring and employee participation in various community and business organisations
- Encourage health and wellbeing by supporting Launceston Ten, Burnie Ten, Police Charity Golf Day, Great Western Tiers Cycle Challenge
- Land is also made available at minimal rental fees for community groups such as the George Town Golf Club, Gun Club and the Pony Club.
- We continue to maintain the Bell Bay Aluminium owned Lauriston Park, a private recreational area for community use.



Andrea Brown
(Electrical Apprentice)
is demonstrating the
technique of stripping
electrical wiring at
"Try-A-Trade" Day



Tree planting with Mayor van Zetten

COMMUNITY PARTNERSHIPS

We continued to work with our two major community partners, Launceston City Council and the Department of Education

LAUNCESTON CITY COUNCIL

Our partnership with Launceston City Council supports the Phenomena Factory at QVMAG Inveresk, the region's first interactive science centre, more than 350 employees have taken advantage of free membership at Launceston Aquatic and in 2011 we donated and helped plant 5000 trees in the Launceston municipality at Waverley and Rocherlea.

"The Launceston City Council is proud to be involved in another great partnership with Bell Bay Aluminium. It's heartening to see the youth of today not only engaged in the environment, but also appreciative of what a greener environment means for them and their future. This project has been a great way for our primary school students to see how beneficial and rewarding voluntary team work can be."

Albert van Zetten

Launceston City Council Mayor



Launceston Mayor Albert van Zetten, Bruce Williams, ACL, West Tamar Mayor Barry Easter and Bell Bay Aluminium General Manager, Ray Mostogl with the PentaGliders Team

DEPARTMENT OF EDUCATION

F1 in Schools – World Champions 2011

The centre piece of our partnership with the Department of Education (Learning Services North), the internationally acclaimed F1 in Schools programme has realised a world champion performance.

The PentaGliders team, which included Bell Bay Aluminium apprentice Nathan Clark, defeated entrants from 17,000 schools across 31 countries to become the winners of the 2011 Formula One Technology Challenge in Malaysia.

Established in 2008, the programme is designed to introduce and attract students to the world of engineering, design and other related fields.

Bell Bay Aluminium is delighted that our contribution to the F1 in Schools programme has assisted such a wonderful outcome.

The Bell Bay smelter has a long and proud tradition of investing in opportunities for Tasmania's youth. Our people, just like Nathan and his team 'The Pentagliders', are a prime example of this philosophy.

In recognition of the team's success a Civic reception was hosted by the Launceston City and West Tamar Councils on Wednesday 16 November at the Launceston Town Hall.




F1 in Schools - State Championships

The 2011 State Championships were staged at the Tailrace Centre, Launceston. The State Final attracted 20 teams, many inspired by the performance of World Champions, the Pentagliders.

The winners were:

- Champions – Senior Professional Class – Pure Racing, Launceston College
- Champions – Junior Professional Class – Four Kings Racing Kings Meadows High School
- Champions – Development class – Revved Up, Brooks High School

Winning teams went on to compete in the in the National Finals in Adelaide in February 2012.



Gary Axton, Specialist -
Systems, Business Process

PROSPERITY

Our economic contribution is significant and the value of the smelter goes well beyond our direct contribution.

Our objective is to operate as an internationally competitive and responsible business committed to the well being of our employees, the environment and the Tasmanian community.

We want to continue to create sustainable employment opportunities, generate wealth and value for the Tasmanian economy and make a positive contribution to our local communities.

Performance Indicator	2010	2011
Saleable metal produced (total tonnes)	179,087	182,241
Hot metal production	177,239	180,979
Sale of value added	91.8%	90.9%
Business improvement	\$5.61 million	\$6 million
Capital investment	\$36.9 million	\$40.8 million
Total salaries paid	\$53.9 million	\$53.4 million
Government taxes and charges paid	\$4.5 million	\$4.5 million
Amount spent purchasing goods and services from Tasmanian suppliers	\$187 million	\$216 million
Number of Tasmanian suppliers	388	399

Note - targets are not reported for commercial reasons

LEAN ACTION LEARNING

The Lean Action Learning project was initiated and supported by Skills Tasmania and the Department of Economic Development and the Arts in 2010/2011.

The programme was conducted by Adelaide based registered training organisation, T.I.M.E. in conjunction with *Bob Cother of Cother Consulting.

The ten month programme brought together six enthusiastic people from three very different organisations, Bell Bay Aluminium, Tamar Valley Dairy and ACL Bearings.

So what happens when you take six enthusiastic people from three very different businesses and put them through a 10 month programme and the rigour of lean manufacturing. What you get is six workers who have now attained a Certificate IV in Competitive Manufacturing, a nationally recognised qualification and three businesses with tangible benefits in improved performance, elimination of waste and better production systems.



front: Manuel Matteo & Jose Florez (Tamar Valley Dairy); Ian Paterson (Skills Tasmania); John Collins (Bell Bay Aluminium); Bob Cother (Cother consulting); Jessica Rouse (Bell Bay Aluminium); Rob Miley (Department of Economic Development Tourism & the Arts)

Rear: Allen Wells & Paul Grant (ACL Bearings)

(Photo credit Cother Consulting)

Each participant worked on two projects, one in their own organisation and one in another organisation. This enabled them to bring fresh eyes to high priority production challenges and identify solutions with achievable outcomes. Benefits included reduced stores and inventory, smoother work flows and improved reliability of supply to customers and improvements in energy efficiency.

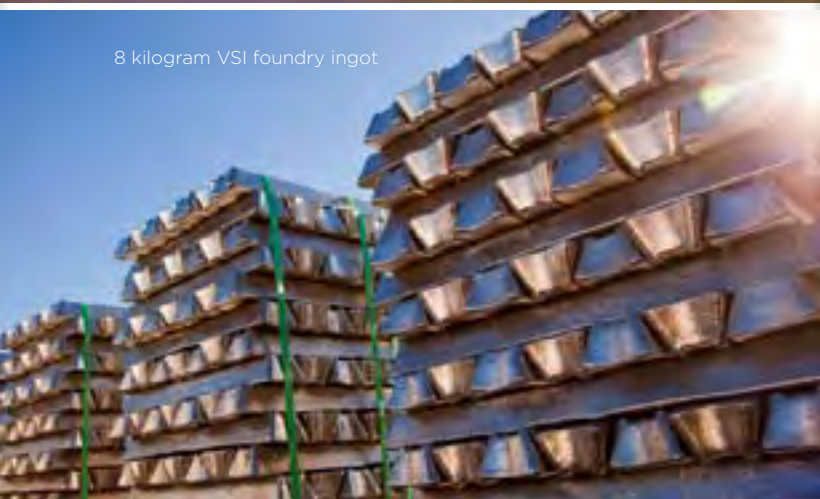
The action learning model has significant benefits for businesses in setting a practical model of learning in the workplace.

Tamar Valley Dairy, Bell Bay Aluminium and ACL Bearings have all committed to supporting further Lean Action Learning projects.

*Lean Action Learning is an initiative of Cother Consulting, created and implemented by Bob Cother in South Australia and Tasmania.



Expanded bunker walls to allow for better segregation of materials



8 kilogram VSI foundry ingot

IMPROVING THE QUALITY OF BATH MATERIAL

The Bath Plant project was run through the Lean Action Learning Group and structured around Six Sigma Methodology. This Methodology utilises powerful statistical tools to improve precision of cause and effect analysis.

This project was undertaken with the aim of improving the quality of bath material produced by the bath plant and ensuring that the material stays within required specifications. This material covers the anodes in the potroom cells.

During the project we discovered that:

- poor segregation between fine and coarse materials resulted in inconsistent feed material quality,
- there were no standard procedures for crews to follow when making 'ratio adjustments' which resulted in different quality distribution across crews, and
- there was no standardised procedure for the 'Grizzly', a heavy duty grate that screens oversize material

The project results were pleasing and we have subsequently implemented the following improvements to the process by:

- placing signage in the bunkers where material is stored which clearly identifies sections for coarse and fine materials,
- expanding the bunker walls to allow for better segregation of materials,
- eliminating human error with the introduction of programmable automatic 'ratio adjustments', and
- training employees on the importance of material segregation

VSI BUNDLE WEIGHT OPTIMISATION

A Six Sigma Green Belt project initiated in September 2011 resulted in modification to the casting control system to increase the ingot height set point.

The project objective was to increase the average ingot bundle weight by 40 kilograms without affecting the belt speed, the reliability or the reject rate. A further aim of the project was to utilise more of the available capacity in a container.

Benefits from the project included:

- Clearing the VSI furnace allowing for additional production
- Decreased freight costs by optimising the weight loaded into each container

The project team, headed by Christina Dale, included employees, Gui Girard, Peter Scher, Tim Clark, Alan Styles, Stef Wegerbauer, Aaron Rowe, Adrian Hinds, Dean Richardson and Tony Coogan.

THE YEAR IN REVIEW



FEEDBACK

We would welcome your feedback on the 2011 Sustainable Development Report. If you would like to provide feedback, have any suggestions or have any questions relating to the content of the report please email Lou Clark Community Relations Specialist on lou.clark@pacificaluminium.com.au

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