

# ROBUST



**WE CARE**  
EMBARKING ON  
THE JOURNEY TO  
ZERO HARM

POWER PROGRAM  
**MEDUPI AND KUSILE  
POWER STATIONS  
GAIN MOMENTUM**

**AGAINST THE ODDS**  
SPORTING EXCELLENCE  
IN DISADVANTAGED  
COMMUNITIES

**BUILDING SOUTH AFRICA**  
Delivering world class infrastructure

**TO THE RESCUE**  
Cementation flexes global muscle to save lives

**GROUND  
ZERO** Preparing for the  
next growth phase





**GROUND ZERO**  
PREPARING FOR THE NEXT GROWTH PHASE  
PAGE 1



**MESSAGE FROM THE CE**

**DEAR READERS**

Murray & Roberts has more than a century of history and development as a contractor in South Africa and internationally. We started out as an emerging builder in Cape Town in 1902 and entered the top tier of the Construction Industry Development Board register 100 years later.

Murray & Roberts took a strategic decision to lead the South African involvement in major infrastructure projects. We have shown that we are unique in South Africa in having the capacity to do this. We also committed to the socio-economic development agenda of government and society within the principles and objectives of ASGISA, with a focus on the development of local people and capacity.

The South African construction industry, having rallied in recent years primarily through World Cup infrastructure investment, has now descended into its worst slump in decades. The entire construction sector has been down-rated, primarily on poor forward prospects, and asset write-downs, particularly in South Africa.

In addition, the Competition Commission recently released a statement that implicates the entire sector in collusive behaviour, including Murray & Roberts. It is common perception that the construction industry worldwide is collusive. Murray & Roberts has never denied the possibility that some individuals within the organisation may act collusively. But we have been adamant that the 'Mind of the Organisation' as represented by the Board and Management is clear of conscience and absent of guilt.

I and my leadership team are well advanced with our early stage plans for moving forward from here and building a better performance future off our great business platform.

Murray & Roberts remains a strong and vibrant company. We face all our challenges to protect our legacy, preserve our jobs and remain a leader in our sector and society.

**Brian Bruce**

**1. COVER STORY**

As it navigates its way through stormy waters, Murray & Roberts is positioning itself for the next growth phase

**5. BUILDING SA**

Spotlight on Major Projects

- Power program
- Gautrain

**8. NEWS**

Strengthening project delivery

- UCW back on track
- Hall Longmore piping transports Gauteng fuel
- Q&A: Gary Wells

**10. OPERATIONS**

Featuring Cementation

- Chile mine rescue
- A global mining heavyweight

**12. SUSTAINABILITY**

- Journey to Zero Harm
- Developing skills
- Fostering ethical behaviour

**14. WINNING AGAINST THE ODDS**

- Jack Cheetham and Letsema Awards

**16. HISTORIC PROJECTS**

- Mossgas

**Editor: Lesley Lambert**  
**E-mail: lesley@wisenet.co.za**  
**Tel: +27 11 325-5388**

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# GROUND ZERO – A BASELINE FOR FUTURE GROWTH

In the decade to 2010, Murray & Roberts experienced significant growth through expansion of its business footprint. However, the global recession and a slow economic recovery in South Africa have taken their toll on the construction industry. For Murray & Roberts, this has been compounded by challenges experienced on major projects. How will the Group recover in time for the next growth phase?

**“W**e’re again at Ground Zero,” admits group CE Brian Bruce

as he looks towards retirement after 44 years with Murray & Roberts. Even though the Group has entered a turbulent environment, it has journeyed a long way over the past 10 years under his leadership and a solid platform has been established for the next growth phase.

The South African construction industry, having rallied in recent years, primarily due to World Cup infrastructure investment, has descended into its worst slump in decades. The combination of slow economic recovery and delays in promised public sector fixed investment spending are at the heart of the industry’s problem. In addition, Murray & Roberts is particularly exposed to a niche where it has proved difficult to find value – the mega project market.

Rather than paper over the challenges Murray & Roberts faces, Brian chooses

to be realistic and open about them. He says that difficult contracting conditions have been compounded by slow progress with the resolution of claim entitlements and final accounts on existing major projects in South Africa and the Middle East. Without exception, all the Group’s major projects over the past five years have been subjected to significant increases in their scope of works, over and above what had originally been designed and contracted. This has resulted in additional costs associated with delay and disruption, recoverable only through a formal claims process.

Referring to a recent cautionary announcement, Brian notes: “I think it is fair to say that while Murray & Roberts is challenged by the cash flow consequences of this state of affairs, the company and its people have risen above these challenges and continue to deliver diligently on their contracted responsibilities.” Notable achievements are the on-schedule

opening of Concourse 2 and Terminal 3 at Dubai International Airport (valued at USD1,5 billion) and the commissioning of phase 1 of the Gautrain Project ahead of schedule for the 2010 FIFA World Cup.

“We believe in our capability and resilience to deliver a final outcome that includes the recovery of our payment rights under the contracts over time.” This is in response to the outstanding recovery of the investment made by Murray & Roberts and its partners to overcome significant scope increases and deliver these achievements. He adds that it is a core value of Murray & Roberts to seek resolution of disputes through direct personal discussion.

Brian says that group management has worked tirelessly to refine the organisation and position it for growth when the cycle turns. However, the cycle itself is a disappointment, as much of the diversification strategy over the past 10 years was aimed at breaking

## POSITIONING FOR GROWTH

Brian Bruce offers a summary of the Group’s various operations and their readiness for the next growth phase.

### CEMENTATION GROUP

This business unit will continue to benefit from the demand for resources and our leading expertise in deep-level mining and is under stable and experienced leadership. All commodity prices, world market indices and mining stocks have also recovered well from the global financial crises and now indicate a positive sentiment, which most analysts and commentators believe will last for at least two to three years. This can only bode well for Murray & Roberts and the Cementation group of companies.

### CLOUGH

Clough is a great Australian business. We exercise our influence through the board

and work with the excellent management team to deliver a value proposition to all shareholders.

### CONSTRUCTION

Our key domestic market is the construction economy in all its forms, embracing construction, engineering and industrial activities. We are in the process of consolidating the business of Concor and Murray & Roberts Construction to redefine our construction offering. The company will then also access the Africa market in concert with the International operations from Middle East.

### ENGINEERING

South Africa’s power program, including the pending nuclear program, is core

to our engineering operations and Murray & Roberts Projects’ business will for the foreseeable future be dominated by the power program. The current thermal power station projects – Medupi and Kusile – are both major projects which unfortunately had a difficult start due to delays and significant scope and design changes. It is in the national interest that these projects be delivered as efficiently as possible and the company is working tirelessly to overcome these challenges, which include significant commercial issues.

### INDUSTRIALS

We are planning to consolidate the various industrial operations

Murray & Roberts out of the debilitating cycle of boom and bust that has always typified the construction industry.

Commenting on a recent Competition Commission statement that implicates the entire sector in collusive behaviour, Brian notes that he has championed the Group's mission to eliminate all forms of collusive behaviour from the Group and to ensure that its employees do not breach competition legislation, as may have been the case in the past. "Murray & Roberts," he says, "has never denied the possibility that some individuals within the organisation may act collusively. But we have been adamant that the 'Mind of the Organisation' as represented by the board and management is clear of conscience and absent of guilt."

Murray & Roberts has worked with the Competition Commission since 2007. It continues to support the Commission and has committed to assist with any of its current and future investigations. The Group monitors

all of its operations in the context of Competition Law. Where irregularities have been uncovered, the Group has cooperated with the Competition Commission and placed leniency markers as appropriate.

## **Murray & Roberts is well diversified with the strength and resilience to deal with its current challenges and to engage the future potential in all its markets.**

### **FUNDAMENTAL MARKET SHIFTS**

Brian says that Murray & Roberts has always tried to be transparent about its current position, notwithstanding the disclosure risks this might bring. At this juncture, it is important to "clear the decks" in a difficult current market.

"We've had a good 10 years, but we have to be realistic about the challenges for the immediate future," he says.

into a single business entity, Murray & Roberts Industrials, which will create a much more focused platform for future growth beyond its local market and expanding its geographic footprint into Southern Africa. We would also look at expanding its asset base through the acquisition of complementary assets. This restructuring will result in a stable structure within which the management of each business unit will be freed to assert itself and assume full responsibility for the growth of individual operations.

### **CORPORATE**

A consequence of this reorganisation is that Corporate Office will shrink as

various layers of management devolve into focused operational teams. However, the corporate team will be enhanced to ensure good corporate governance standards across the Group. This includes key functions such as operations safety, risk management, internal audit and accounting leadership, investor relations and commercial management.

"This is a structure that makes sense for a different future. It is a refinement of our federal structure, better suited to the global nature of the business," says Brian.

He explains that an important attitude in Murray & Roberts is to 'remain the master of our own destiny' and in so doing, avoid being victims of external

circumstances. Our fundamental essence has been brought forward in our DNA over many decades. Nothing is beyond the control of Murray & Roberts, even in the current challenging environment.

"We acknowledge that the working capital challenges we are experiencing in our major projects, competition concerns in our industry and skills capability in our environment are the direct or indirect result of our own past actions and behaviour. We are responsible for creating our own future.

"I am confident that Murray & Roberts as it is today has the leadership, the business platform and the core capability to grow and compete with the best in the world," Brian concludes.



“The global financial and economic crisis has been a catalyst for fundamental shifts in some of our core markets, especially the Middle East, where there is suddenly less capital available for major projects and what is being put out to tender is increasingly being awarded to local rather than foreign-owned companies.”

He emphasises, however, that the current circumstances are limited neither to Murray & Roberts nor the domestic construction industry, but are in fact, a global problem.

Compounding the crisis in the hard-hit South African market was its unexpectedness, says Brian. “There is a massive socio-economic demand for infrastructure, including the thousands of jobs created through construction. This was clearly evident over the years ahead of the 2010 FIFA World Cup. These skills have rapidly dissipated, where they could have been redeployed into municipalities for instance, to better roll out their programs.”

The comment follows a recent statement by the South African Association of Consulting Engineers, which expressed the industry’s deep concern with the quality of capital project planning within the public sector and warned that the problems of budget overruns and poor service delivery could grow unless departments take active steps to recruit and retain a better cadre of technical professionals.

At a time when skills are still available and there is a need for infrastructural development, new major projects are simply not coming to the market in South Africa, says Brian. He adds that Murray & Roberts is not looking for excuses or scapegoats, but it is important to have a market to maintain the growth of its order book which is currently valued at R50 billion.

#### **FOCUS AND CONSOLIDATION**

One way this will be achieved is through focused consolidation of its business operations. “For instance, we will

rationalise our presence in the Middle East, a market which is not what it was a few years ago and not as accommodating to foreign companies as it once was.”

In the time that Murray & Roberts has been based in the United Arab Emirates (UAE), local contractors have developed the capacity to undertake major contracts in a market which has become highly competitive. The number of large projects has declined rapidly since 2008. “The global financial crisis changed the dynamic totally, and we have to question the future value proposition of this market for Murray & Roberts.

“While we’re reducing our Middle East exposure, we are simultaneously expanding our reach by engaging new markets from there,” adds Brian. This includes looking into Africa from the UAE.

The attraction of Africa scarcely needs to be spelled out any more. With 30% of the world’s natural resources, it is the last great undeveloped region of the world. The growth rate of these ‘frontier markets’ is set to outstrip even the current batch of emerging markets, and the focus is most likely to be on the initial establishment of infrastructure for the extraction of natural resources.

“The continent has 20% of the world’s land mass, 15% of its population but only 2% of the global economy, so it has a lot of untapped potential. Furthermore, I believe the Middle East will over time become much more geared to the African story and become a logical gateway to the north and eastern continent.”

South Africa is another logical gateway which will allow Murray & Roberts to unlock the continent from both aspects.

Brian notes that despite the Group’s current difficulties, many of its companies have continued to deliver solid performances. He describes Murray & Roberts as well diversified with the strength and resilience to deal with its current challenges and to engage the future potential in all its markets. EAMONN RYAN 

# BUILDING SA

**Murray & Roberts Projects has started to make good progress in its work on the power program.**

**W**hile progress on the Medupi project was hampered by past design and access to site issues, the project team is now focusing on a completion and handover date for the first boiler unit late this year. More good news is that lessons learned from construction of the first unit (unit 6) have improved the methodology adopted on the construction of the second unit (unit 5) and good progress has been made with the second unit since construction commenced in November 2010.

Murray & Roberts Projects is contracted to Hitachi Power Africa for the Medupi and Kusile boiler packages comprising 12 units of 800 megawatts electrical (MWe) each. These power stations are the largest dry-cooled thermal power stations under construction in the world. Medupi is scheduled to be in full operation in 2015 and Kusile in 2016.

Murray & Roberts Projects is responsible for the supply and fabrication of all the structural steel, ducting and bunkers and the installation of the complete boiler units involving the piecing together of over one hundred thousand high pressure components and mechanical equipment.

To date, some 2 710 tonnes of ducting and bunker components have been fabricated out of a total of 24 400 tonnes for the project. Production has been slow but improved elemental designs, detailing and fabrication processes are now starting to take shape, and production output figures are improving.

There are currently about 2 000

operatives and supervisors employed at the Medupi site and this number will rise to about 3 000 as the later units become available for erection. The workforce comprises a wide range of skills sourced largely from South Africa, including the local community, and supplemented by certain specialist international skills.

The project has reached over one million man hours worked without a lost time incident twice in the last 12 months and the team has its next target of two million man hours in its sights. The lost time injury frequency ratio is currently 0,95.

## KUSILE POWER STATION

Progress at Kusile is limited to offsite manufacture and procurement activity. Mobilisation will begin when access to the boiler island is granted later this year.



■ Medupi Unit 6 boiler house steel erection in progress

## PROGRESS ACHIEVEMENTS:

### MEDUPI

- **Auxiliary boilers 1, 2 and 3 chimney stack erected, interconnecting pipework and ductwork in progress**

### Boiler unit 6

- **Boiler mainframe complete**
- **Boiler house structure and platforms, gratings, railings and buck stays in progress with 1 231 tonnes erected**
- **Bunker supporting structure in progress**
- **Auxiliary bay steel and roof structure complete**
- **Superheater piping assembly in progress for rear wall panels**
- **Assembly of coal bunkers 1 and 2 and installation of liner plates in progress**
- **Installation of elevators in progress**

### Boiler unit 5

- **Boiler mainframe erection ongoing**
- **Auxiliary bay erection nearing completion**

### KUSILE

- **Lateral lay-down area construction complete**
- **Structural steel for the mainframe fabricated and delivered to site**
- **Mobilisation of construction equipment nearing completion**
- **Project team mobilised**
- **Main warehouse construction in progress**
- **Ductwork, bunker manufacturing facility complete, producing boiler unit 1**

# WORLD CLASS DELIVERY

The most important milestone for 2011 is the commencement of operations on the entire system towards the middle of the year.

## GAUTRAIN

The Gautrain Project achieved an important milestone in 2010 with the successful opening of Phase 1 for commercial service in time for the Soccer World Cup. The project also made significant progress in other areas of operation.

### GAUTRAIN HIGHLIGHTS AFTER JUNE 2010:

- The civil construction works for viaduct 5, which is more than five kilometres long through Centurion, were completed in July
- All alignment sections from Midrand up to Pretoria Station were handed over to the electrical and mechanical contractor in September
- The trackwork was installed from Midrand through to Pretoria Station by October 2010
- All rolling stock for the system (24 train units or 96 rail cars) was delivered by the end of November 2010
- Midrand Station construction was completed by November
- Most of the physical civil construction and installation work on the Gautrain was completed before the end of 2010
- The power supply and distribution energisation of the line up to Centurion and the electrification of the line between Sandton and Rosebank was completed by December
- Sandton Station construction was completed by the end of the year



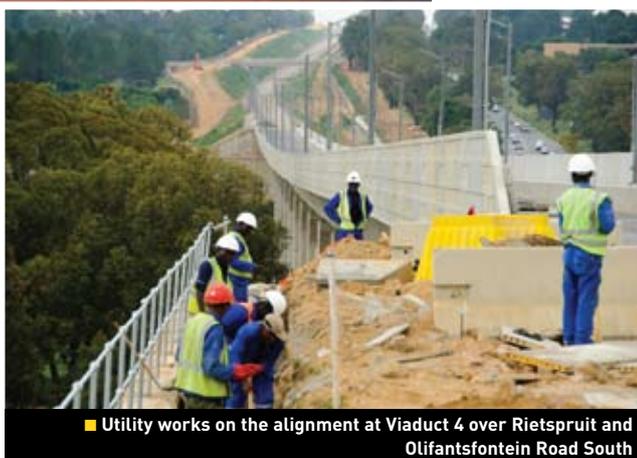
■ The UCW team delivered the last of the train sets to the Gautrain depot in Midrand amid much fanfare in December 2010

The most important milestone for 2011 is the commencement of operations on the entire system towards the middle of the year.

### 2011 MILESTONES:

- The trackwork installation on the whole route for the full Gautrain system
- The full electrical and mechanical installation works
- The testing and commissioning of systems for the Centurion section
- Testing and commissioning for the Hatfield section

Construction started at the end of September 2006 and has been undertaken in two phases. The first phase was initially planned to be of 45 month contractual duration, but was completed three weeks ahead of this on 08 June 2010. It includes the network between the OR Tambo International Airport and Sandton and the stations at OR Tambo, Rhodesfield, Marlboro and Sandton, together with the depot and operations control centre located near Allandale Road in Midrand. The second phase, constructed concurrently, will be completed this year. It includes the remainder of the rail network and stations linking Sandton to Park Station in Johannesburg and the route from Midrand to Hatfield.



■ Utility works on the alignment at Viaduct 4 over Rietspruit and Olifantsfontein Road South

# BACK ON TRACK



Union Carriage and Wagon (UCW), the primary manufacturer of South African rolling stock, has achieved an impressive turnaround in performance due to significant improvements in the efficiency of its manufacturing processes.

UCW was established in the 1950s and plays an important role in maintaining South Africa's rail transport requirements. It produces the bulk of the country's rail passenger and freight fleets and is best known for building the prestigious Blue Train in 1972 and assembling the Gautrain fleet of 96 rail cars. Murray & Roberts acquired ownership of the business in the early 1990s.

In spite of its importance to the domestic economy, UCW has been plagued by mixed fortunes over the years and was on the brink of ceasing operations a decade ago as Government spending on capital equipment and infrastructural development declined and a major international contract failed.

## OVERCOMING HISTORIC CHALLENGES

Efficiency improvements at the UCW plant in Nigel have resulted in the company increasing the rate of its delivery of locomotives from one every 37 production days in January 2010 to two locomotives every five production days in January 2011. As a consequence, UCW has now delivered 51 of the 110 19E locomotives (compared to 11 in January 2010) and 32 of the 44 15E locomotives (compared to only three a year ago when the production line was closed and rebuilt).

Managing director, Gary Steinmetz, attributes the achievements to more effective systems, direct shop floor management practices, change point control, training, work instructions, task lists, intensive daily production coordination, logistic control and the implementation of a quality network in

2010 which have resulted in significant improvements in the production cycle.

"With this performance, we can face our clients with a sense of pride – we have delivered on the promises we made in January 2010, not only in terms of volume but also financial performance. Our next step will be to realise the full financial benefit from ongoing efficiency improvements," he says.

The UCW team also delivered the last of the 24 four-car train sets to the Gautrain depot in Midrand amid much fanfare in December 2010.

Gautrain's rolling stock is based on the Bombardier Electrostar series, used on commuter routes in the UK but customised to meet South African requirements. A core feature of the rail cars is their suitability for local assembly, which is made possible by the use of modular construction methodology. This delivers on Gautrain's socio-economic objectives of skills transfer and job creation.

UCW employed 95 people from its local community and surrounding areas specifically for this project. 13 of the newly created jobs were filled by women and two by people with disabilities.

## NEW APPOINTMENTS



**Henry Laas** assumed responsibility for the Engineering cluster in January 2011 and has also been appointed chairman of the Medupi and Kusile Project Steering Committees.

Henry is a member of the group executive committee as director of Murray & Roberts

Limited and Murray & Roberts International Limited. For almost a decade, he has been MD of Murray & Roberts Cementation and its predecessor RUC Mining Contractors. He has been instrumental in the establishment of the Cementation Group as a global business and serves on the Cementation Joint Coordinating Committee (CJCC) and on the boards of its Australian and South American businesses. He will remain a member of these boards and the CJCC.



**Chris Sheppard** has succeeded Henry as MD of Murray & Roberts Cementation.

Chris joins the Group with an extensive operational background in the South African gold and platinum mining industry, having previously worked for AngloGold Ashanti, Anglo Platinum and Lonmin.



**Richard Vaughan** was appointed MD of Murray & Roberts Concessions in September 2010. He joins Murray

& Roberts from Goldman Sachs International and has over 10 years' experience in investment banking, including an advisory role in notable transactions such as MTN's acquisition of Investoom, Transnet's sale of the V&A Waterfront and Anglo American's empowerment of Kumba Resources.

# HALL LONGMORE PIPING TRANSPORTS GAUTENG FUEL

Murray & Roberts company, Hall Longmore, has completed the final delivery of specialist piping for the New Multi-Product Pipeline (NMPP) which will transport petrol, diesel and jet fuel from Durban to Johannesburg.

The NMPP will replace and enlarge existing pipeline capacity to accommodate growth in demand for liquid fuels in Gauteng Province. The new pipeline will commence transport of petrol, diesel and jet fuel from the second quarter of 2011. Although the pipeline has also been designed to transport crude oil, the wet commissioning using crude oil will take place at a later stage.

Hall Longmore's involvement with the NMPP began in 2006 with the submission of capability and feasibility information. Significant technical involvement with the NMPP Alliance Joint Venture culminated in the award of the order for the R2 billion three layer coated pipe contract to Hall Longmore as part of the Impumelelo Pipeline Joint Venture.

## **MOST SIGNIFICANT PROJECT EVER UNDERTAKEN BY HALL LONGMORE**

Hall Longmore manufactured and supplied approximately 560 kilometres of Ø610mm line from Durban harbour to Nigel, and approximately 160 kilometres of Ø406mm line from Nigel to Langlaagte, and from Watloo in Tshwane to the terminus near Kendal Power Station. Final delivery took place in August 2010.

In preparation for the NMPP project, Murray & Roberts undertook a significant capacity expansion at Hall Longmore, including a major upgrade of the ERW plant and a new coating facility to a capacity of 250 000 tons per annum. The upgraded plant has increased the company's capability to manufacture pipe by the more efficient ERW method. The upgrade to Ø610mm and downstream improvements will enhance the company's capacity to take on future projects of this nature. Many positive spin-offs have emerged from the NMPP project that will minimise wastage and lead to more efficient pipe-making.



■ The last delivery leaves the NMPP pipeyard

# Q & A



GARY WELLS  
(42)

**BEng CEng MICE  
MANAGING DIRECTOR –  
MURRAY & ROBERTS PROJECTS**

### **How did you prepare for your current role:**

I followed the Japanese school of management training in becoming involved in many facets of the business early and not specialising until late. I have worked in civils, including marine, building and mechanicals, on large and small projects, in engineering and site management, in estimating, marketing and business development. I have worked in many countries around the world in business and project roles.

### **What are the most important milestones achieved since you started:**

Getting controls in place such that there is an improved understanding of team performance.

### **What are the key challenges in your area of responsibility:**

The commercial and timeline challenges on the power program.

### **What drives you:**

Making a difference. Seeing improved progress on a project and making a profit for the business.

### **What are your main interests after-hours:**

Sport and being a typical touchline performing parent.

### **Who has influenced you most in your life:**

My wife. Bright and honest and as strong as all Scottish ladies are.



■ Miner Franklin Lobos (R-C) greets President Sebastian Pinera of Chile during a ceremony in honour of the 33 Chilean miners previously trapped at San Jose mine, at La Moneda presidential palace

**T**he miners were trapped on 5 August last year after the main access tunnel to the mine collapsed. For two weeks they were feared dead until communication was established on 22 August. After an unprecedented and successful rescue operation which involved the drilling of three separate rescue holes in a carefully designed and executed rescue mission, television viewers around the world watched in awe as all 33 miners were brought to the surface on 14 October.

#### HOW DID MURRAY & ROBERTS GET INVOLVED?

Murray & Roberts has a controlling shareholding in two mining companies in Chile: Terracem, which is a specialist raise drilling company, and the recently established Cementation Sudamerica, which is focused on major vertical shaft and underground mine infrastructure work. Its partner in Chile is a local exploration drilling company, Terraservice, whose drill reached the underground refuge chamber and established the first communication with the miners. The miners attached a written message to the drill pipe confirming that they were alive and well.

A Murray & Roberts large diameter raise drilling machine, the Strata 950

# CEMENTATION TO THE RESCUE

The global footprint and mining capability of the Cementation Group was put to the test in the San Jose mine rescue in which 33 Chilean miners were brought to the surface alive after being trapped 688 metres underground for 69 days.





■ Brian Bruce congratulates Wynand Botes, head of the Murray & Roberts drilling team on the San Jose mine rescue project. Other members of the team were Riaan Viviers, Mario Scholtz, Johan Badenhorst and Christo Esterhuizen

## GLOBAL HEAVYWEIGHT

Murray & Roberts has a history dating back more than 80 years of serving the mining industry and is recognised as a leading underground mining contractor worldwide.

The Group acquired Cementation Africa and Cementation Canada in July 2004 and integrated Cementation Africa with its RUC branded operations in South Africa. Together with RUC Cementation in Australia, these companies form the Cementation Group which has operations in the established mining markets of South and Southern Africa, North and South America, Australasia and Asia.

### EXPANSION IN CHILE

In 2009, Murray & Roberts extended its fledgling presence in Chile with the establishment of Cementation Sudamérica to participate in planned expansion of underground mining in the country and region, and supplement the established raise drilling operations of 50% owned local company, Terracem.

The Cementation Group is leveraging its combined global capacity to access new markets and significant opportunities that the individual operations may not have been able to undertake in their own right.

The business is well positioned to benefit from ongoing global demand for natural resources, driven primarily by China. The operations in South Africa, North America and Australia have all secured new contracts in the past year and continue to work on large long-term contracts that have provided a buffer during the economic downturn. Cementation Sudamérica has pre-qualified for its first major shaft projects in Chile, and is well placed to participate in the shaft construction activity which is planned to commence during 2012.

which was manufactured in Australia by Cementation RUC, was the first drill on site when the Chilean government called for help. It had just completed a shaft for Codelco's Andina Mine and was mobilised to site to drill a rescue hole. The combined Cementation Group, comprising Cementation Canada, Murray & Roberts Cementation and RUC Cementation Mining Contractors, collaborated in the design of a rescue plan that was accepted by the Chilean government. Rotary Vertical Drilling System (RVDS) technology, co-developed by Murray & Roberts, was applied to accurately drill a vertical pilot hole to reach the trapped miners, after which it would have been reamed to a larger diameter to establish a rescue shaft.

As time was of the essence, the Chilean government mobilised two other down-the-hole drill rigs (an oil field rig and a water well rig) which had

higher drilling rates than the Strata 950, but not the same level of accuracy. Accuracy was very important, as in the event of poor ground conditions, the rescue shafts would have had to be lined before any rescue could be attempted. A team of Murray & Roberts drill rig operators worked alongside several other teams, including those that were drilling holes to send food, water and other supplies to the miners.

Another hole (referred to as Plan B), broke through first to the trapped miners, and this became the passage to bring the men to the surface. Although this was not the hole drilled by the Strata 950, the Cementation team collaborated on the final rescue plan and contributed their expertise at all stages of the mission. The South African flag flew alongside those of the other countries that had teamed up and worked tirelessly in this global effort to save precious lives. ○



■ Murray & Roberts was presented with this sculpture by the Mayor of Ekurhuleni in recognition of its contribution to the San Jose mine rescue



STOP.THINK

# JOURNEY TO ZERO HARM

**M**urray & Roberts has embarked on a comprehensive initiative to evaluate the health and safety management in its South African operations against global best practice standards – and has appointed DuPont Sustainable Solutions as its partner on this ‘Journey to Zero Harm’.

Murray & Roberts group CE, Brian Bruce says that strong leadership, continuous motivation and education of the Group’s employees to take responsibility for themselves, their colleagues and the environment are key elements of the Group’s aspiration to achieve Zero Harm. “We are proud to partner DuPont Sustainable Solutions to undertake a comprehensive evaluation of the Group’s South African operations against best practice standards and to develop a set of continuous improvement recommendations.”

DuPont is a science-based products and services company. Founded in 1802, DuPont puts science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 70 countries, DuPont offers a wide range of innovative

products and services for markets including agriculture and food; building and construction; communications; and transportation.

## ASPIRING TO ZERO HARM IN EVERYTHING WE DO

Carlman Moyo, managing director of DuPont Sub-Saharan Africa, comments that while Murray & Roberts has already made significant strides towards creating a positive health and safety culture, the DuPont appointment will assist the company to achieve its goal of Zero Harm in all aspects of business – people, partners and clients, the natural environment in which it operates and society in general.

According to Moyo, DuPont will gather data through a Safety Perception Survey (SPS) which gives the organisation a view of health and safety from the employees’ perspective.

A Safety Management Evaluation (SME) will also be conducted by DuPont to give an independent view on the health and safety culture based on international best practice. Based on these, DuPont and Murray & Roberts will then develop best-practice recommendations across all activities of the organisation. This rigorous process will provide a complete picture of the Murray & Roberts culture and risks and will form the basis for the strategic review of what the company needs to do to improve its health and safety performance.

Moyo says that all of the industrial accidents that happen in organisations can be avoided, and that improving health and safety depends largely on how leadership is able to influence behaviour. It is encouraging, he adds, to see industry leaders like Murray & Roberts take proactive steps to go beyond the minimum requirements of health and safety standards in the workplace. ○



## DEVELOPING SKILLS

### TLHAHLONG ARTISAN TRAINING CENTRE

When Murray & Roberts Projects was awarded the boiler contracts for the Medupi Power Station in 2007, the company agreed to train 700 artisans to meet targets set by the Accelerated and Shared Growth Initiative for South Africa.

The artisans are trained at the Tlhalong artisan training centre in Lephalale, Limpopo, and the programme

is conducted in partnership with the FET College in Lephalale, Gijima AST (the training provider) and the merSETA.

The training program has achieved significant milestones thus far, with 414 artisans at Medupi, either on the project site, gaining practical ‘on the job’ experience or within the training facility. At Kusile, the first intake of 95

artisans have completed their summative assessments and are engaged in their ‘on the job’ training.

The scheme, which was driven by Eskom, provides a good basis for the future skills needs of South Africa and enables Murray & Roberts to leave a positive legacy in a community where it is involved in a large project.

# TAKING A STAND

**Murray & Roberts is determined to foster ethical behaviour throughout the organisation. *Robust* explores the actions it has taken over the past decade to achieve this.**

**T**he construction industry has recently been implicated in collusive behaviour. While Murray & Roberts cannot rule out the possibility that some individuals within the organisation may act collusively, the Group is adamant that its board and management is clear of conscience and absent of guilt. These are the actions Murray & Roberts has applied in the past decade to eliminate collusive behaviour and ensure compliance with competition legislation.

Murray & Roberts was a founding member of the Partnering Against Corruption Initiative (PACI) which was launched at the 2004 annual meeting of the World Economic Forum to counter bribery in business. In terms of its membership of PACI, Murray & Roberts undertakes to counter corruption and bribery in its business and markets. The Group hosted the first PACI conference on African soil.

In 2009, Murray & Roberts was one of only two construction companies that participated in the Ethics Institute of South Africa's Corporate Ethics Indicator (2009). The benchmark study which is in line with the recommendations of the King III, provides the Group with independent and statistically reliable information on the ethics management practice within the organisation.

Murray & Roberts has worked with the Competition Commission since 2007. The Group continues to support the Commission's process and has made a commitment to assist with any of its current and future investigations.

In recent years, senior corporate executives and operating entity executives have undergone advanced training on the legislation covering anti-competitive behaviour and the Group has reviewed all operating entities to identify potential competition law risks. Where there is any possibility that such risks might exist, the competition authorities have been informed and appropriate actions taken to protect the company and its shareholders.

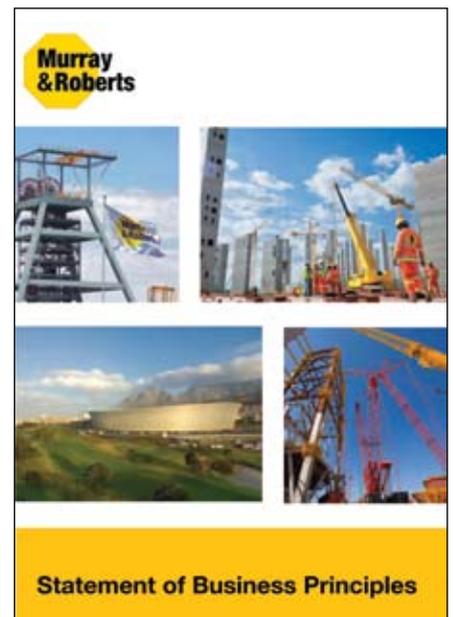
The Statement of Business Principles assists employees in all geographic locations to recognise and deal with areas of ethical risk and to foster honest and ethical conduct.

"It is not intended to be a statement of new beliefs or a codification of new rules of conduct," says group CE Brian Bruce, "but as reaffirmation of our enduring values and practices developed over more than 109 years." ○

**This is not a statement of new beliefs or a codification of new rules of conduct, but a reaffirmation of enduring values and practices developed over more than 109 years.**

The group chief executive hosts "Ask Brian" on the Interchange and the CE Discussion Forum on the website to promote transparent direct communication on matters of importance to employees and broader society. He is also the direct point of contact for "Tip-offs Anonymous", an independent hotline service that supports reporting of workplace dishonesty, including fraud and corruption. The Group also employs a professional firm of forensic consultants and investigators to investigate all reported cases. Appropriate disciplinary and legal action is taken for dishonest conduct.

This year, Murray & Roberts will distribute a Statement of Business Principles throughout the Group to promote and encourage ethical behaviour.



# AGAINST THE ODDS



**Murray & Roberts celebrates sporting excellence in severely challenged communities with two annual sports development awards.**

**T**he 2010 Jack Cheetham Memorial Award was presented to Tiger Titans Cricket Club from the Eastern Cape, and Boccia for the Severely Physically Disabled won the Murray & Roberts Letsema Award. The winners were selected in recognition of their sporting excellence and significant community impact.

The winners of the two awards each receive prize money of R500 000, payable over five years. These awards are funded

by the Letsema Sizwe Broad-Based Community Trust, part of the broad-based BEE shareholder structure established by Murray & Roberts in 2005.

#### **TIGER TITANS CRICKET CLUB**

When a 14-year-old schoolboy from the small Eastern Cape farming community of Bathurst decided to start a cricket club for boys from the impoverished Nolukanye township in December 2007, he did it to give them something to do during the school holidays. What Ross McCreath may not have realised at the time was the miracle his plan would unlock.

When word got around, more than 30 boys from the township pitched in to help restore a derelict cricket field on nearby municipal land. Then, with nothing more than his own kit, Ross began coaching the boys. Their enthusiasm, commitment and raw talent was immediately evident and, within a few months an under-14 Tiger Titans team was selected to test its skills against the more privileged St Andrews College, which Ross attends. The Tiger Titans reached a winning target

of 154, with seven wickets in hand, then Ross, who played for the St Andrews side, was bowled out for a duck – and a star team was born.

The Tiger Titans Club has unleashed a passion for cricket with significant potential that has materialised into a squad of more than 50 young boys between the ages of nine and 19 who make up three almost unbeatable teams. Over the past two years, the club has maintained a winning record of over 80% against private and public schools in the province and further afield, and was recently invited to join the Grahamstown Cricket League. One of the players was selected to play Eastern Province provincial cricket this year and 35 of the players are enrolled in the President's Award Program, which enables them to effect transformation in their community.

Ross, now 17 years old, works tirelessly to develop the club and has demonstrated leadership qualities beyond his years, mobilising the support of the local community, the municipality, Eastern



■ Jack Cheetham winners (left to right) Ross McCreath, Mduduzi Mkalipi and Anne McCreath

## ABOUT THE AWARDS

The Jack Cheetham Memorial Award was initiated by Murray & Roberts 29 years ago in recognition of the special qualities of Jack Cheetham, a former director of the company and the inspirational captain of the South African cricket team in the 1950s who was able to instil in young people the belief that they could win. The award targets sports development projects, focusing on individuals or teams that have the potential to be champions.

The Murray & Roberts Letsema Award was initiated in 2009 following the outstanding performance of athlete Hilton Langenhoven who captured the attention of the world at the 2008 Paralympics in Athens. The award recognises sports development projects for people with disabilities.



■ Johannesburg City Hall, the venue for the awards ceremony

Province Cricket, the Department of Sport, local schools and his family to ensure the sustainability of the Tiger Titans. He has received a number of awards in South Africa and abroad in recognition of his work and was the runner-up of the 2008 Jack Cheatham Award. In 2009, Ross was invited by HRH Prince Phillip to be the keynote speaker at a gala dinner at Lords Cricket Ground, and this year he was recognised by the Peter Cruddas Foundation as one of ten International Social Innovators.

A partnership with talented 22-year-old Port Alfred coach, Mduduzi Mkalipi, and community elder, Gladman Xali, has been instrumental in the success of the club. The players practice up to four times a week and play matches on Saturdays, and older players pass on their skills to newcomers. During the winter off-season, fitness training continues and the Tiger Titans transform into the Scorpions Soccer Club.

With additional funding, the club will be able to extend its reach to many more children in the Bathurst community and it will take one step closer to fulfilling Ross's ultimate dream of producing South Africa's next Makhaya Ntini.

### **BOCCIA FOR THE SEVERELY PHYSICALLY DISABLED**

Boccia is a form of indoor bowls for people with severe disabilities, such as cerebral palsy and muscular dystrophy. This highly technical game is played competitively in 52 countries and is one of only two sports for the severely disabled in the Paralympics.

When Ruon van Zyl, a victim of the 1950s polio epidemic, was introduced to the game in England, he immediately recognised its value for severely disabled children in South African schools, who are marginalised by their disability and excluded from sporting activity. Having introduced boccia to schools for disabled children in KwaZulu-Natal, Ruon embarked on a road trip across rural and urban South Africa to broaden his marketing of the benefits of the game to people with disabilities. Ruon's work was recognised in 2008 when Boccia for the Severely Physically Disabled was selected as a beneficiary of the Letsema Sizwe Trust.

In 2003, the South African Sports Association for the Physically Disabled accepted boccia as a paralympic sport with five provinces and 23 athletes competing. Today, more than 500 disabled South Africans have found a meaningful pursuit in boccia which

has become the fastest growing game for sports people with disabilities. It is also proving to be a valuable tool in the rehabilitation of people with disabilities.

Two young South Africa boccia players were selected to participate in the 2006 World Boccia Championships in Brazil and the 2007 Boccia World Cup in Canada. In 2010, two South African athletes attended the Boccia World Championships in Portugal. Participation in international events is vital in order to qualify for the Paralympics and these athletes gained valuable ranking points, and shared their experiences with other athletes. A Boccia Leadership Course trains players to be technical officials and forms part of a talent identification strategy to find players with the potential to join a high performance elite athlete squad which will represent South Africa at international competitions and seek qualification for the 2016 Paralympics. ○

■ Winners of the Letsema Award with Hilton Langenhoven (centre)



# Our Legacy

A focus on major historic projects that have contributed to the reputation Murray & Roberts has developed over the years as a leading world class contractor.

## MOSSGAS

The Mossgas offshore project near Mossel Bay was initiated in the mid 1980s to exploit offshore petrochemical gas deposits. Murray & Roberts, a partner in a subsidiary company, EMSO, was awarded contracts valued at R300 million for the feasibility study and then the conceptual design and project management phases.

The project was completed on time and to the original parameters and was handed over to Mossgas in 1991.

The offshore project recorded major achievements in engineering, fabrication and installation, namely:

- The longest vertical piles in the world which were fabricated and installed offshore in a single length. The piles were 132m long, 82" in diameter, with an average weight of 500 t.
- At the time of procurement, the longest semi-submersible pumps ever designed and built in the world. The pumps were immersed 72m below sea level.

- The longest directionally drilled beach crossing under the seabed in the world, measuring 1km in length. This was repeated three times to cater for the gas, condensate and effluent pipelines.
- The world's first integrated drilling derrick and sub-assembly, engineered, transported and lifted into position in one piece.
- The first use of an electromagnetic lifting and percussive tool for the installation of the vertical piles. This percussive tool was specially designed to prevent pile stick-up problems where frequency of the wave action was approaching the frequency of the pile.
- The first time that an offshore jacket had been launched in such hostile waters, with constant swell and freak wave conditions.

The project also represented major achievements for South Africa:

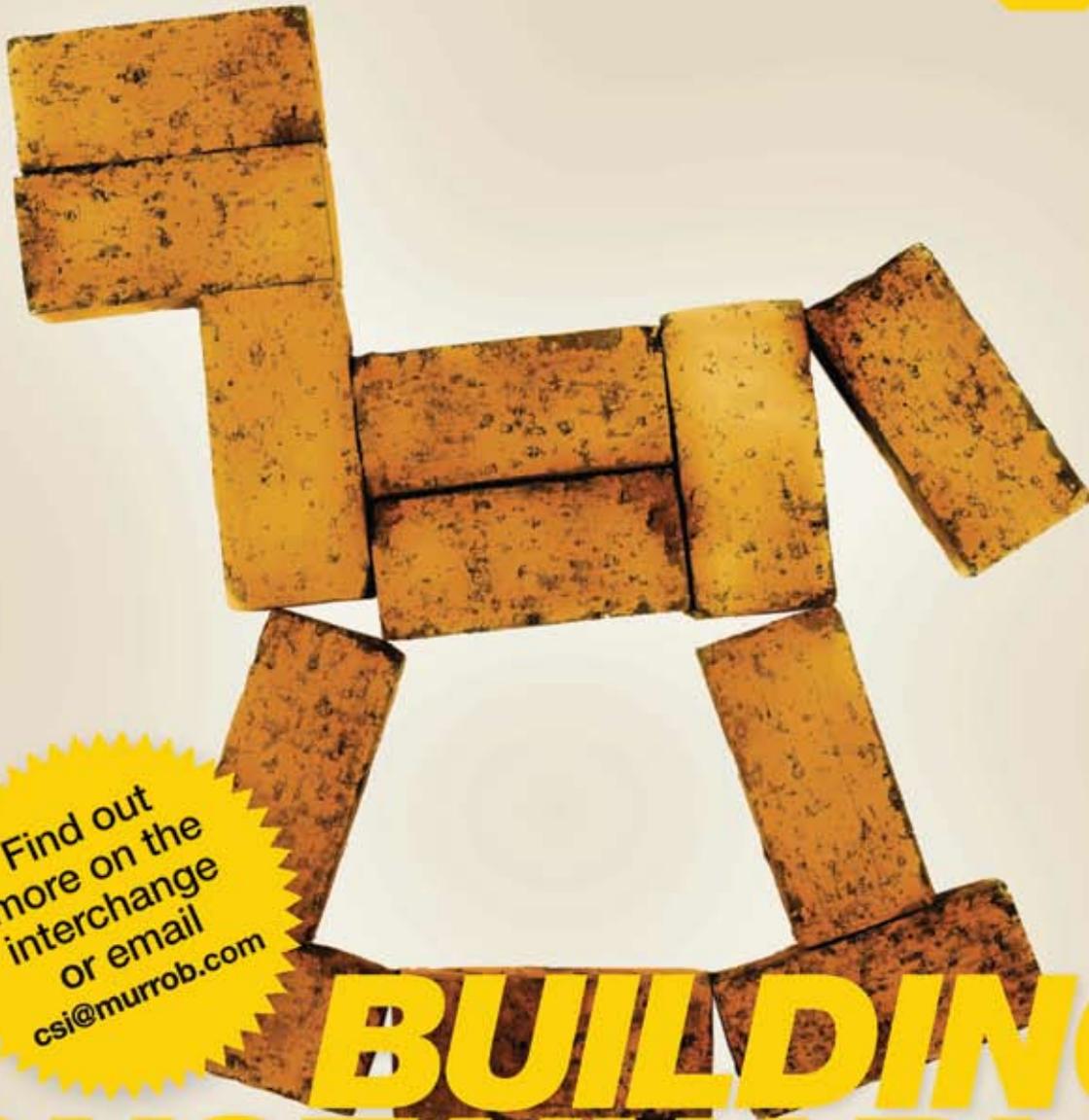
- The first offshore project in South Africa.
- The first major project that was engineered and fabricated in South Africa with a predominance of South African input.
- The first project where major structural steel nodes were engineered and fabricated in South Africa.
- The biggest steel structure ever built and moved in South Africa. The total weight of the structure was 14 500 t.
- South Africa's first concentrated research into offshore environmental conditions, thus establishing parameters for future reference.
- Special steel produced for the first time in South Africa and now available for sale on world markets. ○

**The project achieved a world record in the Guinness Book of Records for the longest length of 8" pipe laid in a 24 hour period.**



*The future is in our hands. Every day, in every way,  
we are building communities in South Africa.*

**Murray  
& Roberts**



Find out  
more on the  
interchange  
or email  
[csi@murrob.com](mailto:csi@murrob.com)

# **BUILDING SUSTAINABLE COMMUNITIES**

Corporate Social Investment at Murray & Roberts

**JOIN** the employee volunteering programme

**SIGN-UP** for payroll giving

**PROPOSE** a community project for funding



Murray & Roberts is South Africa's leading engineering, contracting and construction services company, with a primary focus on the resources-driven construction markets in industry & mining, oil & gas and power & energy in Africa, Middle East, Southeast Asia, Australasia and North and South America. The company offers civil, mechanical, electrical, mining and process engineering; general building and construction; materials supply and services to the construction industry; and management of concession operations.

More information is available at [www.murrob.com](http://www.murrob.com)



We commit to **world class fulfilment** in everything that we do

The Hallmark of Experience & Skill - 109 Years: 1902 to 2011

Murray & Roberts Client Service  
 Tel: +27 (011) 456-1144  
 Fax: +27 (086) 637-0113  
 Email: [clientservice@murrob.com](mailto:clientservice@murrob.com)