



**Much
Asphalt**

The road to the future ...

SurfaceTalk

Winter 2007

NOMAD 1

See page 4

**Murray
& Roberts**

A Murray & Roberts company

Keeping our focus on best practice

Much Asphalt chief executive Phillip Hechter.



Much Asphalt exceeded its targets for the financial year ended 30 June 2007, thanks to the hard work and dedication of all our staff around South Africa.

Many of our people have put in long hours in the past year to complete challenging projects and deliver customer satisfaction. We are proud of our team's commitment to solving problems and achieving excellence, regardless of the extra hours and other difficulties involved.

For us the theme of CAPSA 07, Consolidating Best Practice, is therefore particularly relevant and we have looked forward keenly to participating in this event.

The pavement industry in South Africa is stretched almost to the limit with infrastructure spend at an all-time high and projects being fast-tracked to meet the demands associated with the Soccer World Cup in 2010. At such times of exceptional demand, it is often easy to fall back on practices that make life "easier" to meet deadlines. But if we are honest with ourselves, we could do it better.

Best practice is a moving target and that's why CAPSA is such a valuable forum. It exposes us to the newest technologies, allows us to exchange ideas with the world's top industry experts and gives our people an opportunity to network with the cream of the crop.

While we enjoy sharing valuable time with our industry colleagues and friends at CAPSA, we should also be reflecting on how we can do things better to move our industry to the next level of excellence. By this I mean not only fulfilling our clients' expectations by providing a top quality product on time, but at the same time focusing closely on health, safety and the environment and not losing momentum on that all-important issue of training.

- Phillip Hechter

International interest in Hex River projects

There have been two visits by international experts to Much Asphalt's Hex River Valley contracts in the past few months. Both were based on Much's ongoing search for new ideas and technology advancement from overseas organisations. Our visitors expressed a particular interest in the bitumen-rubber mixes used in the three Hex River resurfacing projects.



The Australian delegation. From left: Much Asphalt marketing director John Onraet; Warren Carter, national technical manager of Downer EDI Works, New South Wales; Russell Crabb, technical manager of Boral Asphalt, New South Wales; John Figueroa, asphalt manager of the New South Wales Roads & Traffic Authority; and Trevor Distin, CEO of Sabita.

On site in the Hex River Valley: World bitumen authority Prof Hussain Bahia of Wisconsin University in the USA (left); and Prof Kim Jenkins, the Sanral Chair of Pavement Technology at the University of Stellenbosch.



Much Asphalt's Jimmy Henderson cuts cores to check the density of the resurfaced pavement.

Quality is up to Much in East Cape N2 contract



Steam rises from a newly paved section of the Gamtoos/Van Stadens project.

Johnson Burwana of Much Asphalt tests the asphalt temperature.



Consultants UWP and Ulassi & Associates have taken the unusual step of accepting Much Asphalt to undertake both quality and acceptance control testing on the resurfacing of the N2 freeway between Gamtoos and van Stadens south of Port Elizabeth.

The rehabilitation of this section of road is being undertaken by Sakisizwe JV for SANRAL, with Brisk Asphalt as the paving contractor. PE branch manager Colin Brooks says the project, involving the supply of 12 000 tons of Colto Medium, is about 50% complete with no product problems to date.

Now we're in Mpumalanga

A new Much Asphalt satellite silo is now in operation in the Ferrobank industrial area of Witbank, north of Ferrometals and opposite Concor. This installation, with a capacity of 90 tons, came on stream in mid-August to supply all our customers in the vicinity. It will be replaced with a full operational 80 tons/hour plant later in the year. The satellite silo will receive asphalt from our Benoni plant as and when required by customers.

Safety induction for your staff

Much Asphalt has compiled a comprehensive safety induction DVD which must be viewed by all visitors to our sites, including customer staff collecting product. Please advise all relevant individuals to contact us to arrange to view the DVD when they next call in at one of our facilities. Our new updated corporate DVD is also available and we will be happy to send you a copy on request.

From page 1

Nomad 1 satisfies stringent mix demands

In December 2006 Much Asphalt's Nomad 1 mobile plant was refurbished at its former N1 site in the Hex River Valley and moved to its current location 17,2 km north of Touws River in the Bijstein nature reserve.

Interestingly, the nature reserve is home to a species of endangered riverine rabbit that lives on the banks of a stream passing less than 200m from the construction site. These shy and attractive creatures are fitted with electronic chips and their wellbeing is monitored by satellite.

Service new project

The new location of Nomad 1 enabled us to service our latest N1 project between Touws River and Laingsburg, awarded to a joint venture between Haw & Inglis and Roadmac early this year. The contract, let by SANRAL through a consultancy joint venture between Potgieter Hattingh Inc and Eckon, was for routine maintenance and reseal.

Mobiles manager Francois van der Spuy reports that trial mixes were completed in February 2007. Asphalt supply commenced on 6 March and was completed in August.

The project required 2500 tonnes of Colto Continuously Graded (Medium) for patching repairs, as well as 44 000 tonnes of Semi-open Graded Bitumen Rubber Asphalt overlay. Of technical interest is the choice of a harder 60/70 penetration



Nomad 1, now located in the Bijstein nature reserve to supply material for routine maintenance and reseal on the N1 between Touws River and Laingsburg.

grade base binder, as well as a coarser combined aggregate grading of the mix.

"The grading approaches that of SMA while retaining sufficient mastic to allow for acceptably low permeability," Francois points out. "Five separate mix designs were required in the project specification – the eventual mix was selected 10 designs later.

"The emphasis was on rut resistance and durability through extreme changes in temperature. We experienced -5degC all the way up to 46degC during the course of the project. This places enormous demands on the asphalt, hence the careful approach to final mix approval."

The extremes in ambient temperatures also

placed constraints on the daily working window period. "The project team had to predict with two-hour accuracy when paving could commence as the binder was prepared in the very early morning and binder life is only about four hours. A compliment is in order here," Francois adds. "An incorrect estimate was not made throughout the contract."

The Much Asphalt team was ably led by Warren Maher, assisted on the production side by Peter Murphy. Eddie Platt looked after product quality and the rest of the team was recruited from the local community.

This contract was notable for the co-operation and common project approach from all parties.

Farewell to Chris Lange

Technical director Chris Lange, pictured with his wife Dianne, has left Much Asphalt to take up a position with City Works in Brisbane, Australia. Chris will be sorely missed for both his technical expertise and his long term dedication to our company. He joined Murray & Roberts Civils on 1 January 1978 and six years later moved to Much Asphalt, where he has remained ever since. The company has benefited greatly from his

passion for introducing world best practice into all areas of its activities. We wish him everything of the best in his new venture.



Who said this was a man's world?

Who would have thought our Best practice workshop on hand laid hot mix asphalt would be attended by a women only group? This was the case, for the first time since we launched the course, when a group representing South African Women in Construction (SAWIC) completed the course at our Eerste River offices recently.

Nomsa Skweyiya, chairman of SAWIC, and a group of other Western Cape SAWIC members attended the course based on a recommendation by SAFCEC. The course is offered free of charge as a value-added service to

customers and helps to enhance skills in the rapidly expanding industry.

Nomsa, who is a landscaping and civils contractor, told Surface Talk that the delegates found the content informative. "As emerging contractors, we often use the wrong terminology," she said. "This is not good for our communication with our clients. For example, I won't refer to tar again, now its asphalt. However, we would have preferred a longer practical component and hope to be able to undertake more practical training in the future."



SA Women in Construction delegates with presenter Dave Wright (top left).

Bloemfontein makes life much easier for the 'bakkie brigade'

Much Asphalt's Bloemfontein branch has installed two new hot storage silos (80 ton and 40 ton) to improve supply to smaller Free State customers.

"In the past, our cash customers doing between 1 and 5 tons a day always had to move to the back of the queue while we were busy with big contracts because of the specialised mixes required for the bigger orders," explains branch manager Leon Cloete.

"The new 40-ton silo is dedicated only to small customers. It operates on weigh load cells that can

measure up to 20kg per ton accuracy, reducing problems associated with over- and under-loading."

Longer life for cold mix

Bloemfontein has also improved its cold mix recipe by adding a fluxing agent through a measured injection system. "This has improved cold mix shelf life by at least three months," Leon says. "We will soon have winter grade (slow curing) and summer grade (fast curing) cold mixes available to our customers."

New investment in decorative asphalt



Modified bitumen tank for the production of Décor Asphalt.

Decorative asphalt

Eikenhof in the West Rand is gearing up to produce asphalt in different colours (Décor Asphalt) to meet anticipated demand in preparation for the 2010 Soccer World Cup.

Two bitumen tanks are being modified for the storage of imported Albino bitumen used in the manufacture of Décor Asphalt.

Different colouring agents are added to the bitumen to obtain the colours required. The Eikenhof plant expects to be fully equipped to produce Décor Asphalt in green and red by the end of this year.

Cold feed upgrade

The high demand for different asphalt products in Gauteng has resulted in the Much Asphalt team at Eikenhof reassessing production output and truck turnaround time.

Branch manager Vivien Seiderer concedes that changing over from one mix to another without delays is a daunting, if not impossible, task. "After careful consideration, we were left with no alternative but to install two new cold feed bins to allow for changes between mix types without delaying customers," says Vivien.

These cold feed bins have been fully operational from August 2007, ensuring that customers get what they want, when they want it.

Leading the industry in reclaimed asphalt pavement (RAP)

The Roodepoort branch of Much Asphalt has taken its recycled material usage programme a step further with the installation of a second Reclaimed Asphalt Pavement (RAP) bin by Comar on 8 July.

"This is a huge stepping stone for us as the manufacture of asphalt comes under increasing pressure due to raw materials shortages," says Roodepoort branch manager Brian Neville. "The environmental benefits of using recycled material are significant."

Roodepoort uses approximately 10% RAP in its mixes using its existing RAP bin, which feeds finer material into the mixes. The new bin enables us to add larger sized RAP material and ultimately a higher percentage into the mix.

This new development, a first in the local asphalt industry, was up and running in late July.

Bitumen tank farm grows at Benoni

The Benoni plant will be more self sufficient with additional bitumen storage capacity.



Due to bitumen shortages and the lack of supply from South African refineries in the past year through scheduled and unscheduled maintenance, Much Asphalt has decided to enlarge its bitumen storage capacity at Benoni.

This project will be undertaken in four phases and should take about a year to become fully operational.

"We will move away from the conventional horizontal tank storage to vertical storage and envisage a bitumen storage capacity of 12x100t tanks (1 200t)," says Gauteng regional manager Tom Gilbert.

This will enable us to produce an additional 22 000 tons of medium graded asphalt mix in the region when shutdowns and/or repairs take place at the refineries. "In terms of time constraints," Tom adds, "this should give us an approximate two-week extended window to operate with no bitumen supply."

Cape Town runway resurfacing complete



Cape Town International Airport has 69 000 tonnes of new asphalt on its main runway, thanks to a contract successfully completed in May.

A joint venture between Rand Roads and Zebra Surfacing was awarded the contract, with Stewart Scott International as consultant. The 3,2km long, 60m wide runway was milled, the premix replaced and profiling redone where necessary.

The work was carried out in night shifts

from 18:30 to 05:30, six nights a week, with asphalt production at both Eerste River (68%) and Contermanskloof (32%). Milling commenced at 00:30 and paving around 02:00 on most nights, with an average production of 420 tonnes per shift achieved. The record production in a single shift was more than 1 200 tonnes.

"Careful and timeous pre-contract planning and risk analysis were critical success factors on this job, assisted by

close co-operation with the transport sub-contractors – running up to 60 trucks per shift – and raw materials suppliers," says Eerste River branch manager Rick Jackson.

"Excellent teamwork developed between the two Much plants involved, each supplying back-up for the other, usually at a moment's notice, to ensure that no delays occurred throughout the project."



Back at O R Tambo International

Much Asphalt Benoni has been awarded another asphalt supply contract for O.R. Tambo International Airport in Johannesburg. It involves 62 000 tonnes in four different mixes for rehabilitation of the Alpha, Bravo and

India taxiways. The mixes include bitumen treated base course with 15% screened RAP and different binders, as well as two types of continuous graded medium, one with and one without carbon black. "We are proud to be involved in this

project together with the Alpha Taxiway Joint Venture between Rand Roads and Black Top Surfaces and look forward to seeing it through to completion in March 2008," says Brian Neville, who is managing the contract for Much.



Staff and customers are king

Forty-year old Brian Mchunu has two long term goals, to be a leader at Much Asphalt who makes a difference to both staff and customers and to raise his children to become responsible adults. Neither is an easy task, but Brian works hard to achieve his aims.

Brian was born at Ingwavuma in Northern Zululand and raised in Pietermaritzburg after his family moved there in 1976.

He completed a chemistry diploma at Mangosuthu Technikon and began his career in 1992 as a lab technician at Lever brothers. In the next five years he also worked in quality control, product development and production as a plant operator.

"In April 1997, I joined the binders division of Colas East as a lab technician under the leadership of John Dallimore and Roland Tickle. Here I discovered the interesting relationship between chemistry and civil engineering," says Brian. It was this interest that shaped his future.

Branch manager

Brian moved from Colas to Much Asphalt in Coedmore, Durban, eventually becoming laboratory supervisor under the leadership of Jeff Newell, Graham Rutland and most recently Daryl Jorgensen. In mid-2003 he was transferred to Pietermaritzburg, where he was promoted to branch manager on the retirement of Clive Bartels in 2004.

"My management style is results-driven with high



The team at the Pietermaritzburg branch (on stairs, from top): Richard Mncwabe, Zowakha Zakwe, Robert Jali, Nicholas Ngcobo, William Dirks, Stanley Dlamini and (seated) Phindile Chamane; (Standing on the right): Letho Radebe, William Mhlongo and branch manager Brian Mchunu. Missing from the picture are Nokuthula Jozela, Seelan Archery and the photographer, Fresh Mema.

consideration for employee needs," he says. "As a hands-on person, I have really enjoyed the opportunity to manage the resources at my disposal, both human and mechanical, to make a success out of this operation."

In the 2006/2007 financial year, Brian and his team increased the revenues of Much Asphalt Pietermaritzburg by 30%.

"Current plans for this branch are to build our market share, improve our Health, Safety and Environment standards and carry out key technological

upgrades including a new bag-house and plant automation."

Team spirit

Pietermaritzburg has a staff complement of 12 and complies with employment equity requirements.

"Good team spirit has characterised our relationship in the branch and this is often strengthened by braais to celebrate our little achievements over the years," Brian explains.

"Our order book remains healthy and has seen us

exceeding our forecast monthly production targets. Recent major projects have included jobs from the TLC's roads department as well as Boston and

Lion Park contracts from the DOT of 8 000 and 4 000 tons respectively."

"Our culture at Much Asphalt is not to take our customer relationships for granted, but to always deliver the best value for money through our products and services."

Brian and his wife of 10 years, Senzi, have a son and two daughters. "Whilst I enjoy reading books on leadership and watching soccer, my relationship with God and my family are most important in my life."