

FOSKOR: PHALABORWA

FEEDING SOUTH AFRICA'S GROWTH



FEEDING SOUTH AFRICA'S GROWTH

As the only vertically integrated phosphate producer in South Africa Foskor is vital to the country's agriculture sector: its Phalaborwa mine is one of the largest open cast operations in the world

WRITTEN BY: JOHN O'HANLON
RESEARCH BY: CANDICE NICE





Phalaborwa in Limpopo Province holds reserves of some 2.5 billion tonnes of phosphate-bearing ore, or five percent of proven world phosphate rock reserves. The Phalaborwa complex, within which Foskor’s operation is situated, is a geological intrusion caused by sub-volcanic activity approximately 2,000 million years ago. The complex is unique as it is host to many valuable minerals, the most relevant of which are phosphate, copper, zirconium, iron and vermiculite. Rio Tinto’s Palabora Mining Company is a near neighbour of Foskor and is South Africa’s only producer of refined copper

Development of modern mining activity started at the beginning of the century when several geologists noted the occurrence of the phosphate bearing mineral, apatite, in the vicinity of Loolekop. The presence of apatite was first described in 1906 and an unsuccessful attempt at mining phosphate ensued. In 1940, however, the eminent geologist, Dr. Hans Merensky, started mining vermiculite in Phalaborwa and proved the phosphate reserves to be truly vast in extent although low in grade by world standards.

Archaeological evidence and carbon isotope dating indicate that primitive mining and smelting of copper took place at Phalaborwa some 1,000 years ago, followed by the smelting of iron ore 700 years later. From artefacts found in the area it is known that copper of remarkable purity was produced

in the Phalaborwa area as early as the 8th century. At that time the Ba-Malatji metal-working tribe, on discovering iron and copper 150 kilometres north of Bushbuckridge where they had settled, moved to this site and named it ‘Phalaborwa’, which means ‘better than the south’. Here they established a primitive smelting and metalworking industry, some of the remains of which have been preserved and are on display at the Foskor Museum in Phalaborwa.

Foskor is a wholly owned subsidiary of the Industrial Development Corporation (IDC). The company was established in Phalaborwa in

1951 with the aim of making the South African fertiliser industry independent of phosphate rock imports, and has since grown into a successful commercial enterprise. The Phosphate Rock & Copper division as well as the Zirconia Business Unit are situated in Phalaborwa in the Limpopo Province,

and together with the Phosphoric acid and Fertiliser division situated in Richards Bay, KwaZulu-Natal, comprise the two operating entities within the Foskor Group.

Foskor’s Mining Division in Phalaborwa extracts phosphate rock (foskorite and pyroxenite), from which Foskor’s Acid Division in Richards Bay produces phosphoric acid and phosphate-based granular fertilisers for local and international markets. The phosphoric acid is exported to India, Japan, the Netherlands, Bangladesh and Dubai, and a small quantity sold locally. Phosphoric acid

**35
MILLION**

**Tons of ore
processed annually**



Akulu Marchon

STRIVING TO DELIVER VALUE

Contact us: 011 806 8700
info@akulu.co.za | www.akulu.co.za

SUPPLIER OF CHOICE TO THE DETERGENTS, PERSONAL CARE AND INDUSTRIAL MARKETS

Akulu Marchon has a unique 36 year history as the leading supplier of chemical raw materials to the surfactants, toiletries, personal care and household industries. Two manufacturing sites, first and foremost the Chloorkop facility which was constructed in 2008 and commissioned in 2009, operates the latest technology Ballestra sulphonation plant which primarily produces sulphonic acid, sulphated alcohols and esters. Secondly the Mobeni manufacturing site, specialises in the production of various grades of petroleum jelly and mineral oils.

The Chloorkop site is also home to a National Distribution and Warehousing centre which encompasses a total supply chain management structure. Akulu Marchon also operates a fleet of tankers and trucks ensuring delivery and instant access of quality products to customers.

Akulu Marchon Mobeni, has a highly specialised team, assuring quality and producing top grades of mineral oil and petroleum jelly which complies to stringent standards. The formal quality management system and standards certainly adds value in the market to the Akulu Oils product range.

AKULU MARCHON



Akulu Marchon is a division of AECI a company listed since 1966 on the JSE Securities Exchange which has its origins dating back to 1894, as a Nobel dynamite company at Modderfontein, near Johannesburg. The AECI portfolio of businesses include AEL Mining Services, Africa's leading explosives supplier and the Specialty Chemicals Cluster which comprises of 15 value-adding specialty chemicals in which Akulu Marchon is one of these. Heartland Properties a services business, optimizes the value of real estate holdings surplus to AECI's operational requirements by selling land and selectively investing in revenue-produced buildings to act as a catalyst for sales. AECI's vision to be the chemical and mining services supplier of choice for customers in its chosen markets. In South Africa, several of the companies trade and have an international reach with various customers

and suppliers across the globe. They use world class technology to operate in South Africa, the rest of Africa and in other emerging markets. Safety, Health, Environment and Quality are of paramount importance to Akulu Marchon. Both sites, are OSHAS 18001:2007 accredited, as well as accredited with ISO 14001: 2004 and ISO 9001: 2008 certification. Akulu Marchon is a signatory of the Responsible Care™ initiative through the Chemical Allied and Industries Association, whereby Management Practice Standards are verified by independent third party auditors. Akulu Marchon have been audited successfully against these standards which are also supported in line with internal company policy and AECI's Green Gauge initiative. Akulu Marchon has extensive Principal representation covering a diversity of household and personal care markets, as well as other industrial and agricultural markets, supplying a range of customers from multi-nationals to local manufacturers and companies. For Akulu Marchon to meet its vision and objectives of striving to deliver value, a dedicated sales team is supported by a team of highly specialised technical chemists who assist with the development of various formulations, provide application assistance and trouble shooting, as well as offering the latest market trends information and product briefs and training.

E. info@akulu.co.za
www.akulu.co.za



has agricultural, industrial, medical and retail applications. Products made from phosphoric acid include catalysts, rust proofing materials, chemical reagents, latex, dental cements, tooth whiteners, toothpaste, disinfectants, food supplements, carbonated beverages, waxes, polishes and animal feed.

The opencast mine in Phalaborwa, in South Africa's Limpopo Province, has the capacity to yield 2.6 million tons per annum of phosphate rock concentrate from processing 35 million tons of ore per annum. Once crushed, milled, concentrated and dried, most of the phosphate rock concentrate is transported by rail to Foskor's processing plant in Richards Bay, 800 kilometres away on the country's east coast.

Agricultural markets continue to drive the business. "While the phosphate rock is used to produce a wide range of products including food and industrial grade phosphates, the bulk

of future expansion will be driven by increasing demand in the fertiliser and feed markets." Says Foskor's Chairman M G Qhena who is also the CEO of the Industrial Development Corporation of South Africa (IDC), Foskor's parent company. "Global granulation capacity is estimated to rise by a total of seven million tons of phosphoric acid input between 2012 and 2017. Similarly, new capacity of some 0.9 million tons of phosphoric acid is expected over the same period."

Given the attractive margins available to vertically integrated producers, the location of this new downstream capacity is increasingly being dictated by the availability of rock resources. Most of this additional demand will be met by projects located in Africa, the Middle East and South and Central America. The future for Foskor therefore seems favourable from a global economic perspective.

Following some challenges mainly attributable to equipment failure, the management committed Foskor in 2011 to a strategy of asset replacement costing around R320 million over a three year period. The benefits of this programme cannot be over-emphasised, says Mr Alfred Pitse, Foskor's CEO: "New technology and reliable production capacity will reduce plant downtime and maintenance costs, provide additional production capacity, improve the utilisation of equipment, ensure compliance with anticipated environmental legislation and improve the safety and health of both our employees and the surrounding communities."

The company takes its stakeholder relations very seriously. "The relationship between Rio Tinto's Palabora Mining Company (PMC), Foskor and Ba-Phalaborwa Municipality is very important," says Pitse. "PMC mines in the same area as Foskor and for this reason there should always be respect for the relationship between Foskor and its fellow corporates."

If the businesses should collaborate, the local people are even more important. "Foskor's operations can dominate the socio-economic destinies of the communities in which we operate," he says. "We therefore work closely with government at national, regional and local level to support their social



imperatives and policies, and provide financial and in-kind support for specific projects that improve education levels, alleviate poverty and upgrade local infrastructure."

The company hosts three schools on its premises at no cost, two at Phalaborwa and one at Richards Bay. It adopted the former Stanbury Primary School and renamed it Foskor Primary School in November 2009. Foskor is also encouraging early childhood development training at a pre-school in

Phalaborwa by partnering with the national Department of Basic Education in providing teaching aids and development programmes to educators in the region. At Richards Bay Foskor is reconstructing the Ntambanana Community Centre as a lodge for widows, orphans and other vulnerable persons. This community centre will be equipped with training facilities for business start-ups and will offer assistance to entrepreneurs. At tertiary level Foskor sponsors the University of Zululand's Science Centre to ensure that Zululand's communities have access to world-class science and technology apparatus.

Not merely one of the region's biggest employers, Foskor is also one of the best places to work. This was confirmed when in August it was one of the few organisations that achieved the exclusive Top Employers South Africa

2014 certification. Companies were assessed on such criteria as primary and secondary benefits and working conditions, training and development, career development, and culture management. Only those companies that met the most stringent research criteria received the Top Employers South Africa recognition. As Vice-President for Corporate Affairs and Human Capital, Sarah Luthuli said: "This award is a great achievement not only for Foskor as a company but also for our employees. Being recognised as one of South Africa's top employers enables us to attract and retain only the best in the industry." **BE**

"BEING RECOGNISED AS ONE OF SOUTH AFRICA'S TOP EMPLOYERS ENABLES US TO ATTRACT AND RETAIN ONLY THE BEST IN THE INDUSTRY"

For more information about Foskor: Phalaborwa visit: www.foskor.co.za



FOSKOR: PHALABORWA

www.foskor.co.za

Produced by:

ACHIEVING BUSINESS EXCELLENCE ONLINE

BE Business Excellence

www.bus-ex.com