The Southern African Institute of Mining and Metallurgy
Founded in 1894
in collaboration with the Botswana Branch
are organising the Fifth Southern African
Base Metals Conference 2009

27–31 July 2009 · Botswana

Second Announcement and Registration Form
The organisers of the conference wish to thank the following sponsors for their support:

- Axishouse
- InnovX Africa
- Panalytical
- RSV
- United Spectrometer Technologies
Invitation from the Organising Committee

The past decade has seen a tremendous revival of the base metal industry in Africa, coupled with an unprecedented increase in the prices of base metal commodities the last couple of years. The above was the introduction to the invitation message for the previous base metal conference, held just two years back in Swakopmund. So what has changed in the short term? Is it going to continue or change for the better again? With this in mind, the 5th Southern African Base Metal Conference is organised with no specific theme.

This conference will consider the contributions being made by the mining and metallurgical disciplines to the base metals industry, despite the sudden change in the macroeconomic environment. The conference will also explore how the base metals industry in Africa can survive and capture the maximum potential given the new macroeconomic environment. The applications of metal accounting in Southern Africa will also be covered.

This conference will also be followed by technical visits to BCL and Tati Nickel. The conference, to be held in Kasane, Botswana, also confirms the efforts of the Southern African Institute of Mining and Metallurgy (SAIMM), to entrench a regular Southern African forum on base metals that is held throughout the Southern African region. The conference is thus an ideal venue for mining and metallurgical professionals from all countries in the region to be exposed to the latest advances in exploration, resource evaluation, projects and technological advances in the base metals industry in the region. It is an ideal opportunity for international participants to gain in-depth knowledge of and exposure to Southern Africa’s base metal industry.

The organising committee is looking forward to your participation at the conference in July 2009.

P.A.P. Fouche
Chairman
Organising Committee

Organising Committee

P.A.P. Fouche (Chairman)
R.T. Jones
J. van der Westhuizen
T. Vermaak
W. van der Merwe
J. van Wyngaard
J. Wyethe

Conference Secretariat

Conference co-ordinator: Raymond van der Berg
The Southern African Institute of Mining and Metallurgy
P O Box 61127, Marshalltown, 2107, South Africa
Tel: +27 11 834 1273/7 · Fax: +27 11 838 5923 or 833 8156
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Key dates

Conference 27–29 July 2009
Technical tours 30 July 2009

Registration

Registration fees include attendance at the technical sessions, all refreshments and lunches at the conference, and attendance at the cocktail parties and social functions.

Registration fees

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<tr>
<td>SAIMM Members or presenting authors</td>
<td>R8 500</td>
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<td>Non-Members</td>
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<td>Student/Retired Members</td>
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All prices include VAT. Tax invoices will be issued to all delegates. Please note that delegates will be permitted to attend the conference only if their registration fees have been paid.

Accommodation

Accommodation must be booked directly through the Mowana Safari Lodge:
Cindy Sabuta, Banqueting Co-ordinator, Mowana Safari Lodge, Tel: +267 625 0300;
Fax: +267+ 625 2266/625 0301; E-mail: banquetingmowana@cresta.co.bw;
Website: www.cresta-hospitality.com/ www.moneasafarilodge.com

Second Circular
Transfers
Transfers should also be booked directly through Wild Horizons: Ankia Naudé, Tel: +267 625 0659; Fax: +267 625 0659; E-mail: botsreservations@bots.wildhorizons.co.zw

Cancellation
A 50% refund will be given for cancellations received before 22 June 2009. No refunds will be given for cancellations after 22 June 2009.

Exchange rate
The current exchange rate as at May 2009 is approximately US$ 1.00 = R8.41, GBP£1.00 = R12.85 and Euro = R11.51. Currency in Botswana: 1 Pula = 100 Thebe and 1 Pula is equal to R1.17.
The present rate of VAT (value added tax) is 14%, which is included in the cost.

Conference venue
The venue, Mowana Lodge in Kasane is a perfect setting within unique bush and river surroundings. It is an ideal base for the wildlife, bird and safari enthusiast.

Mowana, meaning Baobab, is a luxury lodge that is situated a mere 100 km west of Victoria Falls, on the Chobe River, a short distance from the entrance to the Chobe National Park.

The park is world renowned for its elephant population—the greatest concentration of these magnificent creatures on the continent.

Each delegate will experience a cruise along the Chobe River with a myriad of wildlife.

You may be greeted by the yawn of a hippo or witness a pride of lions at their kill, or hear the hyenas cackling and the vultures screeching as they await their turn.

For birdwatchers, there are over 400 different species native to the Kasane environment.

The venue's Serondela restaurant has a range of gastronomic delights, where amongst other dishes, they serve kudu, warthog, impala, wildebeest and crocodile for those with adventurous tastes.

Activities at Mowana include walks, mountain biking, seasonal tiger fishing, birdwatching, game viewing on a river cruiser or in open-air vehicles with expert game rangers and trackers, river rafting on the Zambezi, a 4 countries-in-a-day trip (Botswana, Namibia, Zambia and Zimbabwe).

Preliminary conference programme
The technical programme comprises opening and closing addresses from invited and designated keynote speakers, as well as papers, listed below, which have been provisionally accepted.

Keynote speaker:
W. de Klerk, Exxaro for Base Metals in Sub-Sahara Africa

Keynote Speaker: Necessity, the mother of invention, a reflection on the requirements for successful innovation in the metallurgical Industries
R. Whyte, Metallurgical Consultant

Purification of zirconium metal to nuclear grade purity by vacuum sublimation
W.G. Augustyn*, J.B. Wagener*, J.T. Nel*, D. Hudson-Lamb*, and R.I. McCrindle†, †NECSA and †Tshwane University of Technology

Enhancing mill feed grade control with mining automation at Skorpion Zinc Mine
M. Button and T. Jordaan, Anglo American

Evaluation of different reagents for the removal of Zn from advance cobalt electrolyte
N. Cola*, A.C. du Preez*, M.H. Kotze*, and B. van Hege†, "Mintek and †Bateman

Practical geometallurgy at the exploration-to-project transition
D. David, GRD Minproc

Pre-concentration of low grade lateritic sulphide nickel ore
D.F. Denyssechen, N. Wagner, Multotec

Laboratory and pilot-plant investigations into the performance of a synergistic versatic 10 acid solvent extraction system for the recovery of nickel from calcium saturated streams
A.C. du Preez and M.H. Kotze, Mintek
Water reduction at Skorpion Zinc and the impact on the environment
H.F. Fuls, J. Kruger, and P. van Greunen, Namzinc

Extending the application of the AMIRA P754 Code of Practice for Metal Accounting
P.G. Gaylard*, R.D. Morrison†, N.G. Randolph‡, C.M.G. Wortley**, and R.D. Beck*
*University of Cape Town, †JKMRC, University of Queensland, ‡NSR Investments cc, **Consulting Engineer, ‘AMIRA International

Milestones in the improvement of Ni-Cu recoveries at BCL
M. Gumbie, S. Tawanana, M. Moroka, M. Bogopa, and G. Dzinomwa, BCL Limited, Botswana

An update on the application of molecular recognition technology (MRT) for Ni/Cu/Co hydrometallurgical process separations, and for the purification of cobalt streams

Modernisation of the BCL smelter
A.C. Legg, L. Ntsipe, M. Bogopa, G. Dzinomwa, BCL Limited, Botswana

Dissolution of six sulphide concentrates in the hydrocopper® environment
M. Lundström*, J. Lipó†, J. Karonen†, and J. Aromaa‡, *Outotec Oyj, Base Metals, †Outotec Research Oy, ‡Helsinki University of Technology

The application of rockfall mitigation measures to both improve safety and reduce costs in opencast mining
L.M.J. Melis* and G. Matthews†, *Melis & Du Plessis Consulting Engineers and †Maccaferri SA

Impact of plant upgrade and DMS on processing capability Tati nickel—a case study
P. Morgan, DRA Mineral Projects

Soluble metal recovery improvement using high density thickeners in a CCD Circuit: Ruashi II a case study
M.C. Mulligan* and L. Bradford†, *FLSmidth and †Metorex

Skorpion Zinc solvent extraction: the upset conditions
G.J. Nel and D.A. van den Berg*, *Norilsk Nickel and †Hatch

Milling technology selection for the Tati Activox® Project base on pilot scale ultrafine milling test work on nickel sulphide concentrates
G.J. Nel, Norilsk Nickel

Flowsheet considerations for copper cobalt projects
A. Nisbett*, K. Baxter†, K. Marte‡, and M. Urbani**, *Cognis Corporation, USA, †Bateman Engineering, ‡Bateman Engineering Canada Corporation, Canada, **Western Minerals Technology, Australia

Novel second stage leach autoclave for improved base metal recovery
J.O. Roux†, M. Du Toit†, and D. Shklaz‡, *Impala Platinum, †University of Pretoria, and ‡Engineering Systems

Mineralogical characterization of the refractory copper ore from Nchanga open pit mine, Zambia
O.N. Sikazwe*, A. Hagni†, and R. Hagni‡, *University of Zambia and †Missouri University of Science and Technology

Mineral endowments and developing economies
L.C. Stilwell, Read, Swatman & Voigt

BCL sulphur capture options
M. Stroud, M. Bogopa, D.C. Keitshokile, and G. Dzinomwa, BCL Limited, Botswana

A comparison of the parameters influencing base metals electrowinning
M. van Rooyen*, K. Gottliebsen*, D.J. Robinson†, and R. Fraser‡, *Hatch, South Africa, †Hatch, USA, and ‡Hatch, Australia

Maximizing the value derived from laboratory test work towards heap leaching design
P.J. van Staden, S.W. Robertson, M. Gericke, J.W. Neale, and A. Seyedbagheri, Mintek

Pilot-plant study of sulphuric acid extraction from a nickel electrolyte using Alamine 308
K. Voogt*, K.C. Sole†, and L.J. Bryson†, *Anglo Research and †Anglo Platinum

Milling circuit selection for Nkomati 375 ktpm concentrator
E. Wolmarans and P. Morgan, DRA Mineral Projects

Evaluation of various durability tests for resin-in-pulp grade resins
V. Yahorava*, J. Scheepers, and M.H. Kotze*, and D. Auerswald†, *Mintek and †Bateman Engineering

Reconfiguring the Nchanga flotation circuits for improved metallurgical performance
H. Zimba, V. Gundala, and M. Ng'andwe, Konkola Copper Mines Plc
Social functions

**Sunday 26 July 2009**
Delegates will have the opportunity to register for the conference at the Mowana Lodge from 17:00 to 19:00. This will be followed by a cocktail party. Those delegates unable to register on Sunday, can register on Monday 27 from 07:30 onwards.

**Monday, 27 July 2009**
Conference presentations will begin and continue throughout the day. In the evening there will be a formal social event.

**Tuesday, 28 July 2009**
Conference presentations will begin and continue throughout the day. The conference proceeding will end at 14:30 followed by a boat cruise on the Chobe River, the costs of the cruise is included in the registration fee. In the evening there will be a formal social event.

**Wednesday, 29 July 2009**
Conference presentations will begin and continue throughout the day. The evening will be free with a standard dinner served in the restaurant.

Technical tours

**Wednesday and Thursday, 30 and 31 July 2009**
- BCL Limited, Botswana, and
- Thata Nickel, Botswana

Please note, the technical tours are subject to the attendance of 37 delegates confirmed by 26 June 2009.

Accompanying persons

Cost to register as an accompanying person is R1 000. This price is inclusive of 14% VAT, two social functions and a boat trip. Activities can be arranged by booking at the venue.

General information

**Airport shuttle**
A shuttle service is available from the international airport direct to Mowana Lodge, Kasane and vice versa at a cost of P280 per person one way. The shuttle can be booked with Anki Naude, Central Reservations Into Africa Mowana Safaris/African Odyssey—Tel: +276 6250659, E-mail: botsreservations@bots.wildhorizons.co.zw,
Website: www.wildhorizons.co.za

**Banking / credit cards / foreign exchange**
Major banking institutions that are affiliated with international banks are available. Major credit cards are generally accepted throughout Botswana.

Full banking services are available in most major towns. Barclays Visa may be used to purchase US dollars or UK pound traveller’s cheques. Credit card cash advances can be made in most major towns and are accepted at hotels and restaurants in larger towns.

In major towns banking hours are from 08:00 to 14:30, Monday, Tuesday, Thursday and Friday and on Wednesdays from 08:15 to noon.

**Car rentals**
The general road network between the main cities of Gaborone, Francistown and Kasane is good. The new road network from Francistown to Maun and Shikwe has also added a better infrastructure to the country. If you plan to explore and venture beyond these limits you should equip yourself adequately for the arduous terrain you can expect to navigate.

- **Avis Rent a Car**—Central Reservations
  Tel. (Intl): +27 11 923 3500, Fax (Intl): +27 11 923 3683, Toll-free: 08 000 21111
- **Budget Rent a Car**—Central Reservations
  Tel. (Intl): +27 11 392 3928, Fax (Intl): +27 11 392 3900, Toll-free: 08 600 16622
- **Europcar Interrent**—Central Reservations
  Tel. (Intl): +27 11 396 9000, Fax (Intl): +27 11 396 1406, Toll-free: 08 000 11344
- **Imperial Car Rental**—Central Reservations
  Tel. (Intl): +27 11 453 0005, Fax (Intl): +27 11 453 6278, Toll-free: 08 610 13100

**Climate**
Most of the country has a subtropical climate, with cooler temperatures prevailing in the
higher altitudes. Winter days are warm and nights are cool, with heavy frost common in the desert. Temperatures range from maximums of 26.6°C–32°C (80°F–90°F) from October to February to minimums of 2° to 4.4°C (30°–40°F) from June to August. The summer rainy seasons runs from November to March and rain is rare between the months of May to August.

**Electricity supply**

Electricity power is 230 V running at 50Hz, square pin, 220 volts (13 amps).

**Health**

Throughout Botswana at hotels, inns, lodges and other public places, tap water is purified and safe to drink. Please remember that water is a scarce resource, especially in a drought-stricken area such as Botswana so please be respectful and help to conserve water.

It is crucial that you obtain malaria prophylactics before going on your Botswana safari. When purchasing these, please tell your doctor or pharmacist that you intend visiting Botswana. Start your course at least 24 hours before entering the country and continue taking the pills for 6 weeks after your departure. If you suffer from side effects, try taking your malaria prophylactics at night, after dinner, as this usually minimizes the effect of the symptoms.

Even while taking prophylactics, you should still take precautionary measures to prevent contact with mosquitoes, such as: sleeping under a bed-net or in a room/tent with mosquito proofing (remember to keep the flaps zipped at all times); spraying your accommodation with insecticide; making use of a mosquito-repelling lotion or stick; and wearing long-sleeve clothing, long trousers and socks when outside at night. Any person entering Botswana from or via a yellow fever infected area must be in possession of a valid International Certificate of Vaccination against yellow fever.

**Information desk**

An information desk will be staffed daily in the exhibition area from 07:30 to 17:30.

**Language**

The language of the conference will be English.

**Travel insurance**

If you need medical care whilst in Botswana, it is best to be aware that medical providers may not accept payment through your insurance company. In these circumstances you will have to pay in full after your treatment and file a claim with your insurance company for reimbursement. Therefore you should have access to cash, either from a credit card or by wire transfer. If you need assistance contact your country’s local embassy or representative.

To be compensated you must be treated by licensed medical personnel and provide your insurance company with proper documentation and receipts.

It is advisable to always ensure you have a comprehensive travel insurance policy which covers you for repatriation to your home country.

All guests accommodated at Mowana Safari Lodge are covered by Medical Rescue International as well as 24-hour access to Kasane clinic.

NB: Kindly note guests on Safari using Into Africa Mowana Safaris are automatically covered by Medical Rescue International. Outside Operators are not covered by the Hotel’s policy.

**Visas and immigration**

Visas are required by all nationals except those of Commonwealth countries, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Rep. of Ireland, Italy, Liechtenstein, Luxembourg, Namibia, Netherlands, Norway, Pakistan, Western Samoa, San Marino, South Africa, Sweden, Switzerland, Uruguay and USA. Visas ARE required for nationals of Ghana, India, Mauritius, Nigeria and Sri Lanka. Stay permits, which are extendable up to 30 days, are issued at the border.

Important note: **This is a guide only**—please check with your nearest Botswana Consulate for up-to-date information.

A valid passport is needed for ALL international travel. Please ensure your passport is valid for at least 6 months AFTER returning from your trip—this is an international requirement. It is also essential that you have sufficient blank pages in your passport for visas, entry stamps or temporary residence permits. We recommend allowing two blank pages per country that you are planning to visit.

Some countries will require entry, re-entry or departure permits and/or visas, which are issued at their consulates/embassies. You will find broad guidelines for your visa requirements on the Wild Times website. These guidelines are supplied by an independent
company—however, it is vital for you to realize that each country’s requirements may change at any given time and that Wild Times has no control over this process.

Waiver of liability
The conference organisers have taken all reasonable care in making the arrangements for the conference and technical visits. The organisers do not accept liability for any loss or injury sustained, or for unforeseen changes to the programme. The organising committee reserves the right to cancel any tour or visit due to insufficient interest.