THE SOUTHERN AFRICAN INSTITUTE OF MINING AND METALLURGY
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SYMPOSIUM SERIES S80

FURNACE TAPPING CONFERENCE 2014

27–29 MAY 2014

Misty Hills Country Hotel, Muldersdrift
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M3 Principles of Flotation

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   (1986) W.C. Lenahan and R. de L. Murray-Smith

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SP7 Rock Engineering for underground coal mining

SP8 Second Edition: Rock Engineering for underground coal mining

SUPPLEMENT TO THE SAIMM JOURNAL

   Edited by H.W. Glen
The papers in this volume have been for the most part prepared from word documents supplied by the authors, with additional typesetting and formatting by The Southern African Institute of Mining and Metallurgy.

All papers included in this volume were subjected to review.

The organising committee would like to take this opportunity to thank all authors who submitted papers, and also to all the reviewers listed below:

R. Cromarty
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H. Kotze
L. Lourens
J. Muller
R. Steenkamp
M. Thethwayo
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COVER PHOTOGRAPH COURTESY OF J.D. STEENKAMP

Liquid stream (metal and slag) tapped from a silico-manganese smelter, Transalloys, March 2013

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FOREWORD

The Furnace Tapping 2014 Conference was established with Professor Marietjie Potgieter’s metaphor for knowledge transfer in mind:

‘The metaphor for authentic teaching and learning... is that of a campfire with a circle of friends sitting shoulder to shoulder around it. For me teaching should neither be teacher-centred nor student-centred, but discipline-centred. The discipline itself is the centre-piece, the focus of attention, the source of energy. The purpose of the gathering is to engage with the discipline itself. This happens both individually and collectively within this nurturing community.’—Professor Marietjie Potgieter, Dean of Education, Faculty of Natural Sciences, University of Pretoria.

How privileged we are to gather as a circle of friends around the furnace taphole as campfire. The source of energy with its magical combination of light and danger that not only stirs the primal instinct to ‘run for your life’ but also hooks our curiosity when it beckons: ‘come closer, have a look’. In the next few days, may we all tap into this energy when we engage with the discipline through formal and informal discussions. May we listen attentively and with respect to the viewpoints of others—which may be very different from ours—and describe our points of view with honesty and confidence.

I would like to welcome you to a learning experience that the committee and sponsors put together with great dedication and hard work. We are privileged to bring you three world-renowned experts as keynote speakers who will share their different points of view based on their particular interests and experience. The range of peer-reviewed papers addresses the points of view of operations, research and development institutions, and engineering houses. Our exhibitors allow for informal discussions around the products and services on offer. Within the context of the southern African pyrometallurgical industry, which produces 18 commodities through smelting, the post-conference tours offer the opportunity to visit a selection of smelters, all of which manage the tapping of their furnaces in different ways.

It is my wish that you will part from the event inspired and empowered to work on your furnace tapping problems with great enthusiasm. Know that it is not an easy task and that there is no miracle one-size-fits-all solution to the problem, but that there are several opportunities available. Finally, I do hope that you will return to share your lessons when we meet again as circle of friends in a few years’ time.

Joalet D. Steenkamp
Chairperson, Organizing Committee
FURNACE TAPPING 2014 CONFERENCE

Organizing Committee

Joalet Steenkamp (Chairperson)
Antony Cowey
Hannes Goosen
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Buhle Xakalashe
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