

MINE CLOSURE CONFERENCE 2025



19-20 FEBRUARY 2025

MASLOW HOTEL, SANDTON,
JOHANNESBURG



SAIMM
THE SOUTHERN AFRICAN INSTITUTE
OF MINING AND METALLURGY



FINAL PROGRAMME

Conference Day 1– Wednesday, 19 February 2025

07:30–08:30 **Registration and Early Morning Refreshments**

08:30–08:35 **Welcome and Opening Address:**
J. Lake, *SRK Consulting, South Africa,*
Conference Chairperson

08:35–08:40 **Safety Briefing**
Venue Official

08:40–08:55 **SAIMM Presidential Address**
E. Matinde, *SAIMM President, South Africa*

Session 1: The current SA closure context and challenges to relinquishment

Session Chair: J. Lake, *SRK Consulting, South Africa*

08:55–09:25 **Keynote Address: Coordinated and cooperative mine closure: A path towards sustainability**
D. Fischer, *Department of Forestry, Fisheries and the Environment, South Africa*

09:25–09:45 **Setting the scene of the current context and challenges towards relinquishment**
A.L. Harvey and P. Barnard, *Jones and Wagener, South Africa*

09:45–10:05 **South Africa's proposed national mine closure strategy**
H. Coetzee¹, V. Vadapalli^{1,4}, S. Gcasamba¹, B. Mahlase¹, L. Nkabane¹, R. Mahlaule¹, N. Chere¹, J. Shongwe¹, M. Solomon², L. Mudau³, S. Kekana³, J. Mathekg³, and N. Tshabango³, ¹*Council for Geoscience*, ²*University of Cape Town*, ³*Department of Mineral Resources and Energy*, and ⁴*University of the Free State, South Africa*
(Online Presentation)

10:05–10:25 **A review of mine land rehabilitation outcomes: Culture, procurement and practice**
S.J. van Wyk and A.S.H. Haagner, *Agreenco Environmental Projects, South Africa*

10:25–10:35 **Sponsor Presentation**
Agreenco Environmental Projects, South Africa



10:35–10:55 **Mid-Morning Refreshments**

10:55–11:15 **Establishing mine rehabilitation reforms in Queensland, Australia**
J. Purtill, *University of Queensland, Australia*

11:15–11:35 **Benchmarking rehabilitation in the South African opencast coal industry**
A.S.H. Haagner, A. Abraha, and S.J. van Wyk, *Agreenco Environmental Projects, South Africa*

Session 2: Socio-economics and just transitions

Session Chair: M. du Plessis, *Agreenco Environmental Projects, South Africa*

11:35–11:55 **A coal transition vulnerability index for South Africa**
M.J. Cole¹, E. Canpolat², and B. Sijapati³, ¹*University of Cape Town, South Africa*, ²*World Bank Group, USA*
³*World Bank Group, South Africa*

11:55–12:15 **Co-designing the future: Integrating social transition and compliance for sustainable mine closures**
O. Koatlhai, *Anglo American Platinum, South Africa*
(Online Presentation)

12:15–12:35 **A principled and sustainable approach to mine closure and rehabilitation: Factoring in the rights and needs of mining-affected communities**
K. Youens and J. Tooley, *All Rise Attorneys for Climate and Environmental Justice, South Africa*

12:35–12:55 **Economic diversification as a catalyst in mine closure: A strategic approach**
A. Nengovhela, *Coaltech, South Africa*

12:55–14:00 **Lunch**

Session 3: ESG compliance and considerations to closure

Session Chair: A.L. Harvey, *Jones and Wagener, South Africa*

14:00–14:20 **Investigating strategies for involving host mining communities in mine closure planning: An integrated stakeholder engagement in the West Rand, South Africa**
K. Majela¹, M. Mpanza², and J.R.C. von Holdt¹, ¹*University of Cape Town* and ²*University of Johannesburg, South Africa*

14:20–14:40 **Environmental, social, and governance impacts lens dashboard**
V. Mahadeo¹, G. Sihlali², S. Gruber², W. Botha³, T. Swettenham¹, J. Pelders⁴, and S. Ramparsad⁵, ¹*The Research Institute for Innovation and Sustainability*, ²*Business Science Corporation Global*, ³*Enterprises University of Pretoria*, ⁴*The Council for Scientific and Industrial Research* and ⁵*Mandela Mining Precinct, South Africa*

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Session 4: Derelict and ownerless mines - learnings and opportunities

Session Chair: A.L. Harvey, Jones and Wagener, South Africa

14:40-15:00 **A sustainable approach to derelict and ownerless mines in South Africa**
M.J. Cole¹, S. Mudau², U. Brown², P. Mohasoa², and N. Lesufi², ¹University of Cape Town, and ²Minerals Council of South Africa

15:00-15:20 **Mining's next chapter: Exploring innovative post-closure land uses worldwide**
L. Dlamini, Jones and Wagener, South Africa

15:20-15:40 **Afternoon Refreshments**

Session 5: Innovative solutions, tech and policies

Session Chair: A.L. Harvey, Jones and Wagener, South Africa

15:40-16:00 **Utilising landform evolution modelling to promote sustainable and cost-effective mine rehabilitation and closure designs**
M. du Plessis and M. Gare, Agreenco Environmental Projects, South Africa

16:00-16:20 **Leveraging blockchain technology for sustainable mine closure in artisanal and small-scale mining**
D. Wachira¹, A.F. Mulaba-Bafubandi^{2,3}, J.C. Bongaerts⁴, and B. Alunda¹, ¹Taita Taveta University, Kenya, ²University of Johannesburg, South Africa, ³Universite de Mbuji-Mayi, Republique Democratique du Congo, and ⁴TU Bergakademie Freiberg, Germany
(Online Presentation)

16:20 **End of Day 1**

16:20-18:30 **Network Cocktail Function**
Networking Cocktail Function sponsored by Agreenco Environmental Projects (Pty) Ltd



Conference Day 2- Thursday, 20 February 2025

08:30-09:00 **Registration and Early Morning Refreshments**

09:00-09:05 **Welcome and Opening Address:**
J. Lake, SRK Consulting, South Africa,
Conference Chairperson

09:05-09:10 **Safety Briefing**
Venue Official

Session 6: Opportunities for optimisation

Session Chair: P. Barnard, Jones and Wagener, South Africa

09:10-09:40 **Keynote Address: Key issues relating to mine closure under the current legislation - will the National Mine Closure Strategy be the panacea for these challenges?**
M. Liefferink, Federation for a Sustainable Environment, South Africa

09:40-10:00 **Leveraging data for improved mine closure decision-making**
C.E. Steyn¹ and A. Botes², ¹Agreenco Environmental (Pty) Ltd and ²GreenGAB (Pty) Ltd, South Africa

10:00-10:20

The environmental and financial aspects for the use of pitlakes for sustainable mine closure

A. Johnstone, GCS (Pty) Ltd, South Africa

10:20-10:40

Towards better closure of open pit mines in South Africa

T. Makhamadze, SRK Consulting and University of the Witwatersrand, South Africa

10:40-10:50

Sponsor Presentation

Jones & Wagener, South Africa



Engineering & Environmental Consultants

10:50-11:10

Mid-Morning Refreshments

11:10-11:30

Planning for post-mining economies: Misconceptions and opportunities

L. Marais, University of the Free State, South Africa

11:30-11:50

Understanding uncertainty in financial provision calculations

A.J. Botes and C.E. Steyn, GreenGAB (Pty) Ltd, and Agreenco Environmental (Pty) Ltd, South Africa

Session 7: Learnings from case studies and alternative approaches

Session Chair: A.S.H. Haagner, Agreenco Environmental Projects, South Africa

11:50-12:10

Impact of gold mine closures and future planning for sustainable development in the Witwatersrand Goldfields

S. Mabaso, Vahlengwe Advisory, South Africa

12:10-12:30

Abandoned mine tailing dump site fugitive dust problems, phytocaps and options for sustainable rehabilitation: A case of Oamites abandoned mine site in central Namibia

T. Ipinge, B. Mapani, and H. Musiyarira, Namibia University of Science and Technology, Namibia

12:30-13:30

Lunch

13:30-13:50

Managing mining project impacts on a community in the context of high levels of biodiversity and the presence of established ASM - a case study from West Africa
D. Limpitlaw¹, F. Cessford², and J. Njuma³, ¹University of the Witwatersrand, South Africa, ²SRK Consulting, UK, and ³Pasofino Gold Ltd, Canada

13:50-14:10

In-pit disposal of coal discard: A sustainable mine closure strategy for South African coal mines
M.G. Dube and S. Hareeparsad, WSP Africa Pty Ltd., South Africa

14:10-14:30

Pit lake rebound sensitivity analysis study and pore pressure, inflow, and hydrochemical implications
A.B. Peely and D. Duthe, Knight Piésold (Pty) Ltd., Namibia, South Africa (Online Presentation)

14:30-15:30

Panel Discussion

15:30

End of conference and Afternoon Tea Break