



MineClosure



MINE CLOSURE 2024

26-28 NOVEMBER 2024 | THE WESTIN PERTH, PERTH
WESTERN AUSTRALIA

The series of International Conferences on Mine Closure is a fixture on the calendars of many mining professionals, providing topical and high quality papers and presentations on a range of topics of immediate interest and relevance. A key feature of the conference series is the diversity of disciplines and expertise that come together to focus on the pressing issues facing the mine closure community globally.

THEMES

Visit acgmineclosure.com/themes to learn more about the connection of mine closure themes to the UN Sustainable Development Goals.

[Register here](#)

- Stakeholders and communities
- Closure objectives and criteria
- Financing and cost estimation
- Relinquishment and legacy management
- Landform and engineering design
- Surface water and erosion control
- Ecosystem reconstruction
- Statutory compliance
- Contaminant remediation and impact management

Principal Sponsor



SUN 24 NOV	MON 25 NOV	TUES 26 NOV	WED 27 NOV	THUR 28 NOV	FRI 29 NOV
Global Update: Geomorphic Landform Design and Landscape Evolution Modelling Workshop	Monitoring for Safe Closure Workshop	Mine Closure 2024 Perth, Western Australia			Alcoa site visit
Pit Lake Closure: Processes, Risks, Opportunities and Planning Workshop	Workshop: Transform. Transition. Transfer.				
	Welcome Function	Conference Dinner			

Mine closure and a focus on United Nations Sustainable Development Goals

This year, we are focusing on mine closure within the framework of the United Nations Sustainable Development Goals (UN SDGs). According to the UN, 'The SDGs aim to transform our world. They are a call to action to end poverty and inequality, protect the planet, and ensure that all people enjoy health, justice, and prosperity.' These goals map closely onto what good mine closure should aim for as an outcome, and many of our themes in previous conferences map closely onto these. To help us look beyond the mines we wish to close, we hope to encourage a broader appreciation of what our industry and conference can achieve on the global stage.

Using the key below, please refer to the text under each session name for the relevant SDGs.

- | | |
|--|---|
| 1. No poverty | 10. Reduced inequalities |
| 2. Zero hunger | 11. Sustainable cities and communities |
| 3. Good health and well-being | 12. Responsible consumption and production |
| 4. Quality education | 13. Climate action |
| 5. Gender equality | 14. Life below water |
| 6. Clean water and sanitation | 15. Life on land |
| 7. Affordable and clean energy | 16. Peace, justice, and strong institutions |
| 8. Decent work and economic growth | 17. Partnerships for the goals |
| 9. Industry, innovation and infrastructure | |

07:00 REGISTRATION

08:30 Welcome to Country Freda Ogilvie, Whadjuk/Ballardong Elder

08:40 Welcome and introduction M Tibbett, Mine Closure 2024 Conference Co-Chair, University of Reading, UK

09:00 Opening address: Reconciling mine closure D Murphy, Murco Post Mining Services, Australia

PLENARY SESSION 1

GRAND BALLROOMS 2 & 3

09:10 Invited speaker: Responsible closure key to keeping mining open for business P Harvey, Rio Tinto, UK

09:40 KEYNOTE ADDRESS: A mine ends. Then what? Some reflections on best practice P Whitbread-Abrutat, Future Terrains International, UK

10:10 Conversation presentation one: First Nations mine closure perspective M Highfold, Energy Resources of Australia, Australia; Z Hughes, CRC Time, Australia

10:40 Panel one: Biodiversity and ecosystem restoration

11:10 Principal Sponsor presentation A Buckley, BHP, Australia

11:15 MORNING BREAK

PARALLEL SESSIONS

SESSION 1: RELINQUISHMENT AND LEGACY MANAGEMENT
SDG 3, 6, 8, 9, 10, 11, 12, 14, 15, 16, 17
GRAND BALLROOM 2

Session Sponsor



SESSION 2: STAKEHOLDERS AND COMMUNITIES (1)
SDG 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, 15, 16, 17
GRAND BALLROOM 3

Session Sponsor



12:00 Integrating the sustainable development goals into post-mining land use selection GB Simpson, WSP, Australia; K Ferguson, N Slingerland, WSP, Canada; R Hattingsh, Whitehaven Coal, Australia

It's complex: reframing narratives around the social impacts of mine closure E O'Keefe, Synergy Global Consulting Ltd, UK

12:20 The regulatory journey to improving mine closure success in Western Australia D Risbey, Department of Energy, Mines, Industry Resources and Safety, Australia

Ready, set, close! Assessing social values and community readiness for mine closure and post-closure transitions S Finucane, Pershke Consulting Pty Ltd, Australia

12:40 South Australian tailings storage facility: dust emissions study CS McNaughton, LR Crilley, J Radevski, WSP, Australia; M Klink, BHP, Australia

The power of collaboration and realism in social transition planning: an improved foundation for success in remote Australia C Wilson-Clark, WSP, Australia; G Macmillan, Rio Tinto, Australia; R Winn, C Martinez, WSP, Australia

13:00 A review of the DUB-GEM project and the applicability of drone-based gamma spectrometry in mine closure and remediation B Preugschat, Federal Institute for Geosciences and Natural Resources, and Leibniz University Hannover, Germany; C Kunze, IAF-Radioökologie GmbH, Germany; B Wiens, Third Element Aviation GmbH, Germany; S Altfelder, Federal Institute for Geosciences and Natural Resources, Germany

Challenges of mine closure as a tool for reconciling mining with local communities and conservation units in the Amazon FEK Junior, F Perlati, AE Marques, JC de Jesus Neto, Mining National Agency, Brazil

13:20 LUNCH

Session Sponsor



Session Sponsor



SESSION 3: ECOSYSTEM RECONSTRUCTION (1)
SDG 3, 6, 8, 13, 14, 15
GRAND BALLROOM 2

Session Sponsor



SESSION 4: MODELLING AND RISK
SDG 3, 6, 9, 12, 14, 15
GRAND BALLROOM 3

Session Sponsor



14:20 Development of an ecosystem model for post-mining land use with a systems dynamics approach P Hesketh, M Zevallos, *Environmental Resources Management, UK*; K Chichakly, *isee systems, USA*

A conceptual risk management framework for post-closure settlement of fill GE Brink, E Heymann, *Rio Tinto, Australia*

14:40 From mine waste to engineered growth media: reflecting on how to reduce reliance on topsoil for rehabilitation in Western Australia E Salfate, M Esmi, L Robertson, *WSP, Australia*

Integrated residual void modelling incorporating water balance, hydrogeological and flood modelling, and geotechnical and geochemical assessments for final closure landform risk reduction L Johnston, *WSP, Australia*; R Hattigh, *Whitehaven Coal, Australia*

15:00 Comparing coal mine rehabilitation practices in Queensland, Australia with Wyoming, United States of America J Dunlop, J Purtill, *Office of the Queensland Mine Rehabilitation Commissioner, Australia*; M Kuchanur, K Wendtland, *Wyoming Department of Environmental Quality, USA*

Development of a predictive numerical model of water-rock interaction to estimate mine drainage water quality evolution from a waste rock dump located in northern Chile N Ferrada, *Amphos 21 Consulting, Chile*; E Coene, D Acros, *Amphos 21 Consulting, Spain*; R Alarcón, M Bouguereau, *Amphos 21 Consulting, Chile*

15:20 Rehabilitating and closing a coal tailings storage facility in Central Queensland, Australia: a non-conventional approach based on ecological engineering of pedological processes B Roddy, *Engeny, Australia*; L Huang, *The University of Queensland, Australia*; C Lockhart, *BHP Australia*

Considerations for 2D and 3D slope stability analysis for closure of a tailings storage facility N Pereira, S Lines, *Red Earth Engineering a Geosyntec Company, Australia*; A Arenas, *ATC Williams, Australia*

15:40 AFTERNOON BREAK

SESSION 5: WATER MANAGEMENT
SDG 3, 6, 9, 12, 13, 14, 15
GRAND BALLROOM 2

SESSION 6: LAND REHABILITATION
SDG 1, 2, 3, 6, 8, 9, 10, 11, 12, 13, 15
GRAND BALLROOM 3

SESSION 7: CASE STUDIES
SDG 6, 8, 9, 12, 15
CASSIA & KARRI ROOMS

16:10 Groundwater nitrate as a potential contributing source of acid and metalliferous drainage T Harck, *Hydro Geochem Group, Australia*; P Weber, *Mine Waste Management, New Zealand*; W Gemson, *Hydro Geochem Group, Australia*

Geotechnical properties of well-compacted coal wash reject for use as backfill in rehabilitation projects: literature review and testing for assessment of settlement characteristics S Du, S Ghimire, D Piccolo, *PSM, Australia*

Evaluating the environmental and economic impacts of mine void infilling: a case study A Morton, *EnviroMETS, Australia*; S Johnston, L Taniane, *Hatch, Australia*

16:30 Improving probabilistic predictions of post-closure groundwater solute loads for Ranger uranium mine J Sigda, A Askar, T Jones, J Pickens, *INTERA, USA*; S Paulka, I Harvey, R Stockdale, *Energy Resources of Australia, Australia*

Mapping tailings storage facilities associated with abandoned mine sites M Mpanza, *University of Johannesburg, South Africa*; J Wistockk, *Esri, South Africa*; S Rupprecht, *University of Johannesburg, South Africa*

Study: Selbaie Mine, Quebec, Canada C Salewich, *BHP, Canada*

16:50 Option analysis to reduce solute loading to surface water receptors from a Ranger mine tailings storage facility T Jones, A Askar, J Pickens, J Sigda, D Fryar, *INTERA, USA*; S Paulka, R Stockdale, *Energy Resources of Australia, Australia*

Three years of barrier cover field trials at Rosebery mine T Rohde, H Vogler, J Lang, *SGME, Australia*; J Crosbie, A Pandelis, *MMG, Australia*

Ten years of cover performance data and capillary break investigation for leading practice store and release cover at Century Mine P Defferrard, *Sibanye-Stillwater Australia Operations, Australia*; T Rohde, J Lang, *SGME, Australia*

17:10 Understanding and managing groundwater impacted by historical mining beneath the city of Bendigo M Hoban, N Trotter, *Department of Environment Energy and Climate Action, Australia*

Optimising cover system performance with native vegetation at Mt Whaleback mine to minimise acid and metalliferous drainage risk: a research consortium approach B Johnson, *Okane Consultants, New Zealand*; J Gale, R Mejia, *BHP, Australia*; E Veneklaas, M Leopold, *The University of Western Australia, Australia*; M Barteaux, *BHP, Australia*; *Okane Consultants, Canada*; M Philip, *Okane Consultants, USA*; H Cooper, *Okane Consultants, Canada*; TE Erickson, D Gibson, *The University of Western Australia, Australia*; M Clark, E Stock, *Okane Consultants, Canada*; G Taki, D Springer, *The University of Western Australia, Australia*

Observations from a georesistivitymeter for time lapse analysis (G.Re.T.A.) in a closed red mud tailings storage facility I Bryson, L Millington, *Rio Tinto, Australia*

17:30 DAY ONE CLOSE

*Correct as at 5 November 2024. Preliminary program only, subject to change. See acgmineclosure.com for updates. Speakers underlined.

PLENARY SESSION 2

GRAND BALLROOMS 2 & 3

Session Sponsor



08:30 KEYNOTE: Social, economic and environmental resilience through mine closures: why collaboration and partnership are key E Gagen, J Nicholls, S Innis, A Rowntree, D Tang-Lee, D Martin, ICMM, UK

09:00 Risks and cost estimates: the disconnect G Byrne, Niboi Consulting, Australia

09:20 Conversation presentation two: Future orientation with technology

09:50 Panel two: Social transition

10:20 Industry Sponsor presentation P Garneau, ATC Williams, Australia

10:23 MORNING BREAK

PARALLEL SESSIONS

SESSION 8: LANDFORM DESIGN

SDG 6, 9, 12, 15

GRAND BALLROOM 2

Session Sponsor



SESSION 9: MINE CLOSURE PLANNING

SDG 6, 8, 9, 11, 12, 13, 14, 15, 16, 17

GRAND BALLROOM 3

Session Sponsor



11:00 A new method to design post-mining landforms GR Hancock, University of Newcastle, Australia; JF Martín Duque, Complutense University of Madrid, Spain; DP Welivitiya, University of Newcastle, Australia

Towards a sustainable legacy: integrating net-zero targets into mine rehabilitation and closure planning B Boshrouyeh, WSP, Australia; S Amari, EY, Australia; R Hattingh, Whitehaven Coal, Australia

11:20 Geomorphic rehabilitation, landscape evolution and hydraulic modelling for the closure of Cerrejón mine, Colombia JF Martín Duque, Complutense University of Madrid, Spain; GR Hancock, University of Newcastle, Australia; M Tejedor, Complutense University of Madrid, Spain; E Bladé, Polytechnic University of Catalonia, Spain; R Sánchez, Complutense University of Madrid, Spain, and Vast-la, Sweden; A Gómez, CA Fuentes, LF Madriñan, JP Lozano, E Castro, Carbones del Cerrejón Limited, Colombia

Risk-informed closure design at the Hidden Valley Mine, Papua New Guinea A Poole, J Sanders, KCB Australia Pty Ltd, Australia; S Wakefield, S Watson, Harmony Gold, Australia

11:40 Simulating the long-term erosion equilibrium of a rehabilitated mine landform to evaluate the dynamics of land restoration D Nair, SM Bellairs, K Evans, Charles Darwin University, Australia

Don't let the tail(ings) wag the mine: guiding tailings storage facility closure designs for compliance J Walls, SRK Consulting, Australia

12:00 Harmonising engineering and landform design for integrated rehabilitation and closure planning: a case study K Koekemoer, G van Wyk, E-TEK Consulting, South Africa

Square peg, geomorphic hole: applying geomorphic design principles to established tailings storage facilities W Lee, H Thomson, SRK Consulting, Australia

12:20 Improving landform design using analysis of high-resolution survey data from constructed linear and geomorphic landforms in New South Wales, Australia S Dressler, C Waygood, WSP, Australia

Considering groundwater dependent ecosystems in closure planning D Windle, T Weaver, H Pawley, ERM, Australia; C Tolsma, EnergyAustralia, Australia

12:40 LUNCH

SESSION 10: TAILINGS MANAGEMENT

SDG 6, 9, 12, 14, 15

GRAND BALLROOM 2

SESSION 11: ABANDONED MINES

SDG 3, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

GRAND BALLROOM 3

13:40 Design constraints of a closure design basis and cover options assessment for a gold mine tailings facility in the Canadian Shield A Cash, D Paszkowski, BGC Engineering Inc, Canada

Completion and monitoring of the geomorphic-based LIFE RIBERMINE project: transference to other abandoned mines JF Martín Duque, M Tejedor, Complutense University of Madrid, Spain; P Royal, Génie Géologique, France; C Martín-Moreno, Complutense University of Madrid, Spain; GR Hancock, University of Newcastle, Australia; J de la Villa, Spanish Network on Mine Rehabilitation, Spain; M Adoración Solórzano, Regional Government of Castile-La Mancha, Spain

14:00 Tailings dam closure and declassification: closure optimisation with limited rehabilitation resources A Kemp, P Chapman, WSP, Australia

Queensland's Abandoned Mine Land Program: improving the way we manage abandoned mines in Queensland A Stones, K Fogarty, A Grabski, T Hall, Department of Resources, Australia

14:20 Development of a safety case for a closed tailings storage facilities in the tropics J Thorp, HATS Consulting, Australia; J Herza, Czech Technical University in Prague, Czech Republic

Using bow-ties to provide a clear and transparent mine closure plan M Ryan, Umwelt, Australia

14:40 A performance-based approach for the calibration and prediction of fine tailings settlement for closure design T Sharp, M Llano-Serna, C Han, Red Earth Engineering, Australia

Prioritising risks for rehabilitation from a legacy of mining in Western Australia T Read, Department of Energy, Mines, Industry Regulation and Safety, Australia; M Collard, R Freeman, GHD, Australia

15:00 A comparative study on the performance of electroosmotic consolidation of fluid fine tailings under constant voltage and constant current configurations N Jayasiri, AB Fourie, C Vulpe, The University of Western Australia, Australia

Application of artificial intelligence recognition model methods in the analysis characteristics of closed/abandoned mine resources J Dong, X Feng, China University of Mining and Technology, China; L Wang, F Liu, China Coal Society, China; B Henc, Y Wu, University of the Witwatersrand, South Africa

15:20 AFTERNOON BREAK

Conference Program*

Day Two: Wednesday 27 November 2024

17th International Conference on Mine Closure

SESSION 12: STAKEHOLDERS AND COMMUNITIES (2) SDG 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, 15, 16, 17 GRAND BALLROOM 2	SESSION 13: LANDFORMS, DRAINAGE AND EROSION SDG 6, 9, 12, 14, 15 GRAND BALLROOM 3	SESSION 14: PIT LAKES SDG 6, 9, 12, 13, 14 CASSIA & KARRI ROOMS
15:50 In which conversations should community stakeholders be involved? <u>R Joiner</u> , <u>J Brereton</u> , <u>Mine Land Rehabilitation Authority, Australia</u>	Assessment of extreme precipitation events under climate change scenarios in search of a resilient closure design <u>C Loyola</u> , <u>I Toro</u> , <u>R González</u> , <u>S Robles</u> , <u>WSP, Chile</u>	Monitoring for pit lake planning, filling and use: Why? When? What? <u>M Schultze</u> , <u>Helmholtz Centre for Environmental Research - UFZ, Germany</u> ; <u>J Vandenberg</u> , <u>Vandenberg Water Science Ltd, Canada</u> ; <u>D Castendyk</u> , <u>WSP, USA</u> ; <u>H-P Schleußner</u> , <u>Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft GmbH, Germany</u> ; <u>CD McCullough</u> , <u>Mine Lakes Consulting Pty Ltd, Australia</u>
16:10 Nuclear power renaissance and the challenge of closing legacy uranium mine and mill sites <u>C Ardito</u> , <u>INTERA, USA</u> ; <u>R Hugman</u> , <u>INTERA, Portugal</u> ; <u>A Persico</u> , <u>J Sigda</u> , <u>INTERA, USA</u>	Application of remote sensing data to measure erosion on rehabilitated landforms at the Abydos mine <u>H Crisp</u> , <u>S Mackenzie</u> , <u>S Gregory</u> , <u>Mine Earth Pty Ltd, Australia</u> ; <u>T Sprenkels</u> , <u>A Slabber</u> , <u>Atlas Iron Pty Ltd, Australia</u>	Mine waste disposal in pit lakes: a good practice guide <u>CD McCullough</u> , <u>Mine Lakes Consulting Pty Ltd, Australia</u> ; <u>M Schultze</u> , <u>Helmholtz Centre for Environmental Research - UFZ, Germany</u> ; <u>J Vandenberg</u> , <u>Vandenberg Water Science Ltd, Canada</u> ; <u>D Castendyk</u> , <u>WSP, USA</u>
16:30 Social outcomes following mine closure: an abundance of good intentions undermined by a lack of leverage <u>L Wall</u> , <u>Shared Resources Pty Ltd, Australia</u>	Performance evaluation of waste rock dump closure cover systems in different climate zones of Turkey <u>BC Baysal</u> , <u>WSP, Turkey</u> ; <u>KK Yilmaz</u> , <u>Middle East Technical University, Turkey</u>	Case study: an assessment of integrated geotechnical considerations during the Hazelwood mine lake filling for mine closure using a reliability-based approach <u>S Narendranathan</u> , <u>J Butler</u> , <u>K Kuang</u> , <u>Civil Mine & Quarry Geotechnics Pty Ltd, Australia</u> ; <u>J Lowe</u> , <u>A Moran</u> , <u>ENGIE, Australia</u>
16:50 Stakeholder engagement and ecosystem services for mine closure <u>Y Pan</u> , <u>University of Reading, and King's College London, UK</u> ; <u>S Duddigan</u> , <u>University of Reading, UK</u> ; <u>CE Devanadera</u> , <u>University of the Philippines Los Baños, Philippines</u> ; <u>M Tibbett</u> , <u>University of Reading, UK</u>	Capturing the overburden storage area construction and post-construction period in assessing the performance of alternate source control strategies <u>G Meiers</u> , <u>Mine Closure Management Inc, Canada</u> ; <u>MA Pernito</u> , <u>WSP, Canada</u> ; <u>J Wilson</u> , <u>Mine Closure Management Inc, Canada</u>	A novel approach for modelling water quality at mine closure <u>S Dayyani</u> , <u>M Lopez-Egea</u> , <u>WSP, Canada</u> ; <u>J Vandenberg</u> , <u>Vandenberg Water Science, Canada</u> ; <u>S Sinclair</u> , <u>Rio Tinto Diavik Diamond Mine, Canada</u>
17:10 DAY TWO CLOSE		
18:30 CONFERENCE DINNER		

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CO-CHAIRS



Professor Andy Fourie

Professor of Civil & Mining Engineering and Program Director – Future Tails
The University of Western Australia



Professor Mark Tibbett

Professor of Soil Ecology
University of Reading, UK

CONFERENCE DINNER

The venue for the Mine Closure 2024 dinner is:
Burswood on Swan, 1 Camfield Drive, Burswood WA 6100
Date: 27 November 2024
Time: 18:30 pre-dinner drinks, 19:00 seated for dinner

Join us for an evening of good food, wine and networking at the Mine Closure 2024 dinner, to be held in this riverside venue with stunning sunset views back to the city of Perth.

Please note, this event is now SOLD OUT.



PLENARY SESSION 3
GRAND BALLROOMS 2 & 3

Session Sponsor



- 08:30 KEYNOTE ADDRESS: Recent developments in the science and technology of in situ solvent leaching of tailings for reprocessing, rehabilitation and closure GRT Jenkin, University of Leicester, UK; CA Arcilla, Philippine Nuclear Research Institute, Philippines; AP Abbott, University of Leicester, UK; L Bateson, British Geological Survey, UK; AT Bautista VII, Philippine Nuclear Research Institute, Philippines; JE Chambers, British Geological Survey, UK ... Y Yan, University of Exeter, UK
- 09:00 Panel three: Landforms
- 09:30 Using a landform evolution model to model the effect of extreme rainfall events on the geomorphic stability of a rehabilitated landform J Lowry, M Saynor, Office of the Supervising Scientist, Australia; GR Hancock, The University of Newcastle, Australia; T Coulthard, University of Hull, UK
- 09:50 Building durable legacies: a holistic approach to closure design for mining landforms S Mackenzie, E Smedley, Mine Earth Pty Ltd, Australia
- 10:10 Sponsor presentation M Kiejda, GHD, Australia

10:13 MORNING BREAK

PARALLEL SESSIONS

	SESSION 15: ECOSYSTEM RECONSTRUCTION (2) SDG 3, 6, 8, 13, 14, 15 GRAND BALLROOM 2	SESSION 16: STAKEHOLDERS AND COMMUNITIES (3) SDG 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, 15, 16, 17 GRAND BALLROOM 3	SESSION 17: FINANCING AND COST ESTIMATION SDG 1, 2, 3, 8, 9, 10, 11, 12, 14, 15, 16, 17 CASSIA & KARRI ROOMS
10:50	Research-led adaptive management in rehabilitation <u>L Commander</u> , Alcoa of Australia, and The University of Western Australia, Australia; <u>J Barker</u> , <u>C Blackburn</u> , <u>A Grigg</u> , <u>G Mullins</u> , Alcoa of Australia, Australia	enviroMETS Lighthouse Projects: a strategic pathway to high-value sustainable post-mining land use <u>A Morton</u> , <u>R Merz</u> , enviroMETS, Australia	How to do better on your next closure plan <u>K Hill</u> , <u>L Goslin</u> , <u>G Beale</u> , Piteau Associates, South Africa
11:10	Can deep eutectic solvents be used to mobilise copper from tailings while providing a pathway towards rehabilitation? <u>VH De Oliveira</u> , <u>S Duddigan</u> , University of Reading, UK; <u>J Symons</u> , <u>M Whelan</u> , <u>V Selvaraj</u> , <u>A Abbott</u> , <u>GRT Jenkin</u> , University of Leicester, UK; <u>M Tibbett</u> , University of Reading, UK	Institutional, stakeholder and regulatory constraints to the redevelopment of mine sites to alternative employment-generating land uses: Hunter Valley case study <u>D Holmes</u> , <u>S Coakes</u> , <u>R Jaeger-Michael</u> , Umwelt, Australia	Mine closure liability as an environmental, social, and governance concept: using a multi-dimensional approach to mine closure liability reduction <u>G Gregory</u> , <u>M Guerra</u> , <u>R Pedlar-Hobbs</u> , <u>T Kuzyk</u> , ERM, Canada
11:30	Microbial species richness under spontaneous plant colonisation in copper mine tailings <u>JE Lazaro</u> , University of the Philippines Diliman, Philippines; <u>EJ Sioson</u> , University of the Philippines Diliman, and Philippine Nuclear Research Institute, Philippines; <u>JA Aja</u> , University of the Philippines Diliman, Philippines; <u>J Dayap</u> , Department of Agriculture, Philippines; <u>KS Bautista</u> , Department of Agriculture, Philippines; <u>A Tanciongco</u> , <u>JH Gervasio</u> , <u>RN Quierrez</u> , <u>J Samaniego</u> , <u>C Arcilla</u> , Department of Science and Technology, Philippines; <u>MO Quimado</u> , University of the Philippines Los Baños, Philippines; <u>L Newsome</u> , University of Exeter, UK; <u>M Tibbett</u> , University of Reading, UK	Island mining: a look at the planning to successfully close and rehabilitate Mount Gibson's Koolan Island mine <u>J King</u> , <u>D Temple-Smith</u> , <u>J Devenny</u> , Mount Gibson Iron Limited, Australia; <u>E Kershaw</u> , Department of Energy, Mines, Industry Regulation and Safety, Australia	Improved outcomes during infrastructure closure with optimised asset management <u>C Hermann</u> , <u>D Cannizzo</u> , WSP, Australia
11:50	Effective rehabilitation and closure planning: lessons from Base Titanium Mine, Kwale, Kenya <u>N Okello</u> , <u>D Vickers</u> , Base Titanium Limited, Kenya	Navigating divergent expectations: completion criteria challenges in the Pilbara, Western Australia <u>S Malan</u> , <u>D Murphy</u> , WSP, Australia	Closing the gap: closure cost estimation trends and pathways to improved maturity <u>J Sanders</u> , <u>Klohn Crippen Berger</u> , Australia; <u>N Slingerland</u> , WSP, Canada; <u>D Murphy</u> , WSP, Australia
12:10	Pilot reclamation of a tin mining area using biochar on Bangka Island, Indonesia <u>A Möller</u> , <u>P Schütte</u> , Federal Institute for Geosciences and Natural Resources, Germany; <u>A Saragi</u> , CV Arta Pasada Utama, Indonesia; <u>I Nurul</u> , Regional Development Planning Agency, Indonesia; <u>G Franken</u> , Federal Institute for Geosciences and Natural Resources, Germany	Collaboration with the local community to implement sustainable reclamation projects in the mining area <u>AD Rahma</u> , <u>M Maswahenu</u> , <u>MH Aditama</u> , <u>D Mahendra</u> , <u>AD Rahmandhana</u> , <u>A Amril</u> , <u>LN Setiawan Putra</u> , <u>SI Dewi Puspitasari</u> , PT. Amman Mineral Nusa Tenggara, Indonesia	Case study: the financial benefit of the implementation of concurrent rehabilitation (owner fleet versus contractor) <u>L Koekemoer</u> , <u>J Taljaard</u> , <u>C van Staden</u> , E-TEK Consulting, South Africa. Presented by <u>J Erasmus</u> , E-TEK Consulting, South Africa

12:30 LUNCH

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SESSION 18: RISK AND HAZARDS SDG 3, 6, 9, 12, 14, 15 GRAND BALLROOM 2	SESSION 19: POST-MINING LAND USE SDG 3, 6, 8, 13, 14, 15 GRAND BALLROOM 3	SESSION 20: LEGISLATION AND REGULATION SDG 3, 6, 8, 11, 12, 13, 14, 15, 16, 17 CASSIA & KARRI ROOMS
13:30 How long is 'long-term'? Carrying seismic risk through the post-operational period <u>P Chapman</u> , <u>E Salfate</u> , WSP, Australia; <u>C Hatton</u> , WSP, USA	Regional-scale post-mining land-use transition: opportunities and challenges for industry and regulators <u>C Cooper</u> , <u>Integrated Environmental Management Australia</u> , Australia	Legislative frameworks and sustainable mining practices in South Africa: integrating environmental and socio-economic objectives <u>J Erasmus</u> , <u>J Potgieter</u> , E-TEK Consulting, South Africa. Presented by <u>G van Wyk</u> , E-TEK Consulting, South Africa
13:50 Design aspects that may be considered for the decharacterisation of mining geotechnical structures with a focus on hazardous tailings dams <u>FD Azevedo</u> , Progen, Brazil; <u>JC Lima</u> , Geostável, Brazil	Fort Collins aggregate mine planning for closure: optimising post-closure land use through mine operations <u>JS Collyard</u> , <u>M Arigoni</u> , SLR Consulting, USA	The renaissance of Rio Tinto's former industrial assets in France: enablers for successful post-mining transitions <u>C Latham</u> , Rio Tinto, Australia; <u>D Lhuissier</u> , <u>M Mignot</u> , <u>J Solana</u> , Rio Tinto, France
14:10 Multi-hazard index for assessing the interaction of post mining hazards <u>M Al Heib</u> , <u>N Velly</u> , <u>Ineris</u> , France	Circular economy strategy for repurposing coal seam overburden as construction sand in the mining industry <u>A Morton</u> , <u>enviroMETS</u> , Australia; <u>S Johnston</u> , <u>L Taniane</u> , Hatch, Australia	The perfect storm: mine closure in the Latrobe Valley, Victoria <u>A Scrase</u> , <u>J Brereton</u> , Mine Land Rehabilitation Authority, Australia
14:30 Risk management related to long-term mine gas emissions: feedback from French experience <u>S Lafortune</u> , <u>A Herbout</u> , <u>O Lefebvre</u> , <u>T Arnone</u> , <u>J Tardivon</u> , <u>P Bigarré</u> , GEODERIS, France	Completion criteria: the tension between certainty and flexibility <u>C Gimber</u> , <u>N Shade</u> , ERM, Australia	Water treatment development plan for Rio Tinto closure assets <u>M Remy</u> , <u>Isle Utilities B.V.</u> , <u>The Netherlands</u> ; <u>K Clode</u> , <u>Isle Utilities</u> , Australia; <u>T Motchan</u> , <u>Isle Utilities B.V.</u> , <u>The Netherlands</u> ; <u>H Kerr</u> , <u>Isle Utilities</u> , Australia
14:50 AFTERNOON BREAK		
SESSION 21: CLOSING PLENARY GRAND BALLROOMS 2 & 3		
15:20 Predictive modelling of slope reliability for a Victorian open pit mine using numerical and artificial intelligence techniques <u>N Baghbani</u> , <u>T Baumgartl</u> , Federation University, Australia		
15:40 Progress towards implementing a research agenda towards post-mining transitions <u>T Measham</u> , <u>J Walker</u> , CRC TIME, and The University of Western Australia, Australia; <u>F Haslam McKenzie</u> , CRC TIME, The University of Western Australia, Australia; <u>A Samper</u> , <u>D Brereton</u> , CRC TIME, and The University of Queensland, Australia; <u>G Boggs</u> , CRC TIME, and The University of Western Australia, Australia		
16:00 Environmental, social and governance influences on closure cost provisioning and why we need a global standard for reporting closure financial liability <u>S Finucane</u> , <u>K Beckett</u> , <u>Pershke Consulting Pty Ltd</u> , Australia		
16:20 Envisioning the future: Does imagery help or hinder? <u>K Beckett</u> , <u>Pershke Consulting Pty Ltd</u> , Australia; <u>J D'Urso</u> , CRC TIME, Australia		
16:40 Integrated closure planning and closure criteria: the road to success...criteria <u>J Erasmus</u> , <u>N Coetzer</u> , E-TEK Consulting, South Africa		
17:00 Closing address <u>A Fourie</u> , The University of Western Australia, Australia		
17:05 CONFERENCE CLOSE		

*Correct as at 5 November 2024. Preliminary program only, subject to change. See acgmineclosure.com for updates. Speakers underlined.

ASSOCIATED EVENTS

Global Update: Geomorphic Landform Design and Landscape Evolution Modelling Workshop

24 November 2024 | The Westin Perth, Perth, Western Australia

Pit Lake Closure: Processes, Risks, Opportunities and Planning Workshop

24 November 2024 | Wisteria Room, The Westin Perth, Perth, Western Australia

Monitoring for Safe Closure Workshop | 25 November 2024 | The Westin Perth, Perth, Western Australia

Workshop: Transform. Transition. Transfer. | 25 November 2024 | Wisteria Room, The Westin Perth, Perth, Western Australia



MINE CLOSURE 2024

MINE CLOSURE 2024 SPEAKERS



Darren Murphy
Opening Speaker

Mine Closure Consultant/Mine Repurposing Advocate
Murcox Post Mining Services

Opening address title: Reconciling mine closure



Dr Emma Gagen
Keynote Speaker

Acting Director Environment
ICMM

Paper title: Social, economic and environmental resilience through mine closures: why collaboration and partnership are key



Peter Harvey
Invited Speaker

Global Head of Closure
Rio Tinto, UK

Presentation title: Responsible closure key to keeping mining open for business



Professor Gawen RT Jenkin
Keynote Speaker

Professor of Applied Geology
University of Leicester, UK

Paper title: Recent developments in the science and technology of in situ solvent leaching of tailings for reprocessing, rehabilitation and closure



Dr Peter Whitbread-Abrutat
Keynote Speaker

Managing Director
Future Terrains International, UK

Paper title: A mine ends – then what? Some reflections on best practice



Freda Ogilvie
Welcome to Country Speaker

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