

## Received Articles

(60 articles as of February 4)

**Represented Countries (14):** Argentina, Australia, Brazil, Canada, Chile, Colombia, France, Mexico, Norway, Peru, South Africa, Spain, Sweden and USA

### PHYSICAL STABILITY

(7 articles)

- 1. (A06) Closure of Mining Waste Piles**  
Karippe Vieira, Paulo Amaral and Sandra Ribeiro, Vale, Brazil
- 2. (A26) Reduction of Carbon Footprint in the execution of Mine Closure Covers with Geosynthetics**  
Gustavo Fierro, Tecnologia de Materiales, Peru
- 3. (A31) Tailings Storage Closure: Unlock Opportunities Earlier and Let the Economics Work**  
Anjan Kundu, GHD, Australia
- 4. (A36) Rainfall Infiltration in a Waste Rock and Tailings Pile: Case Study in Minas Gerais, Brazil**  
Daniel Henriques, Henrique Mendes, Gabriel Pereira, Ana Lúcia Yoda, Tractebel, Brazil;  
Isabella Viel and Luiza Morais, Vale, Brazil
- 5. (A37) The Role of Geochemistry in the Long-Term Physical Stability of Mining Facilities**  
Renán Pulquillanca and Luciano Achurra, SLR Consulting, Chile
- 6. (A39) Key Elements Vital for Using Erosion Models to Design Final Mine Landforms in Queensland, Australia**  
Louisa Nicolson, Office of the Queensland Mine Rehabilitation Commissioner, Australia
- 7. (A50) Effects of Vegetation on the Stability and Closure of Mine Waste Dumps**  
Pedro Freu and Brendha Mota, Vale, Brazil

## CHEMICAL STABILITY

(3 articles)

- 1. (A11) Geochemical Behaviour of Cemented Oxidized Mine Tailings and Effectiveness in Limiting Acid Mine Drainage**  
Audrey Jalce, Isabelle Demers and Benoît Plante, Université du Québec en Abitibi-Témiscamingue (UQAT), Canada; Thomas Pabst, Norwegian Geotechnical Institute (NGI), Norway; Thomas Genty, Agnico Eagle, Canada; Eric Brouard, Holcin Innovation Center, France; and Sophie Turcotte, Ministry of Natural Resources and Forests, Canada
- 2. (A43) Chemical Stability Assessment of Remaining Facilities at Cerro Colorado**  
Paula Martínez, Fernando López, Pampa Norte, BHP, Chile; Francisca Arriagada, Miguel Muñoz and Luisa Cares, Cerro Colorado, BHP, Chile
- 3. (A59) Application of Natural Geochemical Background to Support Water Quality Objectives in Mine Closure**  
Alonso Huaman, Pablo Quesada, Amphos 21, Peru; and David Arcos, Amphos 21, Spain

## RISK ASSESSMENT

(9 articles)

- 1. (A09) Mine Closure Plan or Project? Myths and Realities**  
Ronald Aquino, Minsur, Peru
- 2. (A10) Balancing the Mine Closure Equation: Conundrum or Opportunity?**  
Resa Furey, Cristian Marambio, Andrew Watson and Phillip Crouse
- 3. (A17) Methodology for the Evaluation of Closure Alternatives**  
Ricardo Soto, Juan Tellez and José Ale, WSP, Peru
- 4. (A18) Evaluation of the Hydrogeological Behavior of Tailings-Dolomite Co-Disposal to Mitigate Acid Mine Drainage**  
Javiera Farias, Isabelle Demers and Carmen Neculita, Université du Québec en Abitibi-Témiscamingue (UQAT), Canada
- 5. (A22) Beyond the Crest: Plan Ahead**  
Tomás Argandoña, BGC Engineering, Chile; and Mike Belfry, BGC Engineering, Canada
- 6. (A24) Legacy Tailings Dams and Urban Flood Risk: Hydrological Assessment for Safe Mine Closure at Águas Claras, Brazil**  
Letícia Pires, Guilherme Rodrigues, Zandra Cunha, Felipe Starling, Ana Viegas and Luanna Guimaraes, Vale, Brazil; and Sarah Luiz, Geoestável, Brazil

7. **(A25) Risk-Based Closure Success Criteria: Águas Claras Pit Case Study**  
Letícia Pires, Tamires Nogueira, Pedro Freu, Vale, Brazil; Luanna Guimaraes and Debora Schaper, WSP, Brazil; and Marisol Valerio and Lesley Sandve, WSP, Canada
8. **(A27) Integrated Closure Strategies in Iron Mining: Experiences from El Algarrobo, Cerro Negro Cristales, Emisario Chapaco and El Romeral Tailings Deposit**  
Roberto López, Compañía Minera del Pacífico, Chile
9. **(A35) Governance for the Safe Closure of Tailings Storage Facilities: The Engineer of Record Perspective**  
Germán Toledo, Mauricio Gómez and Rodrigo Cádiz, Arcadis, Chile

## COSTS AND ECONOMIC ASSESSMENT

(4 articles)

1. **(A03) Identification of Patterns in the Distribution of Mine Closure Costs**  
Clara Cheib, Débora Schaper and Ricardo Lessa, WSP, Brazil; and Kim Ferguson, WSP, Canada
2. **(A16) Analysis and reuse of the tailing from the Chicrín Antiguo deposit, Nexa Resources Peru**  
José Cayetano, Pasco Mining Complex, Nexa Resources, Peru
3. **(A23) A Differential Financial Assurance Model for ASM (MAPE) Closure in Colombia**  
Tommy Vallejo and Oscar Restrepo, Universidad Nacional de Colombia
4. **(A32) From ARO to LOM: A New Perspective and Proposal for Closure Planning Modeling**  
Mario Oliveira, Karippe Pulino, Paulo Ribeiro, Isabela Diniz and Alessandro Resende, Vale, Brazil

## PROGRESSIVE CLOSURE

(12 articles)

1. **(A01) Planning Water Management for Closure**  
Bernard Aubé, Envirobay, Canada
2. **(A02) Five Years On: Reflections on the Mine Rehabilitation Reforms and Their Impacts on the Queensland Resources Industry**  
Kate Baker, Office of The Queensland Mine Rehabilitation Commissioner, Australia

- 3. (A07) Management of Progressive Closure in Filtered Tailings Deposits Using Phytotechnology**  
Leandro Licuime, Elizabeth Díaz and Katherine Ascencio, Compañía Minera del Pacifico, Chile
- 4. (A19) Progressive Closure Planning and Sediment Management at a Mining Dam in Brazil**  
Marina Kolanski, Marco Nascimento, Osmar Costa, Tetra Tech, Brazil; and Raissa Cotta, Flaviane Thimotio and Samuel Tarazona, Vale, Brazil
- 5. (A29) Progressive Closure of Compañía Minera Teck Quebrada Blanca: Cathode Plant**  
Arturo Mejías, Teck Resources, Chile
- 6. (A33) Closure Planning of the Filtered Tailings Storage Facility at the Morelos Complex, Mexico**  
Rafael Curra, Torex Gold Resources, Mexico
- 7. (A38) Rectification of the Pircas River, Remediation, and Removal of Historical Environmental Liabilities**  
Sergio Cacciabue, Julio Eller and Estefania Borgo, SSR Mining, Argentina
- 8. (A42) Guidelines for Progressive Closure of Stack Piles**  
Meire Melo, Alessandra Teixeira, Sylvia Jesus, Vale, Brazil; André Lauriano and Amanda Soalheiro, GWS Engenharia, Brazil
- 9. (A45) Hydrological and Hydraulic Criteria for Mine Closure and Post-Closure Design**  
Mônica Almeida, Helena Castro, Fernando Aguilar and Vicente Mello, Aecom, Brazil
- 10. (A47) Progressive Mine Closure: Digital Conceptual Model for Data Management and Decision Support**  
Maria Costa, Marcelo Cristo and Bárbara Vinent, Arcadis, Brazil
- 11. (A52) Progressive Mine Closure at Cerro Moro: Circular Economy Strategies in Argentine Patagonia**  
Silvio Romano, Paulino Velázquez, Matías Peguero, Alejandro Acosta, Melisa Castro and Sergio Bravo, Cerro Moro, Pan American Silver, Argentina
- 12. (A60) Rethinking Cemented Tailings Engineered Cover Performance Under Progressive Closure**  
Lincar Pedroni and Yvan Soré-Gamo Koutou, AtkinsRéalis, Canada

## TEMPORAL CLOSURE

(1 articles)

1. **(A55) Temporary Closure Plans: Caupolican Block, Hydrocarbon Mining Operation**  
Karina Cerna, Empresa Nacional del Petróleo (ENAP), Chile

## STAKEHOLDER ENGAGEMENT

(5 articles)

1. **(A15) Social Transition in Mine Closure: Pathways for Participation and Impact Management**  
Hernán Maureira and Paula Muñoz, ARDUM Ingeniería, Chile
2. **(A34) From Early Engagement to Community Co-Creation: Integrating Social Closure Planning in Mining**  
Lucila Lasry, EXAR, Argentina
3. **(A40) The Role of Stakeholder Engagement in Creating a Positive Legacy for Mine Closure: A Means to an Effective Transition**  
Jessica Pryor and Chanel McCall, Digby Wells Environmental, South Africa
4. **(A48) Phasing Out Coal in El Cesar (Colombia): Towards a Just Socioeconomic Transition**  
Jeanette Moreno, Guillén Calvo, Insuco Center for Social Innovation, Colombia; and Diana Méndez, Insuco Center for Social Innovation, Mexico
5. **(A53) Participation and Social Risk Management as Cornerstones of Mine Closure Planning: Lessons from Recent Work in Colombia**  
Anny Gutiérrez, Martha Peñuela, ERM, Colombia; and Gillian Gregory, ERM, Canada

## FUTURE USE OF TERRITORY

(4 articles)

1. **(A12) Post Mining Land Use: Global Perspective and Local Regulation**  
Javiera Soto, Paula Muñoz and Ximena Araneda, ARDUM Ingeniería, Chile
2. **(A21) Driving Innovation in Future Use Projects: The Sandbox Approach at Águas Claras Mine**  
Marina Oliveira and Gustavo Roque, Vale, Brazil
3. **(A28) Mine Closure Planning Infrastructure Reuse and Technological Innovation**  
Christian Ihle, René Lagas, and Cristian Reyes, SHIMIN Engineering, Chile

#### 4. (A30) Between Technique and Territory: Social Engagement in Future Land-Use Planning of the Águas Claras Mine

Eliane Almeida, Jussara Januário, Eduardo Duffles, Estevão Menegaz, Ana Paula Silva, Marina Oliveira and Gustavo Roque, Vale, Brazil

### MINING LIABILITIES AND ORPHAN ABANDONED MINES

(1 article)

#### 1. (A13) Case Study: Use of Jet Grouting in Clay Soils for the Closure of a Long-Standing Inactive Tailings Deposit

Javiera Cortez, David Hernández, Pablo Valdés and Guillermo Tamblay, ARDUM Ingeniería, Chile

### POST-CLOSURE, MONITORING AND MAINTENANCE

(5 articles)

#### 1. (A04) Holden Mine: Real-Time Monitoring for Closure and GISTM Conformance

Summer Sun, Phillip Crouse and Ray Dorow, Stantec, USA

#### 2. (A05) Future Land Use Selection Methodology and its Associated Costs

Eduardo Campana and Karlayne Pomalia, Klohn Crippen Berger, Peru

#### 3. (A20) Feasibility of MABIOMET Device for Monitoring Heavy Metals and Metalloids Bioaccessibility in Mining Soils

Carolina Parodi, Keyla Alencar and Miguel Montenegro, Universidad Tecnológica Metropolitana, Chile; and Jorge Mendoza, Universidad de Chile

#### 4. (A44) Groundwater Recovery: Implications for Mine Closure in Cuadrilátero Ferrífero, Brazil

Ana Carolina Neves, Ana Paula Corrêa and Waldemar Felitti, Aecom, Brazil

#### 5. (A51) Post-Closure Fund Sensitivity to Maintenance Periodicity Variations

Victoria Vásquez and Claudia Goza, Pares y Alvarez, Chile

### REHABILITATION AND REVEGETATION

(5 articles)

#### 1. (A08) Evaluation of The Economic and Environmental Benefits of Using Geosynthetics for Mine Closure in Brazil

Bruna Todescan, TDM Geossintéticos, Brazil; and Gustavo Fierro, TDM Group, Peru

2. **(A14) Multi-Criteria Analysis for the Evaluation and Selection of Closure Measures During the Life of Mine Facilities**  
Julia Olivares, Angélica Vivas and Luis Gutiérrez, WSP, Chile
3. **(A46) Decontamination, Decommissioning and Demolition of Mining Assets**  
Nara Victoria, Vivian Sanches and Beatriz Gil, ERM, Brazil
4. **(A56) Application of Geocells for Substrate Retention and Revegetation in Mine Closure Cover Systems**  
Bruna Todescan, TDM Geossintéticos, Brazil; Lucas Machado and Marcelo Amaral, HIDROBR, Brazil
5. **(A58) Recovery of Arid Areas at Minera Bismark**  
Deisy Salas and Francisco Macías, Industrias Peñoles, Mexico

## ECOLOGICAL RESTORATION

(3 articles)

1. **(A41) Miners Become the Heroes: Shaping the Future of Sustainable Mining with Green Cubes**  
Erik Josefsson and Stina Langenius, Hexagon, Sweden
2. **(A54) Methodology for Environmental Compensation Planning for High-Andean Lagoon Systems in Mining Projects**  
Yeselin Díaz, Ana Cadillo, María Mercedes Medina, Pablo Quesada, Melitza Cornejo and Patricia Calderon, Amphos 21, Peru
3. **(A57) Surface Water Management for Mine Waste Dumps in Tropical Climates**  
Lincoln Almeida and Jéssica Lima, DF+ Engineering, Brazil

## GEOMORPHOLOGICAL RECONSTRUCTION

(1 articles)

1. **(A49) Wanagon Overburden Stability and Closure Design at Grasberg Surface Mine**  
Pirmansah, Made Mahayasa and Mark Johnson, Freeport-McMoRan, USA

## ARTICLES DISTRIBUTION

### MINING COMPANIES

(24 articles)

Minsur, Peru (1)  
Agnico Eagle, Canada (1)  
Pasco Mining Complex, Nexa Resources, Peru (1)  
Compañía Minera del Pacífico, Chile (2)  
Teck Resources, Chile (1)  
Vale, Brazil (10)  
Pampa Norte, BHP, Chile (1)  
Cerro Colorado, BHP, Chile  
Torex Gold Resources, Mexico (1)  
SSR Mining, Argentina (1)  
Cerro Moro, Pan American Silver, Argentina (1)  
EXAR, Argentina (1)  
Industrias Peñoles, Mexico (1)  
Empresa Nacional del Petróleo (ENAP), Chile (1)  
Freeport-McMoRan, USA (1)

### ENGINEERING AND CONSULTING COMPANIES

(27 articles)

Envirobay, Canada (1)  
Klohn Crippen Berger, Peru (1)  
ARDUM Ingeniería, Chile (3)  
WSP, Chile (1)  
WSP, Peru (1)  
WSP, Brazil (1)  
WSP, Canada  
Tetra Tech, Brazil  
BGC Engineering, Chile (1)  
BGC Engineering, Canada  
Geoestável, Brazil  
SHIMIN Engineering, Chile (1)  
Stantec, USA (2)  
GHD, Australia (1)  
Tractebel, Brazil  
SLR Consulting (1)  
Amphos 21, Peru (2)  
Amphos 21, Spain  
Arcadis, Chile (1)

GWS Engenharia, Brazil  
Aecom, Brazil (2)  
Arcadis, Brazil (1)  
AtkinsRéalis, Canada (1)  
Digby Wells Environmental, South Africa (1)  
ERM, Colombia (1)  
ERM, Canada  
ERM, Brazil (1)  
Pares y Alvarez, Chile (1)  
Hexagon, Sweden (1)  
DF+ Engineering, Brazil (1)

## SUPPLIER COMPANIES

(3 articles)

TDM Geossintéticos, Brazil (2)  
Tecnologia de Materiales, Peru (1)  
HIDROBR, Brazil

## UNIVERSITIES AND RESEARCH CENTERS

(3 articles)

Université du Québec en Abitibi-Témiscamingue (UQAT), Canada (1)  
Holcin Innovation Center, France  
Universidad Tecnológica Metropolitana, Chile (1)  
Universidad de Chile  
Universidad Nacional de Colombia (1)

## STATE-OWNED INSTITUTIONS, NGOS AND GOVERNMENT AGENCIES

(3 articles)

Office of The Queensland Mine Rehabilitation Commissioner, Australia (2)  
Ministry of Natural Resources and Forests, Canada  
Norwegian Geotechnical Institute (NGI), Norway  
Insuco Center for Social Innovation, Mexico (1)  
Insuco Center for Social Innovation, Colombia