

MINE WATER SOLUTIONS 2018

LIST OF ACCEPTED ABSTRACTS (As of Feb 16, 2018)

Theme - Water Treatment			
	Abstract Name	Author(s)	Company/Affiliation
1	Investigation of feed water treatment options in an arid area	<ul style="list-style-type: none"> • Mohsen Barkh 	<ul style="list-style-type: none"> • SGS Canada Inc.
2	Removing Selenium form a very low concentration mine waters	<ul style="list-style-type: none"> • Mohsen Barkh 	<ul style="list-style-type: none"> • SGS Canada Inc.
3	Treatment of a Coal Mine Acid Mine Drainage by Ozofractionative Catalysed Reagent Addition (OCRA)	<ul style="list-style-type: none"> • David Hunter • Michael D. Dickson • Michelle L. Bush • Geoffrey M. Evans • Richard T. Bush 	<ul style="list-style-type: none"> • Evocra Pty. Ltd., Newcastle Institute for Energy and Resources, Newcastle, Australia • University of Newcastle, Australia
4	Synthetic water Calibration for Water Quality Parameters and Water Treatment Program Validation	<ul style="list-style-type: none"> • Lynda Smithard 	<ul style="list-style-type: none"> • McCue Engineering Contractors, Vancouver B.C.
5	Changing Effluent Regulations in Canada, Helping Mine Sites to Reach New Limits	<ul style="list-style-type: none"> • Sean Miller • Terry Obal 	<ul style="list-style-type: none"> • Maxxam Analytics, Canada
6	Water Use, Quality and treatment at Syncrude's Mineable Oilsands Operation in Northern Alberta	<ul style="list-style-type: none"> • Warren Zubot 	<ul style="list-style-type: none"> • Syncrude Canada
7	Bioremediation-Based Water Treatment for Mine Closure: A Pilot-Scale Study	<ul style="list-style-type: none"> • Leonard Santisteban • James Harrington • Iisu Lee • Shane Hansen • Erick Weiland 	<ul style="list-style-type: none"> • Freeport-McMoRan Inc., USA
8	Alkaline Flush Technology: an In Situ Treatment Method for Mining Impacted Alluvial Aquifers	<ul style="list-style-type: none"> • Olufunsho Ogungbade 	<ul style="list-style-type: none"> • Freeport-McMoRan Inc.
9	The development of a new peat based weak anion exchange material that removes sulfate from acidic water	<ul style="list-style-type: none"> • Liudmyla Kildyshova • Rami Hallak • Igor V. Kolomitsyn 	<ul style="list-style-type: none"> • University of Minnesota Duluth American Peat Technology LLC, Aitkin, MN, USA
10	Lime Treatment: Identifying When This Proven Technology Works and How it Fits with Water Treatment Innovations to Meet More Stringent Discharge Limits	<ul style="list-style-type: none"> • Kristina Minchow • Bridgette Hendricks • Ryan Schipper 	<ul style="list-style-type: none"> • Golder Associates Inc.
11	Electrocoagulation (EC) for the Treatment of ARD Water and their RO Rejects	<ul style="list-style-type: none"> • Zhong Xie • Saviz Mortazavi • Eben Dy • Marco Gomez Orzatti 	<ul style="list-style-type: none"> • National Research Council of Canada
12	A New Zero Water Intake Technology for Chemical Treatment of Mining Tailings	<ul style="list-style-type: none"> • Trong Dang-Vu • Morgan Tizzotti • Kirk Thomas 	<ul style="list-style-type: none"> • SNF USA • SNF France

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13	Transportable Water Treatment for Remote Mine Sites in Wet Northern Climates	<ul style="list-style-type: none"> • Veneil Sundar • Brent Baker • Alain Consigny 	<ul style="list-style-type: none"> • BQE Water, Canada
14	Mixing Zone Assessment for Mine Effluent Discharges in Receiving Waters: Associated Challenges and Solution through the Best Practices	<ul style="list-style-type: none"> • Mijanur R Chowdhury • Cheryl Wiramanaden • Pierre Stecko • Kevin Martens • Katharina Batchelar 	<ul style="list-style-type: none"> • Minnow Environmental Inc.
15	In-Situ Treatment of Arsenic in a Pit Lake – Case History	<ul style="list-style-type: none"> • Adam Whitman • Tom Patterson 	<ul style="list-style-type: none"> • Meridian Beartrack Company
16	Biochemical cyanide treatment of gold mine tailings supernatant: Pilot and demonstration trials	<ul style="list-style-type: none"> • James Harrington • Monique Simair • Justin Bourne • Ben Ferris 	<ul style="list-style-type: none"> • Lorax Environmental Services • Contango Strategies Ltd., Canada • Kumtor Gold Company, Kyrgyz Republic
Theme - Characterization and Prediction			
1	Characterising the Geochemistry of Soil and Water Using Drone based Hyperspectral Analysis.	<ul style="list-style-type: none"> • Jamie Robinson • Peter Kinghan 	<ul style="list-style-type: none"> • SLR Consulting Limited
2	Approaches to Water Quality Modeling Using Geochemical/ARD Test Data in Conjunction with Field Analog Data	<ul style="list-style-type: none"> • Madhumita Raghav • Erick Weiland 	<ul style="list-style-type: none"> • Freeport-McMoRan, USA
3	Use of Adaptive Management Planning in Support of Environmental Monitoring and Permitting Process	<ul style="list-style-type: none"> • Sheldon Smith • Michelle Fraser • Wally Sencza • Stephen Lines 	<ul style="list-style-type: none"> • Stantec Consulting Ltd • Newmont Mining Corporation of Canada • Greenstone Gold Mines
4	Effective Water Management Considering Robustness, Resilience, Reliability and Hydrologic Uncertainty	<ul style="list-style-type: none"> • Ian Hutchison • Jack Caldwell 	<ul style="list-style-type: none"> • SLR International, Irvine • Robertson Geoconsultants
5	Novel Use of the Westbay System for Characterization of Deep Hydrogeology for an Underground Coal Mine	<ul style="list-style-type: none"> • Tyler Gale • Piotr Rzepecki 	<ul style="list-style-type: none"> • ERM Consultants Canada Ltd.
6	Groundwater Discharge Into Tailings Facility During Intense Precipitation Events, Nyrstar Myra Falls	<ul style="list-style-type: none"> • Christoph Wels • Andy Thomas • Nicole Pesonen 	<ul style="list-style-type: none"> • Robertson GeoConsultants Inc., Canada • Nyrstar Myra Falls
7	Estimating Operational Groundwater Inflows to a Proposed Underground Coal Mine	<ul style="list-style-type: none"> • Laura-Lee Findlater • Bruce Mattson 	<ul style="list-style-type: none"> • Lorax Environmental Services • John Balfour, Enterprise Geosciences Ltd, Canada
8	Extending of daily flow record with hidden Markov model	<ul style="list-style-type: none"> • Victor Muñoz Saavedra 	<ul style="list-style-type: none"> • SRK Consulting
9	Seepage and ARD-Impacted Groundwater Interception Strategies at Nyrstar Myra Falls	<ul style="list-style-type: none"> • Alex Trapp • Paul Ferguson • Christoph Wels • Nicole Pesonen 	<ul style="list-style-type: none"> • Robertson GeoConsultants Inc., Canada • Nyrstar Myra Falls

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10	A New Rapid Brine Release Extraction Method in Support of Lithium Brine Resource Estimation	<ul style="list-style-type: none"> • Michael Milczarek • Tzung-mow Yao • Frits Reidel • Daniel Weber • Edward Peacock • Murray Brooker 	<ul style="list-style-type: none"> • GeoSystems Analysis, Inc., USA • Flosolutions, Chile • P.G., Montgomery & Associates, USA • Hydrominex Geoscience, Australia
11	A comparison of predicted groundwater impacts to observed effects at the Victor Diamond Mine, 11 years after the start of dewatering	<ul style="list-style-type: none"> • Simon Gautrey 	<ul style="list-style-type: none"> • Amec Foster Wheeler (Wood), Canada
12	Getting more from less: Hydrogeological test analysis using differential pressure recovery	<ul style="list-style-type: none"> • Nick Gorski • Michal Dobr 	<ul style="list-style-type: none"> • Golder Associates Ltd., Canada
13	Analysis of the impact of the rehabilitation of abandoned coal mines on water quality in Northern KwaZulu-Natal historical coal mines, South Africa	<ul style="list-style-type: none"> • Demlie Molla 	<ul style="list-style-type: none"> • University of KwaZulu-Natal, Durban, South Africa
14	Design and Performance of Hydraulic Barriers in Tailing Storage Facilities	<ul style="list-style-type: none"> • Patrick Corser • Josh Rogers • Javier Gutierrez 	<ul style="list-style-type: none"> • Stantec, Denver, CO USA • Gold Fields La Cima, Lima, Peru
15	Cold Desert Evapotranspiration Cover System Design Evaluation	<ul style="list-style-type: none"> • Jason Keller • Chris Jim • Monisha Banerjee • Michael Milczarek • Clay Self 	<ul style="list-style-type: none"> • GeoSystems Analysis, Inc. • Round Mountain Gold Corp., USA
16	Alternative methods for instrumentation of deep small-diameter boreholes for collection of groundwater data and long-term monitoring	<ul style="list-style-type: none"> • Denis Vachon • Michal Dobr 	<ul style="list-style-type: none"> • Golder Associates Ltd.
17	Base Mine Lake: The first End-Pit Lake for the Alberta Oil Sands	<ul style="list-style-type: none"> • Dallas Heisler • Carla Wytrykush 	<ul style="list-style-type: none"> • Syncrude Canada
18	Meteorological time series and natural runoff model in a cold climate environment	<ul style="list-style-type: none"> • Joel W Trubilowicz • Victor Muñoz Saavedra 	<ul style="list-style-type: none"> • Northwest Hydraulic Consultants, Ltd., Canada • SRK Consulting, Inc., Canada
19	Stochastic Groundwater Model Calibration Using Markov Chains	<ul style="list-style-type: none"> • John Mayer 	<ul style="list-style-type: none"> • SRK Consulting Inc., Canada
20	The Role of Speciation for Selenium Treatment and Compliance with Site-Specific Aquatic Life Criteria	<ul style="list-style-type: none"> • Ben Wozniak 	<ul style="list-style-type: none"> • Brooks Applied Labs
Theme - Operational Water Management			
1	Challenges in containing geochemical risk at the Faro Mine Complex, Yukon	<ul style="list-style-type: none"> • Dustin K Rainey 	
2	Estimating the Wetting Time for Mine Waste Rock Piles	<ul style="list-style-type: none"> • Mark Steinepreis 	<ul style="list-style-type: none"> • Stantec, Waterloo ON

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3	3D Deposition and water balance modelling with Muk3D and GoldSim	<ul style="list-style-type: none"> Carlo Cooper Jaco Grobler Miguel Palape Reyes 	<ul style="list-style-type: none"> MineBridge Software Inc, Canada and Chile
4	Integrating Tailings Deposition and Water Balance Modeling for TSF Mine Water Management	<ul style="list-style-type: none"> Michelle Liew Kate Patterson Jaclyn Bowman 	<ul style="list-style-type: none"> Klohn Crippen Berger, Vancouver BC
5	Sea water intrusion at abandoned coal mines in the Labin region – Croatia	<ul style="list-style-type: none"> Mladen Kuhta 	<ul style="list-style-type: none"> Institute of Geology, Zagreb, Croatia
6	The True Value of a Detailed Water Balance Model – A Case Study	<ul style="list-style-type: none"> Zygi Zurakowski Brant Whiting 	<ul style="list-style-type: none"> Stantec Consulting Services, United States Freeport-McMoRan, United States
7	Is water the best option? How to evaluate which fugitive-dust management practice is right for your site.	<ul style="list-style-type: none"> Jeff Ladderud 	<ul style="list-style-type: none"> Freeport-McMoran Environmental Technology
8	Novel Chemistry to Improve Performance with Drag Reducing Additives (DRAs) for Water Pipeline Transportation	<ul style="list-style-type: none"> Marc G Mogul Morgan Tizzotti Trong Dang-Vu 	<ul style="list-style-type: none"> SNF, Canada SNF Floerger, France
9	Dust Mitigation using a Water Conservation Program	<ul style="list-style-type: none"> Steve Clark 	<ul style="list-style-type: none"> Enviro Tech Services
10	Time-Lapse Dam Seepage Investigation and Conceptual-Level Mitigation Design	<ul style="list-style-type: none"> Tomas C. Goode 	<ul style="list-style-type: none"> Rachael Peavler, Stantec, Utah, USA Hhan Olsen, Stantec, Utah, USA
11	Novel Chemistry to Improve Performance with Drag Reducing Additives (DRAs) for Water Pipeline Transportation	<ul style="list-style-type: none"> Marc Mogul Morgan Tizzotti Trong Dang-Vu Rafat Jami Sadek Shaban Sina Ghaemi 	<ul style="list-style-type: none"> SNF Holding Inc., USA SNF Floerger, France SNF Inc., Canada University of Alberta, Canada
Theme - Water as a Valued Asset			
	Abstract Name	Author(s)	Company/Affiliation
1	New tailings encapsulation methods could “pave” the way toward safe long-term stacking of filtered tailings	<ul style="list-style-type: none"> Donald J Lake Dr. Lee Groat 	<ul style="list-style-type: none"> Terra CO2 Technologies Ltd. The University of British Columbia
2	Follow The Money (And The Water) – The Goldcorp Water Valuation Toolbox	<ul style="list-style-type: none"> Brendan O’Brien 	<ul style="list-style-type: none"> Goldcorp Inc.
3	A New Approach to Mitigation Banking	<ul style="list-style-type: none"> Eric McCleary 	<ul style="list-style-type: none"> Stantec Consulting Services Inc.
4	Mine Water: A resource for the circular economy in South African Mining communities	<ul style="list-style-type: none"> Dheepak Maharajh Tamsyn Grewar John Nealy Michelle van Rooyen 	<ul style="list-style-type: none"> Mintek, South Africa

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5	Don't make waves: desalinated water and the social licence to operate in the Atacama Region, Chile	<ul style="list-style-type: none"> Cecilia Compero 	<ul style="list-style-type: none"> Liu Institute for Global Issues, University of British Columbia
6	The socio-economic and environmental perspectives of mine water use and their implications for sustainable mining: A case study of Newmont gold mine at new Abirem in the eastern region of Ghana	<ul style="list-style-type: none"> Ameyaw Kwakye Samuel K. Nsiah Edmund Asare 	<ul style="list-style-type: none"> Forestry Commission, Accra, GHANA Ontario Ministry of Natural Resources and Forestry University of Auburn, Washington DC, USA, Department of Forest Sciences, University of Helsinki, Finland
7	The Zafranal Copper Project: Green Water Supply Solutions in Peru's Driest Desert	<ul style="list-style-type: none"> David Evans 	<ul style="list-style-type: none"> FloSolutions, Peru
8	Total Water Management: Canada's contribution to sustainable mine development	<ul style="list-style-type: none"> Jon Fennell 	<ul style="list-style-type: none"> Integrated Sustainability Consultants Ltd., Canada
9	The Economic Value of Water Resources and Its Impact on Valuation of Mining Projects	<ul style="list-style-type: none"> Michal Kozikowski 	<ul style="list-style-type: none"> Minerals Australia, BHP
10	RS and GIS based Hydrogeological Investigations in Parts of North India	<ul style="list-style-type: none"> B.S. Chaudhry 	<ul style="list-style-type: none"> Ch. Bansi Lal University, Bhiwani, India
11	From water management to water stewardship in mining regions	<ul style="list-style-type: none"> Dr Nadja Kunz 	<ul style="list-style-type: none"> The University of British Columbia, Canada
Theme - Water Management in Extreme Climates			
1	Application of SAGR Bioreactors for Ammonia Treatment in Mining Effluents	<ul style="list-style-type: none"> Mike Bratty 	<ul style="list-style-type: none"> Golder Associates Ltd.
2	Incorporating Climate Variability into Water Balance Modelling to Help Inform Water Management Design: The Pebble Project	<ul style="list-style-type: none"> Alana Shewan Les Galbraith Jaime Cathcart Bruce Jenkins Stephen Hodgson 	<ul style="list-style-type: none"> Knight Piésold Ltd., Canada Hunter Dickinson Inc., Canada
3	A Real Challenge in Mine Water Management in High Precipitation Area, Grasberg Mine	<ul style="list-style-type: none"> Vladimir Ugorets Nanda Rinaldi Iwan Setiawan Goktug Evin 	<ul style="list-style-type: none"> SRK Consulting, USA PTFI, Indonesia
4	Predicting Dewatering Impacts from 30+ Open Pits in an Extensive Arid Gold-Mining Operation	<ul style="list-style-type: none"> Milo Simonic David Van Brocklin 	<ul style="list-style-type: none"> Stantec, Perth, Australia
5	Numerical Groundwater Flow and Thermal Transport Modeling in Cold Regions	<ul style="list-style-type: none"> Mundzir Basri Niloo Firoozy Sitotaw Yirdaw 	<ul style="list-style-type: none"> Stantec, Winnipeg, MB

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6	Enhanced Reclamation of the Giant Nickel Tailings Storage Facilities in British Columbia, Canada	<ul style="list-style-type: none"> • Allison Brown • Les Galbraith • Jessica Guselle • Mihajlo Samoukovic • Michael Shelbourn 	<ul style="list-style-type: none"> • Barrick Gold Inc., Canada • Drummond P Earley III, D3 Geochemistry LLC, USA • Knight Piesold Ltd.
7	Implementing a Long-Term Water Management Strategy for Mine Closure in Northwest British Columbia	<ul style="list-style-type: none"> • Michael Dabiri • Charles Masala 	<ul style="list-style-type: none"> • Klohn Crippen Berger, Canada
8	Effect of Variability of Design Storms on the Galore Creek Project	<ul style="list-style-type: none"> • Charles Masala • Andrew Thrift • Yapo Alle-Ando 	<ul style="list-style-type: none"> • Klohn Crippen Berger • Teck, Canada
9	Hydrogeology of the Coffee Gold Project: groundwater interactions in an area of discontinuous permafrost	<ul style="list-style-type: none"> • Laura-Lee Findlater • Jordi Helsen • Jean Cho • James Scott • Jennie Gjertsen 	<ul style="list-style-type: none"> • Lorax Environmental Services, Canada • Goldcorp, Canada
10	Dependence of Predicted Dewatering on Size of Hydraulic Stress Used for Groundwater Model Calibration	<ul style="list-style-type: none"> • Vladimir Ugorets • Cristian Pereira 	<ul style="list-style-type: none"> • SRK Consulting, Denver, USA
11	Digitally Mapping the Hydro-Topographical Context for Community Planning: A Case Study for the Upper Choapa River Watershed in Chile	<ul style="list-style-type: none"> • Gustavo I Moran • Pedro Paolini Cuadra • Valenty Gonzalez • John-Paul Arp • Paul A. Arp 	<ul style="list-style-type: none"> • Forest Watershed Research Center, University of New Brunswick, Canada • LP Consultores Ltd., Chile • Creativa-Consultores Ltd., Panama
12	Current PMP Estimation Practices and Meteorological Parameter Development for Mining Facilities in Data Limited Regions	<ul style="list-style-type: none"> • Bill Kappel 	<ul style="list-style-type: none"> • Applied Weather Associates, Monument, Colorado
13	Hurricane Harvey Rainfall, Did It Exceed PMP and What are the Implications	<ul style="list-style-type: none"> • Bill Kappel • Doug Hultstrand • Geoff Muhlestein 	<ul style="list-style-type: none"> • Applied Weather Associates, Monument, Colorado
14	Richmond Hill Mine Heap Leach Pad Soil Cover System Evaluation	<ul style="list-style-type: none"> • Johnny Zhan • Daniel Lattin • Jason Keller • Mike Milczarek 	<ul style="list-style-type: none"> • Barrick Gold North America • GeoSystems Analysis, Inc., Hood River, Oregon, USA • GeoSystems Analysis, Inc., Tucson, Arizona, USA
15	Summary of Field Methods and Tools for Characterizing Deep Groundwater Systems in Continuous Permafrost Environments	<ul style="list-style-type: none"> • Michael Royle • Gregory Fagerlund • Dan Mackie • Christopher Stevens 	<ul style="list-style-type: none"> • SRK Consulting, Canada • SRK Consulting, USA
16	Climate change adaptation practices in mine closure stage, in the mountain watershed ecosystems	<ul style="list-style-type: none"> • Gabriel Castillo Devoto • Nadja Kunz 	<ul style="list-style-type: none"> • University of British Columbia

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Theme - Regulatory and Social Challenges			
1	Performance Review of a Passive Treatment System for Fe, As, Mn at the Empire Mine State Historic Park	<ul style="list-style-type: none"> • Neal Gallagher • Daniel Millsap • Steve Lofholm • Tom Rutkowski 	<ul style="list-style-type: none"> • Golder Associates Inc. USA • California Department of Parks and Recreation, USA
2	Regulatory challenges and water quality monitoring as part of the construction phase of the Woodsmith Mine underground Polyhalite Project, UK	<ul style="list-style-type: none"> • Jenny Ellerton • Matt Goode • Robert Staniland • Amy Watkin 	<ul style="list-style-type: none"> • SLR Consulting Limited, UK • Sirius Minerals • AMC UK
3	Regulatory, social and cultural challenges for mine water management in Greco-Roman jurisdictions	<ul style="list-style-type: none"> • Matt Goode 	<ul style="list-style-type: none"> • SLR Consulting Limited, UK