

TABLE of CONTENTS

Foreword	iv
Acknowledgments	v
Canadian Mineral Processors Board of Directors (2017-2018)	vi

PLENARY PRESENTATION

50 Years of Innovation by Canadian Mineral Processors	1
<i>J. Nettet – NesseTech Consulting Services Inc.</i>	

TECHNICAL PROGRAM

Grinding Media Sizing Studies: Past, Present and Future	2
<i>W. Conger, J-F Dupont, R.E. McIvor, T.P. Weldum</i>	
Mount Isa Mines Necessity Driving Innovation	18
<i>V. Lawson, H. DeWaal, G. Heferen, N. Aslin, P. Voigt, M. Hourn</i>	
Using Operational Readiness and Plant Trials to Successfully Implement a Process Flowsheet Change	29
<i>A.J. Taylor, C.H. Buck, J. Hall</i>	
Two Generations Later: Industrial Modelling and Optimization of Gold Cyanidation	45
<i>M. Wilson, F. Bélanger, P.A. Fournier</i>	
The Development of Modern Flowsheeting Tools for Mineral Processing – Integrated Process Mineralogy: Decades in the Making	57
<i>N.O. Lotter</i>	
Using QEMSCAN Mineral Exposure to Predict Flotation rougher Recovery	73
<i>J.M. Lang, S.J. Prout, D. Lascelles, K. Sarinas, N. Redman</i>	
Improving the Flotation Circuit Performance using Empirical Simulation at Nunavik Nickel Concentrator	83
<i>L. Ebacher, N. Singh, R. Araya, J. Bouchard, A. Clapperton</i>	
Reagent Selection at the Gibraltar Mine for Improved Process Performance	96
<i>F. Chachula, A. Molinaro, D. Miller</i>	
Resolving Detrimental Seasonal Effect on the Flotation Processes at Niobec	106
<i>J-S. Marois, D. Downey, G. Matton, Y. Dodier, F. Cappucitti</i>	

The Otjikoto Gravity Circuit: Test Work, Design, Commissioning, and Operation	119
<i>E. Barnard, J. Tero, S. Mbalamba, A. Nashitati, N. Avenido, J. Rajala, M. Fullam, J. Carrillo</i>	
SART Implementation at Heap Leach Operations in Mexico	129
<i>D. Kratochvil, D. Salari, T. Avilez</i>	
Carbon Scout – Automating Carbon Measurement and Control in CIP/CIL Circuits	142
<i>G. Rasmussen, W.P Staunton, W. Lodge</i>	
Organic Carbon Mitigation at Peñasquito	148
<i>P.J. Lind, M.A. Tomlinson, J. Awmack</i>	
Optimizing the Carbon Circuit at the Yound-Davidson Mine using CIP/CIL Modelling	159
<i>T. Crary, C.A. Fleming, M. Ounpuu, P. MacPhail, M. Tiedtke</i>	
Best-practice Considerations for Bullion Handling	176
<i>Z. Yamak, M. Somppi</i>	
Sustainable Comminution? Giving Mining Clients What They Need, Expect and Deserve	189
<i>J. Starkey</i>	
Simulation for Ball Mill Sizing: The Path to a Successful Plant Start-up	190
<i>A. Berton, A. Rousselet, H. Gilbert-Tremblay</i>	
Multi Stage HPGR Circuits – Increasing the Benefit Across the Comminution Flow Sheet	204
<i>F.P. van der Meer</i>	
Canada Fluorspar (NL) Inc. St. Lawrence Fluorspar Project – Flowsheet Development	211
<i>E. Legault-Seguin, M. Stogran-Baker</i>	
Pyrrhotite Rejection at the Strathcona Mill	225
<i>R. Multani, G. Marrs, C. Deredin, J. Coffin, V. Lawson, M. Muinonen, D. Fragomeni</i>	
Advanced Iron Endpoint Control During Nickel/Copper Matte Converting: A Techno-economic Analysis Study	238
<i>C.P. Baxter, A. Plugatyr</i>	
Benchmarking Performance of the Two-Stage StackCell™ with Conventional Flotation for Copper Sulfide Applications	250
<i>E. Wasmund, L. Christodoulou, M. Mankosa, E. Yan</i>	
Yamana Chapada’s Optimisation of a Copper/Gold Plant	260
<i>F.C.F. Batista, R.de S. Almeida, L.de Á. Silva, T. Banerjee, D. Gudgeon</i>	

Evaluation of Cave-to-mill Opportunities at the New Afton Mine	270
<i>S. Nadolski, B. Klein, M. Samuels, C.J.R. Hart, D. Elmo</i>	
Canada Fluorspar (NL) Inc. St. Lawrence Fluorspar Project – Project Description ...	282
<i>M.A. Stogran-Baker, S. Cole</i>	
Silica Removal from Uranium Process Streams by Polyethylene Glycol Coagulation	292
<i>L. Verhelst, B. Dyck</i>	
Evaluation of On-line Particle Size Distribution Measurement for Oil Sands Tailings Treatment	304
<i>D. Schwartz, B. Komishke, R. Heffel, L. Koresaar, E. Sharifi</i>	
APC at LaRonde: The Progressive Control Approach	312
<i>Y. Dumais, R. Lemire, T. Banerjee, H. Weitz</i>	
Evaluating the Effects of Sensor Based Sorting on Lithium Processing and Mine Economics using Advanced Process Simulation Software	322
<i>J. Rohleder, P. Lamberg, A. Remes, M. Talikka, M. Myllymäki</i>	
Ore Pre-concentration by Bulk Sorting using Real Time Elemental Analysis	335
<i>H. Kurth, L. Balzan</i>	
Waste to Ore: A Goldcorp Story	346
<i>K. Murray, T. Ward, K. Shah</i>	
The Premise of Profit Recovery™ and Applied Ore Sorting Examples	347
<i>B. Hilscher, C. Tong</i>	