

**Precious Metals '10**  
**Falmouth Beach Hotel, Falmouth, UK, June 15-16, 2010**

**Sponsored by:**



**Monday 14<sup>th</sup> June**

16.30-18.00 Registration and wine reception

**Tuesday 15<sup>th</sup> June**

08.00 Registration Desk Opens

09.00 *Opening Remarks*

B.A. Wills (MEI, UK) and M.D. Adams (Mutis Liber Pty Ltd, Australia)

09.20 *Technical Session 1*

Chairmen: M. Battersby (Maelgwyn Mineral Services Ltd, UK) and C. Pickles (Queen's University, Canada)

09.20 **Modern gold deportment studies**

L.L. Coetzee, S.J. Theron and G.J. Martin (SGS South Africa, South Africa)

09.40 **Sonochemical synthesis of gold nanoparticles using microemulsions**

Q. Losper, Z. Du Toit, Z and C. Aldrich (University of Stellenbosch, South Africa)

10.00 **Modern leach test work with simultaneous focus on process and sustainability**

S.J. van Rensburg and P.W. Lotz (Mintek, South Africa)

10.20 **The effect of pulp rheology on the rate of gold cyanide leaching and adsorption on activated carbon, and its impact on the design of CIL and CIP circuits**

C.A. Fleming, A. Mezei, E. Bourricaudy, M. Canizares and M. Ashbury (SGS Minerals, Canada)

10.40 Coffee

11.20 **Effect of background reagents on thiosulfate leaching of gold**

G. Senanayake, X.M. Zhang and M.J. Nicol (Parker Centre, Murdoch University, Australia)

11.40 **Use of AMIRA leach and adsorption modeling and simulation at Newmont Carlin Mill 5**

J. Orlich and A. Chung (Newmont, USA)

12.00 **The difficulty associated with the estimation of gold inventory in large carbon in leach tanks**

P. Blatter, G. Blanchette (Agnico Eagle, Canada) and C. Bazin (Laval University, Canada)

12.20 **Morphology of gold particles generated in different grinding environments; implications on particle separation**

G. Ofori-Sarpong (Pennsylvania State University, USA) and R.K. Amankwah (University of Mines and Technology, Ghana)

- 12.40 **Microwave heating of gold ores for enhanced grindability, liberation and cyanide amenability**  
R.K. Amankwah (University of Mines and Technology, Ghana) and G. Ofori-Sarpong (Pennsylvania State University, USA)
- 13.00 Lunch
- 14.00 *Technical Session 2*  
Chairman: C. Bazin (Laval University, Canada)
- 14.00 **Understanding the discrepancy between prediction and plant GRG recovery for improving the gold gravity performance**  
S. Koppalkar, A. Bouajila, C. Gagnon and G. Noel (COREM, Canada)
- 14.20 **Gold recovery from magnetic concentrates at Newmont Carlin Operations**  
I. Amponsah, D. Collins, J. Orlich, J. Cole and D. Brosnahan (Newmont, USA)
- 14.40 **Implementation of decanter centrifuge technology in the efficient recovery of high grade platinum group metal concentrates**  
C.A. Snyders, J.J. Eksteen (Lonmin, South Africa) and N. Schwarz (Schwarz Global Consulting, South Africa)
- 15.00 **The pros and cons of reductive matte smelting of PGMs**  
R.T. Jones and I.J. Geldenhuys (Mintek, South Africa)
- 15.20 **Recovery by hydrometallurgical extraction of the platinum group metals from car catalytic converters**  
D.J. de Aberasturi, R. Pinedo, I.R. de Larramendi, J.I.R. de Larramendi and T. Rojo (Universidad del País Vasco, Spain)
- 15.40 **Gold recovery from the Skaergaard deposit in Greenland**  
M. Phillips, N. Ricketts (AMEC Minproc, Australia), T. Abraham-James and R. Mosig (Platina Resources, Australia)
- 16.00 Coffee
- 17.00 Optional Guided Coastal Path Walk

## Wednesday 16th June

- 09.00 *Technical Session 3*  
Chairmen: R.T. Jones (Mintek, South Africa) and I. Amponsah (Newmont, USA)
- 09.00 **Hydrometallurgical processing of Platreef flotation concentrate**  
M. Adams (Mutis Liber Pty Ltd, Australia), K. Liddell (Lifezone Ltd, Switzerland) and T. Holohan (Platmin Ltd, South Africa)
- 09.20 **Experimental determination of the kinetics of pressure leaching of first stage leach residue and the solubilisation of Rh, Ru, and Ir**  
C. Dorfling, G. Akdogan, S.M. Bradshaw (University of Stellenbosch, South Africa) and J.J. Eksteen (Lonmin, South Africa)
- 09.40 **The effect of the Fe-endpoint during Peirce-Smith converting on the atmospheric leaching characteristics of converter matte**  
F. van Schalkwyk, G. Akdogan, E.L. Thyse (University of Stellenbosch, South Africa) and J.J. Eksteen (Lonmin, South Africa)
- 10.00 **The Leachox™ refractory gold process - the testing, design installation and commissioning of a large scale plant at the VASGOLD Gold Mine, Kazakhstan**  
S. Flatman, R.M. Battersby, R. Imhof, M. Battersby (Maelgwyn Mineral Services Ltd, UK) and S. Ibrayev (JSC Vasilkovsky GOK, Kazakhstan)
- 10.20 **Fungal-biotransformation of sulfides: a potential pretreatment process for refractory sulfidic gold ores**  
G. Ofori-Sarpong, K. Osseo-Asare and M. Tien (Pennsylvania State University, USA)
- 10.40 Coffee
- 11.20 **Bio-reduction of sulfides investigated as pre-treatment for refractory ores**  
A. Hol, R.D. van der Weijden, G. Van Weert, P. Kondos and C.J.N. Buisman (Wageningen University, The Netherlands)
- 11.40 **Comparison of kinetic models for gold leaching and cyanide consumption in gold cyanidation of refractory gold concentrate**  
W. Srithammavut, I. Turunen, A. Laari (Lappeenranta University of Technology, Finland), S. Luukkanen (Geological Survey of Finland, Finland) and T. Kankaanpää (Outotec Research Oy, Finland)
- 12.00 **Process plant design considerations for high silver gold ores**  
D. Yan and D. Connelly (Mineral Engineering Technical Services Pty Ltd, Australia)
- 12.20 **Gold and silver separation from thiosulfate leaching solutions in a rectangular open vessel**  
A.R. Alonso (Universidad Nacional Autónoma de México, Mexico) and G.T. Lapidus (Universidad Autónoma Metropolitana Iztapalapa, Mexico)
- 12.40 Lunch
- 14.00 *Technical Session 4*  
Chairmen: N.O. Lotter (Xstrata Process Support, Canada) and M.D. Adams (Mutis Liber, Australia)
- 14.00 **Oxidation-reduction process for refining of silver-copper alloys**  
C. Harris, C. Pickles and J. Peacey (Queen's University, Canada)

- 14.20 **A review of the selective leaching of gold from oxidised copper-gold ores with ammonia-cyanide and new insights for plant control and operation**  
D.M. Muir (CSIRO Process Science and Engineering (Minerals)/Parker Centre for Integrated Hydrometallurgical Solutions, Australia)
- 14.40 **Phytoextraction of copper and gold from mine tailings**  
Victor Wilson-Corral et al (Centro de Estudios Justo Sierra, Mexico), M. Arenas-Vargas (Universidad Autónoma Metropolitana-Unidad Xochimilco, Mexico) and C. Anderson (Massey University, New Zealand)
- 15.00 **SART / AVR circuit design and operation at Yanacocha Gold Mill**  
G. Guzman, V. Mamani, H. Arevalo, S. Vicuña, L. Vargas and Ben Burger (Minera Yanacocha, Newmont Mining, Peru)
- 15.20 **The ICMI Cyanide Management Code- a model for other compliance issues?**  
P. Lotz (Mintek, South Africa)
- 15.40 **The Lantern Retort – a new retort for small-scale gold extraction**  
R.K. Amankwah (University of Mines and Technology, Ghana) and G. Ofori-Sarpong (Pennsylvania State University, USA)
- 16.00 **Industrial plant for gold extraction by ammonia-cyanide leaching process from sulphide ore**  
M.K. Razi, A.S. Mohammadi (Islamic Azad University, Iran) and M.Mohammadi (Mouthe Gold Complex, Iran)
- 16.20 Closing remarks  
M.D. Adams (Mutis Liber, Australia) and A.J. Wills (MEI, UK)
- 16.30 Coffee