



# Mintek 75 – Technical Programme (as at 3 June 2009)

Please note that this programme is essentially final.

<b>Thursday 4 June 2009</b>	
08:30	<b>Session A – Opening &amp; Technical Plenary Session</b> <i>(Chaired by Molefi Motuku, Mintek)</i>  Conference Opening and Welcome <i>(Abe Mngomezulu – CEO, Mintek)</i>
09:00	Twenty five years of UG2 processing – what have we learned? <i>(Keith Liddell – Platmin Ltd)</i>
09:45	Developments in hydrometallurgy since Mintek 50 <i>(Mike Nicol - Murdoch University)</i>
10:30	<b>Tea</b>
11:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: center;"><b>Session B - Hydrometallurgy 1</b> <i>(Chaired by Roger Paul, Mintek)</i></p> <p>Ferric ion: God's gift to hydrometallurgists to keep them humble <i>(Chris Fleming - SGS Minerals Service)</i></p> </div> <div style="width: 45%;"> <p style="text-align: center;"><b>Session C - Pyrometallurgy 1</b> <i>(Chaired by Lloyd Nelson, Anglo Platinum)</i></p> <p>History of DC arc furnace process development <i>(Tom Curr – Mintek)</i></p> </div> </div>
11:25	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Solvent extraction technology transforms base-metal hydrometallurgy <i>(Peter Cole - TWP Matomo Process Plant)</i></p> </div> <div style="width: 45%;"> <p>The development of chrome and nickel projects in Kazakhstan and Russia <i>(Nic Barcza – Oriel Resources)</i></p> </div> </div>
11:50	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Environmental considerations in hydrometallurgical base metal refining circuits <i>(Christoph Pawlik - Mintek)</i></p> </div> <div style="width: 45%;"> <p>Recovery of base metals and PGMs in a DC alloy-smelting furnace <i>(Rodney Jones - Mintek)</i></p> </div> </div>
12:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Skorpion Zinc: Facilitating mine-to-metal zinc production through solvent extraction <i>(Kathy Sole - Anglo Research)</i></p> </div> <div style="width: 45%;"> <p>The hydration of MgO-based refractory materials <i>(Andrie Garbers-Craig - University of Pretoria)</i></p> </div> </div>
12:40	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Troubleshooting at Zincor and improvements of the overall process <i>(Jacolien Wyethe - Exxaro)</i></p> </div> <div style="width: 45%;"> <p>A review of the development of the Mintek Thermal Magnesium Process <i>(Masud Abdellatif – Mintek)</i></p> </div> </div>
13:05	<b>Lunch</b>
14:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: center;"><b>Session D - Hydrometallurgy 2</b> <i>(Chaired by Peter Craven, Mintek)</i></p> <p>Landmarks in minerals biotechnology <i>(Petrus van Staden - Mintek)</i></p> </div> <div style="width: 45%;"> <p style="text-align: center;"><b>Session E - Pyrometallurgy 2</b> <i>(Chaired by Rodney Jones, Mintek)</i></p> <p>Pyrometallurgy - It seemed like a good idea at the time <i>(Lloyd Nelson - Anglo Platinum)</i></p> </div> </div>
14:25	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>CYCAD Process – Simulation and design software for the metallurgical industry <i>(Frank Crundwell - CM Solutions)</i></p> </div> <div style="width: 45%;"> <p>Evolution of mining, processing, and operating characteristics in the maintenance of cost-effective ferrochrome production operations <i>(Nic Dawson - Xstrata Alloys)</i></p> </div> </div>
14:50	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>PGM hydrometallurgy <i>(Les Bryson – Anglo Platinum)</i></p> </div> <div style="width: 45%;"> <p>Upgrading of titania slag <i>(Johan Nell - Hatch Africa)</i></p> </div> </div>
15:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Using computer power in process development <i>(Mike Dry – Arithmetek, Inc.)</i></p> </div> <div style="width: 45%;"> <p>Modelling insights: Twin-electrode DC arc furnaces <i>(Quinn Reynolds - Mintek)</i></p> </div> </div>
15:40	<b>Tea</b>
16:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: center;"><b>Session F - Hydrometallurgy 3</b> <i>(Chaired by Kathy Sole, Anglo Research)</i></p> <p>The evolution of uranium extraction technology <i>(Merrill Ford – Paladin Energy)</i></p> </div> <div style="width: 45%;"> <p style="text-align: center;"><b>Session G - Pyrometallurgy 3</b> <i>(Chaired by Tom Curr, Mintek)</i></p> <p>The future supply of electrical power to the ferro-alloy industry <i>(Ian Barker – University of the Witwatersrand)</i></p> </div> </div>
16:25	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>The resurrection of hydrometallurgy's own RIP van Winkle – Uranium <i>(Marthie Kotze- Mintek)</i></p> </div> <div style="width: 45%;"> <p>The effectiveness of resistance vs current control of submerged arc furnace electrode penetration in selected scenarios <i>(Chris Hockaday - Mintek)</i></p> </div> </div>
16:50	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Practical aspects of cyanide management <i>(Peter Lotz – Mintek)</i></p> </div> <div style="width: 45%;"> <p>Pneumatic jiggging of ferro-alloys – like the barber's cat? <i>(Peter Scott – Jigmet)</i></p> </div> </div>
17:15	<b>Finish</b>

**Friday 5 June 2009**

	<b>Session H – Plenary Session</b> <i>(Chaired by Chris Fleming, SGS Minerals Service)</i>	
08:30	De Beers – Leading through Technology <i>(David Noko, MD, De Beers Consolidated Mines)</i>	
09:00	The Leaders Dilemma – A bird in the hand or to chase two in the bush? <i>(Tony Filmer – Filmer Consulting)</i>	
09:25	Enhancing long-term retention of South African women in chemical and metallurgical engineering careers <i>(Kathy Sole – IWFGSA/GIBS)</i>	
09:50	The NUM and Technology <i>(Frans Baleni – NUM)</i>	
10:15	The world crisis and its impact on minerals <i>(Bernard Loriol – Best Asset Class)</i>	
10:40	Tea	
	<b>Session I - Mineral Processing</b> <i>(Chaired by Alan McKenzie, Mintek)</i>	<b>Session J – General &amp; Advanced Materials</b> <i>(Chaired by Sindiswa Gaven, Mintek)</i>
11:15	Converting a platinum resource into a reserve; progress in understanding UG-2 ore variability as regards metallurgical parameters <i>(Mike Bryson – Mintek)</i>	Quest for a high-performing freight logistics system <i>(Petrus Fusi - Transnet)</i>
11:40	Scale-up of grinding and flotation tests and plant optimization <i>(Brian Loveday – University of KwaZulu-Natal)</i>	Risk management and OHS – the importance of human factors <i>(May Hermanus – University of the Witwatersrand)</i>
12:05	Accounting for the froth in batch flotation tests <i>(Peter Harris – University of Cape Town)</i>	The golden opportunities of small science: Nanotechnology at Mintek <i>(Robert Tshikudo - Mintek)</i>
12:30	The application of flotation testwork to plant design and operation <i>(Mike Valenta – Metallicon Process Consulting)</i>	Gold catalysis at Mintek <i>(Jason McPherson - Mintek)</i>
12:55	High Pressure Grinding Roll (HPGR) testwork at Mintek <i>(Johnny Kalala – Mintek)</i>	AuTEK Biomed: Investigating the Biomedical Applications of Gold <i>(Raymond Hewer – Mintek)</i>
13:20	Lunch	
	<b>Session K - Mineral Processing</b> <i>(Chaired by Brian Loveday)</i>	<b>Session L – Mineralogy &amp; Fluidization</b> <i>(Chaired by Amanda Quadling, Mintek)</i>
14:15	The latest developments in iron ore processing <i>(Isabel King - Mintek)</i>	The composition and crystal structures of pyrrhotite: a common but poorly understood mineral <i>(Johan de Villiers – University of Pretoria)</i>
14:40	New developments in sensor-based sorting <i>(Lütke von Ketelhodt – Commodas)</i>	Automated SEM study of PGM distribution across a UG2 flotation concentrate bank <i>(Desh Chetty - Mintek)</i>
15:05	Modelling for concentrator design and optimization <i>(Casper Steenkamp- Mintek)</i>	Double, double boil and bubble: Fluidization in reactors and roasters <i>(Paul den Hoed – Anglo Research)</i>
15:30	Tea	
	<b>Session M - Mineral Processing &amp; Economics</b> <i>(Chaired by Johnny Kalala, Mintek)</i>	
16:00	How important is ore variability? The ethics of feasibility studies <i>(Alan McKenzie - Mintek)</i>	
16:25	Ore Sorting <i>(Carl Bergmann - Mintek)</i>	
16:50	Challenges in technology commercialisation <i>(Leon Coetzer – Braemore Resources)</i>	
17:15	Closing comments <i>(Roger Paul - Mintek)</i>	
17:25	Finish	