



# PROFICIENCY TESTING SCHEME FOR GOLD FIRE ASSAYING

## Introduction

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12<sup>th</sup> March, 2013

## Overview – Proficiency Testing Session

### Who is covering what

- ▶ Introduction to PT - What, Why and How - Aelred Connelly
- ▶ Principles of PT – Kate Wilkinson, Technical Support Manager, FAPAS
- ▶ Analysis and Interpretation of the 2012 and 2013 PT reports – Dirk Hofmans, Senior Lab Manager, Umicore Precious Metals

# What is Proficiency Testing?

- ▶ Allows LBMA Good Delivery gold refiners to assess the accuracy of their fire assaying (or other methods) in relation to a large group of their peers.



## NOT THE SAME AS PROACTIVE MONITORING

### Main differences

PROFICIENCY TESTING	PROACTIVE MONITORING
Voluntary	Mandatory
Annual, at same time	Every 3 years, rolling
Test sample only	More required. Testing plus financial and production checks
Anonymous	LBMA knows identity
Results published	Results not published
No special effort for assaying accuracy	Extra effort for assaying accuracy
Participant » FAPAS	Participant » LBMA
Gold	Gold and Silver



# How and When

- ▶ Idea suggested at 2009 A&R Seminar
- ▶ Final version approved at 2011 A&R Seminar
- ▶ First Scheme March 2012



# Participants in 2013

40 in total

Allgemeine Gold-und Silberscheideanstalt AG	Metalor Technologies USA
AngloGold Ashanti Córrego do Sítio Mineração	Mitsubishi Materials Corporation
Argor-Heraeus SA	Mitsui Mining and Smelting Co Ltd
Asahi Pretec Corp.	Moscow Special Alloys Processing Plant
Cendres+Métaux SA	PAMP SA
Chimet S.p.A.	Precinox SA
Heraeus Ltd – Hong Kong	PT Antam TBK UB PP Logam Mulia
Heraeus Precious Metals GmbH & Co. KG	Rand Refinery Limited
Ishifuku Metal Industry Co Ltd	Royal Canadian Mint
Istanbul Gold Refinery	Schone Edelmetaal BV
Japan Mint	SEMPSA Joyeria Plateria SA
Johnson Matthey Limited - Salt Lake City	Shandong Zhaojin Gold & Silver Refinery Co Ltd
JX Nippon Mining & Metals Corporation	Solar Applied Materials Technology Corporation
Kazinc	Sumitomo Metal Mining Co Ltd
Krastsvetmet JSC	Tanaka Kikinzoku Kogyo KK
Lazurde Company for Jewelry	The Perth Mint
LS-Nikko Copper Inc	The Refinery of Shandong Gold Mining Co Ltd
Matsuda Sangyo Co Ltd	Tokuriki Honten Co Ltd
Metalor Technologies (Hong Kong) Ltd	Umicore Precious Metals Refining
Metalor Technologies SA	Valcambi SA



## Participants by region

### Global geographic spread

- ▶ Far East – 17
- ▶ Europe – 12
- ▶ North America - 3
- ▶ Middle East, Russia – 2 each
- ▶ South America, Australia, South Africa, Kazakhstan – 1 each

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## The Sample Properties

- ▶ Gold wire test material was an existing LBMA reference material was produced and checked by the LBMA referees
- ▶ **Size:** 2.5 cm length, 3mm diameter wire.
- ▶ **Weight:** 3.3 g
- ▶ **Purity:** between 995 and 9999. This year 998.24.
- ▶ **Impurities:** copper, silver, platinum and palladium



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## 2013 Timetable

- ▶ Open to all GDL gold refiners
- ▶ 7/12/2012 - Sign Terms and Conditions
- ▶ December - Samples sent out. To be received by 9/01/2013
- ▶ Testing – 3 weeks. Min 4 and max 6 trials. Fire Assay or alternative such as ICP
- ▶ Results submitted to FAPAS by 8/02/2013. Anonymous - assign code to each participant
- ▶ Report prepared includes Mean, Z-score and standard deviation
- ▶ Report published, early March 2013

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### Contacts

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