GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Gold Reference Material Product Code

G313-3

Certified Control Values

50 gram Fire Assay

Gold Grade	0.51 ppm
Standard Deviation	0.03 ppm
Confidence Interval	+/- 0.005 ppm

Aqua Regia Digest

Gold Grade	0.49 ppm
Standard Deviation	0.05 ppm
Confidence Interval	+/- 0.011 ppm

CRM Details

Control Statistic Details

Control statistics were produced from results accumulated in the April-2013 round robin. A total of 159 fire assay results and 73 results from an aqua regia technique were used to certify this material.

Material Description

This material is described as a Composite mine ore low copper.

Colour Designation (ISCC-NBS, SP440)

This material is pale red in colour.

Usage

This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.

Preparation and Packaging

All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry material is then pulverised to better than 75 micron (nominal mean of 45 micron) using an air classifier. The material is then homogenised and stored in a sealed, stable container ready for final packaging.

Materials are statistically sampled from stores, then packaged into either heat sealed, air tight, plastic pulp packets or screw top sealed plastic containers ready for distribution. All packaging has been chosen to ensure minimal contamination from outside sources during shipment, use and storage.

Assay Testwork

All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by multiple laboratories from around the world. Results are compiled into a comprehensive report detailing statistics for each standard. Assay distributions are checked and processed statistically, producing monitoring statistics for these standards. Materials are tested regularly to ensure stability and homogeneity.

Stability

This product remains stable in its original packaging, away from direct sunlight.

Material Safety

This product is not hazardous and non-toxic.

Neutron Activation Analysis Results (ppm, unless otherwise noted)

Antimony	7.71
Arsenic	27.6
Barium	332
Bromine	2.14
Cadmium	4.38
Caesium	1.77
Calcium (%)	nr
Cerium	35.4
Chromium	73.2
Cobalt	7.35
Europium	<0.621
Gold (ppb)	528
Hafnium	6.02
Iridium (ppb)	<7.98
Iron (%)	5.88
Lanthanum	18.8
Lutetium	0.358
Mercury	nr
Molybdenum	15.4
Neodymium	nr
Nickel	15.9
Potassium (%)	nr
Rubidium	116
Samarium	3.3
Scandium	11.9
Selenium	<2.34
Silver	5.05
Sodium (%)	1.96
Strontium	nr
Tantalum	1.93
Tellurium	<2.67
Terbium	0.649
Thorium	31.7
Tin	<37.9
Tungsten	<1.15
Uranium	11.4
Ytterbium	1.38
Zinc	1241
Zirconium	181

Major Elements by Fusion / XRF (%)

Fe	5.5
SiO_2	58.68
Al_2O_3	18.04
TiO_2	0.811
MnO	0.07
CaO	2.59
P	0.031
S	0.267
MgO	1.52
K_2O	2.5
Na_2O	2.493
LOI1000	4.58

Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.

'nr': Not Reported

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Geostats Pty Ltd, Certified Gold Reference Material, Product Code: