GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Gold Reference Material Product Code

G316-7

Certified Control Values

50 gram Fire Assay

Gold Grade	5.85 ppm
Standard Deviation	0.19 ppm
Confidence Interval	+/- 0.027 ppm

Aqua Regia Digest

Gold Grade	5.79 ppm
Standard Deviation	0.21 ppm
Confidence Interval	+/- 0.057 ppm

CRM Details

Control Statistic Details

Control statistics were produced from results accumulated in the April-2016 round robin. A total of 182 fire assay results and 54 results from an aqua regia technique were used to certify this material.

Material Description

This material is described as a Gold ore Composite.

Colour Designation (ISCC-NBS, SP440)

This material is medium light gray 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	2.8
Arsenic	7.75
Barium	630
Bromine	<2
Cadmium	<10
Caesium	2
Calcium (%)	nr
Cerium	41.3
Chromium	90
Cobalt	33.3
Europium	1.4
Gold (ppb)	6370
Hafnium	<5
Iridium (ppb)	<50
Iron (%)	7.5
Lanthanum	23
Lutetium	0.413
Mercury	nr
Molybdenum	<10
Neodymium	nr
Nickel	35.9
Potassium (%)	nr
Rubidium	90
Samarium	6
Scandium	24.5
Selenium	<10
Silver	4.36
Sodium (%)	2.21
Strontium	nr
Tantalum	<2
Tellurium	<20
Terbium	1
Thorium	9.6
Tin	<200
Tungsten	<5
Uranium	4
Ytterbium	3
Zinc	160
Zirconium	<500

Major Elements by Fusion / XRF (%)	
Fe	7.58
SiO_2	58.08
Al_2O_3	13.56
TiO_2	1.616
MnO	0.148
CaO	6.66
P	0.092
S	0.086
MgO	3.58
K_2O	1.5
Na_2O	2.938
LOI1000	0.88

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: