GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Gold Reference Material Product Code

G313-9

Certified Control Values

50 gram Fire Assay

Gold Grade	33.24 ppm
Standard Deviation	1.16 ppm
Confidence Interval	+/- 0.185 ppm

Aqua Regia Digest

Gold Grade	32.88 ppm
Standard Deviation	1.95 ppm
Confidence Interval	+/- 0.462 ppm

CRM Details

Control Statistic Details

Control statistics were produced from results accumulated in the April-2013 round robin. A total of 154 fire assay results and 72 results from an aqua regia technique were used to certify this material.

Material Description

This material is described as a Composite high grade ore.

Colour Designation (ISCC-NBS, SP440)

This material is pale reddish brown 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	1.63
Arsenic	12.6
Barium	287
Bromine	3.57
Cadmium	<2.81
Caesium	1.96
Calcium (%)	nr
Cerium	26.7
Chromium	97.2
Cobalt	<0.976
Europium	<0.399
Gold (ppb)	37400
Hafnium	10
Iridium (ppb)	<15.7
Iron (%)	10.1
Lanthanum	17
Lutetium	0.554
Mercury	nr
Molybdenum	65.5
Neodymium	nr
Nickel	16.4
Potassium (%)	nr
Rubidium	104
Samarium	2.05
Scandium	10
Selenium	<8.38
Silver	12.7
Sodium (%)	1.49
Strontium	nr
Tantalum	2.37
Tellurium	<14.9
Terbium	0.463
Thorium	57.3
Tin	<117
Tungsten	2.66
Uranium	11.8
Ytterbium	<1.93
Zinc	<24
Zirconium	272

Major Elements by Fusion / XRF (%)	
Fe	8.43
SiO_2	47.49
Al_2O_3	24.82
TiO_2	0.899
MnO	0.04
CaO	0.63
P	0.016
S	0.038
MgO	0.4
K_2O	2.13
Na_2O	1.64
LOI1000	9.69

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: