

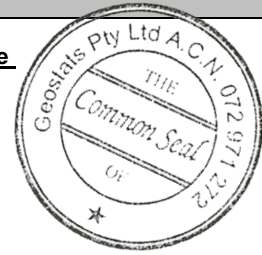
# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

## GBM311-12

Certified Control Values



GBM311-12

Geostats Pty Ltd, Certified Ore Grade Base Metal Reference Material, Product Code:

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	673	nr	nr	nr
Copper (ppm)	10126	357	196	+/- 50
Zinc (ppm)	14255	497	176	nr
Lead (ppm)	3558	164	180	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	20.5	1.4	180	+/- 0.2
Sulphur (%)	4.40	0.15	140	+/- 0.03

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2011 & October-2012 round robins. The number of results used to certify each analyte is shown in the table above.	<u>Neutron Activation Analysis Results (ppm, unless otherwise noted)</u>		<u>Major Elements by Fusion / XRF (%)</u>	
	<u>Material Description</u> This material is described as a Copper Gold ore.	Antimony	35.65	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is pale yellowish brown in colour.	Arsenic	367	SiO <sub>2</sub>	45.69
<u>Usage</u> This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Barium	306	Al <sub>2</sub> O <sub>3</sub>	11.25
<u>Preparation and Packaging</u> 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.	Bromine	0.5	TiO <sub>2</sub>	0.816
<u>Assay Testwork</u> 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.	Cadmium	45.75	MnO	0.11
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	7.41	CaO	3.17
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.051
	Cerium	42.5	S	4.37
	Chromium	550	MgO	2.53
	Cobalt	132.5	K <sub>2</sub> O	1.45
	Europium	0.865	Na <sub>2</sub> O	1.483
	Gold (ppb)	5270	LOI1000	7.38
	Hafnium	5.165		
	Iridium (ppb)	<10	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%)	15.55	'nr': Not Reported	
	Lanthanum	21.45		
	Lutetium	0.4		
	Mercury	nr		
	Molybdenum	18.5		
	Neodymium	nr		
	Nickel	629.5		
	Potassium (%)	nr		
	Rubidium	139		
	Samarium	3.65		
	Scandium	14.75		
	Selenium	6.415		
	Silver	18.25		
	Sodium (%)	1.022		
	Strontium	nr		
	Tantalum	1.295		
	Tellurium	<5		
	Terbium	0.878		
	Thorium	12.8		
	Tin	<125		
	Tungsten	21		
	Uranium	2.715		
	Ytterbium	1.8		
	Zinc	14250		
	Zirconium	<400		

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