

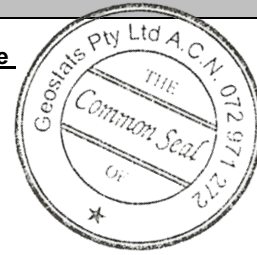
# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

## GBM311-11

Certified Control Values



GBM311-11

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	78	nr	nr	nr
Copper (ppm)	14504	459	189	+/- 66
Zinc (ppm)	31115	1314	170	+/- 200
Lead (ppm)	10730	583	169	+/- 89
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	19.6	1.9	172	+/- 0.29
Sulphur (%)	3.28	0.11	125	+/- 0.02

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2011 & April-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 Low copper zinc cap material.	Antimony	456	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is medium gray in colour.	Arsenic	1325	SiO <sub>2</sub>	52.18
<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	206	Al <sub>2</sub> O <sub>3</sub>	12.59
<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	<1	TiO <sub>2</sub>	1.121
<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	73.8	MnO	0.14
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	0.87	CaO	5.5
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.056
	Cerium	38.05	S	3.24
	Chromium	90.15	MgO	3.18
	Cobalt	70.6	K <sub>2</sub> O	1.71
	Europium	1	Na <sub>2</sub> O	2.871
	Gold (ppb)	1135	LOI1000	2.68
	Hafnium	2.62		
	Iridium (ppb)	<10		
	Iron (%)	7.325		
	Lanthanum	20.6		
	Lutetium	0.4		
	Mercury	nr		
	Molybdenum	24.4		
	Neodymium	nr		
	Nickel	96.85		
	Potassium (%)	nr		
	Rubidium	81.5		
	Samarium	4.27		
	Scandium	21.25		
	Selenium	24.55		
	Silver	17.45		
	Sodium (%)	2.19		
	Strontium	nr		
	Tantalum	0.908		
	Tellurium	<10		
	Terbium	0.844		
	Thorium	10.4		
	Tin	<200		
	Tungsten	<2		
	Uranium	5.75		
	Ytterbium	1.94		
	Zinc	30800		
	Zirconium	<200		

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