

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

## Certified Base Metal Reference Material Product Code

# GBM999-9

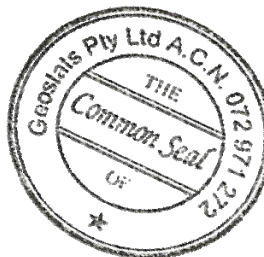
## Certified Control Values

### Base Metal Analyses

Element	Grade	Standard Deviation	No of Analyses	Confidence Interval
Nickel (ppm)	3457	176	57	+/- 47.1
Copper (ppm)	2547	177	74	+/- 41.3
Zinc (ppm)	272	20	65	+/- 5
Lead (ppm)	256	21	65	+/- 5.2
Arsenic (ppm)	423	51	53	+/- 14.2
Cobalt (ppm)	106	10	54	+/- 2.8
Silver (ppm)	1.8	0.4	55	+/- 0.1

## CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm)		Major Elements Fusion / XRF (%)	
	Control statistics were produced from results accumulated in the : <u>October-1999</u> Geostats Pty Ltd Laboratory Round Robin Program. <u>53</u> laboratories (at least) tested this material for base metal content.	Antimony	4.63	Fe
<b>Source Material</b> Prior to homogenisation and testing, this material was sourced from Oxide Gold ore ex Yilgarn	Arsenic	419	SiO <sub>2</sub>	nr
<b>Colour Designation</b> Pale red	Barium	232	Al <sub>2</sub> O <sub>3</sub>	nr
<b>Usage</b> This product is for use in the mining industry as reference materials for monitoring and testing the accuracy of laboratory assaying.	Bromine	2.14	TiO <sub>2</sub>	nr
<b>Preparation and Packaging</b> All standards are dried in an oven for a minimum of 12 hours at 110C. 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.	Cadmium	nr	MnO	nr
<b>Assay Testwork</b> All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by a minimum of 50 reputable laboratories selected from across the world using a variety of methods (including AR, 3AD, 4AD and ICP, AAS and XRF). 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.	Cerium	35.4	CaO	nr
	Caesium	7.95	P	nr
	Chromium	338	S	nr
	Cobalt	109	MgO	nr
	Europium	0.73	K <sub>2</sub> O	nr
	Gold ppb	4640	Na <sub>2</sub> O	nr
	Hafnium	14.5	LOI1000	nr
	Iridium ppb	<20		
	Iron %	5.72		
	Lanthanum	17.8		
	Lutetium	0.2		
	Molybdenum	8		
	Nickel	nr		
	Rubidium	254		
	Samarium	2.93		
	Scandium	11.2		
	Selenium	<5		
	Sodium %	0.876		
	Tantalum	1.48		
	Tellurium	<5		
	Terbium	nr		
	Thorium	6.8		
	Tin	nr		
	Tungsten	48.9		
	Uranium	<2		
	Ytterbium	1.4		
	Zinc	332		
	Zirconium	966		
	Calcium%	2.1		
	Potassium %	1.33		
	Silver	<5		
	Mercury	nr		
	Neodymium	nr		
	Strontium	nr		



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