

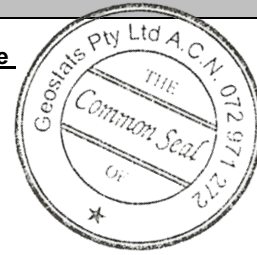
# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

## GBM314-15

Certified Control Values



GBM314-15

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	37	nr	nr	nr
Copper (ppm)	212876	5758	115	+/- 1068
Zinc (ppm)	200	nr	nr	nr
Lead (ppm)	145	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	176.2	7.6	112	+/- 1.44
Sulphur (%)	6.54	0.26	103	+/- 0.05

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2014 round robin. 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 Concentrate.	Antimony	246	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is greenish gray in colour.	Arsenic	901	SiO <sub>2</sub>	40.35
<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	580	Al <sub>2</sub> O <sub>3</sub>	8.04
<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	<0.895	TiO <sub>2</sub>	0.44
<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	<5	MnO	0.07
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	3.3	CaO	0.85
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.077
	Cerium	55	S	6.85
	Chromium	<90	MgO	0.42
	Cobalt	19	K <sub>2</sub> O	2.03
	Europium	3	Na <sub>2</sub> O	1.65
	Gold (ppb)	2540	LOI1000	11.4
	Hafnium	<2		
	Iridium (ppb)	<50		
	Iron (%)	4.5		
	Lanthanum	42		
	Lutetium	0.6		
	Mercury	nr		
	Molybdenum	22		
	Neodymium	nr		
	Nickel	38		
	Potassium (%)	nr		
	Rubidium	60		
	Samarium	5.2		
	Scandium	3.2		
	Selenium	<14.4		
	Silver	192		
	Sodium (%)	1.2		
	Strontium	nr		
	Tantalum	<0.5		
	Tellurium	nr		
	Terbium	<0.5		
	Thorium	15		
	Tin	nr		
	Tungsten	3		
	Uranium	4.9		
	Ytterbium	<2		
	Zinc	170		
	Zirconium	nr		

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