

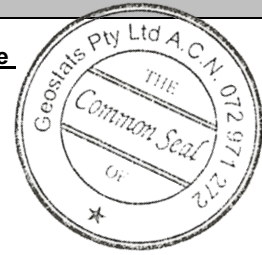
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM912-11

Certified Control Values



GBM912-11

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	42	nr	nr	nr
Copper (ppm)	28323	942	110	+/- 179
Zinc (ppm)	937	52	97	+/- 10
Lead (ppm)	170	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	8.8	0.9	104	+/- 0.17
Sulphur (%)	3.49	0.18	85	+/- 0.04

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the October-2012 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 Cu Pb Zn Ore.	Antimony	7.1	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is medium gray in colour.	Arsenic	57	SiO ₂	53.47
<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	350	Al ₂ O ₃	12.85
<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 ₂	1.271
<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	0.12
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	1.3	CaO	6.04
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.066
	Cerium	35	S	3.56
	Chromium	98	MgO	3.27
	Cobalt	80	K ₂ O	1.58
	Europium	1.4	Na ₂ O	2.927
	Gold (ppb)	2500	LOI1000	1.81
	Hafnium	5.5		
	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 (%)	8.8	'nr': Not Reported	
	Lanthanum	19		
	Lutetium	0.4		
	Mercury	nr		
	Molybdenum	140		
	Neodymium	nr		
	Nickel	42		
	Potassium (%)	nr		
	Rubidium	65		
	Samarium	4.5		
	Scandium	21.2		
	Selenium	14		
	Silver	8		
	Sodium (%)	2.14		
	Strontium	nr		
	Tantalum	0.8		
	Tellurium	<10		
	Terbium	0.8		
	Thorium	8.7		
	Tin	<200		
	Tungsten	<2		
	Uranium	5.5		
	Ytterbium	2.7		
	Zinc	1000		
	Zirconium	<500		

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