

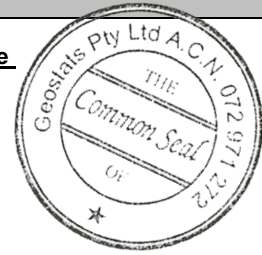
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM909-15

Certified Control Values



GBM909-15

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	115901	5301	116	+/- 979
Copper (ppm)	13120	425	152	+/- 68
Zinc (ppm)	26608	1283	148	+/- 209
Lead (ppm)	2120	131	142	+/- 22
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	13.5	1.2	99	+/- 0.24
Sulphur (%)	26.75	0.94	118	+/- 0.17

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the October-2009 & April-2011 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 Nickel Sulphide Concentrate.	Antimony	4.05	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is olive gray in colour.	Arsenic	65.9	SiO ₂	9.73
<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	nr	Al ₂ O ₃	0.91
<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	2	TiO ₂	0.11
<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	69	MnO	0.04
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	2.495	CaO	0.71
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.008
	Cerium	<2.17	S	26.6
	Chromium	276.5	MgO	4.2
	Cobalt	2840	K ₂ O	0.089
	Europium	<1	Na ₂ O	0.135
	Gold (ppb)	115.15	LOI1000	21.5
	Hafnium	<0.646		
	Iridium (ppb)	128	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%)	28.5	'nr': Not Reported	
	Lanthanum	2.335		
	Lutetium	0.2		
	Mercury	nr		
	Molybdenum	39		
	Neodymium	nr		
	Nickel	117000		
	Potassium (%)	nr		
	Rubidium	<33.2		
	Samarium	0.415		
	Scandium	1.98		
	Selenium	10.495		
	Silver	13		
	Sodium (%)	0.096		
	Strontium	nr		
	Tantalum	<1.04		
	Tellurium	<5		
	Terbium	<0.934		
	Thorium	0.964		
	Tin	<500		
	Tungsten	<2		
	Uranium	0.7		
	Ytterbium	<1		
	Zinc	26800		
	Zirconium	<400		

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