

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM901-3

Certified Control Values



GBM901-3

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	45513	2195	111	+/- 414.8
Copper (ppm)	4206	229	134	+/- 39.3
Zinc (ppm)	162	55	131	+/- 9.5
Lead (ppm)	47	14	101	+/- 2.8
Arsenic (ppm)	716	58	107	+/- 11.1
Cobalt (ppm)	852	100	119	+/- 18.2
Silver (ppm)	2.7	0.8	103	+/- 0.2

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the October-2001 & April-2003 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 Sulphide Nickel Ore Eastern Goldfields.	Antimony	1.53	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is medium dark gray in colour.	Arsenic	752	SiO ₂	nr
<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	195	Al ₂ O ₃	nr
<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	4.15	TiO ₂	nr
<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	nr	MnO	nr
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	3.365	CaO	nr
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	4.475	P	nr
	Cerium	3.5	S	nr
	Chromium	1470	MgO	nr
	Cobalt	918.5	K ₂ O	nr
	Europium	<0.5	Na ₂ O	nr
	Gold (ppb)	158	LOI1000	nr
	Hafnium	<0.5		
	Iridium (ppb)	92		
	Iron (%)	21.3		
	Lanthanum	1.35		
	Lutetium	<0.2		
	Mercury	nr		
	Molybdenum	15.05		
	Neodymium	nr		
	Nickel	nr		
	Potassium (%)	<0.2		
	Rubidium	<20		
	Samarium	0.63		
	Scandium	15.85		
	Selenium	24.9		
	Silver	<5		
	Sodium (%)	0.774		
	Strontium	nr		
	Tantalum	<1		
	Tellurium	<5		
	Terbium	nr		
	Thorium	<0.5		
	Tin	nr		
	Tungsten	<2		
	Uranium	<2		
	Ytterbium	0.585		
	Zinc	166		
	Zirconium	<500		

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