

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM310-2

Certified Control Values



GBM310-2

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	29	8	141	+/- 1.3
Copper (ppm)	6936	235	163	+/- 36.5
Zinc (ppm)	20680	1169	149	+/- 189.9
Lead (ppm)	6577	394	154	+/- 63
Arsenic (ppm)	78	10	129	+/- 1.8
Cobalt (ppm)	39	8	140	+/- 1.3
Silver (ppm)	45.5	3.2	154	+/- 0.51

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2010 & October-2010 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 High Grade Silver ore.	Antimony	26	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is light gray in colour.	Arsenic	81.75	SiO ₂	54.19
<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	403	Al ₂ O ₃	13.28
<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	0.755	TiO ₂	3.044
<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	58.9	MnO	0.12
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	1.945	CaO	5.6
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.056
	Cerium	37.9	S	2.24
	Chromium	117	MgO	3.25
	Cobalt	48.1	K ₂ O	1.82
	Europium	1.53	Na ₂ O	3.058
	Gold (ppb)	688	LOI1000	1.55
	Hafnium	7.585		
	Iridium (ppb)	<5	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%)	6.265	'nr': Not Reported	
	Lanthanum	20.55		
	Lutetium	0.453		
	Mercury	nr		
	Molybdenum	112		
	Neodymium	nr		
	Nickel	40.6		
	Potassium (%)	nr		
	Rubidium	81.35		
	Samarium	4.285		
	Scandium	22.35		
	Selenium	3.2		
	Silver	43.6		
	Sodium (%)	2.25		
	Strontium	nr		
	Tantalum	5.085		
	Tellurium	<4.5		
	Terbium	0.696		
	Thorium	12.5		
	Tin	<100		
	Tungsten	7.3		
	Uranium	6.76		
	Ytterbium	2.83		
	Zinc	21250		
	Zirconium	<500		

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