

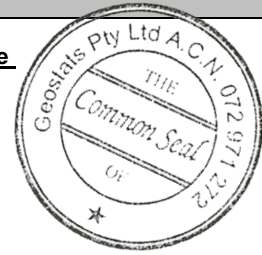
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM910-12

Certified Control Values



GBM910-12

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	23	nr	nr	nr
Copper (ppm)	1398	nr	nr	nr
Zinc (ppm)	44910	1958	186	+/- 284
Lead (ppm)	21590	859	182	+/- 126
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	23.5	1.3	101	+/- 0.26
Sulphur (%)	16.39	0.55	143	+/- 0.09

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the October-2010 & April-2013 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 Lead / Zinc Sulphide Ore.	Antimony	80.35	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is medium dark gray in colour.	Arsenic	529.5	SiO ₂	40.31
<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	295	Al ₂ O ₃	7.08
<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	2.11	TiO ₂	0.271
<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	165.5	MnO	0.18
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	2.02	CaO	0.24
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.041
	Cerium	34.3	S	16.5
	Chromium	11.205	MgO	1.59
	Cobalt	15.3	K ₂ O	2.06
	Europium	<1	Na ₂ O	0.172
	Gold (ppb)	484.5	LOI1000	17.3
	Hafnium	1.45		
	Iridium (ppb)	<20		
	Iron (%)	13.9		
	Lanthanum	13.2		
	Lutetium	0.206		
	Mercury	nr		
	Molybdenum	5.65		
	Neodymium	nr		
	Nickel	20		
	Potassium (%)	nr		
	Rubidium	62.65		
	Samarium	2.27		
	Scandium	7.33		
	Selenium	6.22		
	Silver	21.25		
	Sodium (%)	0.074		
	Strontium	nr		
	Tantalum	0.232		
	Tellurium	<20		
	Terbium	0.562		
	Thorium	5.49		
	Tin	<100		
	Tungsten	5.44		
	Uranium	2.045		
	Ytterbium	1.41		
	Zinc	45350		
	Zirconium	<500		

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