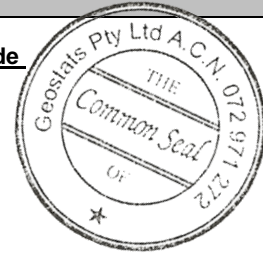


GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM910-11



Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	20	nr	nr	nr
Copper (ppm)	1306	59	51	+/- 17
Zinc (ppm)	39325	1654	196	+/- 234
Lead (ppm)	13372	622	196	+/- 88
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	19.2	1.2	137	+/- 0.2
Sulphur (%)	12.78	0.46	158	+/- 0.07

CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm, unless otherwise noted)		Major Elements by Fusion / XRF (%)	
	Control statistics were produced from results accumulated in the October-2010 & April-2016 round robins. The number of results used to certify each analyte is shown in the table above.	Antimony	92.35	Fe
Material Description This material is described as a Lead / Zinc Sulphide Ore.	Arsenic	457.5	SiO ₂	47.42
	Barium	221.5	Al ₂ O ₃	7.63
Colour Designation (ISCC-NBS, SP440) This material is medium dark gray in colour.	Bromine	2.18	TiO ₂	0.291
	Cadmium	160.5	MnO	0.198
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Caesium	2.115	CaO	0.255
	Calcium (%)	nr	P	0.046
Preparation and Packaging 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.	Cerium	34.6	S	12.9
	Chromium	35.7	MgO	2.005
Assay Testwork 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.	Cobalt	17.4	K ₂ O	2.21
	Europium	<0.5	Na ₂ O	0.138
Stability This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	339	LOI1000	15.41
	Hafnium	<2	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
Material Safety This product is not hazardous and non-toxic.	Iridium (ppb)	<20	nr: Not Reported	
	Iron (%)	11.75		
	Lanthanum	14.2		
	Lutetium	0.266		
	Mercury	nr		
	Molybdenum	4.9		
	Neodymium	nr		
	Nickel	19.6		
	Potassium (%)	nr		
	Rubidium	63.25		
	Samarium	2.26		
	Scandium	8.68		
	Selenium	<5		
	Silver	18.6		
	Sodium (%)	0.072		
	Strontium	nr		
	Tantalum	<0.5		
	Tellurium	<20		
	Terbium	<0.5		
	Thorium	5.06		
	Tin	<100		
	Tungsten	5.285		
	Uranium	2.19		
	Ytterbium	1.37		
	Zinc	38600		
	Zirconium	<500		

20 Hines Road, O'Connor, Western Australia 6163
Phone : +61 8 9314 2566, Fax : +61 8 9314 3699
e-mail : pjh@geostats.com.au, srr@geostats.com.au
Website <http://www.geostats.com.au>

GBM910-11

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