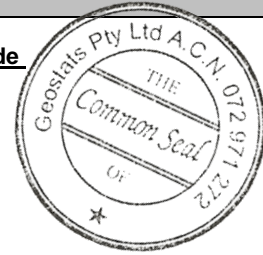


# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

**Certified Ore Grade Base Metal Reference Material Product Code**

## GBM916-12



### Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	23	nr	nr	nr
Copper (ppm)	26105	834	130	+/- 145
Zinc (ppm)	5018	247	113	+/- 46
Lead (ppm)	566	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	17.0	1.5	122	+/- 0.27
Sulphur (%)	19.10	0.76	94	+/- 0.156

### 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-2016 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony	11.5	Fe
<b>Material Description</b> This material is described as a Cu / Zn Sulphide Tailings and Feed Composite ex Western Australia.	Arsenic	232	SiO <sub>2</sub>	30.06
	Barium	<50	Al <sub>2</sub> O <sub>3</sub>	5.29
<b>Colour Designation (ISCC-NBS, SP440)</b> This material is medium dark gray in colour.	Bromine	<2	TiO <sub>2</sub>	0.18
	Cadmium	13.3	MnO	0.1
<b>Usage</b> This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Caesium	<1	CaO	1.22
	Calcium (%)	nr	P	0.053
<b>Preparation and Packaging</b> 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	25.6	S	19.1
	Chromium	<20	MgO	3.41
<b>Assay Testwork</b> 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	516	K <sub>2</sub> O	0.12
	Europium	1.26	Na <sub>2</sub> O	0.11
<b>Stability</b> This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	473	LOI1000	13.52
	Hafnium	<5	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
<b>Material Safety</b> This product is not hazardous and non-toxic.	Iridium (ppb)	<50	nr: Not Reported	
	Iron (%)	29.1		
	Lanthanum	12.5		
	Lutetium	0.31		
	Mercury	nr		
	Molybdenum	11		
	Neodymium	nr		
	Nickel	<20		
	Potassium (%)	nr		
	Rubidium	<20		
	Samarium	3		
	Scandium	7.4		
	Selenium	34		
	Silver	17		
	Sodium (%)	0.091		
	Strontium	nr		
	Tantalum	<2		
	Tellurium	<20		
	Terbium	<1		
	Thorium	1.8		
	Tin	<200		
	Tungsten	6		
	Uranium	<1		
	Ytterbium	<0.833		
	Zinc	5200		
	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>

GBM916-12

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