

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

## GBM923-1



### Certified Control Values

#### Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	20	2	53	+/- 0.6
Copper (ppm)	49	4	54	+/- 1.2
Zinc (ppm)	183	5	48	+/- 1.6
Lead (ppm)	70	4	52	+/- 1.2
Arsenic (ppm)	949	35	48	+/- 10.2
Cobalt (ppm)	12	1	53	+/- 0.3
Silver (ppm)	0.9	0.2	45	+/- 0.05

#### Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	19	2	51	+/- 0.5
Copper (ppm)	50	3	69	+/- 0.8
Zinc (ppm)	177	10	59	+/- 2.5
Lead (ppm)	69	4	52	+/- 1
Arsenic (ppm)	933	36	51	+/- 10.2
Cobalt (ppm)	12	1	48	+/- 0.2
Silver (ppm)	0.9	0.1	55	+/- 0.03

### 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-2023 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony	8.5	Fe
<b>Material Description</b> This material is described as a Fresh granite and volcanics, Pilbara, WA.	Arsenic	910	SiO <sub>2</sub>	62.12
	<b>Colour Designation (ISCC-NBS, SP440)</b> This material is very light gray in colour.	Barium	272	Al <sub>2</sub> O <sub>3</sub>
<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.		Bromine	<2	TiO <sub>2</sub>
	<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.	Cadmium	<10	MnO
<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.		Caesium	7	CaO
	<b>Stability</b> This product remains stable in its original packaging, away from direct sunlight.	Calcium (%)	nr	P
<b>Material Safety</b> This product is not hazardous and non-toxic.		Cerium	40	S
	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	Chromium	26	MgO
'nr': Not Reported		Cobalt	12	K <sub>2</sub> O
	Europium	0.9	Na <sub>2</sub> O	0.96
Gold (ppb)	389	LOH1000	6.65	
Hafnium	<5			
Iridium (ppb)	<50			
Iron (%)	3.7			
Lanthanum	20			
Lutetium	0.3			
Mercury	nr			
Molybdenum	<10			
Neodymium	nr			
Nickel	<100			
Potassium (%)	nr			
Rubidium	80			
Samarium	3.3			
Scandium	9			
Selenium	<10			
Silver	<5			
Sodium (%)	0.64			
Strontium	nr			
Tantalum	<2			
Tellurium	<20			
Terbium	<1			
Thorium	6.1			
Tin	<200			
Tungsten	6			
Uranium	2			
Ytterbium	1.8			
Zinc	<200			
Zirconium	<500			

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