

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM322-7



Certified Control Values

Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	60	3	53	+/- 0.8
Copper (ppm)	89	4	48	+/- 1
Zinc (ppm)	924	32	56	+/- 8.7
Lead (ppm)	245	14	56	+/- 3.8
Arsenic (ppm)	176	10	46	+/- 3.1
Cobalt (ppm)	24	1	54	+/- 0.4
Silver (ppm)	1.6	0.2	48	+/- 0.06

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	59	3	54	+/- 1
Copper (ppm)	88	5	71	+/- 1.3
Zinc (ppm)	914	42	64	+/- 10.6
Lead (ppm)	247	12	59	+/- 3
Arsenic (ppm)	166	19	64	+/- 4.8
Cobalt (ppm)	24	1	54	+/- 0.4
Silver (ppm)	1.5	0.1	56	+/- 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 April-2022 round robin. The number of results used to certify each analyte is shown in the table above.		Antimony	7.2	Fe	6.05
		Arsenic	177	SiO ₂	53.41
		Barium	323	Al ₂ O ₃	14.97
		Bromine	<2	TiO ₂	0.71
		Cadmium	<10	MnO	0.14
		Caesium	6	CaO	4.38
		Calcium (%)	nr	P	0.054
		Cerium	36	S	4.49
		Chromium	96	MgO	2.02
		Cobalt	24	K ₂ O	3.3
		Europium	0.7	Na ₂ O	0.57
		Gold (ppb)	325	LOH1000	8.56
		Hafnium	<5	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	
		Iridium (ppb)	<50		
		Iron (%)	5.8		
		Lanthanum	17		
		Lutetium	0.3		
		Mercury	nr		
		Molybdenum	<10		
		Neodymium	nr		
		Nickel	60		
		Potassium (%)	nr		
		Rubidium	108		
		Samarium	3.3		
		Scandium	12.9		
		Selenium	<10		
		Silver	<5		
		Sodium (%)	0.42		
		Strontium	nr		
		Tantalum	<2		
		Tellurium	<20		
		Terbium	<1		
		Thorium	4.7		
		Tin	<200		
		Tungsten	3		
		Uranium	1		
		Ytterbium	1.7		
		Zinc	890		
		Zirconium	<500		

Material Description
This material is described as a Fresh breccia, Pilbara, WA.

Colour Designation (ISCC-NBS, SP440)
This material is light gray in colour.

Usage
This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.

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.

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.

Stability
This product remains stable in its original packaging, away from direct sunlight.

Material Safety
This product is not hazardous and non-toxic.

20 Hines Road, O'Connor, Western Australia 6163
Phone: +61 8 9314 2566 | Email: info@geostats.com.au
Website: www.geostats.com.au

GBM322-7

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