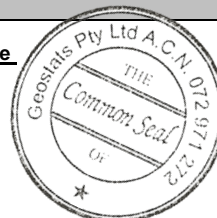


GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM320-9



Certified Control Values

Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	265	12	57	+/- 3.2
Copper (ppm)	3392	90	56	+/- 24.4
Zinc (ppm)	583	20	56	+/- 5.4
Lead (ppm)	241	7	54	+/- 2
Arsenic (ppm)	450	20	53	+/- 5.5
Cobalt (ppm)	55	3	58	+/- 0.8
Silver (ppm)	6.9	0.5	60	+/- 0.12

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	252	17	51	+/- 4.8
Copper (ppm)	3421	91	68	+/- 22.2
Zinc (ppm)	553	28	55	+/- 7.7
Lead (ppm)	236	13	56	+/- 3.5
Arsenic (ppm)	443	13	49	+/- 3.8
Cobalt (ppm)	48	2	46	+/- 0.7
Silver (ppm)	6.9	0.3	60	+/- 0.08

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-2020 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony	31.1	Fe
Material Description This material is described as a Composite of Tail samples.	Arsenic	460	SiO ₂	59.16
	Barium	310	Al ₂ O ₃	11.98
Colour Designation (ISCC-NBS, SP440) This material is pale yellowish brown in colour.	Bromine	<2	TiO ₂	1.05
	Cadmium	<10	MnO	0.11
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Caesium	5	CaO	4.34
	Calcium (%)	nr	P	0.056
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	45	S	1.18
	Chromium	662	MgO	2.88
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	59	K ₂ O	2.03
	Europium	1	Na ₂ O	2.13
Stability This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	3450	LOH1000	3.34
	Hafnium	6	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)	<50	'nr': Not Reported	
	Iron (%)	7.7		
	Lanthanum	19		
	Lutetium	0.4		
	Mercury	nr		
	Molybdenum	<10		
	Neodymium	nr		
	Nickel	270		
	Potassium (%)	nr		
	Rubidium	161		
	Samarium	4.6		
	Scandium	19.5		
	Selenium	<10		
	Silver	7		
	Sodium (%)	1.56		
	Strontium	nr		
	Tantalum	<2		
	Tellurium	<20		
	Terbium	1		
	Thorium	9.2		
	Tin	<200		
	Tungsten	40		
	Uranium	3		
	Ytterbium	2.8		
	Zinc	600		
	Zirconium	<500		

20 Hines Road, O'Connor, Western Australia 6163

Phone: +61 8 9314 2566 | Email: info@geostats.com.au

Website: www.geostats.com.au

GBM320-9

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