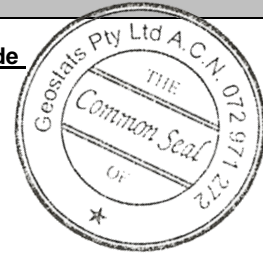


GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM914-12



Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	11	5	53	+/- 1
Copper (ppm)	264308	7225	237	+/- 926
Zinc (ppm)	8102	308	216	+/- 41
Lead (ppm)	1200	74	97	+/- 15
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	60.7	4.2	224	+/- 0.56
Sulphur (%)	29.19	1.16	179	+/- 0.17

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-2014, April-2018 round robins. The number of results used to certify each analyte is shown in the table above.	Antimony	4.55	Fe
Material Description This material is described as a Copper concentrate.	Arsenic	84.65	SiO ₂	4.76
	Barium	<50	Al ₂ O ₃	0.46
Colour Designation (ISCC-NBS, SP440) This material is grayish black in colour.	Bromine	2.6	TiO ₂	0.06
	Cadmium	23.4	MnO	0.04
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Caesium	<0.5	CaO	0.65
	Calcium (%)	nr	P	0.034
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	<10	S	27.8
	Chromium	34	MgO	1.67
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	62.5	K ₂ O	0.147
	Europium	0.513	Na ₂ O	0.46
Stability This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	25350	LOI1000	19.4
	Hafnium	<1		
Material Safety This product is not hazardous and non-toxic.	Iridium (ppb)	<50	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%)	26.05	'nr': Not Reported	
	Lanthanum	5.28		
	Lutetium	0.2		
	Mercury	nr		
	Molybdenum	1245		
	Neodymium	nr		
	Nickel	36.4		
	Potassium (%)	nr		
	Rubidium	<10		
	Samarium	0.745		
	Scandium	0.621		
	Selenium	213.5		
	Silver	59		
	Sodium (%)	0.06		
	Strontium	nr		
	Tantalum	<0.5		
	Tellurium	45.3		
	Terbium	0.6		
	Thorium	0.7		
	Tin	<200		
	Tungsten	26.15		
	Uranium	3.1		
	Ytterbium	<0.5		
	Zinc	8250		
	Zirconium	<500		

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