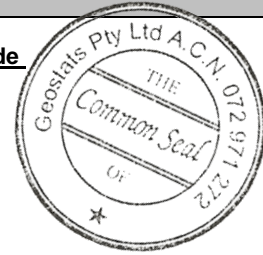


GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM915-16



Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	199	12	88	+/- 2
Copper (ppm)	22898	603	239	+/- 77
Zinc (ppm)	19498	622	207	+/- 85
Lead (ppm)	9682	359	210	+/- 49
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	51.1	4.1	228	+/- 0.54
Sulphur (%)	3.88	0.15	188	+/- 0.02

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-2015 & October-2017 round robins. The number of results used to certify each analyte is shown in the table above.	Antimony	845.5	Fe
Material Description This material is described as a High grade gold Cu Pb Zn ore some sulphide.	Arsenic	1300	SiO ₂	51.08
	Barium	392.5	Al ₂ O ₃	11.44
Colour Designation (ISCC-NBS, SP440) This material is medium dark gray in colour.	Bromine	<2	TiO ₂	1.38
	Cadmium	38.8	MnO	0.15
Usage 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	5.28
	Calcium (%)	nr	P	0.066
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	41.5	S	3.825
	Chromium	68	MgO	2.91
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	115.5	K ₂ O	1.65
	Europium	1.205	Na ₂ O	nr
Stability This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	17900	LOI1000	2.59
	Hafnium	<5	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 (%)	9		
	Lanthanum	20.5		
	Lutetium	0.4		
	Mercury	nr		
	Molybdenum	84.95		
	Neodymium	nr		
	Nickel	210		
	Potassium (%)	nr		
	Rubidium	76		
	Samarium	4.7		
	Scandium	20.25		
	Selenium	24		
	Silver	52.5		
	Sodium (%)	2.005		
	Strontium	nr		
	Tantalum	<2		
	Tellurium	<20		
	Terbium	<1		
	Thorium	10.15		
	Tin	<200		
	Tungsten	15		
	Uranium	5.5		
	Ytterbium	2.85		
	Zinc	20100		
	Zirconium	<500		

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