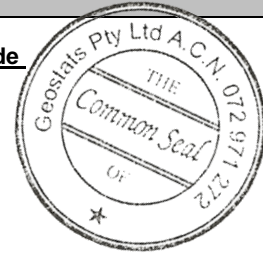


GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM310-13



Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	62	11	30	+/- 4
Copper (ppm)	353	37	41	+/- 52
Zinc (ppm)	108701	4558	180	+/- 672
Lead (ppm)	21439	944	185	+/- 137
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	30.7	1.7	189	+/- 0.25
Sulphur (%)	5.96	0.22	154	+/- 0.04

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-2010 & April-2016 round robins. The number of results used to certify each analyte is shown in the table above.	Antimony	334	Fe
Material Description This material is described as a Zinc Ore ex Pilbara.	Arsenic	70.25	SiO ₂	62.81
	Barium	<50	Al ₂ O ₃	5.41
Colour Designation (ISCC-NBS, SP440) This material is pinkish gray in colour.	Bromine	2.8	TiO ₂	0.4
	Cadmium	420	MnO	0.064
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Caesium	2	CaO	0.99
	Calcium (%)	nr	P	0.032
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	15.5	S	6.02
	Chromium	86.5	MgO	2.17
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	67.7	K ₂ O	1.02
	Europium	0.63	Na ₂ O	0.188
Stability This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	155	LOI1000	6.73
	Hafnium	1.6	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)	<13	nr: Not Reported	
	Iron (%)	3.555		
	Lanthanum	7.025		
	Lutetium	0.226		
	Mercury	nr		
	Molybdenum	<5		
	Neodymium	nr		
	Nickel	73.4		
	Potassium (%)	nr		
	Rubidium	48.5		
	Samarium	1.47		
	Scandium	11.45		
	Selenium	2.7		
	Silver	30.65		
	Sodium (%)	0.104		
	Strontium	nr		
	Tantalum	1.74		
	Tellurium	<8.7		
	Terbium	<0.79		
	Thorium	1.45		
	Tin	<200		
	Tungsten	7		
	Uranium	<0.5		
	Ytterbium	0.8		
	Zinc	106500		
	Zirconium	<500		

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