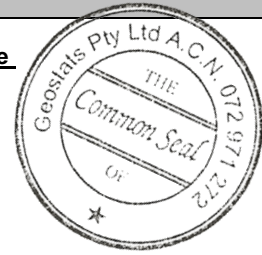


# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

## GBM315-13



Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	209	65	26	+/- 27
Copper (ppm)	12570	379	130	+/- 66
Zinc (ppm)	37358	1136	109	+/- 217
Lead (ppm)	34311	966	102	+/- 191
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	41.5	1.7	113	+/- 0.31
Sulphur (%)	5.34	0.15	96	+/- 0.03

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2015 round robin. The number of results used to certify each analyte is shown in the table above.	<u>Neutron Activation Analysis Results (ppm, unless otherwise noted)</u>		<u>Major Elements by Fusion / XRF (%)</u>	
	<u>Material Description</u> This material is described as a Composite Cu, Pb, Zn concentrate.	Antimony	41.2	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is medium gray in colour.	Arsenic	39	SiO <sub>2</sub>	48.86
<u>Usage</u> This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Barium	430	Al <sub>2</sub> O <sub>3</sub>	11.58
<u>Preparation and Packaging</u> 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.	Bromine	0.699	TiO <sub>2</sub>	0.82
<u>Assay Testwork</u> 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.	Cadmium	84	MnO	0.11
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	2.7	CaO	3.88
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.059
	Cerium	34	S	5.206
	Chromium	310	MgO	4.37
	Cobalt	47	K <sub>2</sub> O	2.02
	Europium	1	Na <sub>2</sub> O	2.25
	Gold (ppb)	8770	LOI1000	4.19
	Hafnium	10		
	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 (%)	7.5	'nr': Not Reported	
	Lanthanum	25		
	Lutetium	0.5		
	Mercury	nr		
	Molybdenum	200		
	Neodymium	nr		
	Nickel	217		
	Potassium (%)	nr		
	Rubidium	90		
	Samarium	3.7		
	Scandium	14.8		
	Selenium	<10		
	Silver	40		
	Sodium (%)	1.58		
	Strontium	nr		
	Tantalum	0.8		
	Tellurium	nr		
	Terbium	0.6		
	Thorium	12.9		
	Tin	nr		
	Tungsten	3		
	Uranium	5.5		
	Ytterbium	<2		
	Zinc	38000		
	Zirconium	nr		

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