

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

## GBM305-10

Certified Control Values



GBM305-10

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	604	34	48	+/- 10.1
Copper (ppm)	114	8	55	+/- 2.2
Zinc (ppm)	66	9	55	+/- 2.4
Lead (ppm)	37	4	49	+/- 1.2
Arsenic (ppm)	569	48	51	+/- 13.6
Cobalt (ppm)	22	3	50	+/- 0.7
Silver (ppm)	0.7	0.3	33	+/- 0.1

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2005 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 High Tail sample.	Antimony	11.3	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is yellowish gray in colour.	Arsenic	600	SiO <sub>2</sub>	nr
<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	250	Al <sub>2</sub> O <sub>3</sub>	nr
<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	4.25	TiO <sub>2</sub>	nr
<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	<3.9	MnO	nr
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	5.16	CaO	nr
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	nr
	Cerium	42.9	S	nr
	Chromium	273	MgO	nr
	Cobalt	23	K <sub>2</sub> O	nr
	Europium	0.804	Na <sub>2</sub> O	nr
	Gold (ppb)	1070	LOI1000	nr
	Hafnium	3.87		
	Iridium (ppb)	<3.4		
	Iron (%)	3.45		
	Lanthanum	22.5		
	Lutetium	0.187		
	Mercury	<0.14		
	Molybdenum	5.5		
	Neodymium	15.6		
	Nickel	600		
	Potassium (%)	1.3		
	Rubidium	93.3		
	Samarium	3.2		
	Scandium	11		
	Selenium	<0.87		
	Silver	<0.9		
	Sodium (%)	0.545		
	Strontium	nr		
	Tantalum	0.599		
	Tellurium	<3		
	Terbium	0.34		
	Thorium	8.16		
	Tin	<51		
	Tungsten	18.1		
	Uranium	1.62		
	Ytterbium	1.37		
	Zinc	50		
	Zirconium	220		

20 Hines Road, O'Connor, Western Australia 6163

Phone : +61 8 9314 2566, Fax : +61 8 9314 3699

e-mail : pjh@geostats.com.au, srr@geostats.com.au

Website <http://www.geostats.com.au>