

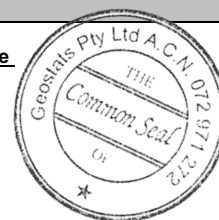
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM313-5

Certified Control Values



GBM313-5

Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	22	3	53	+/- 1
Copper (ppm)	36	5	53	+/- 1.3
Zinc (ppm)	67	6	54	+/- 1.7
Lead (ppm)	19	4	51	+/- 1.3
Arsenic (ppm)	5	nr	nr	nr
Cobalt (ppm)	19	2	51	+/- 0.5
Silver (ppm)	1.6	0.4	49	+/- 0.1

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	10	2	31	+/- 0.6
Copper (ppm)	33	4	54	+/- 1.2
Zinc (ppm)	39	7	49	+/- 2.1
Lead (ppm)	18	8	50	+/- 2.3
Arsenic (ppm)	6	4	34	+/- 1.4
Cobalt (ppm)	12	5	48	+/- 1.5
Silver (ppm)	1.5	0.2	57	+/- 0.07

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-2013 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony 0.468	Fe	7.55
	Arsenic 5.1	SiO ₂	52.37
	Barium 308	Al ₂ O ₃	19.05
	Bromine 0.907	TiO ₂	1.227
	Cadmium <4.6	MnO	0.1
	Caesium 1.81	CaO	4.94
	Calcium (%) nr	P	0.048
	Cerium 39.2	S	0.044
	Chromium 110	MgO	2.81
	Cobalt 22	K ₂ O	1.6
	Europium 1.18	Na ₂ O	2.624
	Gold (ppb) 438	LOI1000	4.16
	Hafnium 6.51	Neutron Activation	
	Iridium (ppb) <7.3	Analyses and Fusion /	
	Iron (%) 8.02	XRF Analyses are	
	Lanthanum 17.3	single results and are	
	Lutetium 0.283	nr	
	Mercury nr	indicative only. These	
	Molybdenum 9.52	are provided for matrix	
	Neodymium nr	identification purposes.	
	Nickel 29	'nr': Not Reported	
	Potassium (%) nr		
	Rubidium 70.5		
	Samarium 3.8		
	Scandium 17		
	Selenium <1.98		
	Silver 1.3		
	Sodium (%) 2.16		
	Strontium nr		
	Tantalum 1.52		
	Tellurium <4.41		
	Terbium 0.647		
	Thorium 28.6		
	Tin <35.2		
	Tungsten <3.73		
	Uranium 6.21		
	Ytterbium 1.04		
	Zinc 65		
	Zirconium <273		
Material Description This material is described as a Composite oxide materials.			
Colour Designation (ISCC-NBS, SP440) This material is grayish orange pink in colour.			
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.			
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.			
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.			
Stability This product remains stable in its original packaging, away from direct sunlight.			
Material Safety This product is not hazardous and non-toxic.			

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

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