GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM910-6

Certified Control Values



Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	44	7	75	+/- 1.7
Copper (ppm)	10084	309	87	+/- 66.2
Zinc (ppm)	907	64	86	+/- 13.8
Lead (ppm)	173	14	86	+/- 3
Arsenic (ppm)	117	12	72	+/- 2.8
Cobalt (ppm)	131	13	75	+/- 3
Silver (ppm)	3.6	0.4	77	+/- 0.1

CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm,		Major Elements by Fusion / XRF (%)	
Control statistics were produced from results accumulated in the October-2010	unless otherwi	se noted)		
round robin. The number of results used to certify each analyte is shown in the	Antimony	2.39	Fe	6.21
table above.	Arsenic	124	SiO ₂	59.4
	Barium	350	Al ₂ O ₃	13.45
Material Description	Bromine	0.958	TiO ₂	1.184
This material is described as a Copper Ore sulphide.	Cadmium	<5	MnO	0.11
	Caesium	1.89	CaO	5.85
	Calcium (%)	nr	Р	0.062
Colour Designation (ISCC-NBS, SP440)	Cerium	36.4	S	1.58
This material is medium light gray in colour.	Chromium	98.8	MgO	3.06
	Cobalt	139	K ₂ O	1.87
<u>Usage</u>	Europium	1.43	Na ₂ O	3.038
This product is for use in the mining industry as a reference material for	Gold (ppb)	5630	LOI1000	1.13
monitoring and testing the accuracy of laboratory assaying.	Hafnium	3.32		
	Iridium (ppb)	<20	Neutron Act	ivation
Preparation and Packaging	Iron (%)	6.51	Analyses and Fusion /	
All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry	Lanthanum	22.2	XRF Analyses are	
material is then pulverised to better than 75 micron (nominal mean of 45 micron)	Lutetium	0.418	single results and are	
using an air classifier. The material is then homogenised and stored in a sealed,	Mercury	nr	indicative only. These	
stable container ready for final packaging.	Molybdenum	14.7	are provided for matrix	
	Neodymium	nr	identification	n
Materials are statistically sampled from stores, then packaged into either heat	Nickel	52.5	purposes.	
sealed, air tight, plastic pulp packets or screw top sealed plastic containers ready	Potassium (%)	nr		
for distribution. All packaging has been chosen to ensure minimal contamination	Rubidium	83.4	'nr': Not Reported	
from outside sources during shipment, use and storage.	Samarium	4.69		
· ·	Scandium	19.7		
Assay Testwork	Selenium	<5		
All standards are tested thoroughly in the Geostats bi-annual laboratory survey.	Silver	3		
This involves assaying by multiple laboratories from around the world. Results are	Sodium (%)	2.25		
compiled into a comprehensive report detailing statistics for each standard. Assay	Strontium	nr		
distributions are checked and processed statistically, producing monitoring	Tantalum	1.02		
statistics for these standards. Materials are tested regularly to ensure stability and	Tellurium	<20		
homogeneity.	Terbium	0.77		
	Thorium	13		
<u>Stability</u>	Tin	<100		
This product remains stable in its original packaging, away from direct sunlight.	Tungsten	1.86		
	Uranium	6.98		
Material Safety	Ytterbium	2.8		
This product is not hazardous and non-toxic.	Zinc	904		
· ·	Zirconium	<500		

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