GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM911-14

Certified Control Values



Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	32361	1246	138	+/- 211
Copper (ppm)	2856	116	186	+/- 17
Zinc (ppm)	180	nr	nr	nr
Lead (ppm)	91	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	1.7	0.6	135	+/- 0.1
Sulphur (%)	10.53	0.41	127	+/- 0.07

CRM Details

	Neutron Activation		Major Elements by	
Control Statistic Details	Analysis Results (ppm,		Fusion / XRF (%)	
Control statistics were produced from results accumulated in the October-2011 &	unless otherwise noted)			` ,
April-2012 round robins. The number of results used to certify each analyte is	Antimony	0.9	Fe	18.43
shown in the table above.	Arsenic	436.5	SiO ₂	28.93
	Barium	<50	Al ₂ O ₃	3.67
Material Description	Bromine	4.9	TiO ₂	0.195
This material is described as a Ni Ore ex Eastern Goldfields.	Cadmium	<5	MnO	0.13
	Caesium	< 0.5	CaO	6.55
	Calcium (%)	nr	Р	0.011
Colour Designation (ISCC-NBS, SP440)	Cerium	3	S	10.5
This material is medium dark gray in colour.	Chromium	750	MgO	13
	Cobalt	740	K ₂ O	0.18
<u>Usage</u>	Europium	0.3	Na ₂ O	0.583
This product is for use in the mining industry as a reference material for	Gold (ppb)	58.2	LOI1000	10.65
monitoring and testing the accuracy of laboratory assaying.	Hafnium	0.45		
	Iridium (ppb)	39	Neutron Act	ivation
Preparation and Packaging	Iron (%)	18.43	Analyses and Fusion /	
All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry	Lanthanum	1.1	XRF Analyses are	
material is then pulverised to better than 75 micron (nominal mean of 45 micron)	Lutetium	<0.1	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	<5	are provided for matrix	
	Neodymium	nr	identification	1
Materials are statistically sampled from stores, then packaged into either heat	Nickel	34200	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	<10	'nr': Not Reported	
from outside sources during shipment, use and storage.	Samarium	0.55		
	Scandium	12.45		
Assay Testwork	Selenium	14.5		
All standards are tested thoroughly in the Geostats bi-annual laboratory survey.	Silver	<2		
This involves assaying by multiple laboratories from around the world. Results are	Sodium (%)	0.42		
compiled into a comprehensive report detailing statistics for each standard. Assay	Strontium	nr		
distributions are checked and processed statistically, producing monitoring	Tantalum	0.1		
statistics for these standards. Materials are tested regularly to ensure stability and	Tellurium	<10		
homogeneity.	Terbium	<0.5		
	Thorium	0.5		
<u>Stability</u>	Tin	<100		
This product remains stable in its original packaging, away from direct sunlight.	Tungsten	<2		
	Uranium	<0.2		
Material Safety	Ytterbium	0.618		
This product is not hazardous and non-toxic.	Zinc	81		
	Zirconium	<200		

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