GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM914-14

Certified Control Values



Major Elements by

Neutron Activation

| Element | Grade | Standard Deviation | Num of Analyses | Confidence Interval | |
|--------------|-------|--------------------|-----------------|---------------------|--|
| Nickel (ppm) | 175 | nr | nr | nr | |
| Copper (ppm) | 12648 | nr | nr | nr | |
| Zinc (ppm) | 37356 | nr | nr | nr | |
| Lead (ppm) | 33263 | nr | nr | nr | |
| Cobalt (ppm) | nr | nr | nr | nr | |
| Silver (ppm) | 40.6 | nr | nr | nr | |
| Sulphur (%) | 5.25 | nr | nr | nr | |

CRM Details

| | Neutron Activation | | wajor Elements by | |
|--|------------------------|-----------|--------------------------------|-------------|
| Control Statistic Details | Analysis Results (ppm, | | Fusion / X | RF (%) |
| Control statistics were produced from results accumulated in the October-2014 | unless otherwi | se noted) | | |
| round robin. The number of results used to certify each analyte is shown in the | Antimony | 52 | Fe | nr |
| table above. | Arsenic | 39 | SiO ₂ | nr |
| | Barium | 340 | Al ₂ O ₃ | nr |
| Material Description | Bromine | 0.9 | TiO ₂ | nr |
| This material is described as a Composite concentrate. | Cadmium | 88.3 | MnO | nr |
| · | Caesium | 2.45 | CaO | nr |
| | Calcium (%) | nr | Р | nr |
| Colour Designation (ISCC-NBS, SP440) | Cerium | 35.3 | S | nr |
| This material is medium gray in colour. | Chromium | 290 | MgO | nr |
| | Cobalt | 46 | K ₂ O | nr |
| <u>Usage</u> | Europium | <1.17 | Na ₂ O | nr |
| This product is for use in the mining industry as a reference material for | Gold (ppb) | 8900 | LOI1000 | nr |
| monitoring and testing the accuracy of laboratory assaying. | Hafnium | 8 | | |
| | Iridium (ppb) | <50 | Neutron Act | tivation |
| Preparation and Packaging | Iron (%) | 7.7 | Analyses ar | nd Fusion / |
| All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry | Lanthanum | 22.6 | XRF Analyses are | |
| material is then pulverised to better than 75 micron (nominal mean of 45 micron) | Lutetium | 0.2 | 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 | 193 | are provided for matrix | |
| | Neodymium | nr | identification | n |
| Materials are statistically sampled from stores, then packaged into either heat | Nickel | 203 | 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 | 80 | 'nr': Not Rep | oorted |
| from outside sources during shipment, use and storage. | Samarium | 3.15 | | |
| | Scandium | 13.9 | | |
| Assay Testwork | Selenium | <10 | | |
| All standards are tested thoroughly in the Geostats bi-annual laboratory survey. | Silver | 51 | | |
| This involves assaying by multiple laboratories from around the world. Results are | Sodium (%) | 1.5 | | |
| compiled into a comprehensive report detailing statistics for each standard. Assay | Strontium | nr | | |
| distributions are checked and processed statistically, producing monitoring | Tantalum | 1.3 | | |
| statistics for these standards. Materials are tested regularly to ensure stability and | Tellurium | nr | | |
| homogeneity. | Terbium | 0.6 | | |
| | Thorium | 12 | | |
| <u>Stability</u> | Tin | nr | | |
| This product remains stable in its original packaging, away from direct sunlight. | Tungsten | <2.74 | | |
| | Uranium | 6.3 | | |
| Material Safety | Ytterbium | <2 | | |
| This product is not hazardous and non-toxic. | Zinc | 39300 | | |
| | Zirconium | nr | | |

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