

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

## Certified Gold Reference Material Product Code

# G318-10

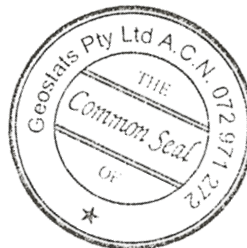
### Certified Control Values

#### 50 gram Fire Assay

Gold Grade 4.58 ppm  
Standard Deviation 0.17 ppm  
Confidence Interval +/- 0.025 ppm

#### Aqua Regia Digest

Gold Grade 4.50 ppm  
Standard Deviation 0.19 ppm  
Confidence Interval +/- 0.052 ppm



### CRM Details

| <u>Control Statistic Details</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <u>Neutron Activation Analysis Results (ppm, unless otherwise noted)</u>                                                                                                                                   |          | <u>Major Elements by Fusion / XRF (%)</u>                                                                                                                |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Control statistics were produced from results accumulated in the April-2018 round robin. A total of 175 fire assay results and 55 results from an aqua regia technique were used to certify this material. | Antimony | <0.2                                                                                                                                                     | Fe    |
| <u>Material Description</u><br>This material is described as a Mine ore low sulphide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Arsenic                                                                                                                                                                                                    | <0.5     | SiO <sub>2</sub>                                                                                                                                         | 63.74 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Barium                                                                                                                                                                                                     | 350      | Al <sub>2</sub> O <sub>3</sub>                                                                                                                           | 13.9  |
| <u>Colour Designation (ISCC-NBS, SP440)</u><br>This material is light gray in colour.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bromine                                                                                                                                                                                                    | <2       | TiO <sub>2</sub>                                                                                                                                         | 1.03  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cadmium                                                                                                                                                                                                    | <10      | MnO                                                                                                                                                      | 0.1   |
| <u>Usage</u><br>This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Caesium                                                                                                                                                                                                    | 3        | CaO                                                                                                                                                      | 5.19  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Calcium (%)                                                                                                                                                                                                | nr       | P                                                                                                                                                        | 0.05  |
| <u>Preparation and Packaging</u><br>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.<br><br>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. | Cerium                                                                                                                                                                                                     | 32       | S                                                                                                                                                        | 0.032 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Chromium                                                                                                                                                                                                   | 102      | MgO                                                                                                                                                      | 3.29  |
| <u>Assay Testwork</u><br>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.                                                                                                                                                                                 | Cobalt                                                                                                                                                                                                     | 20       | K <sub>2</sub> O                                                                                                                                         | 2.36  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Europium                                                                                                                                                                                                   | 1        | Na <sub>2</sub> O                                                                                                                                        | 2.63  |
| <u>Stability</u><br>This product remains stable in its original packaging, away from direct sunlight.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Gold (ppb)                                                                                                                                                                                                 | 4800     | LOI1000                                                                                                                                                  | 0.62  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Hafnium                                                                                                                                                                                                    | <5       | Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. |       |
| <u>Material Safety</u><br>This product is not hazardous and non-toxic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Iridium (ppb)                                                                                                                                                                                              | <50      | 'nr': Not Reported                                                                                                                                       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Iron (%)                                                                                                                                                                                                   | 4.6      |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Lanthanum                                                                                                                                                                                                  | 16       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Lutetium                                                                                                                                                                                                   | 0.3      |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mercury                                                                                                                                                                                                    | nr       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Molybdenum                                                                                                                                                                                                 | <10      |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Neodymium                                                                                                                                                                                                  | nr       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nickel                                                                                                                                                                                                     | 23       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Potassium (%)                                                                                                                                                                                              | nr       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Rubidium                                                                                                                                                                                                   | 121      |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Samarium                                                                                                                                                                                                   | 4        |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Scandium                                                                                                                                                                                                   | 17       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Selenium                                                                                                                                                                                                   | <10      |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Silver                                                                                                                                                                                                     | <5       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sodium (%)                                                                                                                                                                                                 | 1.89     |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Strontium                                                                                                                                                                                                  | nr       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Tantalum                                                                                                                                                                                                   | 3        |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Tellurium                                                                                                                                                                                                  | <20      |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Terbium                                                                                                                                                                                                    | 1        |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Thorium                                                                                                                                                                                                    | 10.8     |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Tin                                                                                                                                                                                                        | <200     |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Tungsten                                                                                                                                                                                                   | <5       |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Uranium                                                                                                                                                                                                    | 6        |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Ytterbium                                                                                                                                                                                                  | 2.5      |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Zinc                                                                                                                                                                                                       | <200     |                                                                                                                                                          |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Zirconium                                                                                                                                                                                                  | <500     |                                                                                                                                                          |       |

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>

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