

**GEOSTATS PTY LTD**  
Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Pulp Iron Ore Reference Material

**GIOP-31**

Certified Control Values

**Iron Ore Analyses**

Element	Units	Grade	Standard Deviation	No of Analyses	95% Confidence Interval
Fe	%	37.4	0.29	40	+/- 0.09
Fe (Calc)	%	37.4	0.24	39	+/- 0.08
SiO <sub>2</sub>	%	27.3	0.08	29	+/- 0.03
Al <sub>2</sub> O <sub>3</sub>	%	0.46	0.021	40	+/- 0.007
TiO <sub>2</sub>	%	0.032	0.0074	40	+/- 0.0023
Mn	%	0.216	0.0046	40	+/- 0.0014
CaO	%	0.771	0.0135	40	+/- 0.0042
P	%	0.047	0.0018	40	+/- 0.0005
S	%	0.039	0.0025	40	+/- 0.0008
MgO	%	10.454	0.1348	40	+/- 0.0418
K <sub>2</sub> O	%	0.018	0.0034	30	+/- 0.0012
Cr	%	0.002	0.0009	29	+/- 0.0003
Cl	%	0.006	0.0014	29	+/- 0.0005
Ni	%	0.005	0.0023	30	+/- 0.0008
Na	%	0.03	0.005	30	+/- 0.002
LOI <sub>400</sub>	%	0.08	0.044	30	+/- 0.016
LOI <sub>650</sub>	%	6.24	0.153	40	+/- 0.047
LOI	%	6.93	0.089	38	+/- 0.028

CRM Details

**Control Statistic Details**

Control values for this material were determined during a certification program.

**Certification Date**

This material was certified with the above values on:  
14th October 2009

**Source Material**

Prior to homogenisation and testing, this material was sourced from:  
Murchison, Western Australia

**Material Type**

Pulp Iron Ore, 10g samples.

**Usage**

This product is for use in the mining industry as reference materials for monitoring and testing the accuracy of laboratory assaying

**Preparation and Packaging**

This reference material was dried in an oven for a minimum of 12 hours at 110C. The dry material is then crushed in a micron mill and homogenised in a vee-blender. The material is then stored in a sealed, stable container ready for final packaging.

Materials are statistically sampled from stores, then packaged into heat sealed, air tight, plastic packets ready for distribution. All packaging has been chosen to ensure minimal contamination from outside sources during shipment, use and storage.

**Assay Testwork**

This standard was tested in a dedicated certification program. 10 x 10g samples were sent to 4 laboratories for XRF analyses. Assay distributions are checked and processed statistically, producing monitoring statistics for these standards. Materials are tested regularly to ensure stability and homogeneity.

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**Geostats Pty Ltd, Certified Iron Ore Reference Material, Product Code:**