

## Certified Pulp Iron Ore Reference Material - GIOP-132

### Certificate of Analysis

Analyte	Units	Average	Standard Deviation	Count	95% Confidence Interval
Fe	%	43.12	0.14	50	+/- 0.04
Fe Calc	%	43.1	0.13	50	+/- 0.04
SiO <sub>2</sub>	%	16.33	0.11	50	+/- 0.03
Al <sub>2</sub> O <sub>3</sub>	%	11.89	0.086	50	+/- 0.025
TiO <sub>2</sub>	%	0.7943	0.0084	50	+/- 0.0024
Mn	%	0.0608	0.0012	49	+/- 0.0003
CaO	%	2.062	0.024	50	+/- 0.007
P	%	0.0567	0.0014	50	+/- 0.0004
S	%	0.0302	0.0018	50	+/- 0.0005
MgO	%	1.141	0.013	50	+/- 0.004
K <sub>2</sub> O	%	0.1405	0.0018	50	+/- 0.0005
Zn	%	0.00319	0.00061	35	+/- 0.00021
Pb	%	0.003			
Cu	%	0.0021	0.0012	30	+/- 0.0005
Ba	%	0.0083	0.0026	32	+/- 0.001
V	%	0.0155	0.0025	50	+/- 0.0007
Cr	%	0.0089	0.0013	42	+/- 0.0004
Cl	%	0.00413	0.00082	30	+/- 0.00031
As	%	0.001			
Ni	%	0.00263	0.00061	30	+/- 0.00023
Co	%	0.0016			
Sn	%	0.0017			
Sr	%	0.0086	0.0028	41	+/- 0.0009
Zr	%	0.0156	0.0027	48	+/- 0.0008
Na	%	0.4797	0.0076	49	+/- 0.0022
LOI425	%	4.627	0.071	50	+/- 0.02
LOI650	%	5.088	0.039	39	+/- 0.013
LOI1000	%	5.101	0.045	40	+/- 0.014

#### 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:

18/03/2014

#### Source Material

Prior to homogenisation and testing, this material was sourced from  
 Composite of Pilbara and Simandou ore

#### Usage

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**GEOSTATS PTY LTD**

Mining Industry Consultants  
Reference Material Manufacture and Sales

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

#### **Preparation and Packaging**

This certified reference material was dried in an oven for a minimum of 8 hours at 105°C. The dry material was pulverised in a "puck and bowl" and then homogenised in a vee-blender. The material is then packaged into 10g plastic packets, ready for shipment.

#### **Certification Testwork**

This certified reference material was tested in a dedicated certification program. 10 samples were sent to 5 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.