

## Certified Pulp Iron Ore Reference Material - GIOP-135

### Certificate of Analysis

Analyte	Units	Average	Standard Deviation	Count	95% Confidence Interval
Fe	%	53.505	0.08	50	+/- 0.023
Fe Calc	%	53.481	0.063	50	+/- 0.018
SiO <sub>2</sub>	%	9.633	0.054	49	+/- 0.016
Al <sub>2</sub> O <sub>3</sub>	%	7.322	0.052	50	+/- 0.015
TiO <sub>2</sub>	%	0.4731	0.0068	50	+/- 0.0019
Mn	%	0.0588	0.0017	50	+/- 0.0005
CaO	%	1.184	0.014	50	+/- 0.004
P	%	0.05917	0.00089	50	+/- 0.00026
S	%	0.0191	0.0012	50	+/- 0.0004
MgO	%	0.655	0.01	50	+/- 0.003
K <sub>2</sub> O	%	0.0825	0.0018	50	+/- 0.0005
Zn	%	0.00233	0.00048	30	+/- 0.00018
Pb	%	0.0023			
Cu	%	0.0013			
Ba	%	0.0088	0.0028	37	+/- 0.0009
V	%	0.00914	0.00098	44	+/- 0.0003
Cr	%	0.00614	0.0009	40	+/- 0.00029
Cl	%	0.0034	0.001	30	+/- 0.0004
As	%	0.001			
Ni	%	0.00248	0.00068	33	+/- 0.00025
Co	%	0.0017			
Sn	%	0.0018			
Sr	%	0.0058	0.0028	44	+/- 0.0008
Zr	%	0.0095	0.0013	30	+/- 0.0005
Na	%	0.2743	0.0075	49	+/- 0.0022
LOI <sub>425</sub>	%	3.332	0.058	50	+/- 0.017
LOI <sub>650</sub>	%	3.585	0.02	36	+/- 0.007
LOI <sub>1000</sub>	%	3.562	0.036	40	+/- 0.012

#### 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.