10A Marsh Close, O'Connor Western Australia 6163 Phone +618 93142566 Fax +618 93143699

Email info@geostats.com.au

Website http://www.geostats.com.au

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Pulp Iron Ore Reference Material - GIOP-52

Certificate of Analysis

Analyte	Units	Average	Standard Deviation	Count	95% Confidence Interval
Fe	%	56.7	0.16	48	+/- 0.05
Fe (Calc)	%	56.71	0.13	49	+/- 0.04
SiO2	%	5.84	0.049	48	+/- 0.014
Al2O3	%	2.675	0.032	49	+/- 0.009
TiO2	%	0.1578	0.0046	50	+/- 0.0013
Mn	%	0.0868	0.0037	49	+/- 0.0011
CaO	%	0.1824	0.0066	50	+/- 0.0019
Р	%	0.0414	0.0015	50	+/- 0.0004
S	%	0.0143	0.0019	50	+/- 0.0006
MgO	%	0.148	0.011	49	+/- 0.003
K2O	%	0.0091	0.001	30	+/- 0.0004
Zn	%	0.0111	0.0017	50	+/- 0.0005
Pb	%	0.0035			
Cu	%	0.0038			
Ва	%	0.0023			
V	%	0.0025	0.0012	37	+/- 0.0004
Cr	%	0.00288	0.00072	38	+/- 0.00024
CI	%	0.0056			
As	%	0.0024			
Ni	%	0.003	0.0023	32	+/- 0.0008
Co	%	0.0051	0.0051	39	+/- 0.0017
Sn	%	0.0032			
Sr	%	0.0037			
Zr	%	0.0058			
Na	%	0.0178	0.0071	37	+/- 0.0024
LOI425	%	8.61	0.08	48	+/- 0.023
LOI650	%	9.331	0.064	45	+/- 0.019
LOI	%	9.572	0.095	48	+/- 0.028

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:

1/12/2010

Source Material

Prior to homogenisation and testing, this material was sourced from Pilbara

<u>Usage</u>

10A Marsh Close, O'Connor Western Australia 6163 Phone +618 93142566 Fax +618 93143699 Email info@geostats.com.au

Website http://www.geostats.com.au

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.