

Alpha Resources, Inc. Certificate Of Analysis

AR 557

STEEL BALL STANDARD

LOT # 52655198

PPM OXYGEN
MEAN = 18
ONE SIGMA = 4
TWO SIGMA = 8
RANGE = 10 - 25

PPM NITROGEN
MEAN = 425
ONE SIGMA = 8
TWO SIGMA = 16
RANGE = 410 - 440

PPM HYDROGEN
MEAN = 3.7
ONE SIGMA = 0.8
TWO SIGMA = 1.6
RANGE = 2.4 - 4.9

Nominal sample weight = 1.07g +/- 0.002g

The certified values were determined by inert gas fusion, technique ASTM E 1019.

The instruments used were:

LECO TC-136

LECO TC-436

LECO RH-404

The mean values reported are derived from a number of data sets using the instruments listed above.

The precision value is based on the standard deviation, two times the standard deviation, and complete range of analyses.

The following Primary Standards were used for calibration, gas dose.

NIST SRM 1095, 73c
China SRM NC20009

Japanese JSS GS-1C, SS-5
German BAM SRM 238-1, 079-1, 284-1

Notes:

The statistical analysis, overall direction, and coordination of the analytical measurements leading to certification were performed by K.E. Dyer at Alpha Resources.

Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall Alpha Resources be liable for incidental or consequential damages.

This is a certified reference material (CRM) and should be verified, prior to use, against a primary standard material provided by a governing agency such as N.I.S.T., when available.

Certified January, 1998



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Page 1 Of 1