

Alpha Resources, Inc.

Certificate Of Analysis

AR 952
CARBON STEEL CHIP STANDARD
LOT # 10148

% CARBON
MEAN = 0.462
ONE SIGMA = 0.006
TWO SIGMA = 0.012
RANGE = 0.450 – 0.474

% SULFUR
MEAN = 0.023
ONE SIGMA = 0.001
TWO SIGMA = 0.002
RANGE = 0.021 – 0.025

PPM NITROGEN
MEAN= 89 PPM
ONE SIGMA= 3 PPM
TWO SIGMA= 6 PPM
RANGE= 83 - 95 PPM

Method of Analysis is ASTM E 1019 (Latest Revision)

Primary Standards Employed:

NIST	367, 50c, 343a, 12h, 13g, 2160
German	BAM 035-1, 086-1
Japan	JSS 602-9, 150-14, GS-5c

Notes:

The mean analytical values were derived by a number of data sets utilizing various ASTM approved instruments.

The precision values represent the standard deviation, two times the standard deviation, and complete range of analysis.

The statistical analysis of the certification was performed by K.E. Dyer at Alpha Resources.

The 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 is traceable to the above-mentioned standards. For good laboratory practice it is recommended that all standards be verified prior to use.

Certified June, 2000



P.O. Box 199 3090 Johnson Road Stevensville, MI 49127 USA Phone (269) 465-5559 Fax (269) 465-3629

www.alpharesources.com

Page 1 Of 1