

Alpha Resources, Inc.

Certificate Of Analysis

AR 960
CARBON STEEL CHIP STANDARD
LOT # 41026499

% CARBON
MEAN = 0.105
ONE SIGMA = 0.002
TWO SIGMA = 0.004
RANGE = 0.101 – 0.109

% SULFUR
MEAN = 0.0006
ONE SIGMA = 0.0001
TWO SIGMA = 0.0002
RANGE = 0.0003 – 0.0009

PPM NITROGEN
MEAN= 403 PPM
ONE SIGMA= 7 PPM
TWO SIGMA= 14 PPM
RANGE= 392 – 414 PPM

Method of Analysis is ASTM E 1019-94

Primary Standards Employed:

NIST 73c, 121d, 160b, 343a, 367
BAM 227-1, 228-1, 284-1
JSS 244-5

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. When necessary, professional judgment is applied toward consideration of data and statistical information.

The statistical analysis and 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 October, 1999



Page 1 of 1

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Page 1 Of 1