

Alpha Resources, Inc.

Certificate Of Analysis

AR 956
CARBON STEEL CHIP STANDARD
LOT # 0190980

% CARBON
MEAN = 0.492
ONE SIGMA = 0.005
TWO SIGMA = 0.010
RANGE = 0.482 - 0.502

% SULFUR
MEAN = 0.300
ONE SIGMA = 0.005
TWO SIGMA = 0.010
RANGE = 0.290 - .310

PPM NITROGEN
MEAN= 88 PPM
ONE SIGMA= 5 PPM
TWO SIGMA= 10 PPM
RANGE= 78 - 98 PPM

Method of Analysis is ASTM E 1019 (Latest Revision)

Primary Standards Employed:

NIST SRM 14e, 50c, 129, 133b, 163, 346a, 368
BCS 306/1

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 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, 2002

