Alpha Resources, Inc.
Certificate Of Analysis

AR 959

CARBON STEEL CHIP STANDARD

LOT # 316X998

% CARBON	% SULFUR
MEAN = 0.052	**MEAN = 0.031**
ONE SIGMA = 0.001	**ONE SIGMA = 0.001**
TWO SIGMA = 0.002	**TWO SIGMA = 0.002**
RANGE = 0.050 – 0.054	**RANGE = 0.029 – 0.033**

PPM NITROGEN
MEAN = 860
ONE SIGMA = 10
TWO SIGMA = 20
RANGE = 840 - 880

Method of Analysis is ASTM E 1019 (Latest Revision)
Carbon & Sulfur combustion IR detection
Nitrogen inert gas fusion

Standards employed:

NIST	SRM 367, 16e, 13g, 73c, 343a, 12h
German	BAM 231-1, 238-1
Japanese	JSS 150-14
China	NCS 11301

Notes:

The mean analytical values were determined by a number of data sets provided by ASTM approved instruments.

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

The statistical analysis and overall coordination leading to certification was 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 secondary standard reference material 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 February, 2000

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