Alpha Resources, Inc. Certificate Of Analysis

AR 510

CARBON AND SULFUR STEEL PIN STANDARD

LOT # 10V92B02

% CARBON MEAN = 2.40 ONE SIGMA = 0.02 TWO SIGMA = 0.04 RANGE = 2.36 - 2.44 % SULFUR
MEAN = 0.086
ONE SIGMA = 0.003
TWO SIGMA = 0.006
RANGE = 0.080 - 0.092

Method of Analysis is Combustion IR Detection ASTM E 1019 (Latest Revision) Primary Standards Employed were:

> NIST SRM 4L, 16e, 341 CKD 228 BCS 342, 432

> > Notes:

The certified mean values were derived by a number of data sets acquired over different days, using ASTM E 1019 approved instruments.

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

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

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