Alpha Resources, Inc.
Certificate Of Analysis

AR4015

CARBON AND SULFUR IN LIMESTONE

LOT # 31099

% CARBON	% SULFUR
MEAN = 1.02	MEAN = 0.104
ONE SIGMA = 0.02	ONE SIGMA = 0.006
TWO SIGMA = 0.04	TWO SIGMA = 0.012
RANGE = 0.98 – 1.06	RANGE = 0.092 – 0.116

Notes:

This data was reported using various induction and resistance type furnaces. The use of accelerants like vanadium pentoxide and tungsten oxide were used in the resistance furnace techniques in order to properly liberate the sulfur.

The data represents the mean value, one sigma standard deviation, two sigma standard deviation, and complete range of analysis.

There were no primary standards of this type of matrix available at the time of certification. Many types of reference materials were used in the certification process, ranging from steel to high purity inorganics for calibration.

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) without any traceability to primary standards, and should be verified prior to use, against a primary standard material or other reference materials provided by a governing agency, such as N.I.S.T., when available.

Certified April, 2000

Kent Dyer

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