

# Alpha Resources, Inc. Certificate Of Analysis

AR 556  
HYDROGEN IN STEEL PIN STANDARD  
LOT # 511803B08

TOTAL HYDROGEN  
MEAN VALUE = 5.0 PPM (ug/g)  
ONE SIGMA DEVIATION = +/- 0.3 PPM (ug/g)  
TWO SIGMA DEVIATION = +/- 0.6PPM (ug/g)  
TOTAL RANGE OF DATA = 4.4 to 5.6 PPM (ug/g)

Method of Analysis:  
Inert Gas Fusion, Thermal Conductivity Detection

Primary Standards Employed:  
Gas Dosing  
NCS NS20031, NS20025, NS20002  
JSS SS-18, GS 1d

Notes:

The mean analytical values were derived by a number of data sets, totaling n=40 utilizing the above mentioned method. The precision values represent the standard deviation, two times the standard deviation (k=2, 95% confidence limit), and the complete range of analysis data reported. 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.

The material used in production of this standard was sampled in accordance with ARI 032. The samples for round robin testing were selected in accordance with ARI 014. The above values relate only to the material used to produce this standard.

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 December 2008,



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