

Alpha Resources, Inc.

Certificate Of Analysis

AR-733

PROXIMATE COKE STANDARD

LOT # 331014 LID # 711014
DRIED BASIS VALUE – MASS FRACTION

MEAN WEIGHT % SULFUR	=	0.57
EXPANDED UNCERTAINTY	=	0.04
MEAN WEIGHT % ASH	=	7.53
EXPANDED UNCERTAINTY	=	0.37
MEAN WEIGHT % VOL. MATTER	=	(0.79)
EXPANDED UNCERTAINTY	=	n/a
BTU/lb.	=	13178
EXPANDED UNCERTAINTY	=	217
FIXED CARBON “calculated”	=	(91.68)

Note: Items in () are for reference only.

Methods Employed:

SULFUR	ASTM	D 4239
ASH	ASTM	D 3174, D7582
VOL. MATTER	ASTM	D 3175
BTU	ASTM	D 5865

Notes:

The material used in production of this standard was evaluated and identified in accordance with ARI 041. The precision values represent the expanded uncertainty (k=2, 95% confidence limit) obtained through analytical testing. Normal ASTM procedures should be employed when using this standard, this includes using the *reproducibility* and *repeatability* factors of the method for establishing method based analytical uncertainty. 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. This item was produced in accordance to ISO Guide 34 and ISO Guide 31.

The samples for round robin testing were selected in accordance with ARI 031. The above values relate only to the material used to produce this standard. The analytical samples were dried or calculated for moisture as defined by the test method. This bottle contains 50g fine mesh (-250 μ) coal powder. Kept sealed this bottle has an indefinite shelf life. Once opened this certificate is valid for 2 years only. This certificate cannot be reproduced except in full. Keep closed and store under normal laboratory conditions.

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), for good laboratory practice it is recommended that all standards be verified prior to use.

EXPIRATION DATE

THIS CRM IS VALID FOR TWO YEARS FROM THE DATE OF OPENING

CERTIFIED December 1, 2014

