

Alpha Resources, Inc. Certificate Of Analysis

AR-747

GREEN PETROLEUM COKE STANDARD

LOT # 471204

LID # 471204

ALL ANALYSIS REPORTED ON A DRIED BASIS VALUE

MEAN WEIGHT PERCENT SULFUR	=	4.37
MEAN WEIGHT PERCENT ASH	=	0.30
MEAN WEIGHT PERCENT VOL. MAT. BTU/POUND	=	10.75 15,362
MEAN WEIGHT PERCENT CARBON	=	88.74
MEAN WEIGHT PERCENT HYDROGEN	=	3.56
MEAN WEIGHT PERCENT NITROGEN	=	1.26
PARTS PER MILLION NICKEL	=	145
PARTS PER MILLION IRON	=	428
PARTS PER MILLION VANADIUM	=	263
PARTS PER MILLION CALCIUM	=	180
PARTS PER MILLION SILICON	=	269

This Certified Reference Material was traced to N.I.S.T. SRM 2684b, 2685a, 2719

Methods:

ASTM D 4239 Method C ASTM D 4421
ASTM D 4422 ASTM D 5373

Notes:

The material used in production of this standard was sampled in accordance with ARI 031. The above values relate only to the material used to produce this standard.

The overall direction and coordination of the analytical measurements leading to certification was performed by J.R. Shingledecker 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). 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 PURCHASE WHICH
APPEARS ON THE BOTTLE

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J.R. Shingledecker