

Alpha Resources, Inc. Certificate Of Analysis

AR-747

GREEN PETROLEUM COKE STANDARD

LOT # 747699

LID ID 747699

ALL ANALYSIS REPORTED ON A DRIED BASIS VALUE

MEAN WEIGHT PERCENT SULFUR.....	4.03	MEAN WEIGHT PERCENT NITROGEN.....	1.13
STANDARD DEVIATION.....	0.17	STANDARD DEVIATION.....	0.03
MEAN WEIGHT PERCENT ASH.....	0.56	PARTS PER MILLION NICKEL.....	191
STANDARD DEVIATION.....	0.05	STANDARD DEVIATION.....	31
MEAN WEIGHT PERCENT VOL. MAT.....	11.97	PARTS PER MILLION IRON.....	246
STANDARD DEVIATION.....	0.50	STANDARD DEVIATION.....	37
BTU/POUND.....	15,463	PARTS PER MILLION VANADIUM.....	155
STANDARD DEVIATION.....	80	STANDARD DEVIATION.....	22
MEAN WEIGHT PERCENT CARBON.....	90.87	PARTS PER MILLION CALCIUM.....	246
STANDARD DEVIATION.....	0.96	STANDARD DEVIATION.....	37
MEAN WEIGHT PERCENT HYDROGEN....	3.83	PARTS PER MILLION SILICON.....	375
STANDARD DEVIATION.....	0.27	STANDARD DEVIATION.....	89

Methods:

ASTM D 4239 Method C

ASTM D 3174-89

ASTM D 4421

ASTM D 5373

ASTM D 5056

Notes:

The certified mean values were statistically derived from the values reported to Alpha Resources through Round Robin.

The statistical analysis and overall coordination 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.

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

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