

Alpha Resources, Inc. Certificate Of Analysis

AR2773
ULTIMATE COKE STANDARD
LOT #773WAL896 LID ID WAL96
DRIED BASIS VALUES

Proximate Analysis

% Ash.....	7.27
% Volatile Matter.....	42.27
% Fixed Carbon.....	50.46
% Sulfur.....	0.32
Btu.....	11,723

Ultimate Analysis

% Carbon.....	69.62
% Hydrogen.....	4.56
% Nitrogen.....	1.11
% Sulfur.....	0.32
% Chlorine.....	0.01
% Ash.....	7.27

Mineral Analysis

Silica.....	36.71
Alumina.....	16.21
Titania.....	1.22
Ferric Oxide.....	5.69
Calcium Oxide.....	19.91
Magnesium Oxide.....	4.95
Potassium Oxide.....	0.53
Sodium Oxide.....	1.53
Sulfur Trioxide.....	9.24
Phosphorus Pentoxide.....	1.71
Strontium Oxide.....	0.45
Barium Oxide.....	0.71
Manganese Oxide.....	0.04

Sulfur Forms

% Pyritic.....	0.05
% Organic.....	0.26
% Sulfate.....	0.01
% Total.....	0.32

Ash Fusion Temperature

Initial Deformation Red.....	2118
Initial Deformation Oxd.....	2203
Softening-Red H=W.....	2142
Softening-Oxd H=W.....	2217
Softening-Red H=1/2w.....	2155
Softening-Oxd H=1/2w.....	2239
Fluid-Reducing.....	2188
Fluid-Oxidizing.....	2269
Temperature In Degrees F	

The Following ASTM Procedures Were Employed In The Analysis Of All Samples:

Preparation.....	ASTM D 2013	Ash Analysis.....	ASTM D 3682
Carbon & Hydrogen.....	ASTM D 5373	Chlorine.....	ASTM D 2361
Volatile Matter.....	ASTM D 3175	Fusibilities.....	ASTM D 1857
Sulfur.....	ASTM D 3177	BTU.....	ASTM D 2015
Nitrogen.....	ASTM D 3179	Sulfur Forms.....	ASTM D 2492
Ash.....	ASTM D 3174		

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 should be verified, prior to use, against a primary standard material provided by a governing agency such as N.I.S.T., when available.

EXPIRATION DATE
THIS CRM IS VALID FOR TWO YEARS FROM THE DATE OF PURCHASE WHICH
APPEARS ON THE BOTTLE

