ALPHA RESOURCES® Value Beyond Measure

Certificate of Analysis

AR1726, Lot# 240322

Proximate Coal CRM

AR1726, Lot# 240322 – Certified Values (Dried Basis)						
	ASTM Method	Mean	St Dev	Expanded Uncertainty	n	k
% Ash	D3174/D7582	8.17	0.11	0.23	21	2.09
% Volatile Matter	D3175/D7582	36.69	0.73	1.52	21	2.09
% Fixed Carbon (calc)	D3172	(54.79)	--	--	--	--
% Sulfur	D4239	2.40	0.04	0.09	40	2.02
BTU/lb	D5865	13022	31	74	8	2.36

Note: Parentheses () indicate an information-only value.

Primary (NMI)/GUIDE 34/ISO 17034 Reference Standards Employed:

	Primary Reference Standards
% Ash	LQSI 200045
% Sulfur	LQSI 8H0158, QAR CRM-9a, NIST 2683C, NIST 2684c
BTU/lb	Benzoic acid
Volatile Matter	LQSI 200045

AR1726 is a Certified Reference Material (CRM) traceable to the above-mentioned reference standards. All reference materials should be verified as fit for purpose prior to use. Analytical values are accredited under Alpha Resources, LLC ISO/IEC 17025 and ISO 17034 accreditation issued by ANSI National Accreditation Board (ANAB). Please refer to certificates and scopes of accreditation AT-1200 and AR-1920. This material is intended to be dried or corrected for moisture as per the test methods used. Each bottle contains 50 g of fine coal powder (-60 mesh). Typical sample size for analytical testing is dependent upon the test method and instrumentation used.

The intended use of this Proximate Coal CRM is for the verification of various tests using the above-mentioned test methods. The mean analytical values were derived by separate data sets with traceability to the above-mentioned reference standards. Metrological traceability is to the SI derived unit of mass fraction expressed as percent and BTU/lb. The precision values represent the estimated mean value and uncertainty derived from the data sets utilizing ANOVA, ISO Guide 35, and the Guide to Uncertainty Measurement. Refer to the test method for additional information related to measurement uncertainty.

Values are valid for 15 years from the date of certification. Keep sealed tight and store under normal laboratory conditions. This certificate cannot be reproduced except in full. 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. Produced in accordance with ISO 17034.

Certification Date: May 14, 2024
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Dustin Jenkins, Ph.D.
Global Technical Director

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER