



Certificate of Analysis

AR-1681

ULTRA LOW SULFUR COAL BLANK REFERENCE STANDARD

LOT # 681618

LID ID # 681618

DRIED BASIS VALUE

WEIGHT PERCENT SULFUR = 0.00

METHOD:

Combustion by Resistance Furnace with IR Detection *ASTM 4239 (below method described range)

This material was used in the production of Ultra Low Sulfur Coal standards AR-1682, AR-1683, AR-1684, and AR-1685 and is considered to have a 0.00% Sulfur content. The statistical analysis and the overall direction and coordination of the analytical measurements leading to certification were performed by K.E. Dyer Chief Chemist at Alpha Resources. This RM is below actual test method limits and no known SRM/NMI references are available.

The material used for this standard was identified by AR 041. The samples for evaluation 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 under a nitrogen atmosphere for a minimum of 30 minutes at $107^{\circ}\text{C} \pm 3^{\circ}\text{C}$, or until a steady mass is achieved. This bottle contains 50g fine powder to be used per your test method. Keep sealed 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. The above values relate only to the material used to produce this standard. This certificate cannot be reproduced except in full.

This is a RM and is intended to be used in establishing baseline blank value by the above-mentioned ASTM method. For good laboratory practice it is recommended that all standards be verified as fit for purpose prior to use. This reference was produced in accordance to ISO 17034(non-scope) and ISO Guide 31.

EXPIRATION DATE

THIS RM SHOULD BE REVIEWED 20 YEARS FROM DATE OF CERTIFICATION

Certified July 26, 2018