



Standard Practice for Evaluation of Laboratories Using ASTM Procedures in the Sampling and Analysis of Coal and Coke¹

This standard is issued under the fixed designation D 4182; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

Traditionally, coal testing facilities have been established to serve the specific interests or activities of one or more of the following:

- (1) Exploration and evaluation of coal fields.
- (2) Establishment of mining and coal preparation capabilities.
- (3) Coal quality evaluation: (a) to meet contractual obligations; (b) to determine compliance with municipal, state, and federal regulations; and (c) to generate documentation used to establish power rates or rate basis.
- (4) Confirmation of properties pertinent to coal processing and utilization, such as direct combustion or the production of coal-derived products (for example, metallurgical coke, carbons, liquids, and gas).
- (5) Coal research pursuits.

1. Scope

1.1 This practice is limited to the evaluation of laboratories using ASTM procedures that are under the jurisdiction of Committee D-5 on Coal and Coke. They may be used to evaluate a laboratory's capability to perform the functions for which it has been established. It is not the intention that this practice be used to evaluate capabilities beyond those specifically claimed by the laboratory.

2. Referenced Documents

2.1 ASTM Standards:

- D 346 Practice for Collection and Preparation of Coke Samples for Laboratory Analysis²
- D 409 Test Method for Grindability of Coal by the Hardgrove-Machine Method²
- D 1989 Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters²
- D 2013 Method of Preparing Coal Samples for Analysis²
- D 2234 Practice for Collection of a Gross Sample of Coal²

- D 2795 Test Methods for Analysis of Coal and Coke Ash²
- D 2961 Test Method for Total Moisture in Coal Reduced to 2.36-mm (No. 8) Mesh Top Sieve Size (Limited-Purpose Method)²
- D 3173 Test Method for Moisture in the Analysis Sample of Coal and Coke²
- D 3174 Test Method for Ash in the Analysis Sample of Coal and Coke from Coal²
- D 3175 Test Method for Volatile Matter in the Analysis Sample of Coal and Coke²
- D 3177 Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke²
- D 3178 Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke²
- D 3179 Test Methods for Nitrogen in the Analysis Sample of Coal and Coke²
- D 3286 Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter²
- D 3302 Test Method for Total Moisture in Coal²
- D 3682 Test Method for Major and Minor Elements in Coal and Coke Ash by the Atomic Absorption Method²
- D 4239 Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods²
- D 4326 Test Method for Major and Minor Elements in Coal and Coke Ash by X-Ray Fluorescence²

¹ This practice is under the jurisdiction of ASTM Committee D-5 on Coal and Coke and is the direct responsibility of Subcommittee D05.30 on Accreditation. Current edition approved Sept. 10, 1997. Published May 1998. Originally published as D 4182 – 82. Last previous edition D 4182 – 92.

² *Annual Book of ASTM Standards*, Vol 05.05.