



Standard Guide for Self-Assessment of Quality System Practices in Petroleum Products and Lubricant Testing Laboratories¹

This standard is issued under the fixed designation D7776; 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.

1. Scope

1.1 This guide covers and provides direction for the self-assessment of the quality system practices in a laboratory testing petroleum products and lubricants in the oil industry. This guide is intended to satisfy requirements of international laboratory quality standards to conduct periodic self-assessments. It is not intended for comparing laboratory performance among a laboratory group or for use in external certification programs.

1.2 Other forms of assessment formats may also be acceptable as long as they cover the essential elements of this guide regarding laboratory capability.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

- D94 Test Methods for Saponification Number of Petroleum Products
- D445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity)
- D892 Test Method for Foaming Characteristics of Lubricating Oils
- D1265 Practice for Sampling Liquefied Petroleum (LP) Gases, Manual Method
- D3244 Practice for Utilization of Test Data to Determine Conformance with Specifications
- D3700 Practice for Obtaining LPG Samples Using a Floating Piston Cylinder

- D3764 Practice for Validation of the Performance of Process Stream Analyzer Systems
- D4051 Practice for Preparation of Low-Pressure Gas Blends
- D4057 Practice for Manual Sampling of Petroleum and Petroleum Products
- D4177 Practice for Automatic Sampling of Petroleum and Petroleum Products
- D4178 Practice for Calibrating Moisture Analyzers
- D4296 Practice for Sampling Pitch
- D4306 Practice for Aviation Fuel Sample Containers for Tests Affected by Trace Contamination
- D4307 Practice for Preparation of Liquid Blends for Use as Analytical Standards
- D4378 Practice for In-Service Monitoring of Mineral Turbine Oils for Steam, Gas, and Combined Cycle Turbines
- D4418 Practice for Receipt, Storage, and Handling of Fuels for Gas Turbines
- D5185 Test Method for Multielement Determination of Used and Unused Lubricating Oils and Base Oils by Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES)
- D5842 Practice for Sampling and Handling of Fuels for Volatility Measurement
- D5854 Practice for Mixing and Handling of Liquid Samples of Petroleum and Petroleum Products
- D6046 Classification of Hydraulic Fluids for Environmental Impact
- D6122 Practice for Validation of the Performance of Multi-variate Online, At-Line, and Laboratory Infrared Spectrophotometer Based Analyzer Systems
- D6299 Practice for Applying Statistical Quality Assurance and Control Charting Techniques to Evaluate Analytical Measurement System Performance
- D6304 Test Method for Determination of Water in Petroleum Products, Lubricating Oils, and Additives by Coulometric Karl Fischer Titration
- D6595 Test Method for Determination of Wear Metals and Contaminants in Used Lubricating Oils or Used Hydraulic Fluids by Rotating Disc Electrode Atomic Emission Spectrometry
- D6596 Practice for Ampulization and Storage of Gasoline and Related Hydrocarbon Materials

¹ This guide is under the jurisdiction of ASTM Committee D02 on Petroleum Products, Liquid Fuels, and Lubricants and is the direct responsibility of Subcommittee D02.94.01 on Task Group A: Quality Assurance and Quality Control.

Current edition approved June 1, 2012. Published August 2012. DOI:10.1520/D7776-12

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.