



Standard Guide for Field Filtration of Groundwater Samples¹

This standard is issued under the fixed designation D6564; 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.

^{ε1} NOTE—Editorial changes were made throughout in May 2012.

1. Scope

1.1 This guide covers methods for field filtration of groundwater samples collected from groundwater monitoring wells, excluding samples that contain non-aqueous phase liquids (either Dense Non-Aqueous Phase Liquids (DNAPLs) or Light Non-Aqueous Phase Liquids (LNAPLs)). Methods of field filtration described herein could also be applied to samples collected from wells used for other purposes. Laboratory filtration methods are not described in this guide.

1.2 This guide provides procedures available for field filtration of groundwater samples. The need for sample filtration for specific analytes should be defined prior to the sampling event and documented in the site-specific sampling and analysis plan in accordance with Guide D5903. The decision should be made on a parameter-specific basis with consideration of the data quality objectives of the sampling program, any applicable regulatory agency guidelines, and analytical method requirements.

1.3 This guide offers an organized collection of information or a series of options and does not recommend a specific course of action. This guide cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this guide may be applicable in all circumstances. This guide is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this guide be applied without consideration of the many unique aspects of a project. The word “Standard” in the title of this guide means only that the guide has been approved through the ASTM consensus process.

1.4 *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

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D5088 Practice for Decontamination of Field Equipment Used at Waste Sites

D5092 Practice for Design and Installation of Groundwater Monitoring Wells

D5903 Guide for Planning and Preparing for a Groundwater Sampling Event

D6089 Guide for Documenting a Groundwater Sampling Event

F740 Definitions of Terms Relating to Filtration (Withdrawn 2002)³

3. Terminology

3.1 *Definitions:* For definitions of common technical terms in this standard, refer to Terminology D653.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *filter, v*—to pass a fluid containing particles through a filter medium whereby particles are separated from the fluid. **F740**

3.2.2 *filter, n*—a device for carrying out filtration which consists of the combination of the filter medium and suitable hardware for constraining and supporting it in the path of the fluid. **F740**

3.2.3 *filter medium*—the permeable material used for a filter that separates particles from a fluid passing through it. **F740**

3.2.4 *filter preconditioning*—the process of preparing a filter medium for filtration

3.2.5 *filter system*—the combination of one or more filter with all the associated process hardware required for filtration. **F740**

¹ This guide is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.21 on Groundwater and Vadose Zone Investigations.

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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.

³ The last approved version of this historical standard is referenced on www.astm.org.