



Standard Guide for Selection and Documentation of Existing Wells for Use in Environmental Site Characterization and Monitoring¹

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1. Scope*

1.1 This guide covers the use of existing wells for environmental site characterization and monitoring. It covers the following major topics: criteria for determining the suitability of existing wells for hydrogeologic characterization and groundwater quality monitoring, types of data needed to document the suitability of an existing well, and the relative advantages and disadvantages of existing large- and small-capacity wells.

1.2 This guide should be used in conjunction with Guide [D5730](#), that provides a general approach for environmental site investigations.

1.3 This guide does not specifically address design and construction of new monitoring or supply wells. Refer to Practices [D5092](#) and [D5787](#).

1.4 This guide does not specifically address groundwater sampling procedures. Refer to Guide [D5903](#).

1.5 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.6 *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.*

1.7 *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 a project's many unique*

aspects. The word “Standard” in the title of this document means only that the document has been approved through the ASTM consensus process.

2. Referenced Documents

2.1 Pertinent guides addressing specific information necessary to utilize existing wells for hydrologic and water-quality data for environmental site characterization. A comprehensive list of guides, standards, methods, practices, and terminology is contained in Guide [D5730](#). Other guidance documents covering procedures for environmental site investigations with specific objectives or in particular geographic settings may be available from federal, state, and other agencies or organizations. The appropriate agency or organization should be contacted to determine the availability and most current edition of such documents.

2.2 ASTM Standards:²

[D653 Terminology Relating to Soil, Rock, and Contained Fluids](#)

[D5092 Practice for Design and Installation of Groundwater Monitoring Wells](#)

[D5254 Practice for Minimum Set of Data Elements to Identify a Ground-Water Site](#)

[D5408 Guide for Set of Data Elements to Describe a Groundwater Site; Part One—Additional Identification Descriptors](#)

[D5409 Guide for Set of Data Elements to Describe a Ground-Water Site; Part Two—Physical Descriptors](#)

[D5410 Guide for Set of Data Elements to Describe a Groundwater Site; Part Three—Usage Descriptors \(Withdrawn 2016\)³](#)

[D5521 Guide for Development of Groundwater Monitoring Wells in Granular Aquifers](#)

[D5730 Guide for Site Characterization for Environmental Purposes With Emphasis on Soil, Rock, the Vadose Zone and Groundwater \(Withdrawn 2013\)³](#)

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.