



Standard Methods of SAMPLING INDUSTRIAL WATER¹

This Standard is issued under the fixed designation D 510; 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 reappraisal.

1. Scope

1.1 These methods cover the sampling of industrial water.^{2,3} The following methods are included:

	Sections
Sampling for Chemical or Physical Tests	4 to 16
Sampling for Biological Tests	17 to 31
Sampling for Radioactivity Determinations	32 to 41
Sampling for Continual Analysis	42 to 49

1.2 Normal variations in processes and in equipment from plant to plant preclude the possibility of specifying standard methods of sampling that are applicable in all cases. Definite principles have, however, been established as a basis for the formulation of procedures for sampling which are applicable in general and probably applicable in most specific cases. Where modifications of these procedures are necessary, they may be made by the exercise of trained judgment in each individual case.

1.3 Changes which may be necessary in these procedures under specific circumstances may be made in any particular case by mutual agreement of the parties concerned.

2. General Rules

2.1 The following general rules are applicable to all sampling methods:

2.1.1 The samples must represent the conditions existing at the point taken.

2.1.2 The samples must be of sufficient volume and must be taken frequently enough to permit reproducibility of testing requisite for the desired objective, as conditioned by the methods of analysis to be employed.

2.1.3 The samples must be collected, packed, shipped, and manipulated prior to analysis in a manner that safeguards against

change in the particular constituents or properties to be examined.

3. Definitions

3.1 The terms *industrial water*, *biological tests*, and *sterile* in these methods are defined in accordance with ASTM Definitions D 1129, Terms Relating to Water,⁴ as follows:

3.1.1 *industrial water*—water (including its impurities) used directly or indirectly in industrial processes.

3.1.2 *biological tests*—examination for the purpose of determining the presence, identity, numbers, or effects of the presence of any organism in industrial water.

3.1.3 *sterile*—free from any viable organism, either active or dormant.

3.2 For definitions of other terms used in these methods, refer to Definitions D 1129.

SAMPLING FOR CHEMICAL OR PHYSICAL TESTS

4. Application

4.1 This method is applicable to sampling industrial water supplies from sources such as wells, rivers, streams, lakes, oceans, reservoirs, pipe lines and conduits, processing tanks and vats, spray ponds, towers, and filters, at

¹ These methods are under the jurisdiction of ASTM Committee D-19 on Water.

Current edition effective Sept. 13, 1968. Originally issued 1938. Replaces D 510 - 67 T.

² Directions for sampling water intended for sanitary and domestic use may be found in "Standard Methods for the Examination of Water and Wastewater," Am. Public Health Assn., New York, N. Y., current edition.

³ "Methods for the Collection and Analysis of Water Samples," Geological Survey Water Supply Paper 1454, U.S. Government Printing Office, 1960.

⁴ *Annual Book of ASTM Standards*, Part 23.