

§ 141.25

40 CFR Ch. I (7-1-14 Edition)

Contaminant	Detection limit (mg/l)
Chlordane	.0002
Dalapon	.001
1,2-Dibromo-3-chloropropane (DBCP)	.00002
Di (2-ethylhexyl) adipate	.0006
Di (2-ethylhexyl) phthalate	.0006
Dinoseb	.0002
Diquat	.0004
2,4-D	.0001
Endothall	.009
Endrin	.00001
Ethylene dibromide (EDB)	.00001
Glyphosate	.006
Heptachlor	.00004
Heptachlor epoxide	.00002
Hexachlorobenzene	.0001
Hexachlorocyclopentadiene	.0001
Lindane	.00002
Methoxychlor	.0001
Oxamyl	.002
Picloram	.0001
Polychlorinated biphenyls (PCBs) (as decachlorobiphenyl)	.0001
Pentachlorophenol	.00004
Simazine	.00007
Toxaphene	.001
2,3,7,8-TCDD (Dioxin)	.00000005
2,4,5-TP (Silvex)	.0002

Contaminant	Acceptance limits (percent)
Endothall	2 standard deviations.
Endrin	±30.
Glyphosate	2 standard deviations.
Heptachlor	±45.
Heptachlor epoxide	±45.
Hexachlorobenzene	2 standard deviations.
Hexachloro- cyclopentadiene	2 standard deviations.
Lindane	±45.
Methoxychlor	±45.
Oxamyl	2 standard deviations.
PCBs (as Decachlorobiphenyl)	0-200.
Picloram	2 standard deviations.
Simazine	2 standard deviations.
Toxaphene	±45.
Aldicarb	2 standard deviations.
Aldicarb sulfoxide	2 standard deviations.
Aldicarb sulfone	2 standard deviations.
Pentachlorophenol	±50.
2,3,7,8-TCDD (Dioxin)	2 standard deviations.
2,4-D	±50.
2,4,5-TP (Silvex)	±50.

(ii) [Reserved]

(20) All new systems or systems that use a new source of water that begin operation after January 22, 2004 must demonstrate compliance with the MCL within a period of time specified by the State. The system must also comply with the initial sampling frequencies specified by the State to ensure a system can demonstrate compliance with the MCL. Routine and increased monitoring frequencies shall be conducted in accordance with the requirements in this section.

(Approved by the Office of Management and Budget under control number 2040-0090)

[40 FR 59570, Dec. 24, 1975]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §141.24, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

(19) Analysis under this section shall only be conducted by laboratories that have received certification by EPA or the State and have met the following conditions:

(i) To receive certification to conduct analyses for the contaminants in §141.61(c) the laboratory must:

(A) Analyze Performance Evaluation (PE) samples provided by EPA, the State, or by a third party (with the approval of the State or EPA) at least once a year by each method for which the laboratory desires certification.

(B) For each contaminant that has been included in the PE sample achieve quantitative results on the analyses that are within the following acceptance limits:

Contaminant	Acceptance limits (percent)
DBCP	±40
EDB	±40.
Alachlor	±45.
Atrazine	±45.
Benzo[a]pyrene	2 standard deviations.
Carbofuran	±45.
Chlordane	±45.
Dalapon	2 standard deviations.
Di(2-ethylhexyl)adipate	2 standard deviations.
Di(2-ethylhexyl)phthalate	2 standard deviations.
Dinoseb	2 standard deviations.
Diquat	2 standard deviations.

§ 141.25 Analytical methods for radioactivity.

(a) Analysis for the following contaminants shall be conducted to determine compliance with §141.66 (radioactivity) in accordance with the methods in the following table, or the alternative methods listed in appendix A to subpart C this part, or their equivalent determined by EPA in accordance with §141.27.

Contaminant	Methodology	Reference (Method of Page Number)									
		EPA ¹	EPA ²	EPA ³	EPA ⁴	SM ⁵	ASTM ⁶	USGS ⁷	DOE ⁸	Other	
Naturally Occurring: Gross alpha ¹¹ and beta ..	Evaporation	900.0	p. 1 ..	00-01	p. 1	302, 7110 B, 7110 B-00, 7110 C, 7110 C-00.	.....	R-1120-76.		
	Coprecipitation			00-02							
Radium 226	Radon emanation	903.1	p. 16	Ra-04	p. 19	305, 7500-Ra C, 7500- Ra C-01.	D3454-97	R-1141-76	Ra-04	NY ⁹ ,	
	Radiochemical	903.0	p. 13	Ra-03		304, 7500-Ra B, 7500-Ra B-01.	D2460-97	R-1140-76	.....	GA ¹⁴
Radium 228	Radiochemical	904.0	p. 24	Ra-05	p. 19	7500-Ra D, 7500-Ra D-01.	.....	R-1142-76	.....	NY ⁹ , NJ ¹⁰ , GA ¹⁴
	Radiochemical	908.0				7500-U B, 7500-U B- 00.					
Uranium ¹²	Radiochemical	908.1				7500-U C (17th Ed.).	D2907-97	R-1180-76, R-1181- 76.	U-04.		
	Fluorometric										
Man-Made: Radioactive Cesium	ICP-MS	200.8 ¹³		00-07	p. 33	3125	D5673-03, D3972- 97, 02.	R-1182-76	U-02.		
	Alpha Spectrometry.					7500-U C (18th, 19th, or 20th Ed.), 7500- U C-00.					
Radioactive Iodine	Laser Phosphorimetry.					.....	D5174- 97, 02.			
	Radiochemical	901.0	p. 4 ..			7500-Cs B, 7500-Cs B-00.	D2459-72	R-1111-76.			
Radioactive Iodine	Gamma Ray Spectrometry.	901.1			p. 92	7120, 7120- 97.	D3649- 91, 98a.	R-1110-76	4.5.2.3.		
	Radiochemical	902.0	p. 6 ..			7500-I B, 7500-I B- 00.					
	Radiochemical		p. 9 ..			7500-I C, 7500-I C- 00.					

Contaminant	Methodology	Reference (Method of Page Number)							DOE ⁶	Other
		EPA ¹	EPA ²	EPA ³	EPA ⁴	SM ⁵	ASTM ⁶	USGS ⁷		
Radioactive Strontium 89, 90.	Gamma Ray Spectrometry. Radiochemical	901.1	.....	.....	p. 92	7120, 7120-00, 7120-97.	D3649-91, 98a, D4785-93, 00a.	.....	4.5.2.3.	
Tritium	Liquid Scintillation	905.0	p. 29	Sr-04	p. 65	303, 7500-Sr B, 7500-Sr B-01.	.....	R-1160-76	Sr-01, Sr-02.	
		906.0	p. 34	H-02 ..	p. 87	306, 7500-3H B, 7500-3H B-00.	D4107-91, 98 (Re- ap- proved 2002).	R-1171-76.		
Gamma Emitters	Gamma Ray Spectrometry.	901.1	.....	.....	p. 92	7120, 7120-97	D3649-91, 98a.	R-1110-76	Ga-01-R.	
		902.0	.....	.....	.....	7500-Cs B, 7500-Cs B-00.	D4785-93, 00a.			
		901.0	.....	.....	.....	7500-I B, 7500-I B-00.				

The procedures shall be done in accordance with the documents listed below. The incorporation by reference of documents 1 through 10 and 13 through 14 was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be inspected at EPA's Drinking Water Docket, EPA West, 1301 Constitution Avenue, NW, Room 3334, Washington, DC 20460 (Telephone: 202-566-2426); or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

¹ Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, EPA 600/4-80-032, August 1980. Available at the U.S. Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161 (Telephone 800-553-6847), PB 80-224744.

² Interim Radiochemical Methodology for Drinking Water, EPA 600/4-75-008 (revised), March 1976. Available NTIS, *ibid*.

³ Radiochemical Procedures Manual, EPA 600/5-84-006, December 1987. Available NTIS, *ibid*.

⁴ Radiochemical Analytical Procedures for Analysis of Environmental Samples, March 1979. Available at NTIS, *ibid*, EMSL LV 053917.

⁵ Standard Methods for the Examination of Water and Wastewater, 13th, 17th, 18th, 19th or 20th edition, 1971, 1989, 1992, 1995, 1998. Available at American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005. Methods 302, 303, 304, 305 and 306 are only in the 13th edition. Methods 7110B, 7500-Ra B, 7500-Ra C, 7500-Ra D, 7500-U B, 7500-Cs B, 7500-B, 7500-I C, 7500-L D, 7500-Sr B, and 7500-3H B are in the 17th, 18th, 19th and 20th editions. Method 7110 C is in the 18th, 19th and 20th editions. Method 7500-U C Fluorescent Uranium is only in the 17th Edition. Method 7500-U C Alpha Spectrometry is only in the 18th, 19th and 20th editions. Method 7120 is only in the 19th and 20th editions. Method 3125 is only in the 20th edition. Methods 7110 B-00, 7110 C-00, 500-Ra B-01, 7500-Ra C-01, 7500-Ra D-01, 7500-U B-00, 7500-U C-00, 7500-I B-00, 7500-I D-00, 7120-97, 7500-Sr B-01, and 7500-3H B-00 are available online at <http://www.standardmethods.org>. The year in which each method was approved by the Standard Methods Committee is designated by the last two digits in the method number. The methods listed are the only online versions that may be used.

⁶ Annual Book of ASTM Standards, Vol. 11.01 and 11.02, 2002; ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

⁷ Methods for Determination of Radioactive Substances in Water and Fluvial Sediments, Chapters A5 in Book 3 of Techniques of Water Resources Investigations of the United States Geological Survey, 1977. Available at U.S. Geological Survey (USGS), Information Services, Box 25286, Federal Center, Denver, CO 80225-0425.

⁸ EML Procedures Manual, 28th (1997) or 27th (1990) Editions, Volumes 1 and 2; either edition may be used. In the 27th Edition Method Ra-04 is listed as Ra-05, and Method Ga-01-R is listed as Sect. 4.5.2.3. Available at the Environmental Measurements Laboratory, U.S. Department of Energy (DOE), 376 Hudson Street, New York, NY 10014-3621.

- ⁹"Determination of Ra-226 and Ra-228 (Ra-02)," January 1980, Revised June 1982. Available at Radiological Sciences Institute for Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, NY 12201.
- ¹⁰"Determination of Radium 228 in Drinking Water," August 1980. Available at State of New Jersey, Department of Environmental Protection, Division of Environmental Quality, Bureau of Radiation and Inorganic Analytical Services, 9 Ewing Street, Trenton, NJ 08626.
- ¹¹Natural uranium and thorium-230 are approved as gross alpha calibration standards for gross alpha with co-precipitation and evaporation methods; americium-241 is approved with co-precipitation methods.
- ¹²If uranium (U) is determined by mass, a 0.67 pCi/g of uranium conversion factor must be used. This conversion factor is based on the 1:1 activity ratio of U-234 and U-238 that is characteristic of naturally occurring uranium.
- ¹³"Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Revision 5.4, which is published in "Methods for the Determination of Metals in Environmental Samples—Supplement 1," EPA 600-R-94-111, May 1994. Available at NTIS, PB 95-125472.
- ¹⁴"The Determination of Radium-226 and Radium-228 in Drinking Water by Gamma-ray Spectrometry Using HPGe or Ge(Li) Detectors," Revision 1.2, December 2004. Available from the Environmental Resources Center, Georgia Institute of Technology, 620 Cherry Street, Atlanta, GA 30332-0335, USA, Telephone: 404-894-3776. This method may be used to analyze for radium-226 and radium-228 in samples collected after January 1, 2005 to satisfy the radium-226 and radium-228 monitoring requirements specified at 40 CFR 141.26.

(b) When the identification and measurement of radionuclides other than those listed in paragraph (a) of this section is required, the following references are to be used, except in cases where alternative methods have been approved in accordance with §141.27.

(1) *Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solutions*, H. L. Krieger and S. Gold, EPA-R4-73-014, USEPA, Cincinnati, Ohio, May 1973.

(2) *HASL Procedure Manual*, Edited by John H. Harley, HASL 300, ERDA Health and Safety Laboratory, New York, NY., 1973.

(c) For the purpose of monitoring radioactivity concentrations in drinking water, the required sensitivity of the radioanalysis is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of plus or minus 100 percent at the 95 percent confidence level (1.96σ where σ is the standard deviation of the net counting rate of the sample).

(1) To determine compliance with §141.66(b), (c), and (e) the detection limit shall not exceed the concentrations in Table B to this paragraph.

TABLE B—DETECTION LIMITS FOR GROSS ALPHA PARTICLE ACTIVITY, RADIUM 226, RADIUM 228, AND URANIUM

Contaminant	Detection limit
Gross alpha particle activity	3 pCi/L.
Radium 226	1 pCi/L.
Radium 228	1 pCi/L.
Uranium	1 µg/L

(2) To determine compliance with §141.66(d) the detection limits shall not exceed the concentrations listed in Table C to this paragraph.

TABLE C—DETECTION LIMITS FOR MAN-MADE BETA PARTICLE AND PHOTON EMITTERS

Radionuclide	Detection limit
Tritium	1,000 pCi/l.
Strontium-89	10 pCi/l.
Strontium-90	2 pCi/l.
Iodine-131	1 pCi/l.
Cesium-134	10 pCi/l.
Gross beta	4 pCi/l.
Other radionuclides	1/10 of the applicable limit.

(d) To judge compliance with the maximum contaminant levels listed in

§141.66, averages of data shall be used and shall be rounded to the same number of significant figures as the maximum contaminant level for the substance in question.

(e) The State has the authority to determine compliance or initiate enforcement action based upon analytical results or other information compiled by their sanctioned representatives and agencies.

[41 FR 28404, July 9, 1976, as amended at 45 FR 57345, Aug. 27, 1980; 62 FR 10173, Mar. 5, 1997; 65 FR 76745, Dec. 7, 2000; 67 FR 65250, Oct. 23, 2002; 69 FR 38855, June 29, 2004; 69 FR 52180, Aug. 25, 2004; 72 FR 11245, Mar. 12, 2007; 74 FR 30958, June 29, 2009]

~~§141.26 Monitoring frequency and compliance requirements for radionuclides in community water systems.~~

~~(a) *Monitoring and compliance requirements for gross alpha particle activity, radium-226, radium-228, and uranium.* (1) Community water systems (CWSs) must conduct initial monitoring to determine compliance with §141.66(b), (c), and (e) by December 31, 2007. For the purposes of monitoring for gross alpha particle activity, radium-226, radium-228, uranium, and beta particle and photon radioactivity in drinking water, "detection limit" is defined as in §141.25(c).~~

~~(i) *Applicability and sampling location for existing community water systems or sources.* All existing CWSs using ground water, surface water or systems using both ground and surface water (for the purpose of this section hereafter referred to as systems) must sample at every entry point to the distribution system that is representative of all sources being used (hereafter called a sampling point) under normal operating conditions. The system must take each sample at the same sampling point unless conditions make another sampling point more representative of each source or the State has designated a distribution system location, in accordance with paragraph (a)(2)(i)(C) of this section.~~

~~(ii) *Applicability and sampling location for new community water systems or sources.* All new CWSs or CWSs that use a new source of water must begin to conduct initial monitoring for the new source within the first quarter after~~

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~~State may require more frequent monitoring than specified in paragraphs (a) and (b) of this section, or may require confirmation samples at its discretion. The results of the initial and confirmation samples will be averaged for use in compliance determinations.~~

~~(2) Each public water systems shall monitor at the time designated by the State during each compliance period.~~

~~(3) *Compliance:* Compliance with §141.66 (b) through (e) will be determined based on the analytical result(s) obtained at each sampling point. If one sampling point is in violation of an MCL, the system is in violation of the MCL.~~

~~(i) For systems monitoring more than once per year, compliance with the MCL is determined by a running annual average at each sampling point. If the average of any sampling point is greater than the MCL, then the system is out of compliance with the MCL.~~

~~(ii) For systems monitoring more than once per year, if any sample result will cause the running average to exceed the MCL at any sample point, the system is out of compliance with the MCL immediately.~~

~~(iii) Systems must include all samples taken and analyzed under the provisions of this section in determining compliance, even if that number is greater than the minimum required.~~

~~(iv) If a system does not collect all required samples when compliance is based on a running annual average of quarterly samples, compliance will be based on the running average of the samples collected.~~

~~(v) If a sample result is less than the detection limit, zero will be used to calculate the annual average unless a gross alpha particle activity is being used in lieu of radium-226 and/or uranium. If the gross alpha particle activity result is less than detection, the detection limit will be used to calculate the annual average.~~

~~(4) States have the discretion to delete results of obvious sampling or analytic errors.~~

~~(5) If the MCL for radioactivity set forth in §141.66 (b) through (e) is exceeded, the operator of a community water system must give notice to the State pursuant to §141.31 and to the~~

~~public as required by subpart Q of this part.~~

~~[65 FR 76745, Dec. 7, 2000, as amended at 69 FR 28335, June 29, 2004]~~

§ 141.27 Alternate analytical techniques.

~~(a) With the written permission of the State, concurred in by the Administrator of the U.S. EPA, an alternate analytical technique may be employed. An alternate technique shall be accepted only if it is substantially equivalent to the prescribed test in both precision and accuracy as it relates to the determination of compliance with any MCL. The use of the alternate analytical technique shall not decrease the frequency of monitoring required by this part.~~

~~[45 FR 57345, Aug. 27, 1980]~~

§ 141.28 Certified laboratories.

~~(a) For the purpose of determining compliance with §141.21 through 141.27, 141.30, 141.40, 141.74, 141.89 and 141.402, samples may be considered only if they have been analyzed by a laboratory certified by the State except that measurements of alkalinity, calcium, conductivity, disinfectant residual, orthophosphate, pH, silica, temperature and turbidity may be performed by any person acceptable to the State.~~

~~(b) Nothing in this part shall be construed to preclude the State or any duly designated representative of the State from taking samples or from using the results from such samples to determine compliance by a supplier of water with the applicable requirements of this part.~~

~~[45 FR 57345, Aug. 27, 1980; 47 FR 10999, Mar. 12, 1982, as amended at 59 FR 34323, July 1, 1994; 64 FR 67465, Dec. 1, 1999; 71 FR 65631, Nov. 8, 2006]~~

§ 141.29 Monitoring of consecutive public water systems.

~~When a public water system supplies water to one or more other public water systems, the State may modify the monitoring requirements imposed by this part to the extent that the interconnection of the systems justifies treating them as a single system for monitoring purposes. Any modified~~

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monitoring shall be conducted pursuant to a schedule specified by the State and concurred in by the Administrator of the U.S. Environmental Protection Agency.

APPENDIX A TO SUBPART C OF PART 141—ALTERNATIVE TESTING METHODS APPROVED FOR ANALYSES UNDER THE SAFE DRINKING WATER ACT

Only the editions stated in the following table are approved.

ALTERNATIVE TESTING METHODS FOR CONTAMINANTS LISTED AT 40 CFR 141.21(f)(3)

Organism	Methodology	SM 21st Edition ¹	SM 22nd Edition ^{2b}	SM Online ³	Other
Total Coliforms	Total Coliform Fermentation Technique.	9221 A, B	9221 A, B	9221 A,B-06.	
	Total Coliform Membrane Filter Technique.	9222 A, B, C .....	.	
	Presence-Absence (P-A) Coliform Test.	9221 D .....	.	
	ONPG-MUG Test	9223	9223 B	9223 B-04.	
	Colitag™ Tecta EC/TC ³³

ALTERNATIVE TESTING METHODS FOR CONTAMINANTS LISTED AT 40 CFR 141.21(f)(5)

Organism	Methodology	SM 22nd Edition ³³	SM Online ³
Fecal Coliforms	Fecal Coliform Procedure	9221 E	9221 E-06

ALTERNATIVE TESTING METHODS FOR CONTAMINANTS LISTED AT 40 CFR 141.21(f)(6)

Organism	Methodology	SM 20th Edition ⁶	SM 21st Edition ¹	SM 22nd Edition ¹⁰	SM Online ⁹	Other
<i>E. coli</i>	ONPG-MUG Test Colitag™ Tecta EC/TC ^{2,3}	9223 B	9223 B	9223 B	9223 B-97, B-04	Modified Colitag™ ¹³

ALTERNATIVE TESTING METHODS FOR CONTAMINANTS LISTED AT 40 CFR 141.23(k)(1)

Contaminant	Methodology	EPA method	SM 21st edition ¹	SM 22nd edition ^{2B}	SM online ³	ASTM ⁴	Other
Alkalinity ...	Titrimetric .....	.....	2320 B	2320 B .....	.....	D1067-06 B, 11 B	
Antimony ..	Hydride—Atomic Absorption.	.....	.....	.....	.....	D 3697-07.	
	Atomic Absorption; Furnace. Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ² .	3113 B	3113 B	3113 B-04, B-10.		
Arsenic	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.	D 2972-08 C.	
	Hydride Atomic Absorption.	.....	3114 B	3114 B	3114 B-09	D 2972-08 B.	
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
Barium	Inductively Coupled Plasma.	.....	3120 B	3120 B .....	.....	
	Atomic Absorption; Direct.	.....	3111 D	3111 D .....	.....	
	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.		
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
Beryllium ..	Inductively Coupled Plasma.	.....	3120 B	3120 B .....	.....	
	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.	D 3645-08 B.	
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
Cadmium	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.		
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
Calcium	EDTA titrimetric .....	.....	3500-Ca B	3500-Ca B	.....	D 511-09 A	
	Atomic Absorption; Direct Aspiration.	.....	3111 B	3111 B .....	.....	D 511-09 B	
	Inductively Coupled Plasma.	.....	3120 B	3120 B	.....	
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
Chromium	Ion Chromatography .....	.....	.....	.....	.....	D 6919-09	
	Inductively Coupled Plasma.	.....	3120 B	3120 B .....	.....	
	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.		
Copper	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.	D 1688-07 C.	

ALTERNATIVE TESTING METHODS FOR CONTAMINANTS LISTED AT 40 CFR 141.23(k)(1)—Continued

Contaminant	Methodology	EPA method	SM 21st edition ¹	SM 22nd edition ^{2,3}	SM online ³	ASTM ⁴	Other
Conductivity. Cyanide ...	Atomic Absorption; Direct Aspiration.	.....	3111 B	3111 B .....	.....	D 1688-07 A.	
	Inductively Coupled Plasma.	.....	3120 B	3120 B .....	.....	
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
	Conductance .....	.....	2510 B	2510 B .....	.....	
	Manual Distillation followed by Spectrophotometric, Amenable.	.....	4500-CN-G.	4500-CN-G.	.....	D 2036-06 A	
Fluoride	Spectrophotometric Manual.	.....	4500-CN-E.	4500-CN-E.	.....	D 2036-06 B	
	Selective Electrode .....	.....	4500-CN-F.	4500-CN-F.	.....	D2036-06 A	
	Headspace Gas Chromatography/Mass Spectrometry.	.....	.....	.....	.....		ME355.01 ⁷
	Ion Chromatography .....	.....	4110 B	4110 B .....	.....	D 4327-11.	
	Manual Distillation; Colorimetric SPADNS.	.....	4500-F-B, D.	4500-F-B, D.	.....	
Lead	Manual Electrode .....	.....	4500-F-C.	4500-F-C.	.....	D 1179-04, 10 B.	
	Automated Alizarin .....	.....	4500-F-E.	4500-F-E.	.....	
	Arsenite-Free Colorimetric SPADNS.	.....	.....	.....	.....		Hach SPADNS 2 Method 10225 ²²
Magnesium.	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.	D 3559-08 D.	
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
	Atomic Absorption .....	.....	3111 B	3111 B .....	.....	D 511-09 B	
	Inductively Coupled Plasma.	.....	3120 B	3120 B .....	.....	
Mercury	Complexation Titrimetric Methods.	.....	3500-Mg B.	3500-Mg B.	.....	D 511-09 A	
	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
	Ion Chromatography .....	.....	.....	.....	.....	D 6919-09	
Nickel	Manual, Cold Vapor .....	.....	3112 B	3112 B	3112 B-09	D 3223-12.	
	Inductively Coupled Plasma.	.....	3120 B	3120 B .....	.....	
	Atomic Absorption; Direct.	.....	3111 B	3111 B .....	.....	
	Atomic Absorption; Furnace.	.....	3113 B	3113 B	3113 B-04, B-10.		
Nitrate	Axially viewed inductively coupled plasma-atomic emission spectrometry (AVICP-AES).	200.5, Revision 4.2 ².	.....	.....	.....
	Ion Chromatography .....	.....	4110 B	4110 B .....	.....	D 4327-11.	
	Automated Cadmium Reduction.	.....	4500-NO ₃ ⁻ F.	4500-NO ₃ ⁻ F.	.....	
	Manual Cadmium Reduction.	.....	4500-NO ₃ ⁻ E.	4500-NO ₃ ⁻ E.	.....	
	Ion Selective Electrode	.....	4500-NO ₃ ⁻ D.	4500-NO ₃ ⁻ D.	.....	